

Critical Release Notice

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The content of this customer NTP supports the
SN07 (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.

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.*

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, which clarifies 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

Volume 20 (continued)

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.

New Critical Release Notice added.

Volume 1-25

No changes

297-8021-350

DMS-100 Family

North American DMS-100

Translations Guide Volume 11 of 25

Meridian Digital Centrex (MDC) Part 1 of 6

LET0015 and up Standard 14.02 May 2001

DMS-100 Family

North American DMS-100

Translations Guide Volume 11 of 25

Meridian Digital Centrex (MDC) Part 1 of 6

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Contents

Translations Guide Volume 11 of 25 Meridian Digital Centrex (MDC) Part 1 of 6

Multi-Volume Topic Contents	vii
NTP Content Summary	xxiii
1 Introduction to Meridian Digital Centrex	1-1
Understanding Meridian Digital Centrex translations	1-1
MDC overview	1-1
Feature compatibility	1-1
Line class code compatibility	1-2
Planning a new customer group	1-2
Switching unit parameters	1-4
Preparing to datafill Meridian Digital Centrex	1-6
Customer group datafill	1-7
Translation and routing datafill	1-10
Line datafill	1-15
Attendant console datafill	1-19
MDC engineering limits	1-25
Functional groups for Meridian Digital Centrex	1-37
MDC Minimum, MDC00001	1-37
MDC MSAC, MDC00002	1-37
MDC Standard, MDC00003	1-37
MDC CLASS on MDC, MDC00004	1-37
MDC MBG Minimum, MDC00005	1-38
MDC MBG Standard, MDC00006	1-38
MDC MBS Minimum, MDC00007	1-38
MDC MBS Standard, MDC00008	1-38
MDC PRO, MDC00009	1-38
MDC PVN, MDC00011	1-38
MDC Tailored MDC 1, MDC00012	1-38
MDC Tailored MDC 2, MDC00013	1-39
MDC Tailored MDC 3, MDC00014	1-39
MDC Tailored MDC 4, MDC00015	1-39
MDC Tailored NARS, MDC00016	1-39
MDC Name/DN Blocking, MDC00033	1-39
Customer data questionnaire	1-39

2	Datafilling MDC Minimum	2-1
	2-Way Digital FX Trunk - Business Services	2-2
	3-Way Conference/Transfer	2-7
	3WC Dial 0 for 608 Cord Board	2-16
	3WC/Call Transfer for UCD	2-22
	3WC/CXR to 2500 Set Call Waiting Interactions	2-30
	6 Port Conference Circuit Use Control	2-34
	AC-Extended Calls to CFB/CFD	2-39
	Access to CCSA	2-43
	Access to CO from PBX	2-50
	Access to ETN	2-57
	Access to Special Service Facilities	2-64
	Attendant - Auto Dial	2-66
	Attendant Call Park Recall Timer	2-72
	Attendant Call Selection	2-77
	Attendant Camp-On	2-80
	Attendant Conference Max Six Conferees by end user	2-89
	Attendant Console Call Hold Recall	2-100
	Attendant Console Display	2-105
	Attendant Console End-to-End Signaling	2-114
	Attendant Control of Trunk Group Access	2-122
	Attendant Display of Queued Calls by ICI Key	2-127
	Attendant Locked Loop Operation	2-136
	Attendant Release Upon Completion of Dialing	2-140
	Attendant Speed Calling	2-144
	Attendant to Recorded Announcement	2-152
	Attendant to UCD	2-154
	Attendant Transfer	2-166
	Audio Input on Incoming Calls in Queue	2-169
	Audio Interlude	2-179
	Audio Table Expansion	2-192
	Automatic Intercept System (AIS) Enhancement	2-196
	Automatic Line	2-216
	Automatic Recall	2-219
	Blind Transfer Recall	2-231
	Blind Transfer Recall Identification	2-244
	Busy Verification - Stations	2-258
	Busy Verification - Trunks	2-269
	Call Forward All Calls	2-283
	Call Forward Busy	2-293
	Call Forward Don't Answer	2-304
	Call Forward Don't Answer and Call Waiting Interaction	2-321
	Call Hold	2-334
	Call Park	2-348
	Call Pickup	2-364
	Call Pickup Transparency	2-373
	Call Request Call Processing Enhancements	2-375
	Call Transfer Enhancement	2-378
	Call Waiting	2-391

Call Waiting for 3-Way Calling	2-404
Call Waiting - Originating	2-411
Camp On with Music	2-422
CFD from Hunt Group Station	2-432
CFD Interaction with Three-Way Calling	2-440
CFGDA for Hunt Groups	2-445
Class of Service Restrictions	2-455
Code Call Access	2-461
Code Calling - Line Termination	2-467
Code Restrictions	2-477
Conference Join	2-484
CPU Datafill Enhancements	2-493
Customer Group Transparency-Canada only	2-500
Denied Incoming	2-505
Dial - Call Waiting	2-517
Dictation Access and Control (DTMF Only)	2-529
Direct Outward Dialing (DOD)	2-536
Directed Call Park	2-541
Directed Call Pickup - Barge In	2-553
Directed Call Pickup - Non Barge In	2-563
Distinctive and Ring Again Ringing	2-571
Distinctive Call Waiting Tones	2-576
Distinctive Ringing	2-582
Distinctive Ringing Enhancements	2-588
DTMF Outpulsing on a Line	2-606
End-to-End Signaling through Speed Call	2-618
Executive Right of Way	2-628
Flexible Console Alerting	2-638
Flexible Intercept	2-648
Generalized Distinctive Ringing	2-651
IBN Call Forward Validation	2-658
IBN Cancel Call Waiting	2-668
IBN Feature Activation OMs I	2-673
IBN LCC Compatibility with FRO Line Option	2-680
IBN Outpulsing to POTS Trunks	2-700
IBN Quantity Control (100 Lines)	2-705
IBNRTE Table Capacity Increase	2-707
Immediate Answer Reporting for IBN	2-714
Increase in Number of IBN Customer Groups	2-717
Increase Number of Equivalent DN Appearances for IBN	2-721
Interposition Calls and Transfers	2-726

Multi-Volume Topic Contents

Translations Guide Volume 11 of 25 Meridian Digital Centrex (MDC) Part 1 of 6

NTP Summary Contents

xxiii

1	Introduction to Meridian Digital Centrex	Vol. 11, 1-1
	Understanding Meridian Digital Centrex translations	Vol. 11, 1-1
	MDC overview	Vol. 11, 1-1
	Feature compatibility	Vol. 11, 1-1
	Line class code compatibility	Vol. 11, 1-2
	Planning a new customer group	Vol. 11, 1-2
	Switching unit parameters	Vol. 11, 1-4
	Preparing to datafill Meridian Digital Centrex	Vol. 11, 1-6
	Customer group datafill	Vol. 11, 1-6
	Translation and routing datafill	Vol. 11, 1-10
	Line datafill	Vol. 11, 1-14
	Attendant console datafill	Vol. 11, 1-18
	MDC engineering limits	Vol. 11, 1-23
	Functional groups for Meridian Digital Centrex	Vol. 11, 1-35
	MDC Minimum, MDC00001	Vol. 11, 1-35
	MDC MSAC, MDC00002	Vol. 11, 1-35
	MDC Standard, MDC00003	Vol. 11, 1-35
	MDC CLASS on MDC, MDC00004	Vol. 11, 1-35
	MDC MBG Minimum, MDC00005	Vol. 11, 1-35
	MDC MBG Standard, MDC00006	Vol. 11, 1-36
	MDC MBS Minimum, MDC00007	Vol. 11, 1-36
	MDC MBS Standard, MDC00008	Vol. 11, 1-36
	MDC PRO, MDC00009	Vol. 11, 1-36
	MDC PVN, MDC00011	Vol. 11, 1-36
	MDC Tailored MDC 1, MDC00012	Vol. 11, 1-36
	MDC Tailored MDC 2, MDC00013	Vol. 11, 1-36
	MDC Tailored MDC 3, MDC00014	Vol. 11, 1-37
	MDC Tailored MDC 4, MDC00015	Vol. 11, 1-37
	MDC Tailored NARS, MDC00016	Vol. 11, 1-37
	MDC Name/DN Blocking, MDC00033	Vol. 11, 1-37
	Customer data questionnaire	Vol. 11, 1-37

2 Datafilling MDC Minimum Vol. 11, 2-1

2-Way Digital FX Trunk - Business Services Vol. 11, 2-2
3-Way Conference/Transfer Vol. 11, 2-7
3WC Dial 0 for 608 Cord Board Vol. 11, 2-16
3WC/Call Transfer for UCD Vol. 11, 2-22
3WC/CXR to 2500 Set Call Waiting Interactions Vol. 11, 2-30
6 Port Conference Circuit Use Control Vol. 11, 2-34
AC-Extended Calls to CFB/CFD Vol. 11, 2-39
Access to CCSA Vol. 11, 2-43
Access to CO from PBX Vol. 11, 2-50
Access to ETN Vol. 11, 2-57
Access to Special Service Facilities Vol. 11, 2-64
Attendant - Auto Dial Vol. 11, 2-66
Attendant Call Park Recall Timer Vol. 11, 2-72
Attendant Call Selection Vol. 11, 2-77
Attendant Camp-On Vol. 11, 2-80
Attendant Conference Max Six Conferees by end user Vol. 11, 2-89
Attendant Console Call Hold Recall Vol. 11, 2-100
Attendant Console Display Vol. 11, 2-105
Attendant Console End-to-End Signaling Vol. 11, 2-114
Attendant Control of Trunk Group Access Vol. 11, 2-122
Attendant Display of Queued Calls by ICI Key Vol. 11, 2-127
Attendant Locked Loop Operation Vol. 11, 2-136
Attendant Release Upon Completion of Dialing Vol. 11, 2-140
Attendant Speed Calling Vol. 11, 2-144
Attendant to Recorded Announcement Vol. 11, 2-152
Attendant to UCD Vol. 11, 2-154
Attendant Transfer Vol. 11, 2-166
Audio Input on Incoming Calls in Queue Vol. 11, 2-169
Audio Interlude Vol. 11, 2-179
Audio Table Expansion Vol. 11, 2-192
Automatic Intercept System (AIS) Enhancement Vol. 11, 2-196
Automatic Line Vol. 11, 2-216
Automatic Recall Vol. 11, 2-219
Blind Transfer Recall Vol. 11, 2-231
Blind Transfer Recall Identification Vol. 11, 2-244
Busy Verification - Stations Vol. 11, 2-258
Busy Verification - Trunks Vol. 11, 2-269
Call Forward All Calls Vol. 11, 2-283
Call Forward Busy Vol. 11, 2-293
Call Forward Don't Answer Vol. 11, 2-304
Call Forward Don't Answer and Call Waiting Interaction Vol. 11, 2-321
Call Hold Vol. 11, 2-334
Call Park Vol. 11, 2-348
Call Pickup Vol. 11, 2-364
Call Pickup Transparency Vol. 11, 2-373
Call Request Call Processing Enhancements Vol. 11, 2-375
Call Transfer Enhancement Vol. 11, 2-378
Call Waiting Vol. 11, 2-391
Call Waiting for 3-Way Calling Vol. 11, 2-404

Call Waiting - Originating	Vol. 11, 2-411
Camp On with Music	Vol. 11, 2-422
CFD from Hunt Group Station	Vol. 11, 2-432
CFD Interaction with Three-Way Calling	Vol. 11, 2-440
CFGDA for Hunt Groups	Vol. 11, 2-445
Class of Service Restrictions	Vol. 11, 2-455
Code Call Access	Vol. 11, 2-461
Code Calling - Line Termination	Vol. 11, 2-467
Code Restrictions	Vol. 11, 2-477
Conference Join	Vol. 11, 2-484
CPU Datafill Enhancements	Vol. 11, 2-493
Customer Group Transparency-Canada only	Vol. 11, 2-500
Denied Incoming	Vol. 11, 2-505
Dial - Call Waiting	Vol. 11, 2-517
Dictation Access and Control (DTMF Only)	Vol. 11, 2-529
Direct Outward Dialing (DOD)	Vol. 11, 2-536
Directed Call Park	Vol. 11, 2-541
Directed Call Pickup - Barge In	Vol. 11, 2-553
Directed Call Pickup - Non Barge In	Vol. 11, 2-563
Distinctive and Ring Again Ringing	Vol. 11, 2-571
Distinctive Call Waiting Tones	Vol. 11, 2-576
Distinctive Ringing	Vol. 11, 2-582
Distinctive Ringing Enhancements	Vol. 11, 2-588
DTMF Outpulsing on a Line	Vol. 11, 2-606
End-to-End Signaling through Speed Call	Vol. 11, 2-618
Executive Right of Way	Vol. 11, 2-628
Flexible Console Alerting	Vol. 11, 2-638
Flexible Intercept	Vol. 11, 2-648
Generalized Distinctive Ringing	Vol. 11, 2-651
IBN Call Forward Validation	Vol. 11, 2-658
IBN Cancel Call Waiting	Vol. 11, 2-668
IBN Feature Activation OMs I	Vol. 11, 2-673
IBN LCC Compatibility with FRO Line Option	Vol. 11, 2-680
IBN Outpulsing to POTS Trunks	Vol. 11, 2-700
IBN Quantity Control (100 Lines)	Vol. 11, 2-705
IBNRTE Table Capacity Increase	Vol. 11, 2-707
Immediate Answer Reporting for IBN	Vol. 11, 2-714
Increase in Number of IBN Customer Groups	Vol. 11, 2-717
Increase Number of Equivalent DN Appearances for IBN	Vol. 11, 2-721
Interposition Calls and Transfers	Vol. 11, 2-726

Translations Guide Volume 12 of 25

Meridian Digital Centrex (MDC) Part 2 of 6

1	Datafilling MDC Minimum (continued)	Vol. 12, 1-1
	Last Number Redial (LNR)	Vol. 12, 1-2
	Line Music on Hold	Vol. 12, 1-7
	Lockout	Vol. 12, 1-16

Loudspeaker & Radio Paging access Vol. 12, 1-19
Loudspeaker Paging - Line Termination Vol. 12, 1-25
MADN and Conference Interaction Vol. 12, 1-32
MAP Display for Attendant OM Vol. 12, 1-37
MBS 30-Port Conference Vol. 12, 1-40
MDC CUSTENG Robustness Vol. 12, 1-51
Meet-Me Conference Vol. 12, 1-56
MVP Dial Plan Vol. 12, 1-68
Night Service - Flexible Vol. 12, 1-78
Night Service Trunk Answer from Any Station - Fixed Vol. 12, 1-86
Night Service Trunk Answer from Any Station - TAFAS Vol. 12, 1-93
Optional Answer Supervision from Attendant Queue Vol. 12, 1-101
Override ACR for CFU Vol. 12, 1-107
Patch Source Inclusion I Vol. 12, 1-115
Patch Source Inclusion II Vol. 12, 1-125
Permanent Hold (500/2500 sets) Vol. 12, 1-134
Position Busy Vol. 12, 1-148
Query Functional Station Grouping Vol. 12, 1-152
Ring Again Vol. 12, 1-158
Ring Again Cancellation Timer Vol. 12, 1-167
Ring Again on Hunt Groups Vol. 12, 1-175
Second and Third Delay Announcements Vol. 12, 1-182
Secrecy Vol. 12, 1-193
Semi-restricted Incoming Lines Call Intercept Vol. 12, 1-196
Setting Attendant Recall Timers to Zero Vol. 12, 1-207
Simplified Dialing Vol. 12, 1-211
Sourcing of Patch FPA75 Vol. 12, 1-216
Sourcing Patch JDS54 Vol. 12, 1-224
Sourcing Patches RER26, RER32, and MBR75 Vol. 12, 1-228
Special Intercept Through Service Orders Vol. 12, 1-235
Speed Calling Group - Long List Vol. 12, 1-240
Speed Calling Individual - Short List Vol. 12, 1-245
Station Activated DND with Feature Active Reminder Vol. 12, 1-255
Storing of 24 Dialed Digits Vol. 12, 1-264
TGB/TAC Access thru Special Keys Vol. 12, 1-267
Through Dialing Vol. 12, 1-273
Trouble Key on IBN Console Vol. 12, 1-275
Trunk Busy Verify Tone Vol. 12, 1-282
Two-Way Splitting Vol. 12, 1-292
UCD Night Service Invocation Enhancements Vol. 12, 1-294
UCD Queue Status Lamp Vol. 12, 1-301
Uniform Call Distribution (to 500/2500 Telephone Sets) Vol. 12, 1-310
Uniform Call Distribution from Queue Vol. 12, 1-324
Variable Length/Same Leading Digit(s) Translation Vol. 12, 1-329
Variable Speed Call Access Code Vol. 12, 1-335
Variable Types of Outpulsing on Same Call Vol. 12, 1-350
Wild Card Key Vol. 12, 1-354

2 Datafilling MDC MSAC Vol. 12, 2-1

Attendant Console OM on an Individual Console Basis Vol. 12, 2-2
 Do Not Disturb Vol. 12, 2-21
 Dynamic Measurements Vol. 12, 2-29
 Flexible Display Language Vol. 12, 2-34
 Immediate Notification of Priority Enqueued Calls Vol. 12, 2-45
 Peg Counts on LDNs on Attendant Consoles Vol. 12, 2-49

3 Datafilling MDC Standard Vol. 12, 3-1

Activate/Deactivate CFU/CFI Functionality Vol. 12, 3-2
 AC to IBNISUP Interworking Vol. 12, 3-11
 Account Codes Vol. 12, 3-15
 ANI Information in SMDR Output Vol. 12, 3-24
 Attendant Call Detail Entry Vol. 12, 3-37
 Attendant Control of VFG Vol. 12, 3-48
 Attendant Message Waiting Vol. 12, 3-57
 Attendant Set Up Conference: 10 or More Conferees Vol. 12, 3-70
 Authorization Codes Vol. 12, 3-81
 Automatic Routing System - (Basic) Vol. 12, 3-85
 Call Back Queuing (Basic) Vol. 12, 3-92
 Call Forward Busy - Inhibit Make Busy & Inhibit Line Busy Vol. 12, 3-100
 Call Forward Busy/Don't Answer - Internal/External Vol. 12, 3-116
 Call Forward Don't Answer and Call Waiting Interaction Vol. 12, 3-136
 Call Forward Prevention Enhancements Vol. 12, 3-149
 Call Forward Timed Vol. 12, 3-178
 Call Forwarding of Call Waiting Calls Vol. 12, 3-191
 Call Request Call Processing Enhancements Vol. 12, 3-200
 Call Request Retrieve/Key Short Hunt Interaction Control Vol. 12, 3-203
 Call Waiting 1a Transparency Issues Vol. 12, 3-208
 CFBL Inhibit Line Busy/Inhibit MB Enhancements Vol. 12, 3-215
 Change EBS Features During Talking State Vol. 12, 3-230
 Change Line Class Codes via SERVORD Vol. 12, 3-239
 Change Speed Call Controller Vol. 12, 3-265
 CLEN for EBS Vol. 12, 3-272
 Control of Multiple Call Forwarding Vol. 12, 3-282
 Cut-Through Dialing Vol. 12, 3-296
 Cut-Through Dialing and Through Dialing Interaction Vol. 12, 3-303
 Cut-Through Dialing for IBN Lines and AC Vol. 12, 3-309
 Dialtone Passback through PX Trunks for MDC Vol. 12, 3-316
 Direct Inward System Access (DISA) Vol. 12, 3-327
 DISA - Enhancements Vol. 12, 3-332
 DISA - Invalid Authcode Treatment Option Vol. 12, 3-338
 DISA - Remove Auth Code Timeout Vol. 12, 3-344
 DISA - Third Dial Tone Vol. 12, 3-348
 Distinctive Call Waiting Ringback Vol. 12, 3-355
 DT after CFW Cancel and Spd Call Programming Vol. 12, 3-369
 EAEO - IBN PIC Using SERVORD Vol. 12, 3-374
 Enhanced SERVORD II Vol. 12, 3-385
 ERWT for Lines, Trunks for ARS, CBQ Features Vol. 12, 3-396

ESN - Answer Supervision Generation Vol. 12, 3-403
ESN - Authorization Codes Vol. 12, 3-409
ESN - Call-Back Queuing Vol. 12, 3-420
ESN - Off-hook Queuing Vol. 12, 3-431
Flexible Station Controlled Conference (500/2500 Sets) Vol. 12, 3-441

Translations Guide Volume 13 of 25

Meridian Digital Centrex (MDC) Part 3 of 6

1 Datafilling MDC Standard (continued) Vol. 13, 1-1

Group Number Feature Control Vol. 13, 1-2
Hunt LOD Expansion Vol. 13, 1-30
IBN Auth Codes for Alternate Route Selection (ARS) Vol. 13, 1-42
IBN Call Forward Enhancements Vol. 13, 1-50
IBN Class 5 INWATS Vol. 13, 1-56
IBN Class 5 Psuedo OUTWATS Vol. 13, 1-63
IBN & ESB Compatibility Vol. 13, 1-72
IBN Optional Call Forward Links Vol. 13, 1-77
IBN Trunks with ISUP Signaling Vol. 13, 1-80
Increase Auth Codes per Customer Group Vol. 13, 1-108
INWATS to Direct Inward System Access Vol. 13, 1-112
MBS Message Waiting Vol. 13, 1-123
MDC Variable CDAR Vol. 13, 1-129
Meet-Me Conference Feature Expansion Vol. 13, 1-149
Meet-Me Page Vol. 13, 1-162
Message Waiting Lamp Update - Link Phone Vol. 13, 1-176
Multiple Position Hunt with Queue Vol. 13, 1-182
Non-Data Link Console Call Extension Vol. 13, 1-210
Off-hook Queuing Vol. 13, 1-219
OHQ, CBQ for OUTWATS VFG Vol. 13, 1-228
Personal Call Screening of Call Forwarding Vol. 13, 1-236
Preset Conference Vol. 13, 1-245
Queuing OMs for each Route Vol. 13, 1-261
Remove Timeout between Authcode/Secondary Dial Tone Vol. 13, 1-276
Restricted Dial Tone Vol. 13, 1-281
Ring Reminder Off/On Option per Line Vol. 13, 1-304
Separate SMDR Output Files by Cust Group Vol. 13, 1-309
SMDR for ONI Lines Vol. 13, 1-319
Station Activation of CFB/CFD Vol. 13, 1-325
Station Message Detail Recording Vol. 13, 1-337
Station Message Waiting Vol. 13, 1-345
Station Specific Auth Codes Vol. 13, 1-355
Station Specific Authcode - CDC Enhancements Vol. 13, 1-364
Stuttered Dial Tone for Message Waiting Vol. 13, 1-372
Supervisory Console (Basic) Vol. 13, 1-378
Suspend and Restore Remote Call Forward Lines Vol. 13, 1-381
Variable Stutter Dial Tone Vol. 13, 1-385
VFG INWATS Ovfl Totals to AMA Tape - IBN Vol. 13, 1-388

1	Datafilling MDC MBG Standard (continued)	Vol. 14, 1-1
	RLT with No Third Party Interaction-Canada only	Vol. 14, 1-2
	TCAP calling name delivery for MDC	Vol. 14, 1-13
	Virtual Access to Private Networks	Vol. 14, 1-39
2	Datafilling MDC MBS Minimum	Vol. 14, 2-1

Automatic Line and MADN Vol. 14, 2-2
Business Set Busy Indicator Vol. 14, 2-8
Business Set Call Waiting Originate Vol. 14, 2-17
Business Set Dial Call Waiting Vol. 14, 2-25
Call Forward/Automatic Dial Display Vol. 14, 2-38
EBS as a Message Center Vol. 14, 2-41
EBS as a Message Center - Enhancements Vol. 14, 2-47
Enhanced EBS Reason Display Vol. 14, 2-63
Executive Msg Service Enhancement - Multi EMW per DN Vol. 14, 2-91
M5209 Introduction Vol. 14, 2-96
MADN Service Orders Vol. 14, 2-111
MBS II Templates Vol. 14, 2-119
MBS Auto Answer Back Vol. 14, 2-130
MBS Automatic Dial Vol. 14, 2-136
MBS Automatic Line Vol. 14, 2-143
MBS Busy Override Vol. 14, 2-148
MBS Call Back Queuing Vol. 14, 2-160
MBS Call Forward All Calls Feature Key S/W Vol. 14, 2-177
MBS Call Park Vol. 14, 2-189
MBS Call Pickup Feature Key S/W Vol. 14, 2-209
MBS Call Waiting Vol. 14, 2-218
MBS Display Called Number Vol. 14, 2-226
MBS Display Calling Number Vol. 14, 2-233
MBS End to End Signalling Vol. 14, 2-241
MBS Feature Code Access Vol. 14, 2-243
MBS Feature Display Vol. 14, 2-248
MBS Group Intercom Vol. 14, 2-257
MBS Held Calls Vol. 14, 2-265
MBS Individual Business Line Vol. 14, 2-267
MBS Intercom Vol. 14, 2-280
MBS Listen on Hold Vol. 14, 2-287
MBS MADN SCA/MCA (across Switch) Vol. 14, 2-289
MBS Make Set Busy Vol. 14, 2-297
MBS Malicious Call Hold Vol. 14, 2-307
MBS Onhook Dialing Vol. 14, 2-314
MBS Privacy Release (across Switch) Vol. 14, 2-316
MBS Query Time Key Vol. 14, 2-328
MBS Ring-Again Feature Key S/W Vol. 14, 2-333
MBS Speed Calling Feature Key S/W Vol. 14, 2-341
MBS Three-Way Calling Transfer Vol. 14, 2-355
MDC Circuit Test Enhancement Vol. 14, 2-361
Message Service - Leave Message Vol. 14, 2-376
Message Service - List Management Vol. 14, 2-392
SERVORD cleanup for MBS Vol. 14, 2-403
Short Hunt on MBS Vol. 14, 2-415

3 Datafilling MDC MBS Standard

Vol. 14, 3-1

Call Park Recall Identification Vol. 14, 3-2
CFW for MADN Secondary Members Vol. 14, 3-17
EBS Call Forwarding on a per Key Basis Vol. 14, 3-26

Enhanced MADN Call Control Vol. 14, 3-54
 Group Intercom All Call Vol. 14, 3-90
 Individual Page from GIC Vol. 14, 3-101
 Last Number Redial from Set Vol. 14, 3-110
 MADN Bridging - 3 Way Call Vol. 14, 3-117
 MADN Cut-off on Disconnect (COD) Vol. 14, 3-121
 MADN Ring Forward Vol. 14, 3-136
 Make Set Busy Except GIC Vol. 14, 3-148
 Music on Hold for EBS Vol. 14, 3-160
 Name Display for MADN Members Vol. 14, 3-179
 Originating/Terminating Line Select (TLS) Vol. 14, 3-194
 Repeated Alert for MBS Vol. 14, 3-205
 Specific Key Ringback on Ring Again Request on EBS Vol. 14, 3-212

4 Datafilling MDC PRO Vol. 14, 4-1

ARS default public network routing Vol. 14, 4-2
 Authcode for MDR Vol. 14, 4-12
 Bellcore AMA Enhanced ARS Translations Vol. 14, 4-17
 BOC AMA Call Code 032 Vol. 14, 4-30
 CCSA Line Option Vol. 14, 4-34
 Customer Administration of Data Vol. 14, 4-38
 Customer Dialed Account Recording (CDAR) Vol. 14, 4-56
 Customer Network Data Changes Vol. 14, 4-68
 Customer Screening at the Trunk Test Position Vol. 14, 4-87
 Customer Service Change Via SERVORD Vol. 14, 4-93
 Direct Inward Dialing (DID) Vol. 14, 4-107

Translations Guide Volume 15 of 25

Meridian Digital Centrex (MDC) Part 5 of 6

1 Datafilling MDC PRO (continued) Vol. 15, 1-1

ESN - Detail Record Vol. 15, 1-2
 ESN - Network ARS (TEHO and HEHO) Vol. 15, 1-7
 ESN - Network Class of Service Vol. 15, 1-24
 ESN - Network Information Signals Vol. 15, 1-29
 ESN - Network Speed Call Vol. 15, 1-54
 Executive Conference Vol. 15, 1-64
 IDDD via ARS Vol. 15, 1-88
 Killer Trunk Report Separation Vol. 15, 1-133
 MAP Alarm Level Screening Vol. 15, 1-145
 MDC Enhanced WATS Vol. 15, 1-150
 MDR Data in the AMA Stream Vol. 15, 1-194
 Multipilot Directory Numbers on MLH Group Vol. 15, 1-216
 Outgoing Restriction Control Vol. 15, 1-225
 Pending Order File (POF) Enhancements Vol. 15, 1-246
 Preset Conference (Large) Vol. 15, 1-256
 Series Completion Vol. 15, 1-273
 Series Completions Enhancements Vol. 15, 1-282

	Service Analysis for IBN Vol. 15, 1-287	
	SMDR Derived from Bellcore AMA Record Vol. 15, 1-293	
	Terminating Billing Option Vol. 15, 1-297	
	Time of Day NCOS Vol. 15, 1-312	
	Time of Day Routing Vol. 15, 1-324	
	TVDS - II Vol. 15, 1-333	
	UCD on EBS and UCD SD Point Vol. 15, 1-340	
	VFG MDR Suppression Vol. 15, 1-356	
	VMX Interface Vol. 15, 1-360	
2	Datafilling MDC Tailored MDC 1	Vol. 15, 2-1
	Calling Name Inspect Key Vol. 15, 2-2	
	Station Camp On for Meridian Business Set Vol. 15, 2-33	
3	Datafilling MDC Tailored MDC 2	Vol. 15, 3-1
	Direct Station Selection/Busy Lamp Field for MBS Vol. 15, 3-2	
	E911 Single Button Transfer Operation Vol. 15, 3-21	
	Fast Transfer for Meridian Business Set Vol. 15, 3-29	
	Interactive Display Menu on MBS Sets Vol. 15, 3-44	
	MBS Power Feature - Name Programming Vol. 15, 3-62	
	MDC Single Button Transfer Vol. 15, 3-75	
	Power Feature Audit Trails Vol. 15, 3-84	
	Power Features Enhancements I Vol. 15, 3-95	
	Power Features Installer Application Vol. 15, 3-131	
4	Datafilling MDC Tailored MDC 3	Vol. 15, 4-1
	Access Feature Grouping Vol. 15, 4-2	
	Copy Feature Set Enhancement Vol. 15, 4-58	
	MDC AFG Add Option Vol. 15, 4-71	
	MDC MBS Interactive Display Vol. 15, 4-88	
	PF Robustness - Call Forwarding per Key (CFK) Vol. 15, 4-101	
	PF Robustness - Call Pickup Separate Keys Compatibility Vol. 15, 4-118	
	PF Robustness - Enforced Password Vol. 15, 4-143	
5	Datafilling MDC Tailored MDC 4	Vol. 15, 5-1
	MDC DSS/BLF Set Based Vol. 15, 5-2	
	MDC Single Line Queue Vol. 15, 5-25	
6	Datafilling MDC Tailored NARS	Vol. 15, 6-1
	Network Access Registers (NARS) Vol. 15, 6-2	
7	Datafilling MDC Name/DN Blocking	Vol. 15, 7-1
	Block Calling Name/Number Delivery Blocking per Call Vol. 15, 7-2	
	Calling Name/Number Delivery Blocking (CNNB) Vol. 15, 7-20	
8	Datafilling MDC Per Line Feature Control	Vol. 15, 8-1
	Network Feature Access Restriction Vol. 15, 8-2	
9	Datafilling MDC Call Forward Indication	Vol. 15, 9-1

Call Forward Indication Vol. 15, 9-2

10 Introduction to MDC to 10-digit Routing Vol. 15, 10-1

Understanding MDC to 10-digit routing Vol. 15, 10-1
 Signaling for MDC to 10-digit routing Vol. 15, 10-2
 Preparing to datafill MDC to 10-digit routing Vol. 15, 10-2
 Functional groups for MDC to 10-digit routing Vol. 15, 10-3
 MDC to 10-digit routing Vol. 15, 10-4

11 Introduction to MDC to Universal Routing Vol. 15, 11-1

Understanding MDC to Universal routing Vol. 15, 11-1
 Signaling for MDC to Universal routing Vol. 15, 11-1
 Preparing to datafill MDC to Universal routing Vol. 15, 11-1
 Functional groups for MDC to Universal routing Vol. 15, 11-4
 MDC to Universal Routing Vol. 15, 11-5

Translations Guide Volume 16 of 25
Meridian Digital Centrex (MDC) Part 6 of 6

1 Introduction to Automatic Call Distribution Vol. 16, 1-1

Understanding Automatic Call Distribution translations Vol. 16, 1-1
 Base ACD Vol. 16, 1-2
 Call distribution Vol. 16, 1-2
 Load management Vol. 16, 1-3
 ACD directory numbers Vol. 16, 1-4
 ACD queues Vol. 16, 1-5
 Single group call queues Vol. 16, 1-7
 NACD Vol. 16, 1-11
 Single-node configurations Vol. 16, 1-12
 Multinode configurations Vol. 16, 1-13
 Call queues Vol. 16, 1-16
 Availability measures for NACD Vol. 16, 1-17
 Call queuing and overflow treatment Vol. 16, 1-17
 Queue and delay thresholds Vol. 16, 1-18
 Types of NACD overflow Vol. 16, 1-18
 Network call queues Vol. 16, 1-19
 Availability measures Vol. 16, 1-19
 Network queuing Vol. 16, 1-20
 ACDMIS Vol. 16, 1-21
 Single-user/supervisor system Vol. 16, 1-22
 Multiple-user/supervisor system Vol. 16, 1-24
 ACD reports Vol. 16, 1-26
 Remote load management Vol. 16, 1-26
 Meridian Digital Centrex interface to ACDMIS Vol. 16, 1-26
 CompuCALL Vol. 16, 1-27
 Communication process Vol. 16, 1-28
 Service functionality Vol. 16, 1-29
 Session management Vol. 16, 1-30

Operation, administration, and maintenance	Vol. 16, 1-30
Meridian Automatic Call Distribution with CompuCALL	
Option	Vol. 16, 1-31
Telephone sets for ACD	Vol. 16, 1-31
ACD set description	Vol. 16, 1-34
Hold key and autohold	Vol. 16, 1-34
Release key	Vol. 16, 1-34
Volume control	Vol. 16, 1-34
ACD structure	Vol. 16, 1-35
Signaling for Automatic Call Distribution	Vol. 16, 1-37
Signaling protocols for Base ACD	Vol. 16, 1-37
Signaling protocols for NACD	Vol. 16, 1-37
CCS7 signaling	Vol. 16, 1-37
PRI signaling	Vol. 16, 1-37
Signaling protocols for ACDMIS	Vol. 16, 1-37
Signaling protocols for CompuCALL	Vol. 16, 1-38
X.25 and the OSI model	Vol. 16, 1-38
CompuCALL and the OSI layers	Vol. 16, 1-40
Preparing to datafill Automatic Call Distribution	Vol. 16, 1-46
Datafilling CompuCALL	Vol. 16, 1-46
Collecting end-user data	Vol. 16, 1-46
Functional groups for Automatic Call Distribution	Vol. 16, 1-62
ACD Base, ACD00001	Vol. 16, 1-62
CompuCALL, ACD00002	Vol. 16, 1-62
ACD Networking, ACD00004	Vol. 16, 1-62

2 Datafilling ACD Base **Vol. 16, 2-1**

ACD Access Feature Grouping	Vol. 16, 2-2
ACD Enhanced Walkaway	Vol. 16, 2-13
ACD Interaction with IVR	Vol. 16, 2-29
ACD Load Management III	Vol. 16, 2-34
ACD Management Reports Two-Way Data Stream	Vol. 16, 2-62
ACD Night Service Call Queue Clearing	Vol. 16, 2-79
ACD on 2500 Set	Vol. 16, 2-86
ACD Remote Load Management I	Vol. 16, 2-106
Base automatic call distribution (ACD)	Vol. 16, 2-114
Call Forcing Tone Optionality	Vol. 16, 2-209
Called About Number	Vol. 16, 2-221
Enhanced Handling of ACD Re-Enqueued Calls	Vol. 16, 2-238
MACD Nodal Service Observing	Vol. 16, 2-261
MACD PIN Configuration and Control	Vol. 16, 2-276

3 Datafilling CompuCALL Base **Vol. 16, 3-1**

ACD CompuCALL	Vol. 16, 3-2
CompuCALL Enhancements-Screen-Assisted Telephony	Vol. 16, 3-121
ECM/SCAI Support for Non-ACD	Vol. 16, 3-144

4	Datafilling ACD Networking	Vol. 16, 4-1
	ACD Nodal Treatment in NACD Vol. 16, 4-2	
	ACD Supergroup Vol. 16, 4-8	
	Forced Announcements for NACD Vol. 16, 4-29	
	Networked ACD on CCS7 Vol. 16, 4-42	
	Networked ACD on PRA Vol. 16, 4-57	
5	Datafilling ICM Call Manager Interface	Vol. 16, 5-1
	Called Party Address in ICM Messages Vol. 16, 5-2	
	CompuCALL Transport Enhancements Vol. 16, 5-12	
	ICM ACD DN Association Limit Vol. 16, 5-21	
6	Datafilling ICM Call Center	Vol. 16, 6-1
	ICM Logon Enhancements and Reengineering Vol. 16, 6-2	
7	Datafilling ICM Network ICM	Vol. 16, 7-1
	CompuCALL Integration with ICCM Vol. 16, 7-2	
	Network Intelligent Call Management Vol. 16, 7-26	
8	Datafilling ICCM Call Queue Management	Vol. 16, 8-1
	CompuCALL Basic ICCM-Call Treatments Vol. 16, 8-2	
	CompuCALL Basic ICCM-Selective Queuing Vol. 16, 8-15	
9	Datafilling ICM Enhanced ICCM Functionality	Vol. 16, 9-1
	CompuCALL Emergency Key Reporting Vol. 16, 9-2	
	CompuCALL LOB Event Report Vol. 16, 9-11	
	CompuCALL Multiple Recorded Announcement Vol. 16, 9-21	
	ICM Configuration Management Vol. 16, 9-30	
	ICM Interworking with MADN Vol. 16, 9-37	
	ICM Message Waiting Activation/Deactivation Vol. 16, 9-46	
	ICM TAPI Extensions Vol. 16, 9-65	
	ICM Three-Way Call Enhanced Status Reporting Vol. 16, 9-80	
	ICM Variable Wrap Reporting Vol. 16, 9-96	
	ICM Workqueue Re-Engineering Vol. 16, 9-106	
10	Datafilling CompuCALL Status Query	Vol. 16, 10-1
	CompuCALL Status Query Vol. 16, 10-2	
11	Appendix A: Example single-node network configuration	Vol. 16, 11-1
	Network configuration Vol. 16, 11-1	
	Defining customer groups Vol. 16, 11-2	
	Table DIGCOL Vol. 16, 11-2	
	Table XLANAME Vol. 16, 11-3	
	Table IBNXLA Vol. 16, 11-3	
	Table CUSTENG Vol. 16, 11-4	
	Table CUSTHEAD Vol. 16, 11-4	
	Table CUSTSTN Vol. 16, 11-4	

Table NCOS	Vol. 16, 11-4
Defining announcements	Vol. 16, 11-5
Table DRAMS	Vol. 16, 11-5
Table CLLI	Vol. 16, 11-6
Table AUDIO	Vol. 16, 11-6
Table ANNS	Vol. 16, 11-6
Table ANNMEMS	Vol. 16, 11-7
Table DRMUSERS	Vol. 16, 11-7
Defining routing	Vol. 16, 11-7
Table PADDATA	Vol. 16, 11-7
Table TRKGRP	Vol. 16, 11-8
Table TRKSGRP	Vol. 16, 11-8
Table TRKMEM	Vol. 16, 11-8
Defining ACD groups	Vol. 16, 11-8
Table OFCENG	Vol. 16, 11-9
Table ACDMISPL	Vol. 16, 11-9
Table ACDMISSP	Vol. 16, 11-9
Table ACDGRP	Vol. 16, 11-10
Table ACDRTE	Vol. 16, 11-11
Table NACDGRP	Vol. 16, 11-12
Table CUSTNTWK	Vol. 16, 11-12
Table ACDSGRP	Vol. 16, 11-12
Table DNROUTE	Vol. 16, 11-13
Table ACDLOGIN	Vol. 16, 11-13
Table DNATTRS	Vol. 16, 11-14
Table MPC	Vol. 16, 11-14
Table MPCLINK	Vol. 16, 11-14
Table GDLADEV	Vol. 16, 11-15
Table NOPADDR	Vol. 16, 11-15
Table NOPAPPLN	Vol. 16, 11-15
Table KSETLINE	Vol. 16, 11-16
Table KSETINV	Vol. 16, 11-17
Table IBNFEAT	Vol. 16, 11-17
NACD overflow formulas	Vol. 16, 11-18
Call flow	Vol. 16, 11-18

12 Appendix B: Network example for ACD using CCS7

Vol. 16, 12-1

Network configuration	Vol. 16, 12-1
Defining customer groups	Vol. 16, 12-2
Table DIGCOL	Vol. 16, 12-3
Table XLANAME	Vol. 16, 12-3
Table IBNXLA	Vol. 16, 12-4
Table CUSTENG	Vol. 16, 12-4
Table CUSTHEAD	Vol. 16, 12-4
Table CUSTSTN	Vol. 16, 12-5
Table NCOS	Vol. 16, 12-5
Defining announcements	Vol. 16, 12-5
Table DRAMS	Vol. 16, 12-6
Table CLLI	Vol. 16, 12-6

Table AUDIO	Vol. 16, 12-7
Table ANNS	Vol. 16, 12-7
Table ANNMEMS	Vol. 16, 12-7
Table DRMUSERS	Vol. 16, 12-8
Defining routing	Vol. 16, 12-8
Table PADDATA	Vol. 16, 12-8
Table TRKGRP	Vol. 16, 12-8
Table TRKSGRP	Vol. 16, 12-9
Table TRKMEM	Vol. 16, 12-9
Defining Common Channel Signaling No. 7 translations	Vol. 16, 12-9
Table C7NETWRK	Vol. 16, 12-10
Table C7LKSET	Vol. 16, 12-11
Table C7LINK	Vol. 16, 12-11
Table C7RTESET	Vol. 16, 12-11
Table C7NETSSN	Vol. 16, 12-12
Table C7LOCSSN	Vol. 16, 12-12
Table ISUPDEST	Vol. 16, 12-12
Table C7TRKMEM	Vol. 16, 12-13
Table IBNRTE	Vol. 16, 12-13
Table CUSTNTWK	Vol. 16, 12-13
Defining ACD groups	Vol. 16, 12-13
Table OFCENG	Vol. 16, 12-13
Table ACDMISPL	Vol. 16, 12-14
Table ACDMISSP	Vol. 16, 12-14
Table ACDGRP	Vol. 16, 12-14
Table ACDRTE	Vol. 16, 12-16
Table REMNACD	Vol. 16, 12-18
Table NACDGRP	Vol. 16, 12-18
Table ACDSGRP	Vol. 16, 12-19
Table DNROUTE	Vol. 16, 12-20
Table ACDLOGIN	Vol. 16, 12-21
Table DNATTRS	Vol. 16, 12-21
Table MPC	Vol. 16, 12-22
Table MPCLINK	Vol. 16, 12-23
Table GDLADEV	Vol. 16, 12-23
Table NOPADDR	Vol. 16, 12-23
Table NOPAPPLN	Vol. 16, 12-24
NACD overflow formulas	Vol. 16, 12-24
Call flow	Vol. 16, 12-24

13 Appendix C: Network example for ACD using PRI

Vol. 16, 13-1

Network configuration	Vol. 16, 13-1
Defining customer groups	Vol. 16, 13-3
Table DIGCOL	Vol. 16, 13-3
Table IBNXLA	Vol. 16, 13-4
Table XLANAME	Vol. 16, 13-4
Table CUSTENG	Vol. 16, 13-4
Table CUSTHEAD	Vol. 16, 13-5
Table CUSTSTN	Vol. 16, 13-5

Table NCOS	Vol. 16, 13-5
Defining announcements	Vol. 16, 13-5
Table DRAMS	Vol. 16, 13-6
Table CLLI	Vol. 16, 13-6
Table AUDIO	Vol. 16, 13-7
Table ANNS	Vol. 16, 13-7
Table ANNMEMS	Vol. 16, 13-8
Table DRMUSERS	Vol. 16, 13-8
Defining trunk and call routing	Vol. 16, 13-8
Table PADDATA	Vol. 16, 13-9
Table LTCINV	Vol. 16, 13-10
Table CARRMTC	Vol. 16, 13-10
Table LTCPSINV	Vol. 16, 13-11
Table ADJNODE	Vol. 16, 13-11
Table TRKGRP	Vol. 16, 13-12
Table TRKSGRP	Vol. 16, 13-12
Table TRKMEM	Vol. 16, 13-13
Table LTGRP	Vol. 16, 13-13
Table LTDEF	Vol. 16, 13-14
Table LTMAP	Vol. 16, 13-14
Table LTDATA	Vol. 16, 13-14
Table LTCALLS	Vol. 16, 13-15
Table IBNRTE	Vol. 16, 13-15
Table NETNAMES	Vol. 16, 13-15
Table CUSTNTWK	Vol. 16, 13-15
Defining ACD groups	Vol. 16, 13-16
Table OFCENG	Vol. 16, 13-16
Table ACDMISPL	Vol. 16, 13-16
Table ACDGRP	Vol. 16, 13-17
Table ACDRTE	Vol. 16, 13-19
Table REMNACD	Vol. 16, 13-21
Table NACDGRP	Vol. 16, 13-21
Table ACDSGRP	Vol. 16, 13-22
Table DNROUTE	Vol. 16, 13-23
Table ACDLOGIN	Vol. 16, 13-23
Table DNATTRS	Vol. 16, 13-24
Table MPC	Vol. 16, 13-25
Table MPCLINK	Vol. 16, 13-25
Table GDLADEV	Vol. 16, 13-25
Table NOPADDR	Vol. 16, 13-26
Table NOPAPPLN	Vol. 16, 13-26
NACD overflow formulas	Vol. 16, 13-26
Call flow	Vol. 16, 13-27

NTP Content Summary

This summarized table of contents defines the category of product information that can be found in each volume of the Translations Guide. Each volume of the Translations Guide contains a detailed listing of the contents of that volume and a multi-volume contents listing if related subject matter spans multiple volumes.

Volume 1 of 25

Common Datafill and Miscellaneous Services Part 1 of 3

10-digit Translations, Trunk Tables

Volume 2 of 25

Common Datafill and Miscellaneous Services Part 2 of 3

Base Services, BAS AMA Cook, BAS Generic

Volume 3 of 25

Common Datafill and Miscellaneous Services Part 3 of 3

BAS Generic (continued), BAS ANI Enhanced, BAS CCS7, SMB Translations, SAID Essentials, FAX-Thru Service, MDS Call Messenger, XLAS Translations

Volume 4 of 25

SS7 Datafill

Number Translation Services, DMS SP/SSP, Trunk Signaling, ISDN User Part (ISUP)

Volume 5 of 25

Screening and Routing Datafill

Universal Translations, Universal Call Processing, UDDD Service, AIN Essentials, AIN Service Enablers

Volume 6 of 25

Competitive Services Part 1 of 2

LNP Translations, Equal Access, EQA Local, EQA Toll

Volume 7 of 25

Competitive Services Part 2 of 2

LATA Equal Access System, Number Portability Service Base, Local Services, LOC Carrier Parameter, LOC Dialing Enhancements, LOC DOLP Selector, LOC Resale/Unbundling, Local Service Provider-Networks, Local Call Area Screening, LOC Generic CPN

Volume 8 of 25

Data, ISDN, and Internet Services Part 1 of 3

1-Meg Modem Service, Datapath, Data Span, ISDN BRI, NI0 ISDN Base, NI0 NI-1 BRI, NI0 NI-1 BRI Enhanced Maintenance

Volume 9 of 25

Data, ISDN, and Internet Services Part 2 of 3

NI0 NI-1 Packet, NI0 NI-2/3 BRI, NI0 NI-2 BRI Services

Volume 10 of 25

Data, ISDN, and Internet Services Part 3 of 3

MISC ISDN Enhancements, NI0 NI98 Enhancements Ph1, NI0 NI98 Enhancements Ph2, PRI Translations, NI0 NI-1 PRI, NI0 NI-1 PRI Networking, NI0 NI-2 PRI, NI0 ISDN PRI Base, NI0 ISDN PRI CNAM, PRI Hotel/Motel, B-Channel Packet PRI, NI0 Circular Hunt-NA, NI0 E911 SCRN NI-2, ISDN DWS, DMS-100 and Meridian 1 Options 11-81 datafill correlation, Call Treatments and Cause Values

Volume 11 of 25

Meridian Digital Centrex (MDC) Part 1 of 6

Meridian Digital Centrex, MDC Minimum

Volume 12 of 25

Meridian Digital Centrex (MDC) Part 2 of 6

MDC Minimum (continued), MDC MSAC, MDC Standard

Volume 13 of 25

Meridian Digital Centrex (MDC) Part 3 of 6

MDC Standard (continued), MDC CLASS on MDC, MDC MBG Minimum, MDC MBG Standard

Volume 14 of 25

Meridian Digital Centrex (MDC) Part 4 of 6

MDC MBG Standard (continued), MDC MBS Minimum, MDC MBS Standard, MDC PRO

Volume 15 of 25

Meridian Digital Centrex (MDC) Part 5 of 6

MDC PRO (continued), MDC Tailored MDC 1, MDC Tailored MDC 2, MDC Tailored MDC 3, MDC Tailored MDC 4, MDC Tailored NARS, MDC Name/DN Blocking, MDC Per Line Feature Control, MDC Call Forward Indication, MDC to 10-digit Routing, MDC to Universal Routing

Volume 16 of 25

Meridian Digital Centrex (MDC) Part 6 of 6

Automatic Call Distribution, ACD Base, CompuCALL Base, ACD Networking, ICM Call Manager Interface, ICM Call Center, ICM Network ICM, ICCM Call Queue Management, ICM Enhanced ICCM Functionality, CompuCALL Status Query, Appendices

Volume 17 of 25

Residential Enhanced Services (RES) Part 1 of 3

Residential Enhanced Services, RES Access Management, RES Advanced Custom Calling

Volume 18 of 25

Residential Enhanced Services (RES) Part 2 of 3

RES Display Functionality and Privacy, RES Interface Functionality

Volume 19 of 25

Residential Enhanced Services (RES) Part 3 of 3

RES Non-Display Services, RES Service Enablers, RES Signaling, Routing, and OAM, In-Session Activation, RES AutoRecall with Name, Malicious Call Tracking Logs, Appendixes

Volume 20 of 25

Emergency Services

Emergency Number Services, GETS0001

Volume 21 of 25

TOPS Part 1 of 5

TOPS Reference Information, Operator Services Basic

Volume 22 of 25

TOPS Part 2 of 5

Operator Services Basic (continued)

Volume 23 of 25

TOPS Part 3 of 5

Enhanced Services, Enhanced Workstation Services Software, Operator Services AIN

Volume 24 of 25

TOPS Part 4 of 5

Operator Services AIN (continued), Operator Services Directory Assistance, Operator Services Equal Access

Volume 25 of 25

TOPS Part 5 of 5

Operator Services Equal Access (continued), Operator Services Information, TOPS Position Controller, Unbundling

1 Introduction to Meridian Digital Centrex

Understanding Meridian Digital Centrex translations

The Meridian Digital Centrex (MDC) software is a central office (CO) based system designed for large and small business clients. The MDC software uses a DMS-100 switch to provide a central telephone communications exchange.

MDC overview

The MDC software includes a range of telephone features and services. The MDC software provides these features and services for clients that a private branch exchange (PBX) can serve.

The client can have equipment on the premises to use in the Integrated Business Network (IBN) environment. This equipment includes:

- the attendant console
- the standard (500/2500) telephone set
- the business set, also called the proprietary set, electronic business set (EBS), Meridian business set (MBS), or Keyset
- the integrated voice and data (IVD) set
- the data unit

The MDC software supports a maximum of 4095 customer groups for each DMS-100 switch. A DMS-100 switch can have a maximum of 255 attendant consoles. A maximum of 255 of the 4095 customer groups can have consoles.

The MDC system can be a dedicated switch. The MDC system can operate with additional switching functions. These switching functions form the different local, toll, and Traffic Operator Position System (TOPS) applications.

Feature compatibility

Some MDC features are not compatible with other MDC features. Some features cannot function on the same line. For each option, table OPTOPT

contains a list of options that are not compatible with that option. Table OPTOPT is a read-only table. Do not change table OPTOPT.

The Service Order System (SERVORD) uses table OPTOPT to prevent the assignment of options that cannot function together on the same line. Use the SERVORD method to assign line options. Table Control does not always perform option error checks when the table editor enters data in a table. If a line has options that cannot function together, the options cannot function correctly.

Line class code compatibility

You can assign options to lines that have a line class code (LCC) that supports the option. For each LCC, table LCCOPT contains a list of options for that LCC. Table LCCOPT is a read-only table.

Note: The options compatible with LCC are not always compatible with each other.

Planning a new customer group

This section includes the datafill information for each of the following:

- switching unit parameters
- customer group data
- translation and routing data
- line data
- attendant console data

This section includes a questionnaire. This questionnaire helps the operating company collect and input the data for a new MDC customer group. This manual does not include the information required to enter most of the common and local translations tables.

Before IBN translations begin for a specified feature installation, define the data required to establish an IBN customer group. To add a new customer group, collect this data before translations begin. For a current customer group, make sure the current data is compatible with the new features.

To plan the customer group, determine and establish the following parameters and data.

1. Switching unit parameters - Northern Telecom (Nortel) and the operating company determine the values for these parameters. Nortel and the operating company determine these values at the time of the first input or

at extension time. See the "Switching unit parameters" table in this document for additional information.

2. Customer group data - This information must include the following:
 - customer group name
 - translators - customer group, feature, preliminary, and octothorpe - for the customer group
 - basic and alternate digit collection plans
 - customer group options

See the "Datafilling customer group data" table in this document for additional information.

3. Translations and routing data - This information must include the following:
 - common language location identifier (CLLI) for all trunk groups, announcements, and tones
 - trunk module types, locations and functions
 - trunk groups, trunk subgroups, and trunk members associated with the customer group
 - class of service (COS) mapping functions
 - office and IBN routes for the customer group
 - routing for IBN treatments
 - network class of service (NCOS)
 - directory numbers (DN) not associated with a line equipment number (LEN)
 - dial plans for the translators for the customer group
 - line screening code (LSC) flag numbers
 - other optional data

See the "Datafilling translations and routing data" table in this document for additional information.

4. Line data - This information must include the following:
 - customer group station options, and each line card slot assigned to a line in the customer group. This information must include the line assignments for each IBN station number and multiple access directory number (MADN).
 - DNs for each business set
 - line features assigned to IBN lines and business sets
 - customer group announcement routes

See the "Datafilling line data" table in this document for additional information.

5. Attendant console data - This information must include the following:
- attendant console options
 - attendant console subgroup data
 - each line card slot assigned to an attendant console in the customer group
 - line assignments for each attendant console in the customer group
 - attendant console data and feature key assignments
 - key and lamp assignments for each incoming call identification (ICI) code that applies to the customer group
 - other optional data

See the "Datafilling attendant console data" table in this document for additional information.

Switching unit parameters

The parameters that the MDC uses appear in the following table. Northern Telecom and the operating company determine the values for these parameters. Nortel and the operating company determine these values at the time of first input or at extension time. Refer to the *Office Parameters Reference Manual* for descriptions of office parameters.

Table 1-1 Switching unit parameters (Sheet 1 of 3)

Parameter	Table
AC_AUDIT_INTERVAL	OFCSTD
AC_MAX_NUM_ERRORS	OFCSTD
AC_AUDIT_INTERVAL	OFCSTD
AVG_NUM_TGS_PER_OHCBQCALL	OFCENG
CCWACTIVE	OFCOPT
CFD_EXT_BLOCKS	OFCENG
CFW_EXT_BLOCKS	OFCENG
CUSTOMER_DATA_CHANGE_LOGS	OFCVAR
CUSTOMER_GROUP_IBNGRP_OM_COUNT	OFCENG
DATA_CALL_SMDR	OFCVAR

Table 1-1 Switching unit parameters (Sheet 2 of 3)

Parameter	Table
DATA_COS	OFCENG
DIST_CWT_TONE	OFCVAR
DSR_OFFICE	OFCOPT
EADAS3OM_BUFFER_SIZE	OFCENG
FTRQAGENTS	OFCENG
FTRQ2WAREAS	OFCENG
FTRQ4WAREAS	OFCENG
FTRQ8WAREAS	OFCENG
FTRQ16AREAS	OFCENG
IBN_CFW	OFCOPT
IBN_DATA_LINE_SPLIT	OFCOPT
KSET_INTER_GRP_DISP	OFCENG
KSET_SRT	OFCOPT
KSHUNT_EXT_BLOCKS	OFCENG
MAX_DATA_LINES	OFCOPT
MAX_PDATA_LINES	OFCOPT
MAX_MADN_MEMBERS_PER_LSG	OFCENG
MAX_NO_OF_3_PORTS_IN_CHAIN	OFCENG
MAXNUCS	OFCENG
MAXSTS	OFCENG
NEW_CF6P_CCT	OFCSTD
NO_OF_FTR_CONTROL_BLKs	OFCENG
NO_OF_LARGE_FTR_DATA_BLKs	OFCENG
NO_OF_MEDIUM_FTR_DATA_BLKs	OFCENG
NO_OF_SMALL_FTR_DATA_BLKs	OFCENG
NO_OF_FTR_XLA_BLKs	OFCENG

Table 1-1 Switching unit parameters (Sheet 3 of 3)

Parameter	Table
NO_OF_SC_EXT_BLKs	OFCENG
NO_OF_SMDR_REC_UNITS	OFCENG
NO_OF_TWC_EXT_BLOCKS	OFCENG
NUM_OF_BC_LAMA_UNITS	OFCENG
NUM_CALLREC_STREAMS	OFCENG
NUM_OF_NT_RECORDING_UNITS	OFCENG
NUMCPWAKE	OFCENG
NUMIBNCQEXTBLK	OFCENG
NUMOHCQBQTRANSBLKS	OFCENG
NUMPERMEXT	OFCENG
SMDR_LOG_RPT	OFCVAR
SMDR_OFFICE	OFCOPT
SPECIAL_AMA_REPORT	OFCVAR
UCD_QSL_AUDIT_INTERVAL	OFCSTD

Preparing to datafill Meridian Digital Centrex

Datafill information for MDC appears in the following section.

Customer group datafill

The tables that require datafill to define a customer group appear in the following table. The tables appear in the correct entry order. See the data schema section of this document for descriptions of the tables.

Table 1-2 Datafilling customer group data (Sheet 1 of 2)

Name	Comments
XLANAME	Define the customer group, feature, preliminary, and octothorpe translators.
DIGCOL	Define the basic digit collection plan for the customer group and any other digit collection plans.
CUSTFAM	Define the family name to which the customer group is assigned. Specify if the family is private or public.

Table 1-2 Datafilling customer group data (Sheet 2 of 2)

Name	Comments
CUSTENG	Define the values for the engineering parameters and options for the customer group.
CUSTHEAD	Define the customer group parameters and options.

The datafill procedure for defining a customer group appears in the following list.

1. Enter data in Table XLANAME (Translator Name). Complete one entry for each IBN customer group, feature, preliminary, and octothorpe translator.
 - a. Field XLANAME - Translator Name. Assign a 1 to 8 character name to the translator. This name must describe the type of translator.
 - b. Field DEFAULT - Default Data. The data in this field depends on the translation selector specified. See the description of field RESULT in table IBNXLA for a description of the different selectors.

Note: If table IBNXLA does not specify the digits dialed for the defined translator, the system uses the default data. If default data is not present for the defined translator, the system uses the data specified in customer group translator. If the customer group translator does not specify data for the digits dialed, the system uses the treatment for the vacant treatment option (VACTRMT). Table CUSTHEAD specifies the treatment for the VACTRMT option.

2. Enter data in table DIGCOL (IBN Digit Collection).
 - a. Subfield DATNAME - Name of Digit Collection Table. Assign a 1 to 8 character name to the digit collection plan. This subfield refers to table DIGCOL from tables CUSTHEAD, NCOS, and/or IBNXLA.
 - CUSTHEAD - Field DIGCOLNM of this table defines the name of the basic customer group digit collection plan.
 - NCOS - This table uses a selector of XLAS when the NCOS requires a digit collection plan different from the plan that table CUSTHEAD defines.
 - IBNXLA - You can select a translation selector associated with specified features. This selector allows you to define a digit

collection plan different from the plan that table CUSTHEAD specifies.

- b. Subfield DIGIT - Digit. Enter the digit 0 - 9, star (*) or octothorpe (#), of the digit collection. Enter data in this table for each digit, star or octothorpe that applies to each digit collection plan.
 - c. Subfield DGCOLSEL - Digit Collection Selector. The four selectors follow:
 - COL - Collect. This selector is a requirement for each digit, star and/or octothorpe that must collect two or more digits. Each digit, star and/or octothorpe must collect these digits before reporting to the central control. For example, you can use this selector for access codes.
 - POTS - POTS. This selector is a requirement for each digit that must transfer from IBN to plain old telephone service (POTS) digit translation. These digits must transfer when a digit is received. For example, you can use this selector for the direct outward dial (DOD) access code.
 - RES - Residential. This selector must follow a POTS digit collection algorithm. The selector follows this algorithm when an octothorpe precedes one or more of the codes dialed.

The RES digit collection has an interdigit timing value of 4 s because of access code dialing. With the RES digit collection method, the system evaluates dialing of an access code after 4 s. With POTS digit collection, 10 s pass before the system evaluates the access code. You can change the RES access codes through Table IBNXLA. You cannot change the POTS access codes because these codes are hard coded.
 - RPT - Report. This selector is a requirement when each digit received is reported to central control (CC). For example, use of this selector can occur when the total digits dialed is one, like an attendant access code.
 - d. The fields that remain in this table depend on the digit collection selector that you select.
3. Enter data in table CUSTFAM (Customer Family), to define the family names assigned to groups of customer groups. Specify if the family is public or private.
- a. Field FAMNAME - Family Name. Enter the 1 to 16 character family name assigned to a group of customer groups.
 - b. Field FAMTYPE - Family Type. Enter the type of customer group family (PRIVATE or PUBLIC).

4. Enter data in table CUSTENG (Customer Engineering) to list the values for the engineering parameters. Enter data in this table to list options for each customer group.
 - a. Field CUSTNAME - Customer Group Name. Enter the 1 to 16 character name assigned to the customer group.
 - b. Field NONCOS - Number of Network Class Of Service. Enter the maximum quantity of NCOS numbers that the customer group requires.
 - c. Field NOIBNTMT - Number of IBN Treatments. Enter the number of IBN treatments that the customer group requires.
 - d. Field CONSOLES - Attendant Consoles. Enter Y (yes) if the customer group can have attendant consoles. Enter N (no) if the customer group cannot have attendant consoles.
 - e. Field CUSTTYPE - Customer Group Type. Enter the type of customer group (FAMILY, PRIVATE, or PUBLIC).
 - f. Field FAMILY - Family. If the CUSTTYPE is FAMILY, enter the name of the family to which the customer group belongs. If CUSTTYPE is PRIVATE or PUBLIC, leave blank.

Note: Assign the family name in table CUSTFAM.

5. Enter data in table CUSTHEAD (Customer Group Feature).
 - a. Field CUSTNAME - Customer Name. Assign a 1 to 16 character name to the customer group. This name must describe the customer group.
 - b. Field CUSTXLA - Customer Translator. Enter the name assigned to the customer group translator in field XLANAME of table XLANAME.
 - c. Field DGCOLNM - Digit Collection Name. Enter the name assigned to the basic digit collection plan defined for the customer group. Field DATNAME of table DIGCOL defines the basic digit collection plan.
 - d. Specify option VACTRMT - Vacant Treatment. Assign this option to the customer group. This option defines the treatment of digits without translation data in table IBNXLA and default data not in table XLANAME.
 - e. Field VACTRMT - Vacant Number Treatment. Enter the treatment number (1-63) in table IBNTREAT to which the system routes a vacant call.

Translation and routing datafill

The tables that you must enter data in to establish the translations and routing data for the customer group appear in the following table. The tables appear in the correct entry order. See the data schema section of this document for descriptions of the tables.

Table 1-3 Datafilling translation and routing data (Sheet 1 of 2)

Name	Comments
CLLI	Define the CLLI for each announcement, tone, and trunk group.
TMINV	Define the trunk module types, locations, and functions.
TRKGRP (Note 2)	Define the trunk groups for the customer group.
TRKSGRP (Note 2)	Define the trunk subgroup(s) in each trunk group.
TRKMEM (Note 2)	Define the data associated with each trunk group member.
COSMAP (Note 1)	Define the COS mapping functions.
OFRT	Define the customer group POTS routes.
IBNRTE	Define the customer group IBN routes.
IBNTREAT	Define the routing for IBN treatments.
NCOS	Define the NCOS numbers for the customer group.
DNROUTE	Define the DNs that are not cited with a LEN.
IBNXLA	Define the dial plan for all the translators that Tables CUSTHEAD and NCOS define.
LSCFLAGS	Define the LSC flag numbers.
CODEBLK (Note 1)	Define if code restriction applies to specified features.
COSDATA (Note 1)	Define the mapping and screening data for each mapping that table COSMAP defines.
DIGMAN (Note 1)	Define any digit manipulation for the customer group.
Note 1: This table is an optional table.	
Note 2: The type of trunk group or subgroup selected determines the current forms that the tables use.	

Table 1-3 Datafilling translation and routing data (Sheet 2 of 2)

Name	Comments
CALLCHR (Note 1)	Define the names assigned to call characteristics.
IBNATD (Note 1)	Define the audio tone detectors.
Note 1: This table is an optional table.	
Note 2: The type of trunk group or subgroup selected determines the current forms that the tables use.	

Datafill procedure to establish the translation and routing data for a customer group appears in the following list.

1. Enter data in Table CLLI.
 - a. Field CLLI - Common Language Location Identifier. Assign a 1 to 16 character name that identifies the far end of each announcement, tone, or trunk group that the customer group uses.
 - b. Field TRKGRSIZ - Trunk Group Size. Enter the maximum number of trunks (0-2047) to assign to the trunk group.
 - c. Field ADMINIF - Administrative Information. Enter a maximum of 32 characters of administrative information in this field. The switch does not use this information.
2. Enter data in Table TMINV (Trunk Module Inventory).
 - a. Subfield TMTYPE - Trunk Module Type. Specify one of the ten trunk module types available for this field.
 - b. Subfield TMNO - Trunk Module Number. Specify the number (0-2047) assigned to the trunk module that field TMTYPE specifies.
 - c. Field FRTYPE - Frame Type. Specify one of the four types of frames on which the trunk module mounts.
 - d. Field FRNO - Frame Number. Enter the frame number (0-511) assigned to the frame that field FRTYPE specifies. The frame number depends on the type of frame specified.
 - e. Field SHPOS - Shelf Position. Enter the base mounting position of the trunk module. The position depends on the type of frame specified.
 - f. Field FLOOR - Floor. Specify the floor or remote location (0-99) of the trunk module equipment frame.
 - g. Field ROW - Row. Specify the row on the floor where the trunk module equipment frame resides.

- h. Field FRPOS - Frame Position. Enter the bay position (0-99) in the row of the trunk module equipment frame.
 - i. Field NMNO - Network Module Number. Enter the network module number (0-31) assigned to the trunk module. This number depends on the type of frame specified.
 - j. Field NMPORT - Network Module Port. Enter the network module port number (0-63) assigned to the trunk module. This number depends on the trunk module type.
 - k. Field EQPEC - Equipment Product Engineering Code. Enter the product engineering code (PEC) of the trunk module.
 - l. Field LOAD - Load. Enter the issue name of the peripheral module software. Refer to the Bulk Change Supplement (BCS) for the correct BCS for a list of available names.
 - m. Field EXECS - Executive Programs. Enter the set of executive programs that the trunk module requires. Refer to the Bulk Change Supplement for the correct BCS for a list of available names.
- 3. Enter data in table TRKGRP (Trunk Group) to determine the type of trunk group.
 - 4. Enter data in table TRDSGRP (Trunk Subgroup). The entry information for this table differs according to the signaling type and trunk group type.
 - 5. Enter data in table TRKMEM (Trunk Member). The entry differs according to the type of peripheral module that the trunk mounts on.
 - 6. If COS restrictions are assigned to the customer group, enter data in table COSMAP (Class of Service Mapping).
 - 7. Enter data in table OFRT (Office Route). This table must contain an entry for each route for IBN calls. The IBN calls take these routes when the calls reach the POTS side of the network. The information that you require to enter data in this table differs according to the route selector.
 - 8. Enter data in table IBNRTE (IBN Route). This table must contain an entry for each IBN route that the customer group uses. The information that you require to enter data in this table differs according to the route selector.
 - 9. Enter data in table IBNTEAT (IBN Treatment). This table must contain an entry for each IBN treatment defined for the customer group. The information that you require to enter data in this table differs according to the route selector.

10. Enter data in table NCOS (Network Class of Service). This table must define each NCOS assigned to the customer group. Field NONCOS of table CUSTHEAD specifies the number of NCOS that you can define.
 - a. Field CUSTGRP - Customer Group. Enter the name assigned to the customer group in field CUSTNAME of table CUSTHEAD.
 - b. Field NCOS - Network Class of Service Number. Assign an NCOS number (0-511) for each different class of user in the customer group.
 - c. Field NCOSNAME - Network Class of Service Name. Assign a 1 to 6 character name to the NCOS number. This name appears at the attendant console when a user makes a call. This name must describe the class of the user that makes the call.
 - d. Field LSC - Line Screening Code. Enter the LSC assigned to the NCOS. This number refers to table LSCFLAGS.
 - e. Field TRAFSNO - Traffic Separation Number. If the first record for the NCOS number is a requirement, enter the traffic separation number assigned to the NCOS number. This number is from 10-127. Table TFANINT assigns the traffic separation number. If the first record is not a requirement, enter 0.
 - f. Field OPTNS - Options. This field contains the following subfields: NCOSOPTN, PRELMXA, FEATXLA, DGCOLNM, ACR, ANN, ATTNCOS, CBQSP, CBQMP, CBQRA, CBQOPTS, CRL, CRLACT, SDCOS, OCTXLA, OHPRIO, and OHQNOTICE.
 - g. Field NCOSOPTN - Network Class of Service Options. Enter any options that apply to the NCOS.
11. Enter data in table DNROUTE (Directory Number Route). This table contains the DNs that are not associated with an LEN. The datafill information for this table differs according to the DN selector specified.
12. Enter data in table IBNXLA (IBN Translation). Define the dialing plan for each translator that tables CUSTHEAD and NCOS defined. The datafill information for this table differs according to the translation selector that you select.

To prevent misdialed IBN calls from completing, assign the Subscriber Services customer to a thousands group different from an IBN user.
13. Enter data in table LSCFLAGS (Line Screening Code Flag).
 - a. Subfield LSC_NO - Line Screening Code Flag Number. Assign an LSC flag number (0-255).
 - b. Field LSCFLAGL - Line Screening Code Flag List. Enter each LSC (B0-B31) associated with the LSC flag number. Field LSCNO specifies this LSC flag number.

14. The customer group can restrict the dialing of calls to specified DOD, Electronic Switching Network (ESN), outward wide area telephone service (OUTWATS) or Private Network numbers. In this event, enter data in table CODEBLK (Code Blocking).
15. If you entered data in table COSMAP, enter data in table COSDATA (Class of Service Data). This table must contain an entry for each class of service value that can change based on screening results.
 - a. Field COSMAP - Mapping Name. Enter the name that field NAME of table COSMAP defines.
 - b. Field COS - Class of Service. Enter the NCOS value to screen. This NCOS is the NCOS that can change based on the screening results.
 - c. Field RESULT - Mapping Result Value. Enter the NCOS that replaces the NCOS if the NCOS passes screening. Field COS specifies the NCOS.
16. If the customer group has simplified dialing with digit manipulation, enter data in table DIGMAN (Digit Manipulation). The datafill information for this table differs according to the digit command.
17. The customer group can assign names (meanings) to call characteristics. In this event, enter data in table CALLCHR (Call Characteristic).
18. If you enter data in table DIGMAN for simplified dialing, enter data in table IBNATD (IBN Audio Tone Detector).

Line datafill

The tables that you must enter data in to establish the line data for a customer group appear in the following table. The tables appear in the correct entry order. See the data schema section of this document for descriptions of the tables.

Table 1-4 Datafilling line data (Sheet 1 of 2)

Name	Comments
CUSTSTN	Define the customer group station options.
LNINV	Define the data for each line card slot assigned to a station.
IBNLINES	Define the line assignments for each IBN station number and MADN number.
KSETINV	Define the data for each line card slot assigned to business sets or data units.
KSETLINE	Define the data for the DN appearances on business sets and data units.

Table 1-4 Datafilling line data (Sheet 2 of 2)

Name	Comments
IBNFEAT	Define the line features assigned to the IBN lines that Table IBNLINES lists.
KSETFEAT	Define the line features assigned to the business sets and data units that table KSETLINE lists.
CUSTANN	Define a maximum of 16 customer group announcement routes.

The datafill procedure to establish the line data for a customer group appears in the following list.

1. Enter data in table CUSTSTN (Customer Group Station Feature). This table must list all the options assigned to the customer group. The datafill information for this table depends on the options assigned to the customer group.
2. Enter data in table LNINV (Line Inventory). You must make an entry in this table for each line card slot assigned to the customer group.
 - a. Field LEN - Line Equipment Number. This field contains subfields SITE, FRAME, UNIT, DRAWER or LSG, and CIRCUIT. This information defines the location of the line card.
 - b. Field CARDCODE - Card Code. Enter the PEC of the line card.
 - c. Field PADGRP - Pad Group. Enter the name of the pad group to which the line circuit is assigned in table PADDATA.
 - d. Field STATUS - Line Inventory Availability Status. Enter the status of the line.
 - e. Field GND - Ground. Enter Y if the line is ground start. Enter N if the line is loop start.
 - f. Field BNV - Balanced Network Value. Enter L for a loaded network. Enter NL for a network that is not loaded.
 - g. Field MNO - Manual Override. Enter Y if the on-hook balance network test must update field BNV. If this update is not required, enter N.
3. Enter data in table IBNLINES (IBN Line). This table must contain data for each IBN station (500/2500 set) number and MADN number.
 - a. Field LEN - Line Equipment Number. This field contains subfields SITE, FRAME, UNIT, DRAWER and CIRCUIT. This information

defines the location of the line card associated with each station number and MADN.

- b. Subfield SIGTYPE - Signal Type. Enter DP if the signal type is dial pulse. Enter DT if the signal type is dial tone.
- c. Subfield FORMAT - Format. Enter STN if the format is for an IBN station. Enter MDN if the format is for a MADN number.
- d. Subfield DN - Directory Number. Enter the DN assigned to the IBN station or MADN.
- e. Subfield CUSTGRP - Customer Group. Enter the name of the customer group to which the IBN station or MADN is assigned. Field CUSTNAME of table CUSTHEAD defines this name.
- f. Subfield SUBGRP - Subgroup. Enter the subgroup (0-7) in the customer group to which the IBN station or MADN is assigned.
- g. Subfield NCOS - Network Class of Service. Enter the NCOS number that applies to the station or MADN. Table NCOS defines this number.
- h. Subfield SNPA - Serving Numbering Plan Area. Enter the serving numbering plan area (NPA) to which the IBN station or MADN is assigned.
- i. Field MDNTYP - Multiple Access Directory Number Type. Enter MCA to indicate a multiple call arrangement. Enter SCA to indicate a single call arrangement. Enter data in this field when field FORMAT is set to MDN.
- j. Field RING - Ring Set. Enter Y if the MADN must ring on all terminations to the defined DN. Enter N if the MADN must not ring on all terminations to the defined DN.

Note: This field is always set when the line is a primary member of the MADN group. Enter data in this field when field FORMAT is set to MDN.

- k. Field PRIMARY - Primary Member. Enter Y if the station is the primary member of the MADN group. Enter N if the station is not the primary member of the MADN group. Enter data in this field when field FORMAT is set to MDN.
- l. Subfield OPTLIST - Option List. Enter the list of options assigned to the IBN station or MADN.

4. Enter data in table KSETINV (Business Set and Data Unit Inventory). An entry must be in this table for each line card slot assigned to a business set or data unit. Enter each line card slot first in table LNINV.
 - a. Field KSETLEN - Line Equipment Number. This field contains subfields SITE, FRAME, UNIT, DRAWER, and CIRCUIT. This information defines the location of the line card associated with each business set and data unit.
 - b. Field SETDATA - Set Data. This field contains the subfields KSET, EXTDATA, and ADDONS.
 - c. Subfield KSET - Key-Set Type. Enter one of the three types of key-set. The key-sets are PSET (business set), DISP (business set with display), or DATA (data unit).

Note: If field KSET is set to PSET or DISP, enter data in the remaining fields in this table. If field KSET is set to DATA, move to Step 5.

- d. Subfield EXTENSION - Extension set. Enter Y if the Business Set has an extension set. Enter N if the Business Set does not have an extension set.
 - e. Subfield RING - Ring Extension. Enter Y if the extension set that field EXTENSION specifies must ring when the business set rings. Enter N if this extension set must not ring when the business set rings.
 - f. Subfield ADDONS - Addon Module List. Enter the list of add-on modules on the business set.
5. Enter data in table DSETLINE (Business Set and Data Unit Line Assignment). An entry must be in this table for each DN related key on a business set and data unit.
 - a. Subfield LEN - Line Equipment Number. This field contains subfields SITE, FRAME, UNIT, DRAWER, and CIRCUIT. This information defines the location of the line card associated with each business set and data unit.
 - b. Field KEY - Physical Key. Enter the number of the current key on the business set or data unit to which the DN is assigned.
 - c. Field FORMAT - Format. Assign one of the three format types to the key. The format types are normal directory number (DN), MADN (MDN) or group intercom (GIC).

Note: The remaining fields in this table depend on the format type. See the data schema section of this document for the remaining datafill information.

6. Enter data in table IBNFEAT (IBN Line Feature). This table lists the features assigned to the IBN lines. Table IBNLINES defines the IBN lines. Each feature assigned to each IBN line requires one entry in this table. The datafill for this table depends on the features that are assigned.
7. Enter data in table KSETFEAT (Business Set and Data Unit Feature). This table lists the line features assigned to the business sets and data units. Table KSETLINE defines the business sets and data units. Each feature assigned to a keyset line requires one entry. The datafill information for this table depends on the features assigned to the Business Set or data unit.
8. If the customer group has the Code Calling feature assigned in table IBNXLA, enter data in table CODECALL.
9. Enter data in table CUSTANN (Customer Group Announcement). You can assign a maximum of 16 different announcements for each customer group.
 - a. Subfield CUSTGRP - Customer Group Name. Enter the name assigned to the customer group. You define the announcements of the customer group. Field CUSTNAME of table CUSTHEAD defines the customer group.
 - b. Subfield CANNINDEX - Customer Group Announcement Index. Assign an index number to the announcement.
 - c. Field CANNRTE - Customer Group Announcement Route. Enter the number of the route list that specifies the correct announcement. table OFRT defines the number of this route list.

Attendant console datafill

The tables that you must enter data in when you define attendant console data for the customer group appear in the following table. The tables appear in the correct entry order. See the data schema section of this document for descriptions of the tables.

Table 1-5 Datafilling attendant console data (Sheet 1 of 2)

Name	Comments
CUSTCONS	Define the attendant console options assigned to the customer group.
SUBGRP	Define the attendant subgroup data.
LNINV	Define the data for each line card slot assigned to an attendant console.
Note: This table is an optional table.	

Table 1-5 Datafilling attendant console data (Sheet 2 of 2)

Name	Comments
IBNLINES	Define the line assignments for each attendant console in the customer group.
ACLANG (Note)	Define the languages available on the attendant consoles.
ATTCONS	Define the attendant console data for each console.
FNMAP	Define the feature keys on each attendant console.
WCKCODES (Note)	Define the Wild Card key codes for the correct features.
ICIDATA	Define the key and lamp display for each ICI.
TRBLCODE (Note)	Define the trouble codes for each office.
ACMSG (Note)	Define the messages to appear at the attendant consoles.
Note: This table is an optional table.	

The datafill procedure to establish attendant consoles for a customer group appears in the following list.

1. Enter data in table (Customer Group Consol). One entry must be in this table if the customer group with field CONSOLES in Table CUSTENG set to Y.
 - a. Field CUSTNAME - Customer Name. Enter the name assigned to the customer group in field CUSTNAME of table CUSTHEAD.
 - b. Field OPTIONS - Option List. Enter the list of options and the associated subfields assigned to the attendant consoles in the customer group.
 - c. The remaining datafill for this table depends on the features assigned to the customer group.
2. Enter data in table SUBGRP (Attendant Subgroup). This table requires one entry when the customer group has field CONSOLES in table CUSTENG set to Y.
 - a. Subfield CUSTGRP - Customer Group Name. Enter the name assigned to the customer group in field CUSTNAME of table CUSTHEAD.
 - b. Subfield SUBGRPNO - Subgroup Number. Enter the subgroup number (0-7).

- c. Subfield SNPA - Serving Number Plan Area. Enter the serving NPA assigned to the subgroup. This information is for billing.
 - d. Subfield DN - Directory Number. Enter the DN assigned to the subgroup. This information is for billing.
 - e. Field CQOVTRMT - Call Queue Overflow Treatment. Enter the treatment number to which all calls to the attendant route when the attendant queue registers are busy. Table IBNTREAT assigns this number.
 - f. Field CQFLTHR - Call Waiting Flash Threshold. Enter the call waiting flash threshold in 4 s increases. For example, a value of 3 specifies an interval of 12 s. A zero specifies a time without a limit.
 - g. Field CQDIVTHR - Queue Length Threshold. Enter the diversion threshold in 4 s increases. For example, a value of 4 specifies an interval of 16 s. A zero specifies a time without a limit.
 - h. Field STNEXTLN - Station Extension Length. Enter the number of digits in the extension numbers assigned to the subgroup.
 - i. Field MINDIGSR - Minimum Digits Received. Enter the minimum number of digits that the attendants in the subgroup can dial.
 - j. Field OPTIONS - Options. If the subgroup has the Emergency Alerting Tone option, enter EMERTONE. If the subgroup does not have the Emergency Alerting Tone option, leave the field blank.
3. Enter data in table LNINV for each line card slot assigned to an IBN attendant console.
- a. Field LEN - Line Equipment Number. This field contains subfields SITE, FRAME, UNIT, DRAWER or LSG, and CIRCUIT. This information defines the location of the line card associated with each attendant console.
 - b. Field CARDCODE - Card Code. Enter the PEC of the line card.
 - c. Field PADGRP - Pad Group. Enter the name of the pad group assigned to the line circuit in table PADDATA.
 - d. Field STATUS - Line Inventory Availability Status. Enter the status of the line.
 - e. Field GND - Ground. Enter Y if the line is ground start. Enter N if the line is loop start.
 - f. Field BNV - Balanced Network Value. Enter L for a loaded network. Enter NL for a network that is not loaded.
 - g. Field MNO - Manual Override. Enter Y if the on-hook balance network test cannot update the field BNV. If the on-hook balance network test can update this field, enter N.

4. Enter data in table IBNLINES (IBN Line). This table must contain data for each IBN attendant console in the customer group.
 - a. Field LEN - Line Equipment Number. This field contains subfields SITE, FRAME, UNIT, DRAWER and CIRCUIT. This field defines the location of the line card assigned to each attendant console.
 - b. Subfield SIGTYPE - Signal Type. Enter the signal type DP (dial pulse) for an attendant console.
 - c. Subfield FORMAT - Format. Enter the format AC for an attendant console.
 - d. Subfield ACNUM - Attendant Console Number. Enter the attendant console number. For the first input, set this subfield to 0.
 - e. Subfield CARDTYPE - Card Type. Enter the function assigned to the line card. For the first input, set this subfield to NIL_CARD_TYPE.

Note: Use DMOPRO to add tuples relating AC to table IBNLINES. DMOPRO is the data modification order processor tool. DMOPRO reads data change commands from an input data tape.

5. If a language other than English is in use at the attendant console, enter data in table ACLANG (Attendant Console Language Name). You can specify a maximum of seven additional languages.
6. Enter data in table ATTCONS (Attendant Console). Each attendant console in the customer group requires an entry in this table.
 - a. Field CONSOLE - Console. Enter the CLLI assigned to the attendant console defined in table CLLI.
 - b. Field CUSTNAME - Customer Name. Enter the name of the customer group to which the attendant console belongs. Field CUSTNAME of table CUSTHEAD defines the customer group
 - c. Field SUBGRP - Subgroup. Enter the number of the attendant subgroup to which the console is assigned. Table SUBGRP defines the attendant subgroup.
 - d. Field NCOS - Network Class of Service. Enter the NCOS number, defined in table NCOS, assigned to the attendant console.
 - e. Field CDR - Call Detail Record. Enter Y when the system records all calls that originate from the attendant console in the Station Message Detail Recording (SMDR) format. If a record is not required, enter N.
 - f. Field CARDCODE - Card Code. Enter the card code that identifies the type of hardware in the console. The system uses card 4X08AA

- to receive data at 300 baud. The system uses card 4X08AB to receive data at 1200 baud.
- g. Field INLEN - Incoming to Switch Line Card. Enter the LEN of the line card to which the signal line from the console to the switch is assigned. This field contains subfields SITE, FRAME, UNIT, DRAWER or LSG, and CIRCUIT.
 - h. Field OUTLEN - Outgoing from Switch to Line Card. Enter the LEN of the line card to which the signal line to the console is assigned. This field contains subfields SITE, FRAME, UNIT, DRAWER and CIRCUIT.
 - i. Field TALKLEN - Talking Circuit Line Card. Enter the LEN of the line card to which the talking line to the console is assigned. This field contains subfields SITE, FRAME, UNIT, DRAWER, and CIRCUIT.
 - j. Field INSV - In Service. Enter Y for consoles that are brought in service with cold starts. The user can specify the consoles brought in service even if the console was off-line at first. Enter N for consoles that are brought in service over cold starts.
 - k. Field OPTIONS - Options. This field contains a list of options assigned to the console (and their associated subfields).
- 7. Enter data in table FNMAP (Attendant Console Functional Key). An entry in this table must be available for each key on the attendant console to which a feature is assigned. The datafill for this table depends on the type of feature assigned to the key.
 - 8. If the Wild Card key is assigned in table FNMAP, enter data in table WCKCODES (Wild Card Key).
 - 9. Enter data in table ICIDATA (Incoming Call Identification Data). This table provides for Flexible Night Service and the key and lamp display for each ICI number.
 - a. Subfield CUSTGRP - Customer Group Name. Enter the name assigned to the customer group in field CUSTNAME of table CUSTHEAD.
 - b. Subfield ICICODE - Incoming Call Identification Code. Assign an ICI Code.
 - c. Field NAME - Key and Lamp Display Name. Assign a 1 to 7 character name to the ICI specified in field ICICODE. The system uses this name for the key and lamp display at the attendant console.
 - d. Field OPTIONS - Options. Enter the list of options and the associated subfields assigned to the ICICODE.
 - e. The remaining datafill information depends on the options assigned to the ICICODE.

10. If trouble codes are assigned for the console, enter data in table TRBLCODE (IBN Console Trouble Code).
11. If you entered data in table ACLANG for another language, enter data in table ACMSG (Flexible Display Language). Enter data in this table for each additional language entered in table ACLANG.

MDC engineering limits

This section outlines the limits of the DMS-100 switching unit with MDC. Hardware restrictions, software restrictions that datafill causes, or design purpose causes these limits.

Some limits apply to features when supporting software resources are exhausted. Internal software resources support MDC features based on feature entry and simultaneous use. Office parameters control internal software resources. If many features are used at the same time in a switching unit, the software resource limits can exceed before the separate feature provisioning limits exceed. The notes identify features with potential limits that are not direct.

The maximum quantities that can occur for each MDC item appear in the following table.

Note: When field QTY is blank, memory and real-time capacity limit this feature.

Table 1-6 Data engineering limits (Sheet 1 of 6)

Item	Qty	Unit	Note
Account Codes		Switching Unit	1
Announcements/Music		Switching Unit	2
Attendant Consoles	255	Switching Unit	3
Attendant Subgroups	8	Customer Group	
Attendant Immediate Release		Switching Unit	4
Audio Tone Detection		Switching Unit	1
Authorization Codes		Switching Unit	1
Authorization Code Partitions	256	Switching Unit	
Automatic Answer Back		Switching Unit	5
AVG_NUM_TGS_PER_OHC BQCALL (Parm)	32767	Switching Unit	

Table 1-6 Data engineering limits (Sheet 2 of 6)

Item	Qty	Unit	Note
Business Sets	100 000 or 50000	Switching Unit	19
Business Set Auto Dial		Switching Unit	1
Business Set Call Park	30000 or 50000	Switching Unit	34
Business Set Directed Call Park	30000 or 50000	Switching Unit	34
Business Set Malicious Call Hold		Switching Unit	5
Business Set Query Time		Switching Unit	5
Busy Verification Line		Switching Unit	7
Busy Verification Trunk		Switching Unit	7
Call Back Queuing		Switching Unit	8
Call Characteristics	8	Switching Unit	
Call Forwarding Stations	65520	Switching Unit	9
Call Forwarding Don't Answer		Switching Unit	10
Call Hold		Switching Unit	11
Call Park	30000 or 50000	Switching Unit	12
Call Pickup (CPU) Groups	15000	Switching Unit	31
Call Pickup Members	100	CPU Group	
Call Transfer		Switching Unit	13
Call Waiting		Switching Unit	14
Camp-On		Switching Unit	15
CFW_EXT_BLKs (Parm)	32767	Switching Unit	
Call Waiting Originating		Switching Unit	14
Code Restriction Levels	15	Customer Group	

Table 1-6 Data engineering limits (Sheet 3 of 6)

Item	Qty	Unit	Note
Common Lang. Location Identifiers	8191	Switching Unit	16
Complicated Outpulsing		Switching Unit	1
Customer Data Change	63	Switching Unit	
Customer Groups	4096	Switching Unit	
Cut Thru Dial		Switching Unit	17
Data Looparound		Switching Unit	5
Datapath		Switching Unit	5
Data Units	30000 or 50000	Switching Unit	33
Dial Call Waiting		Switching Unit	14
Digit Manipulation Indices	32768	Switching Unit	
Directed Call Park	30000 or 50000	Switching Unit	12
Directed Call Pickup		Switching Unit	5
Direct Inward Service Access		Switching Unit	1
Do Not Disturb Groups	64	Switching Unit	
DTMF Outpulsing on a Line		Switching Unit	1
Equivalent DN Appearances	180000	Switching Unit	18
Executive Busy Override		Switching Unit	1
Expensive Route Warning Tone		Switching Unit	17
Flexible Station Controlled Conf.		Switching Unit	1
FTRQAGENTS (Parm)	32767 for NT40; 65534 for SuperNode	Switching Unit	
FTRQAUDIT (Parm)	32 767	Switching Unit	

Table 1-6 Data engineering limits (Sheet 4 of 6)

Item	Qty	Unit	Note
Group Intercom Groups	4096	Switching Unit	
Group Intercom Members	9999	IntercomGroup	
Hunt Groups	8192	Switching Unit	
Hunt Members	1024	Hunt Group	
Hunt Members	32768	Switching Unit	
IBN Lines	30000 for NT40; 50000 for SuperNode	Switching Unit	19
IBN Routes	4096	Switching Unit	
IBN Translators	4095	Switching Unit	
IBN Treatments	64	Customer Group	
IBN Trunks	10000	Switching Unit	
Last Number Redial		Switching Unit	20
Line Screening Codes	256	Switching Unit	21
Make Set Busy		Switching Unit	21
Meet Me Conference DNs	16	Customer Group	22
Meet Me Conference DNs	5120	Switching Unit	
Message Waiting		Switching Unit	23
Modem Pools	2048	Modem Pool	
Multiple Appearance DN Members	32	MADN Group	24
Network Class of Service Numbers	256	Customer Group	
Network Speed Call Groups (NSCG)	1024	Switching Unit	
Network Speed Call Numbers	1000	NSCG	
NMULTIBLKS (Parm)	4095	NSCG	

Table 1-6 Data engineering limits (Sheet 5 of 6)

Item	Qty	Unit	Note
NO_OF_CPK_SC_EXT_BLK S (Parm)	32767	Switching Unit	
NO_OF_FTR_CONTROL_B LKS (Parm)	4095	Switching Unit	
NO_OF_FTR_DATA_BLK S (Parm)	8191	Switching Unit	
NO_OF_TWC_EXT_BLK S (Parm)	32767	Switching Unit	
NUMCPWAKE (Parm)	12800	Switching Unit	32
NUMOHCQBQTRANSBLK (Parm)	16000	Switching Unit	
NUMPERMEXT (Parm)		Switching Unit	
Off-Hook Queuing	28	Switching Unit	25
Office Codes	1023	Switching Unit	
Office Routes	4096	Switching Unit	
Permanent Hold		Switching Unit	17
Preset Conference		Switching Unit	5
Ring Again		Switching Unit	27
Route Elements	8	Switching Unit	
SMDR Separate Files	12	Switching Unit	
Speed Calling Short	65520	Switching Unit	28
Speed Calling Long (30)	8192 for NT40; 16383 for SuperNode	Switching Unit	28
Speed Calling Long (50)	4096 for NT40; 8192 for SuperNode	Switching Unit	

Table 1-6 Data engineering limits (Sheet 6 of 6)

Item	Qty	Unit	Note
Speed Calling Long (70)	4096 for NT40; 8192 for SuperNode	Switching Unit	
TAFAS Groups	8	Customer Group	
Terminating Office Codes	64	Switching Unit	
Three-Way Calling		Switching Unit	29
Time of Day Names	2047	Switching Unit	
Time of Day Routes	8	Time of Day Name	
Trunk Groups	8191	Switching Unit	
Trunk Members	2048	Trunk Group	
Trunk Members	122880	SuperNode	36
Uniform Call Dist. Groups (UCD)	4096	Switching Unit	
UCD Agents	1024	UCD Group	30
UCD Primary DNs	1	UCD Group	30
UCD Supplementary DNs	16	UCD Group	
Virtual Facility Groups	4095	Switching Unit	
Virtual Facility Group Members	4095	Switching Unit	

Note 1: The availability of software resources limits the number of lines or attendants that use this feature at the same time. Parameters NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, NUMPERMEXT, and NMULTIBLKs provide these resources.

Note 2: The availability of software resources limits the number of lines that receive announcement or music at the same time. Parameters NO_OF_FTR_DATA_BLKs and NUMCPWAKES provide these resources.

Note 3: The maximum number of attendant consoles depends on the number of CLLIs in table CLLI. See item Common Language Location Identifiers.

The availability of software resources limits the number of attendants that use special features at the same time. Parameters NO_OF_FTR_CONTROL_BLKs, NMULTIBLKs, NUMIBNCQEXTBLK and NUMPERMEXT provide these resources.

The availability of software resources limits the maximum number of stations that queue for an attendant at the same time. Parameter NUMCPWAKE provides these resources.

Note 4: The availability of software resources limits the number of attendants that use the Attendant Immediate Release feature at the same time. Parameters NMULTIBLKs, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, and NUMPERMEXT provide these resources.

Note 5: The availability of software resources limits the number of stations that activate this feature at the same time. The availability of software resources limits the number of calls that this feature handles at the same time. Parameters NO_OF_FTR_CONTROL_BLKs, NUMPERMEXT, and NMULTIBLKs provide these resources.

Note 6: The availability of software resources limits the number of stations that activate this feature at the same time. The availability of software resources limits the number of calls that this feature handles at the same time. Parameters FTRQ8WAREAS, FTRQSIZE, FTRQAGENTS, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, NUMPERMEXT, NMULTIBLKs, and NUMCPWAKE provide these resources.

Note 7: The availability of software resources limits the number of attendants that use the Busy Verification Line or Trunk feature at the same time. Parameter NUMCPWAKE or Busy Verification Tone Circuits provides these resources.

Note 8: The availability of software resources limit the maximum number of stations that activate this feature at the same time. Parameters FTRQSIZE, FTRQAGENTS, NMULTIBLKs, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, NUMOHCBQTRANSBLK, AVG_#_TGS_PER_OHCBQCALL, and NUMCPWAKE provide these resources.

Note 9: The availability of software resources limit the maximum number of stations that activate or validate this feature at the same time. Parameters NO_OF_FTR_CONTROL_BLKs, NUMPERMEXT, NMULTIBLKs, FTRQ2WAREAS, FTRQ8WAREAS, FTRQAGENTS, FTRQSIZE, CFW_EXT_BLKs, and NO_OF_FTR_DATA_BLKs provide these resources.

Note 10: The availability of software resources limit the maximum number of stations that activate this feature at the same time. Parameters FTRQ2WAREAS, FTRQAGENTS, FTRQSIZE,

NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, and NUMPERMEXT provide these resources.

Note 11: The availability of software resources limit the maximum number of stations that activate this feature at the same time. Parameters FTRQ2WAREAS, NMULTIBLKs, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, and NUMCPWAKE provide these resources.

Note 12: You can assign this line option to all MDC agents in the DMS-100 switching unit. Assign a maximum 30 000 for NT40. Assign a maximum of 50 000 for SuperNode.

The maximum number of simultaneous calls that customer group stations can park is equal to the value of field CPMAXNO. The maximum value of this field is 100. This field is a variable of option CPK in table CUSTHEAD.

The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters NO_OF_CPK_SC_EXT_BLKs, NUMCPWAKE, and NUMPERMEXT provide these resources.

Note 13: The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters NO_OF_FTR_CONTROL_BLKs, NUMPERMEXT, NUMCPWAKE, and NMULTIBLKs provide these resources.

Note 14: The availability of software resources limits the maximum number of lines that activate this feature at the same time. Parameters NUMCPWAKE, FTRQSIZE, FTRQAGENTS, NMULTIBLKs, NO_OF_FTR_DATA_BLKs, NUMPERMEXT, NMULTIBLKs, and NO_OF_FTR_CONTROL_BLKs provide these resources.

Note 15: The availability of software resources limits the maximum number of simultaneous attendant camp-ons. Parameters FTRQ2WAREAS, FTRQSIZE, FTRQAGENTS, NO_OF_FTR_DATA_BLKs, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKs, NMULTIBLKs, and NUMCPWAKE provide these resources.

Note 16: The number of CLLIs on a DMS-100 switch cannot exceed 8191. The switch uses CLLIs for multiple purposes. These purposes include service circuit names, test circuits names, trunk group names, attendant console names and modem names.

Note 17: The availability of software resources limits the maximum number of lines that can use this feature at the same time. Parameters NUMCPWAKE, NO_OF_FTR_DATA_BLKs, NO_OF_FTR_CONTROL_BLKs, NUMPERMEXT, and NMULTIBLKs provide these resources.

Note 18: The maximum number of business sets and data units, including IBN lines, is 30 000 for an NT40 processor. The maximum number of business sets and data units, including IBN lines is 50 000 for SuperNode. The number that you can assign depends on the number of equivalent DN appearances.

Equivalent DN appearance relates to the number of IBN lines, Business Set keys, and Data Unit Keys that DN appearances are associated with. The equivalent DN appearance is not related to the number of different DNs associated with IBN. Each IBN station (500/2500 set) is always associated with a single equivalent DN appearance. Business set and data units can associate with several equivalent DN appearances.

A business set in the minimum configuration has five equivalent DN appearances. One DN appearance for Call Waiting, one DN for Ring Again, and a minimum of one DN for programmable features.

An equivalent DN function includes in addition to the keys (for key-sets) and lines (for IBN sets):

- 1 DN for ICM key if provisioned on key set =
- 1 DN for GIC key if provisioned on key set =
- 1 DN for RAG key if provisioned on key set =
- 1 DN for any group of programming keys. For example, CFX, AUD, SC on key set.
- For data units, the number of equivalent DN appearances associated with each unit is fixed at three. Each data unit has a fixed configuration. This configuration includes a single appearance DN. Each data unit has the Ring Again and Speed Calling features.
- $\text{Key set lines} = (256 - \text{line modules assigned}) \times 1023 / \text{avg. no of equivalent DN appearances per set}$
- The number of line modules assigned must be in increases of 20. The system allocates data store for blocks of 20 line modules.
- The maximum number of business sets that you can assign appears in the following table. This number is based on the number of line modules

assigned. This number is also based on the average number of equivalent DN appearances associated with each business set.

Note: The limit for IBN lines, business sets, and data units is 30 000 for an NT40 processor, and 50 000 for SuperNode.

Table 1-7 Business set stations

LINE MODULE	5 EQUIV DN/SET	6 EQUIV DN/SET	7 EQUIV DN/SET	8 EQUIV DN/SET
80	30 000	30 000	25 721	22 506
100	30 000	30 000	22 798	19 984
120	27 825	23 118	19 875	17 391
140	23 733	19 778	16 952	14 833
160	19 641	16 368	14 029	12 276
180	15 549	12 958	11 106	9 718
200	11 457	9 548	8 184	7 161

Note 19: The maximum number of IBN lines, business sets, and data units is 30 000 for an NT40 processor. The maximum number of IBN lines, business sets, and data units is 50 000 for SuperNode. In a DMS-100 switch with IBN, the maximum number of IBN lines depends on the number of POTS lines. The DMS-100 switch is a Class 5 switching unit. The maximum number is based on the capacity of the switch. The maximum number cannot exceed 30 000 for NT40 or 50 000 for SuperNode.

- If the value of parameter IBN_DATA_LINE_SPLIT is equal to N, the maximum number of datafillable IBN lines, business sets, and data units is 100 000. Datafillable Lines = Value set by Software Optionality Control (SOC) MDC00058. This parameter must not have a value greater than 300 for an NT40 with a maximum 30 000 lines. This parameter must not have a value greater than 500 for a SuperNode with a maximum 50 000 lines.
- If the value of parameter IBN_DATA_LINE_SPLIT is equal to Y, the maximum number of datafillable IBN lines, business sets, and data units is 100 000. Datafillable Lines = Value set by SOC MDC00058. This parameter must not have a value greater than 300 less the value of parameter MAX_DATA_LINES.
- NA007 and above, order code MDC00058 increased the maximum number of MDC lines to 100 000. The actual Centrex maximum

configuration may vary from switch to switch, subject to planned capacities and feature limits.

- See note 33.

Note 20: The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters FTRQAGENTS, FTRQSIZE, FTRQ2WAREAS, FTRQ4WAREAS, and FTRQ8WAREAS provide these resources.

Note 21: The LSCs are provisioned for each switch. Any customer group can use any of the LSCs present.

Note 22: This applies to customer groups with consoles and to the first 64 customer groups without consoles.

Note 23: The availability of software resources limits the maximum number of simultaneous activations for Message Waiting. Parameters FTRQ2WAREAS, FTRQSIZE, FTRQAGENTS, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, and NUMPERMEXT provide these resources.

Note 24: For MADNs that belong to the same group:

- The maximum number of MADN members that you can assign to a line module (LM)/line concentrating module (LCM) is eight.
- The maximum number of MADN business set members that you can assign to a line group controller (LGC)/line trunk controller (LTC) is 16.
- The maximum number of MADN members that you can assign to a line drawer of an LM/remote line module (RLM) or to the line subgroup (LSG) of an LCM is four. This maximum number applies to 500/2500 and business sets.

Note 25: The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters NUMPERMEXT, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, NUMOHCBCQTRANSBLK, AVG_#_TGS_PER_OHCBCQCALL, NUMCPWAKE, and NMULTIBLKs provide these resources.

Note 26: This is provided for comparison with number of IBN lines.

Note 27: The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters FTRQ0WAREAS, FTRQ8WAREAS, FTRQAGENTS, FTRQSIZE, NUMCPWAKE, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, NMULTIBLKs, and NUMPERMEXT provide these resources.

Note 28: This includes Attendant Speed Call lists. The availability of software resources limits the maximum number of stations that activate this

feature at the same time. Parameters NO_OF_CPK_SC_EXT_BLKs and NUMPERMEXT provide these resources.

Note 29: The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters NO_OF_TWC_EXT_BLKs, NUMPERMEXT, and NMULTIBLKs, or Three-Way Conference hardware circuits provide these resources.

Note 30: The availability of software resources limits simultaneous uniform call distribution (UCD) agents. Parameters FTRQ8WAREAS, FTRQAGENTS, FTRQSIZE, NMULTIBLKs, NO_OF_FTR_CONTROL_BLKs, NO_OF_FTR_DATA_BLKs, and NUMPERMEXT provide these resources.

Note 31: A limit is not present for the number of call pickup groups. Each line of a DMS-100 switching unit with 30 000 IBN lines can be assigned to a call pickup group. In this event, if each group has the minimum number of stations, the maximum number of groups is 15 000. The maximum number of station is two.

Note 32: The value of this parameter is equal to 40 percent of the value of parameter NCCBS.

Note 33: The maximum number of IBN lines, business sets, and data units is 30 000 for an NT40 processor. The maximum number of lines, sets and units is 50 000 for SuperNode. The maximum number of data units is 30 000 or 50 000. The maximum number of datafillable data units is 100 000.

- Datafillable data units = Value of parameter MAX_DATA_LINES x 100. This parameter must not have a value greater than 300 for an NT40 with a maximum 30 000 lines, less the value set by SOC MDC00058. This parameter must not have a value greater than 500 for a SuperNode with a maximum 50 000 lines less the value set by SOC MDC00058.
- See note 19.

Note 34: You can assign these line options to all the lines in the DMS-100 switching unit.

- The maximum number of simultaneous calls that stations in the customer group can park equals the value of field CPMAXNO. The value of this field is 100. This field is a variable of option CPK in table CUSTHEAD.
- The availability of software resources limits the maximum number of stations that activate this feature at the same time. Parameters NUMPERMEXT, NUMCPWAKE, NO_OF_CPK_SC_EXT_BLKs, NO_OF_FTR_CONTROL_BLKs, and NMULTIBLKs provide these resources.

Note 35: The following size limits affect hunt groups:

- Directory Number Hunt—a maximum of 70 lines in a group can have any group of Call Forwarding/Call Forwarding Transfer members and Short Hunt members. The maximum of 70 line in a group can have any group of Remote Make-Busy or Message Switch and Buffer members.
- Multiline Hunt—a maximum of 140 lines in a group can have any group of Short Hunt, Remote Make-Busy or Message Switch and Buffer members.
- Distributed Line Hunt—a maximum of 170 lines in a group can have any group of Remote Make-Busy or Message Switch and Buffer members.

Note 36: This value is a result of the capacity of the SuperNode with the 128k-channel Enet.

Functional groups for Meridian Digital Centrex

The MDC functional groups require the DMS SuperNode Platform—BASE0001, TEL00001, and BAS00003. The following paragraphs provide functional group names, ordering codes, and additional requirements for MDC.

MDC Minimum, MDC00001

The MDC Minimum does not have requirements.

MDC MSAC, MDC00002

To operate, MDC MSAC requires MDC Minimum, MDC00001.

MDC Standard, MDC00003

To operate, MDC Standard requires the following functional groups:

- MDC Minimum, MDC00001
- EQA Local, EQA00001

MDC CLASS on MDC, MDC00004

To operate, MDC CLASS on MDC requires the following functional groups:

- MDC Minimum, MDC00001
- RES Service Enablers, RES00006

MDC MBG Minimum, MDC00005

To operate, MDC MBG Minimum requires the following functional groups:

- MDC Minimum, MDC00001
- MDC Standard, MDC00003
- Base ISUP, ISP70001

MDC MBG Standard, MDC00006

To operate, MDC MBG Standard requires the following functional groups:

- MDC Standard, MDC00003
- MDC MBG Minimum, MDC00005
- MDC MBS Minimum, MDC00007

MDC MBS Minimum, MDC00007

To operate, MDC MBS Minimum requires MDC Minimum, MDC00001.

MDC MBS Standard, MDC00008

To operate, MDC MBS Standard requires the following functional groups:

- MDC Minimum, MDC00001
- MDC MBS Minimum, MDC00007

MDC PRO, MDC00009

To operate, MDC PRO requires the following functional groups:

- MDC Standard, MDC00003
- MDC MBS Minimum, MDC00007

MDC PVN, MDC00011

To operate, MDC PVN requires the following functional groups:

- MDC Standard, MDC00003
- EQA Local, EQA00001
- Base ISUP, ISP70001

MDC Tailored MDC 1, MDC00012

To operate, MDC Tailored MDC 1 requires the following functional groups:

- MDC Standard, MDC00003
- MDC MBS Minimum, MDC00007
- MDC MBS Standard, MDC00008

MDC Tailored MDC 2, MDC00013

To operate, MDC Tailored MDC 2 requires MDC Tailored MDC 1, MDC00012.

MDC Tailored MDC 3, MDC00014

To operate, MDC Tailored MDC 3 requires the following functional groups:

- MDC Minimum, MDC00001
- MDC MBS Minimum, MDC00007
- MDC Tailored MDc 2, MDC000013

MDC Tailored MDC 4, MDC00015

To operate, MDC Tailored MDC 4, requires the following functional groups:

- MDC Minimum, MDC00001
- MDC MBS Minimum, MDC00007

MDC Tailored NARS, MDC00016

To operate, MDC Tailored NARS requires the following functional groups:

- MDC Minimum, MDC00001
- MDC Standard, MDC00003
- MDC MBS Minimum, MDC00007

MDC Name/DN Blocking, MDC00033

To operate, MDC Name/DN Blocking requires MDC Minimum, MDC00001.

Customer data questionnaire

You can use the following questionnaire to collect data from the end user for a new customer group. After you collect the data from the end user, you can use the questionnaire to enter data in the correct tables. Use these tables to set up the customer group configuration.

Figure 1-1 Customer Data Questionnaire

Meridian Digital Centrex (MDC) Customer Data Questionnaire	
Customer:	_____
Customer Contact:	_____
Location:	_____
Telephone Number:	_____
In service Date:	_____
Date:	_____
Prepared by:	_____
Telephone Number:	_____

Figure 1-2 Customer Group Information Base

Customer Group Information Base	
Family Name	
Family Type	
Customer Group Name	
Customer Group Identification Number (G0119)	
Maximum Number of Network Class of Services	
Maximum No. of IBN Treatments	
Attendant Consoles (Circle One)	Yes or No
Customer Group Type	

Figure 1-3 Translation Input Base

Translation Input Base			
Table	Field/Subfield	Value	Default
CUSTFAM	FAMNAME	1-16 characters	
CUSTENG	DOMAIN	PRIVATE, PUBLIC, or FAMILY	
CUSTENG	CUSTNAME	1-16 characters	
CUSTENG	GROUPID	0-4095	
CUSTENG	NONCOS	1-12	
CUSTENG	NOIBNTMT	0-63	
CUSTENG	CONSOLES	N or Y	
CUSTENG	DOMAIN	PRIVATE, PUBLIC or FAMILY	

Figure 1-4 Customer Group Information Options

Customer Group Information Options (1 of 20)	
☐	Conferencing
	No. of 6 Port Conf. Circuits Required _____
☐	Voice Message Exchange Index _____
☐	Customer Translator Name _____
☐	Digit Collection Name _____
☐	Account Code Capability
	No. of Digits In Code _____
	Interdigit Timeout Y or N
	Account Code Validation Y or N
	Account Code Screening Index _____
☐	Authorization Codes
	Partition Name _____
	Security Digits Y or N
	Comb Auth/Acct Code Y or N
	Type of Codes (F2781) IBN or CFRA
	Length of Codes _____

Figure 1-5 Translation Input Options

Translation Input Options (1 of 20)			
Table Name	Field/Subfield	Value	Default
CUSTENG	OPTION	CONF6C	ALL
	MAX_NO_CNF6C	0-2046	
CUSTENG	OPTION	VMX	
	VMXINDX	1-255	
CUSTHEAD	CUSTXLA	1-8 characters	
CUSTHEAD	DIGCOLM	1-8 characters	
CUSTHEAD	OPTION	ACCT	
	DIGINACC	2-14	
	NOTIMOUT	N or Y	
	ACCTVAL	Y or N	
CUSTHEAD	OPTION	AUTH	
	PARTNM	Alphanumeric	
	SECRECY	N or Y	
	COMB	N or Y	
AUTHPART	FORMAT	IBN, CFRA, or EXEMPT	
	LENGTH	2-10	

Figure 1-6 Customer Group Information Options (continued)

Customer Group Information Options (2 of 20)

☐

Loudspeaker Paging Answerback (G0086)

Call Park Time OutMaximum Number Simultaneous LPA Requests

☐

Virtual Facility Group Look Ahead (G0080)

☐

AUTH/ACCT Entered Last Announcement

Y or N

Announcement CLLI

Figure 1-7 Translation Input Options (continued)

Translation Input Options (2 of 20)			
Table	Field/Subfield	Value	Default
CUSTHEAD	OPTION	LPA	
	LPACPTO	10-60	
	LPAMAX	0-99	
CUSTHEAD	OPTION	VFGLA	
CUSTHEAD	OPTION	ACR	
	AUAC	ACCT, AUTH ARS or AUARS	
	FLEXINO	0-63	
	OPTION	ACRANN	TONE
	ANNCLLI	Alphanumeric	

Figure 1-8 Customer Group Information Options (continued)

Customer Group Information Options (3 of 20)	
☐	Call Park
	Announcement/Music/Silence (Circle one)
	Maximum No. of Calls Parked Simultaneously _____
	Recall Timeout (STA) _____
	Recall Timeout (ATT) _____
☐	Cut-Through Dialing
	Cut-Through Timeout _____
	Cut-Through Pause _____
☐	DISA Feature Announcement Code
	Announcement CLLI _____
☐	Expensive Route Delay Time _____
☐	Emergency Stand Alone Prefix Translator
	If Yes, Translator Name _____
☐	External NCOS Number _____
	Required with DISA if an Authorization Code is not to be entered

Figure 1-9 Translation Input Options (continued)

Translation Input Options (3 of 20)			
Table	Field/Subfield	Value	Default
CUSTHEAD	OPTION	CPK	
	ANNMUSIC	Y or N	
	AUDIOGRP	AUDIO1 to AUDIO512	RINGING
	CPKMAXNO	0-32 767	100
CUSTSTN	OPTION	CPARK	
	CPKRECTO	0-240	60 s
CUSTCONS	OPTIONS	ACCPKTIM	
	ACCPKTO	0-240	60 s
CUSTHEAD	OPTION	CUTIMOUT	
	TIMEOUT	5-10	4 s
	OPTION	CUTPAUSE	
	PAUTIME	1-7	3 s
CUSTHEAD	OPTION	DISAFAC	
	ANNCLLI	Alphanumeric	
CUSTHEAD	OPTION	ERDT	
	ERDTTIME	0-10	6 s
CUSTHEAD	OPTION	ESAPXLA	
	XLANAME	Alphanumeric	
CUSTHEAD	OPTION	EXTNCOS	
	EXTNCOS	0-511	0

Figure 1-10 Customer Group Information Options (continued)

Customer Group Information Options (4 of 20)

☐

Intergroup Line Screening Code Checking

☐

Attendant Queue With Music

Announcement

Announcement CLLI

Music

Music CLLI

Threshold

Y or N

Y or N

☐

Off-Hook Queuing Announcement

Announcement CLLI

☐

Super Conference

☐

Time of Day Network Class of Service

☐

Treatment For Vacant Codes

Defined Treatment: CLLI, Tone, ANNC

☐

Feature Translator
(Required only when an access code begins with a star).

Translator Name

Figure 1-11 Translation Input Options (continued)

Translation Input Options (4 of 20)			
Table	Field/Subfield	Value	Default
CUSTHEAD	OPTION	LSCCHECK	
CUSTHEAD	OPTION AUDIOGRP	MHOLD AUDIO1 TO AUDIO512	RINGING
CUSTHEAD	MOHTR	0-127	
CUSTHEAD	OPTION ANNCLLI	OHQA Alphanumeric	
CUSTHEAD	OPTION	SUPERCNF	
CUSTHEAD	OPTION TODNAME	TODNCOS 1-8 characters	
CUSTHEAD	OPTION VACTRMT	VACTRMT 0-63	0
CUSTHEAD	OPTION XLNAME	FETXLA Alphanumeric	

Figure 1-12 Customer Group Information Options (continued)

Customer Group Information Options (5 of 20)

☐

Octothorpe Translator
Required only when an access code begins with
an octothorpe.

Translator Name

☐

Attendant Calls to a Station with CFB
Override Campon

☐

Attendant Calls to a Station with CFD

☐

Attendant Call Hold with Music

Announcement

Y or N

Announcement CLLI

Music

Y or N

Music CLLI

Silence

Y or N

☐

Attendant Call Hold Recall
Hold Recall Total

Figure 1-13 Translation Input Options (continued)

Translation Input Options (5 of 20)			
Table	Field/Subfield	Value	Default
CUSTHEAD	OPTION XLNAME	OCTXLA Alphanumeric	
CUSTCONS	OPTION CFBOVCO	ACCFB Y or N	
CUSTCONS	OPTION	ACCFD	
CUSTCONS	OPTION AUDIOGRP	ACHOLD AUDIO1 to AUDIO512	SILENCE
CUSTCONS	OPTION HLDRECTO	HLDRECTO 0-240	

Figure 1-14 Customer Group Information Options (continued)

Customer Group Information Options (6 of 20)

☐

Attendant Camp-On

Recall

Y or N

Number of Seconds

To Answer Camp on

Switchhook, or
No Switchhook

Tone Duration

Camp On with Music

Y or N

Music CLLI

Camp On with Announcement

Y or N

Announcement CLLI

☐

Attendant Error Announcement

Announcement CLLI

☐

Call Waiting/No Answer Recall

Number of Seconds (if other than 30)

Figure 1-15 Translation Input Options (continued)

Translation Input Options (6 of 20)			
Table	Field/Subfield	Value	Default
CUSTCONS	OPTION	ACO	
	ACORECTO	0-60	
	FLASH	CAMPON or FEATURES	
	DURATION	0-15 (in 100 ms intervals)	
	ANNMUSIC	Y or N	N
	AUDIOGRP	AUDIO1 to AUDIO512	
CUSTCONS	OPTION	ANN	
CUSTCONS	OPTION	CWNATIM	
	CWNATO	0-240	30 s

Figure 1-16 Customer Group Information Options (continued)

Customer Group Information Options (7 of 20)

☐

Incoming Call Type Flash Timeout

Number of Seconds

☐

Number of Additional Incoming Call Types to Attendant

☐

Attendant Immediate Release

☐

Less than 6 Attendant Number of Loop Keys

If less than 6, How Many

☐

Night Service Double Key Depression

☐

No Disconnect Timeout

Number of Seconds

☐

Attendant Answer Delay Peg Count

Answer Time

Figure 1-17 Translation Input Options (continued)

Translation Input Options (7 of 20)			
Table	Field/Subfield	Value	Default
CUSTCONS	OPTION ICIFLTHR	FLASHTHR 0-255	
CUSTCONS	OPTION NOICIS	ICINUM 1-229	
CUSTCONS	OPTION	IMMREL	
CUSTCONS	OPTION NOACLPKY	LPKEY 2-6	6
CUSTCONS	OPTION	NS2KEY	
CUSTCONS	OPTION NDSCTO	NDSCTIM 12-60	30 s
CUSTCONS	OPTION ANSTIME	PEGLA 1-15	

Figure 1-18 Customer Group Information Options (continued)

Customer Group Information Options (8 of 20)

☐

Secrecy

Lockout (Circle one)

Y or N

☐

Number of Attendant Subgroups
(If more than one subgroup is
needed)

☐

Time and Date (12-hour Clock)

☐

Business Sets, Message Centers
set up in Customer Group

☐

Variable Speed Calling

List Type (Circle one)

L6 or L8

☐

Ambiguous Digit 0

☐

End-to-end Signaling via Speed Call

Figure 1-19 Translation Input Options (continued)

Translation Input Options (8 of 20)			
Table	Field/Subfield	Value	Default
CUSTCONS	OPTION	SEC	
	LOCKOUT	Y or N	
CUSTCONS	OPTION	SGRPNUM	1
	NOSGRPS	1-8	
CUSTCONS	OPTION	TIM12	
CUSTSTN	OPTNAME	MCGROUP	
CUSTSTN	OPTION	AMBISC	
	LISTTYPE	L6 or L8	
CUSTSTN	OPTION	AMBZERO	
CUSTSTN	OPTIOLOCKOUTN	SCPAUSE	
	SCTIME	1-7	

Figure 1-20 Customer Group Information Options (continued)

Customer Group Information Options (9 of 20)		
☐	Call Back Queuing	
	Priority Promotion Timer (No. of Mins.)	_____
	Call Back Queuing Route Advance Timer	_____
	Number of Enqueued (Enter a One)	_____
	Call Back Queue Type	_____
☐	Call Request Retrieve/Keyset Short Hunt Interaction Control	
☐	Call Forwarding Don't Answer	
	Timeout (If other than 30 s)	_____
☐	Call Forwarding of Call Waiting Calls	
	Announcement or Music	Y or N
	Audio Group	_____
	Maximum Number of Ringbacks	_____
	Ring Cycles	_____
	Tones	Y or N
	Recall Ringing Pattern	_____
	Cancel existing queued ACB requests	Y or N
☐	Call Hold with Audio	
	Announcement	Y or N
	Announcement CLLI	_____
	Music	Y or N
	Music CLLI	_____

Figure 1-21 Translation Input Options (continued)

Translation Input Options (9 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	CBQ	
	CBQPPT	0-15	
	CBQRAT	0-15	
	CBQNUM	1-2000	
	CBQTYPE	TRKONLY, IBNONLY, or ALLTYPES	
CUSTSTN	OPTION	CRRNOKSH	
CUSTSTN	OPTION	CFDATIM	
	CFDATO	12-325	30 s
CUSTSTN	OPTION	CFCW	
	ANNMUSIC	Y or N	
	AUDIOGRP	AUDIO1 to AUDIO512	
	RINGAPPL	1-12	
	RINGCYCL	2-7	
	TONES	Y or N	
	RINGPTRN	ACBARRP, RAGRP	
	CNCLACT	Y or N	
	ACTLEVEL	ONELEVEL, TWOLEVEL	
CUSTSTN	OPTION	CHD	
	AUDIOGRP	AUDIO1 to AUDIO512	SILENCE

Figure 1-22 Customer Group Information Options (continued)

Customer Group Information Options (10 of 20)		
☐	Call Hold with Audio for Business Sets	
	Announcement	Y or N
	Announcement CLLI	_____
	Music	Y or N
	Music CLLI	_____
☐	Station Camp On for Business Sets	
	Announcement or Music	Y or N
	Audio Group	_____
	Maximum Number of Ringbacks	_____
	Ring Cycles	_____
	Tones	Y or N
	Recall Ringing Pattern	_____
	Cancel existing queued ACB requests	Y or N
☐	Call Forwarding Remote Access	
	Number of Digits in base stations extension	_____
	Number of PIN entry attempts allowed	_____
	No of feature access code attempts allowed	_____
	No of forward DN entry attempts allowed	_____
☐	Call Forwarding Validation (Choose one)	
	Terminating Validation?	Y or N
	or Routing Validation?	Y or N
	<i>*Option is necessary only if terminating validation is desired.</i>	
☐	Call Forwarding Intergroup Ringsplash	

Figure 1-23 Translation Input Options (continued)

Translation Input Options (10 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION AUDIOGRP	KSMOH AUDIO1 to AUDIO512	SILENCE
CUSTSTN	OPTION ANNMUSIC AUDIOGRP	MBSCAMPO Y or N AUDIO1 to AUDIO512	
CUSTSTN	OPTION RINGAPPL RINGCYCL TONES RINGPTRN CNCLACT ACTLEVEL	AR 1-12 2-7 Y OR N ACBARRP, RAGRP Y or N ONELEVEL, TWOLEVEL	
CUSTSTN	OPTION NUMDIGS PINRETRY ACCRETRY FDNRETRY	CFRA 1-10 1-7 1-7 1-7	
CUSTSTN	OPTION TERMOPTN	CFWVAL Y (Terminating) N (Routing)	
CUSTSTN	OPTION RINGCFI	CFXFEAT N or Y	N

Figure 1-24 Customer Group Information Options (continued)

Customer Group Information Options (11 of 20)

☐

Call Forwarding Option

Personal Call Screening

Call Forwarding Universal/Intragroup

Y or N

Call Forward Busy

Y or N

Call Forward Don't Answer

Y or N

Multiple Call Forwarding

Call Forward Universal/Intragroup

Y or N

Call Forward Busy

Y or N

Call Forward Don't Answer

Y or N

Call Forward to Trunks

Y or N

Busy Treatment

Y or N

☐

Call Forwarding Optional Lines

Maximum Number of Call Forwarding Links

☐

Message Waiting Between Customer Groups

☐

Calling Number Delivery Blocking (AG1550)

Figure 1-25 Translation Input Options (continued)

Translation Input Options (11 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	CFXOPT	
	PCSCFA	Y or N	N
	PCSCFB	Y or N	Y
	PCSCFD	Y or N	Y
	MULTICFA	Y or N	N
	MULTICFB	Y or N	Y
	MULTICFD	Y or N	Y
	CFXTRK	Y or N	N
	BUSYTRMT	Y or N	
CUSTSTN	OPTION	CFXOL	
	MAXLINK	1-5	5
CUSTSTN	OPTION	CRINTER	
CUSTSTN	OPTION	CNDB	

Figure 1-26 Customer Group Information Options (continued)

Customer Group Information Options (12 of 20)	
☐	Permanent Hold
	Holding Time _____
	Hold Reminder Y or N
	Hold Recall Y or N
	Announcement Y or N
	Announcement CLLI _____
	Music Y or N
	Music CLLI _____
	Silence Y or N
	CLLI _____
☐	Call Transfer (Customer Group)
	<i>Specify Type:</i>
	Call Transfer Incoming _____
	Call Transfer Outgoing _____
	Call Transfer Intragroup _____
	Call Transfer All _____
	Attendant Call Transfer with Flash _____
	No Call Transfer, Except to the Attendant _____
	Custom _____
	<i>If Custom, Complete:</i>
	Originating Intergroup _____
	Originating Intragroup _____
	Terminating Intergroup _____
	Terminating Intragroup _____
	Recall Y or N
	If Yes, Recall Time _____
☐	Call Transfer Warning Tone

Figure 1-27 Translation Input Options (continued)

Translation Input Options (12 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	PHOLD	
	HLDTIME	12-1023	60 s
	PHOLDOPT	HLDREM, HLDRCCL	
	ANNMUSIC	Y or N	
	AUDIOGRP	AUDIO1 to AUDIO 512	RINGING
CUSTSTN	OPTION	CXFER	
	CXTYPE	CTINC, CTOUT, CTALL, ATTRCLF, NCT, or CUSTOM	CTINTRA
	<i>If Custom Complete:</i>		
	ORGINTER	AC, INTRA, INTER, TRATER, or NOCXFER	
	ORGINTRA	AC, INTRA, INTER, TRATER, or NOCXFER	
	TRMINTER	AC, INTRA, INTER, TRATER, or NOCXFER	
	TRMINTRA	AC, INTRA, INTER, TRATER, or NOCXFER	
	XFERRCL	Y or N	
	XRCLTIM	12-20	
CUSTSTN	OPTION	CTW	

Figure 1-28 Customer Group Information Options (continued)

Customer Group Information Options (13 of 20)

☐

Call Transfer Enhanced

All IBN Trunks

Y or N

Call Transfer for IBN Trunks

IBN Trunks Dependent on Trunk Group Type

Y or N

Call Transfer Type

Call Transfer Type

Call Transfer Type

Call Transfer Type

Call Transfer Type

All POTS Trunks

Y or N

Call Transfer for POTS Trunks

POTS Trunks Dependent On Call Transfer Type

Call Transfer Type

Call Transfer Type

Call Transfer Type

Figure 1-29 Translation Input Options (continued)

Translation Input Options (13 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	CXFERSUP	
	IBNTKSEL	ALLIBN	
	ALLTRKS	ALLOW, CONF, or DENY	
	IBNTKSEL	IBNTRKS, ALLIBN	
	ADSCNDSC	ALLOW, CONF, or DENY	
	ADSCDSC	ALLOW, CONF, or DENY	
	ANSNDSC	ALLOW, CONF, or DENY	
	ANSDSC	ALLOW, CONF, or DENY	
	FANSFANS	ALLOW, CONF, or DENY	
	POTSTKSEL	ALL POTS	
	ALLTRK	ALLOW, CONF, or DENY	
	POTSTKSEL	POTSTRKS, ALLPOTS	
	ADSCRV	ALLOW, CONF, or DENY	
	ANSRV	ALLOW, CONF, or DENY	
	WKNDSC	ALLOW, CONF, or DENY	

Figure 1-30 Customer Group Information Options (continued)

Customer Group Information Options (14 of 20)

Call Transfer Enhanced (cont)

Call Transfer Type

Call Transfer Type

Call Transfer Tone

Call Transfer Tone

☐

Dial Call Waiting

Announcement

Announcement CLLI

Music

Music CLLI

Y or N

Y or N

☐

Call Waiting Originating

Announcement

Announcement CLLI

Music

Music CLLI

Y or N

Y or N

☐

Directed Call Pickup Barge-In

Tone (used only when a tone is not desired)

☐

Distinctive Call Waiting Tone

Figure 1-31 Translation Input Options (continued)

Translation Input Options (14 of 20)			
Table	Field/Subfield	Value	Default
	WKDSC	ALLOW, CONF, or DENY	N
	WKRV	ALLOW, CONF, or DENY	
	WKWK	ALLOW, CONF, or DENY	
	CXFERTON	Y or N	
CUSTSTN	OPTION	CWD	RINGING
	ANNMUSIC	Y or N	
	AUDIOGRP	AUDIO1 to AUDIO512	
CUSTSTN	OPTION	CWO	RINGING
	ANNMUSIC	Y or N	
	AUDIOGRP	AUDIO1 to AUDIO512	
CUSTSTN	OPTION	DCBITONE	Y
	DCBITONE	Y or N	
CUSTSTN	OPTION	DISTCWTN	

Figure 1-32 Customer Group Information Options (continued)

Customer Group Information Options (15 of 20)	
☐	Display (for MDC Business Set)
	Number of Digits Displayed for Intragroup Calls _____
☐	Group Intercom No Call Forwarding _____
☐	Group Intercom Page _____
☐	Name Display _____
☐	Reason Display _____
☐	Distinctive Ringing (AF2303)
	For Intragroup Calls Y or N _____
	If Yes, Distinctive Ringing Type _____
	For Intergroup Calls Y or N _____
	If Yes, Distinctive Ringing Type _____
	For Incoming IBN Trunk (Circle One) Y or N _____
	If Yes, Distinctive Ringing Type _____
	For GIC Calls Y or N _____
	If Yes, Distinctive Ringing Type _____
	Recall Y or N _____
	If Yes, Distinctive Ringing Type _____
	Uniform Call Distribution Y or N _____
	If Yes, Distinctive Ringing Type _____
	For Remainder of Calls Y or N _____
	If Yes, Distinctive Ringing Type _____
	For Automatic Call Distribution Y or N _____
	If Yes, Distinctive Ringing Type _____

Note: Bell Canada Ringing Codes are 1,2,3,4,5. See the data schema section of this document for a description of the distinctive ringing types.

Figure 1-33 Translation Input Options (continued)

Translation Input Options (15 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	DISPDIGS	7
	NUMODIGS	1-12	
CUSTSTN	OPTION	GICNOCFW	
CUSTSTN	OPTION	GICPAGE	
CUSTSTN	OPTION	NAMEDISP	
CUSTSTN	OPTION	REASDISP	
CUSTSTN	OPTION	DRING	
	INTRNL	Y or N	
	DRINGTYP	1-8	
	EXTRNL	Y or N	
	DRINGTYP	1-8	
	TRKS	NO, SEL, or ALL	
	DRINGTYP	1-8	
	GIC	Y or N	
	DRINGTYP	1-8	
	RECALL	Y or N	
	DRINGTYP	1-8	
	UCD	Y or N	
	DRINGTYP	1-8	
	REST	Y or N	
	DRINGTYP	1-8	
	ACD	Y or N	
	DRINGTYP	1-8	

Figure 1-34 Customer Group Information Options (continued)

Customer Group Information Options (16 of 20)

☐

Do Not Disturb

Number of Groups Required

☐

Make Set Busy

Type Treatment for External Calls

Treatment Defined (CLLI, Tone, or Annc.)

☐

Customer Group With No Consoles (REDIRECT)

Customer Group

Subgroup Number

☐

Business Sets, Ring Again Recall

will recall if phone is idle.

Figure 1-35 Translation Input Options (continued)

Translation Input Options (16 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	DND	
	NUMGRPS	1-63	
CUSTSTN	OPTION	MSB	
	MSBTRMT	0-62	
CUSTSTN	OPTION	REDIRECT	
	CUSTNAME	Alphanumeric	
	SUBGROUP	0-7	
CUSTSTN	OPTION	RAGRCOPT	

Figure 1-36 Customer Group Information Options (continued)

Customer Group Information Options (17 of 20)

☐

Ring Again Timer

Number of Seconds (RAG Recall Timer)

Cancellation Timer (AD2851)

☐

Auto Display Timer (MDC Business Sets)

Enter timer period in seconds

☐

Trunk Answer From Any Station

☐

Inspect Activate Timer

Enter time period in one second intervals

☐

Inspect Display Timer

Enter time period in one second intervals

☐

Executive Busy Override on Multiple
Appearance Directory Number

Figure 1-37 Translation Input Options (continued)

Translation Input Options (17 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	RAGTIM	8 s
	RAGRECTO	0-32	
	RAGCANTO	0-30	
CUSTSTN	OPTION	AUTODISP	5 s
	DISPTIMER	2-10	
CUSTSTN	OPTION	TAFAS	
CUSTSTN	OPTION	INSPACT	10
	ACTIMER	5-60	
CUSTSTN	OPTION	INSPDISP	5
	DISPTIMER	2-30	
CUSTSTN	OPTION	EBOM	

Figure 1-38 Customer Group Information Options (continued)

Customer Group Information Options (18 of 20)

☐

Automatic Call Back (ACB)

Maximum Number of Ringbacks

Ring Cycles

Tones

Recall Ringing Pattern

Cancel Current Queued ACB Requests

Y or N

Y or N

☐

Automatic Recall (AR)

Maximum Number of Ringbacks

Ring Cycles

Tones

Recall Ringing Pattern

Cancel Current Queued AR Requests

Level of Activation

Y or N

Y or N

One or Two

☐

AMA Customer Group Identification

Figure 1-39 Translation Input Options (continued)

Translation Input Options (18 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	ACB	
	RINGAPPL	1-12	
	RINGCYCL	2-7	
	TONES	Y or N	
	RINGPTRN	ACBARRP, RAGRP	
	CNCLACT	Y or N	
CUSTSTN	OPTION	AR	
	TONES	Y or N	
	RINGAPPL	1-12	
	RINGCYCL	2-7	
	RINGPTRN	ACBARRP, RAGRP	
	CNCLACT	Y or N	
	ACTLEVEL	ONELEVEL, TWOLEVEL	
CUSTSMR	OPTION	AMACUST	

Figure 1-40 Customer Group Information Options (continued)

Customer Group Information Options (19 of 20)

☐

Answer Timing For No Answer
Trunks (SMDR) Number of Seconds

☐

Derived SMDR

☐

SMDR Report For Incoming/Outgoing,
Tie Trunks, FX, Line Calls

☐

Networked SMDR Extension Record

☐

SMDR: Record Digits as Outpulsed by DMS

☐

SMDR: Record No Answer Calls

☐

SMDR: Call Data Type
SMDR Call data type for the SMDR File

☐

Message Detail Recording Revenue Accounting Office
Business Identification Number

Figure 1-41 Translation Input Options (continued)

Translation Input Options (19 of 20)			
Table	Field/Subfield	Value	Default
CUSTSMR	OPTION ANSTIMAL	ANSTIM 0-31	15 s
CUSTSMR	OPTION	DERVSMR	
CUSTSMR	OPTION	NERVE	
CUSTSMR	OPTION	NETWORK	
CUSTSMR	OPTION	RAO	
CUSTSMR	OPTION	RNA	
CUSTSMR	OPTION SMDRDT	SMDRCDT Alphanumeric	
CUSTSMR	OPTION	MDRRAO	

Figure 1-42 Customer Group Information Options (continued)

Customer Group Information Options (20 of 20)	
☐	Station Origination Restrictions
☐	Station Origination Restrictions List (G0087)
	Customer Group Name _____
	Number of SOR Groups _____
	Exception List _____
☐	Preset Conference (AF2014)
	Preset Conference Number _____
	Conferee Number _____
	Directory Number of Conferee _____
	Conference Class D, P, C, or A
	Conferee Type IBN
	Customer Group _____
	Network Class of Service Number _____
	Originator Control Y or N
	Conference Add Ons Y or N
	DID Origination Allowed Y or N
	Emergency Conference Y or N
	Audio Tone Detector Required Y or N
	Immediate Start Y or N
	Present Conference Notification Type _____
	If announcement, announcement CLLI
	Conferee 1 _____
	Conferee 2 _____
	Conferee 3 _____
	Conferee 4 _____
	Conferee 5 _____
	Conferee 6 _____

Figure 1-43 Translation Input Options (continued)

Translation Input Options (20 of 20)			
Table	Field/Subfield	Value	Default
CUSTSTN	OPTION	SOR	
PRECONF	CUSTNAME	Alphanumeric	
	NUMGRPS	1-64	
	EXCPTLST	A maximum of 11 digits	
	PRECONF	0-63	
	CONFEEEE	0-49	
	CONFADDR	Numeric	
	CLASS	D, P, C, or A	
	CONFTYPE	IBN	
	CUSTGRP	Alphanumeric	
	NCOS	0-511	
	ORIGCONT	Y or N	
	ADDON	Y or N	
	DIDORIG	Y or N	
	EMERG	Y or N	
	ATDREQ	Y or N	
	IMMSTART	Y or N	

The following Network Class of Service (NCOS) table determines access and the number of NCOS for a customer group.

[illegible]

Figure 1-44 Code Restriction Levels

CODE RESTRICTION LEVEL	
CUSTOMER GROUP	
Enter codes allowed or blocked for each level. If a code restriction applies, enter the CRL number in table NCOS (Network Class of Service). A maximum of 15 CRLs are available. Each code contains a maximum of 18 digits.	
CRL#	
Circle one: Allow / Block	
CRL#	
Circle one: Allow / Block	
CRL#	
Circle one: Allow / Block	

Figure 1-45 Network/Feature Access Codes - Customer Group Information

Network/Feature Access Codes Customer Group Information (1 of 6)			
Access Code	ACR Y/N	SMDR Y/N	Feature/Network Type
_____	_____	_____	Attendant Access
_____	_____	_____	Access to Attendant in Other Customer Group or Subgroup
			Customer Grp _____
			Subgrp Number _____
_____	_____	_____	Account Code Entry
_____	_____	_____	Authorization Code Entry
_____	_____	_____	Code Calling Activate
_____	_____	_____	Code Calling Pickup
_____	_____	_____	Call Forwarding Program
_____	_____	_____	Call Forwarding Cancel
_____	_____	_____	Station Controller Conf.
_____	_____	_____	Conference Release
_____	_____	_____	Call Pickup
_____	_____	_____	Directed Call Pickup
_____	_____	_____	Call Park
_____	_____	_____	Directed Call Park
_____	_____	_____	Call Park Retrieve
_____	_____	_____	Executive Busy Override
_____	_____	_____	Privacy

Figure 1-46 Network/Feature Access Codes - Translation Input

Network/Feature Access Codes Translation Input (1 of 6)			
Table	Field/Subfield	Value	Default
IBNXLA	XLANAME	Alphanumeric	
	DGLIDX	Numeric	
	TRSEL	See the data schema of this document for available features and required entries.	

Figure 1-47 Network/Feature Access Codes - Customer Group Information (continued)

Network/Feature Access Codes Customer Group Information (2 of 6)			
Access Code	ACR Y/N	SMDR Y/N	Feature/Network Type
_____	_____	_____	Permanent Hold
_____	_____	_____	MADN Hold Activation
_____	_____	_____	MADN Hold Cancellation
_____	_____	_____	Call Hold
_____	_____	_____	Meet Me Conference Lock
_____	_____	_____	Meet Me Conference Unlock
_____	_____	_____	Privacy Release Activation
_____	_____	_____	Privacy Release Cancel
_____	_____	_____	Ring Again
_____	_____	_____	Speed Calling Programming Long List
_____	_____	_____	Speed Calling Programming Short List
_____	_____	_____	Speed Call Via Access Code
_____	_____	_____	Trunk Answer From Any Station
_____	_____	_____	Dial Call Waiting
_____	_____	_____	Uniform Call Distribution Activation
_____	_____	_____	Uniform Call Distribution Deactivation
_____	_____	_____	Data Looparound

Figure 1-48 Network/Feature Access Codes - Translation Input (continued)

Network/Feature Access Codes Translation Input (2 of 6)			
Table	Field/Subfield	Value	Default
IBNXLA	XLANAME	Alphanumeric	
	DGLIDX	Numeric	
	TRSEL	See the data schema of this document for available features and required entries.	

Figure 1-49 Network/Feature Access Codes - Customer Group Information (continued)

Network/Feature Access Codes Customer Group Information (3 of 6)			
Access Code	ACR Y/N	SMDR Y/N	Feature/Network Type
_____	_____	_____	Trunk Verification From Designated Station
_____	_____	_____	Last Number Redial
_____	_____	_____	Make Set Busy Activation
_____	_____	_____	Make Set Busy Deactivation
_____	_____	_____	Call Request Activation
_____	_____	_____	Call Request Retrieval
_____	_____	_____	Call Request Delete All
_____	_____	_____	Call Request Delete Specific
_____	_____	_____	Network Speed Calling Second Dial Tone Y or N
_____	_____	_____	Meridian Asynchronous Data Option
_____	_____	_____	Cancel Call Waiting
_____	_____	_____	Direct Outward Dialing
			Second Dial Tone Y or N
			Intragroup Y or N
			SMDRB Y or N
_____	_____	_____	Electronic Switching Network
			Second Dial Tone Y or N
			Intragroup Y or N
			SMDRB Y or N

Figure 1-50 Network/Feature Access Codes - Translation Input (continued)

Network/Feature Access Codes Translation Input (3 of 6)			
Table	Field/Subfield	Value	Default
IBNXLA	XLANAME	Alphanumeric	
	DGLIDX	Numeric	
	TRSEL	See the data schema of this document for available features and required entries.	

Figure 1-51 Network/Feature Access Codes - Customer Group Information (continued)

Network/Feature Access Codes Customer Group Information (4 of 6)			
Access Code	ACR Y/N	SMDR Y/N	Feature/Network Type
_____	_____	_____	Private Network
			Second Dial Tone Y or N
			Intragroup Y or N
_____	_____	_____	OUTWATS
			Second Dial Tone Y or N
			Intragroup Y or N
_____	_____	_____	Automatic Route Selection (ARS)
_____	_____	_____	Tie Trunk
			Second Dial Tone Y or N
_____	_____	_____	Prefix NRS Outbound
			Second Dial Tone Y or N
_____	_____	_____	Star Equivalent (for 500 sets)
_____	_____	_____	Octothorpe Equivalent (for 500 Sets)
_____	_____	_____	Extension Number Range
			Intragroup Y or N
			Central Office Code _____
			Number of Digits _____
_____	_____	_____	Group Intercom Via Access Code

Figure 1-52 Network/Feature Access Codes - Translation Input (continued)

Network/Feature Access Codes Translation Input (4 of 6)			
Table	Field/Subfield	Value	Default
IBNXLA	XLANAME	Alphanumeric	
	DGLIDX	Numeric	
	TRSEL	See the data schema of this document for available features and required entries.	

Figure 1-53 Network/Feature Access Codes - Customer Group Information (continued)

Network/Feature Access Codes Customer Group Information (5 of 6)			
Access Code	ACR Y/N	SMDR Y/N	Feature/Network Type
_____	_____	_____	Station Origination Restrictions
_____	_____	_____	Loudspeaker Paging
_____	_____	_____	Loudspeaker Paging Answerback Activation
_____	_____	_____	Loudspeaker Paging Answerback Access
_____	_____	_____	Automatic Call Distribution Not Ready Activation
_____	_____	_____	Automatic Call Distribution Not Ready Deactivation
_____	_____	_____	Automatic Call Distribution Login Activation
_____	_____	_____	Automatic Call Distribution Login Deactivation
_____	_____	_____	Voice Messaging Exchange
_____	_____	_____	Regular Direct Inward System Access
_____	_____	_____	Call Forwarding Busy Programming (CFBP)
_____	_____	_____	Call Forwarding Busy Cancellation (CFBC)
_____	_____	_____	Call Forwarding Busy Internal Programming (CFBIP)
_____	_____	_____	Call Forwarding Busy Internal Cancellation (CFBIC)
_____	_____	_____	Call Forwarding Busy External Programming (CFBEP)
_____	_____	_____	Call Forwarding Busy External Cancellation (CFBEC)

Figure 1-54 Network/Feature Access Codes - Translation Input (continued)

Network/Feature Access Codes Translation Input (5 of 6)			
Table	Field/Subfield	Value	Default
IBNXLA	XLANAME	Alphanumeric	
	DGLIDX	Numeric	
	TRSEL	See the data schema of this document for available features and required entries.	

Figure 1-55 Network/Feature Access Codes - Customer Group Information (continued)

Network/Feature Access Codes Customer Group Information (6 of 6)			
Access Code	ACR Y/N	SMDR Y/N	Feature/Network Type
_____	_____	_____	Call Forwarding Don't Answer Internal Programming (CFDIP)
_____	_____	_____	Call Forwarding Don't Answer Internal Cancellation (CFDIC)
_____	_____	_____	Call Forwarding Don't Answer External Programming (CFDEP)
_____	_____	_____	Call Forwarding Don't Answer Programming (CFDP)
_____	_____	_____	Call Forwarding Don't Answer Cancellation (CFDC)
_____	_____	_____	Call Forwarding Don't Answer External Cancellation (CFDEC)
_____	_____	_____	Call Forwarding Remote Access (CFRA)
_____	_____	_____	Program Call Forward per Key (CFKP)
_____	_____	_____	Cancel Call Forward per Key (CFKC)
_____	_____	_____	Malicious Call Hold
_____	_____	_____	Warm Line

Figure 1-56 Network/Feature Access Codes - Translation Input (continued)

Network/Feature Access Codes Translation Input (6 of 6)			
Table	Field/Subfield	Value	Default
IBNXLA	XLANAME	Alphanumeric	
	DGLIDX	Numeric	
	TRSEL	See the data schema of this document for available features and required entries.	

Figure 1-57 List of Assignable Features (500/2500 Set)

List of Assignable Features (500/2500 Set) (1 of 5)		
Acronym	Feature name	Additional information required
ACD	Automatic Call Distribution	Automatic Call Distribution Group Automatic Call Distribution Subgroup Position Identification Number (if required)
AMATEST	Automatic Message Accounting Test	
AUL	Automatic Line	1-15 Digit Number to Store
CBE	Prevents Forwarding Busy External Calls	1-11 Digit Intragroup Number Calls Forward to
CBI	Prevents Forwarding Busy Internal Calls	1-11 Digit Intragroup Number Calls Forward to
CCW	Cancel Call Waiting	Access Code
CBU	Call Forward Busy Unrestricted	1-11 Digit Number Calls Forward to
CDC	Customer Data Change	1-11 Digit Intragroup Number Calls Forward to
CDE	Prevents Forwarding Don't Answer	1-11 Digit Intragroup Number Calls Forward to
CDI	Call Forwarding Don't Answer Internal Calls	1-11 Digit Intragroup Number Calls Forward to
CDU	Call Forward Don't Answer Unrestricted	1-11 Digit Intragroup Number Calls Forward to
CFB	Call Forward Busy of External Calls	1-11 Digit Intragroup Number Calls Forward to
CFD	Call Forwarding Don't Answer	1-11 Digit Intragroup Number Calls Forward to
CFDVT	Call Forward Don't Answer	12-60 s
CFF	Call Forward Fixed	
CFI	Call Forwarding Intragroup	
CFRA	Call Forward Remote Access	
CFRAAUTH	Call Forwarding Remote Access Authorization Code	2-10 Digit Authorization Code or PIN Code
CFS	Call Forward Simultaneous	
CFU	Call Forwarding Universal	
CHD	Call Hold	
CLI	Calling Line Identification	
CLF	Calling Line Identification with Flash	

Figure 1-58 List of Assignable Features (500/2500 Set) (continued)

List of Assignable Features (500/2500 Set) (2 of 5)		
Acronym	Feature name	Additional information required
CNF	Flexible Station Control Conference	<i>Types of conference:</i> A. 6-PARTY Conference (C06) B. 10-PARTY Conference (C10) C. 14-PARTY Conference (C14) D. 18-PARTY Conference (C18) E. 22-PARTY Conference (C22) F. 26-PARTY Conference (C26) G. 30-PARTY Conference (C30)
CPU	Call Pickup	Line Equipment Number (LEN) of CPU Group
CTD	Carrier Toll Denied	
CWD	Dial Call Waiting	
CWI	Call Waiting Intragroup	Must Assign Call Waiting (CWT) Also
CWO	Call Waiting Origination	
CWT	Call Waiting	
CWX	Call Waiting Exempt	
CXR	Call Transfer	<i>Types of Call Transfer:</i> Call Transfer Incoming (CTINC) Call Transfer Outgoing (CTOUT) Call Transfer Intragroup (CTINTRA) Call Transfer All (CTALL) Attendant Call Transfer with Flash (ATTRCLF) No Call Transfer (NCT) Custom Call Transfer (CUSTOM) <i>If custom, specify type for each:</i> A. Originating Intergroup (AC, INTRA, INTER, TRATER, or NOCXFER) B. Originating Intragroup (AC, INTRA, INTER, TRATER, or NOCXFER) C. Terminating (AC, INTRA, INTER, TRATER, or NOCXFER) D. Terminating Intragroup (AC, INTRA, INTER, TRATER, or NOCXFER)
DCF	Denied Call Forwarding	
DDN	Diallable Directory Number Non-AMA	

Figure 1-59 List of Assignable Features (500/2500 Set) (continued)

List of Assignable Features (500/2500 Set) (3 of 5)		
Acronym	Feature name	Additional information required
DDNAMA	Dialable Directory Number AMA	Activation Code
DIN	Denied Incoming	Terminating Restriction Code Alternate Terminating Restriction Code
DOR	Denied Originating Service	
DTM	Denied Terminating	
DCBI	Directed Call Pick-up Barge-In	
DCBX	Directed Call Pick-Up Barge-In Exempt	
DCPK	Directed Call Park	
DCPU	Directed Call Pick-Up Non Barge-In	
DCPX	Directed Call Pick-Up Non Barge-In Exempt	
DNH	Directory Number Hunt	Pilot Number
DLH	Distributed Line Hunt	Pilot Number
DND	Do Not Disturb	
EBO	Executive Busy Override	
EBX	Executive Busy Override Exempt	
ELN	Essential Line Service	
EMW	Executive Message Waiting	
EXCFBDN	Call Forwarding Busy External Directory Number	
FRO	Fire Reporting System	Trunk Module Type (MTM, RSM, RMM) Trunk Module Number (0-255) Trunk Module Circuit Number (0-23) Signal Distributor Point (0-6) State of Signal Distributor Point (0-1)
GIC	Group Intercom	Intercom Group Name Member Number (0-9, 00-99, 000-999, 0000-9999) SMDR (Y, N)
HLD	Permanent Hold	
IECFB	Internal External Call Forward Busy DENY	
IECFBCBU	Internal External Call Forward Busy Unrestricted	

Figure 1-60 List of Assignable Features (500/2500 Set) (continued)

List of Assignable Features (500/2500 Set) (4 of 5)		
Acronym	Feature name	Additional information required
IECFD	Internal External Call Forward Don't Answer DENY	
IECFDCDU	Internal External Call Forward Don't Answer Unrestricted	
INCFBDN	Internal Call Forwarding Busy Directory Number	
INCFDDN	Internal Call Forwarding Don't Answer Directory Number	
IRR	Inhibit Ring Reminder	
LNR	Last Number Redial	
MDN	Multiple Appearance Directory Number	Single Call Arrangement (SCA) Multiple Call Arrangement (MCA)
MLH	Multiple Line Hunt	Pilot Number
MSB	Make Set Busy All Calls	
MSBI	Make Set Busy Intragroup	
MWT	Message Waiting	Notification Type: Stutter Dial Tone (STD) Message Waiting Lamp (MWL) MWL Allowed to Originate Call Request (Y, N) Allowed to Receive Call Request (Y, N)
NDC	No Double Connection	
PIC	Primary Interlata Carrier	
PRK	Call Park	
PRL	Privacy Release	
PRV	Privacy	
RAG	Ring Again	
RMB	Random Make Busy	Trunk Module Type (MTM, RSM, RMM) Trunk Module Number (0-255) Trunk Module Circuit Number (0-23)
RMP	Remote Meter Pulsing	Number of Surcharge Pulses (0-15) Trunk Module Type (MTM, RSM, RMM) Trunk Module Number (0-255) Trunk Module Circuit Number (0-23) Signal Distributor Point (0-6) State of Signal Distributor Point (0-1)

Figure 1-61 List of Assignable Features (500/2500 Set) (continued)

List of Assignable Features (500/2500 Set) (5 of 5)		
Acronym	Feature name	Additional information required
SCL	Speed Calling–Long	<i>List Types:</i> 30 Numbers (L30) 50 Numbers (L50) 70 Numbers (L70)
SCS	Speed Calling–Short	LEN of Speed Call Controller Allowed Access to Toll Numbers (Y, N) 1 TO 7 Digit Security Code Trunk Module Type (MTM, RSM, RMM) Trunk Module Number (0-255) Trunk Module Circuit Number (0-23) Scan Point (0-6) Normal State (0 is OFF or OPEN, 1 is ON or CLOSED)
SCU	Speed Calling–User	
SEC	Security	
SHU	Stop Hunt	
SMDR	Station Message Detail Recording	LEN restriction level of Station Origination Restrictions Controller Restriction Level
SLU	Subscriber Line Usage	
SOR	Station Origination Restrictions	
SORC	Station Origination Restrictions Controller	
SPB	Special Billing	Directory Number
STRD	Short Timed Release Disconnect	Call Code Service Feature Code
TBO	Terminating Billing Option	
UCD	Uniform Call Distribution	
WML	Warm Line	
3WC	Three-Way Conference	Data Feature (WML) Customer Modify (Y, N) Activate (Y, N) Directory Number (1-18 digits) Timeout (1-20)
3WCPUB	Three-Way Calling Public	

Figure 1-62 MDC Feature Assignment Table (Data) (PSET) (M5009) (M5209)

MDC Feature Assignment Table (Data) (PSET) (M5009) (M5209)										
Customer Group:								Subset Features: CFU, CFI, CFB, CFD, CPU, CWT, CWI, KSH KEYLIST INFO: Subset features will require a KEYLIST showing the actual number assigned to the KEY associated with the DNS the feature will affect.		S. O. Number
User Name/Location:										
LEN:										
				MDN Info						
				S C A	M C A				Prim Y/N	
Key	Lamp	Ring Y/N	NCOS							Key List
9	N									
8	Y									
7	Y									
6	Y									
5	Y									
4	Y									
3	Y									
2	Y									
1	Y									
Assign features that an access code activates to Key 1. Some can require a key list.										
Key 1				Key List						Add. Info
F E A T U R E										
Subgroup No.:				Display: Y/N				Speakerphone: Y/N		
Additional Module: _____				1st(S1) _____		2nd(S2) _____		3rd(S3) _____		M536

Figure 1-63 MDC Feature Assignment Table (M5112) (M5312)

MDC Feature Assignment Table (M5112) (M5312)										
Customer Group:					Subset Features: CFU, CFI, CFB, CFD, CPU, CWT, CWI, KSH KEYLIST INFO: Subset features will require a KEYLIST showing the actual number assigned to the KEY associated with the DNS the feature will affect.					S. O. Number
User Name/Location:										
LEN:										
				MDN Info						
Key	Lamp	Ring Y/N	NCOS	S C A	M C A			Prim Y/N	Key List	Add. Info
10	Y									
9	Y									
8	Y									
7	Y									
6	Y									
5	Y									
4	Y									
3	Y									
2	Y									
1	Y									
Assign features that an access code activates to Key 1. Some features can require a key list.										
Key 1				Key List					Add. Info	
F E A T U R E										
Subgroup No.:										Speakerphone: Y
Additional Module: _____ M536										

Figure 1-64 MDC Feature Assignment Table (M518)

MDC Feature Assignment Table (M518) (1 of 3)														
Customer Group:										Subset Features: KEYLIST INFO: Subset features will require a KEYLIST showing the actual number assigned to the KEY associated with the DNs the feature will affect.			S. O. Number	
User Name/Location:														
LEN:				MDN Info										
Key	Lamp	Ring Y/N	NCOS	Prim Y/N	M C A	Denial Trmt	Bridging	Conf Size	Bridge Tone	Init Stat	PRL Mode	Key List	Add. Info	
29	Y													
28	Y													
27	Y													
26	Y													
25	Y													
24	Y													
23	Y													
22	Y													
21	Y													
20	Y													
19	Y													
18	Y													
17	Y													
16	Y													
15	Y													
14	Y													
13	Y													
12	Y													

Figure 1-65 MDC Feature Assignment Table (M518) (continued)

MDC Feature Assignment Table (M518) (2 of 3)														
Customer Group:										Subset Features: KEYLIST INFO: Subset features will require a KEYLIST showing the actual number assigned to the KEY associated with the DNs the feature will affect.			S. O. Number	
User Name/Location:														
LEN:				MDN Info										
Key	Lamp	Ring Y/N	NCOS	Prim Y/N	M C A	Denial Trmt	Bridging	Conf Size	Bridge Tone	Init Stat	PRL Mode	Key List	Add. Info	
47	Y													
46	Y													
45	Y													
44	Y													
43	Y													
42	Y													
41	Y													
40	Y													
39	Y													
38	Y													
37	Y													
36	Y													
35	Y													
34	Y													
33	Y													
32	Y													
31	Y													
30	Y													

Figure 1-66 MDC Feature Assignment Table (M518) (continued)

MDC Feature Assignment Table (M518) (3 of 3)													
Customer Group:								Subset Features: KEYLIST INFO: Subset features will require a KEYLIST showing the actual number assigned to the KEY associated with the DNS the feature will affect.				S. O. Number	
User Name/Location:								MDN Info					
LEN:				Prim Y/N	M C A	Denial Trmt	Bridg- ing	Conf Size	Bridge Tone	Init Stat	PRL Mode	Key List	Add. Info
Key	Lamp	Ring Y/N	NCOS										
65	Y												
64	Y												
63	Y												
62	Y												
61	Y												
60	Y												
59	Y												
58	Y												
57	Y												
56	Y												
55	Y												
54	Y												
53	Y												
52	Y												
51	Y												
50	Y												
49	Y												
48	Y												

Figure 1-67 MDC Feature Assignment Table (M536)

MDC Feature Assignment Table (M536)															
Customer Group:										Subset Features: KEYLIST INFO: Subset features will require a KEYLIST showing the actual number assigned to the KEY associated with the DNS the feature will affect.				S. O. Number	
User Name/Location:															
LEN:										MDN Info					
Key	Lamp	Ring Y/N	NCOS	Prim Y/N	M C A	Denial Trmt	Bridging	Conf Size	Bridge Tone	Init Stat	PRL Mode	Key List	Add. Info		
65	Y														
64	Y														
63	Y														
62	Y														
61	Y														
60	Y														
59	Y														
58	Y														
57	Y														
56	Y														
55	Y														
54	Y														
53	Y														
52	Y														
51	Y														
50	Y														
49	Y														
48	Y														
47	Y														
46	Y														
45	Y														
44	Y														
43	Y														
42	Y														
41	Y														
40	Y														
39	Y														
38	Y														
37	Y														
36	Y														
35	Y														
34	Y														
33	Y														
32	Y														
31	Y														
30	Y														

Figure 1-68 List of Assignable Features (MDC Business Set)

List of Assignable Features (MDC Business Set) (1 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
AAB	Automatic Answerback				Must assign to key number 1 Must have Handsfree Module
AFC	Additional Functional Calls				
AMATEST	Automatic Message Accounting Test				Must assign to the originator
AUD	Automatic Dial	X	X		
AUTODISP	Auto Display				Must assign to key number 1
AUL	Automatic Line	X	X		Must assign to key with Directory Number
CBE	Call Forwarding Busy External				Must Keylist DNs. External Calls Assigned 1-11 Digit DN Calls Forwarded to If MADN, Must Assign at primary location
CBI	Call Forwarding Busy Internal				Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign at primary location.
CBU	Call Forwarding Busy Unrestricted	X	X		Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign at primary location.
CCV	Call Covering			X	Primary member must have EMW assigned.

Figure 1-69 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (2 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
CCW	Cancel Call Waiting			X	
CDC	Customer Data Change				
CDE	Call Forwarding Don't Answer External Calls				Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign at primary location.
CDI	Call Forward Don't Answer Internal Calls				Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign at primary location.
CDU	Call Forward Don't Answer Unrestricted Calls	X	X		Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign at primary location.
CFB	Call Forwarding Busy				Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign to primary location.
CFD	Call Forwarding Don't Answer				Must Keylist DNs Assigned 1-11 Digit DN Calls forwarded to If MADN, must assign at primary location.
CFDVT	Call Forward Don't Answer Variable Timing	X	X		16-60 s

Figure 1-70 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (3 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
CCF	Call Forwarding Fixed	X	X	X	Must Keylist DNs Assigned If MADN, must assign to primary location.
CFK	Call Forward per Key	X			
CFRA	Call Forwarding Remote Access				
CFRAAUTH	Call Forwarding Remote Access Authorization Code			X	2-10 Digit Authorization Code or PIN Code
CFI	Call Forwarding Intragroup	X	X	X	Must Keylist DNs Assigned If MADN, must assign to primary location.
CFS	Call Forward Simultaneous	X	X		Must Keylist DNs Assigned If MADN, must assign to primary location.
CFU	Call Forwarding Universal	X	X	X	Must Keylist DNs Assigned If MADN, must assign to primary location.
CFUIF	Call Forwarding Universal Intragroup Fixed				Must have separate keylist Variations of Call Forwarding: A. Universal B. Intragroup C. Fixed D. Universal per Key
CIF	Controlled Interflow for ACD Group	X	X		Must assign to Supervisors Set
CLI	Calling Line Identification	X	X		Must Assign to Key with Directory Number

Figure 1-71 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (4 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
CNF	Flexible Station Controlled Conference	X	X	X	Types of Conference: A. 6-Party Conference (C06) B. 10-Party Conference (C10) C. 14-Party Conference (C14) D. 18-Party Conference (C18) E. 22-Party Conference (C22) F. 26-Party Conference (C26) G. 30-Party Conference (C30)
CPU	Call Pickup	X		X	Must Keylist DNs assigned; Specify lowest LEN assigned to group of station forming the CPU group.
CTD	Carrier Toll Denied				
CWD	Dial Call Waiting				
CWI	Call Waiting Intragroup	X	X		Must Keylist DNs assigned Requires Call Waiting (CWT) If MADN, must assign to primary location
CWO	Call Waiting Originate	X			Must be DN Key
CWT	Call Waiting	X	X		Must Keylist DNs Exempt Assigned If MADN, must assign to primary location.
CWX	Call Waiting Exempt				

Figure 1-72 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (5 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
CXR	Call Transfer	X	X	X	Types of Call Transfer: Call Transfer Incoming (CTINC) Call Transfer Outgoing (CTOUT) Call Transfer Intragroup (CCTINTRA) Call Transfer All (CTALL) Attendant Call Transfer with Flash (ATTRCLT) No Call Transfer (NCT) Custom Call Transfer (CUSTOM) If Custom, Specify Type for Each A. Originating Intergroup (AC, INTRA, INTER, TRATOR, or NOCXFER) B. Originating Intragroup (AC, INTRA, INTER, TRATER, or NOCXFER) C. Terminating Intergroup (AC, INTRA, INTER, TRATER, or NOCXFER) D. Terminating Intragroup (AC, INTRA, INTER, TRATER, or NOCXFER)
DCBI	Directed Call Pick-up Barge-In			X	Must assign to Key 1
DCBX	Directed Call Pick-up Barge-In Exempt			X	
DCF	Denied Call Forwarding				Must keylist DNs assigned If MADN, must assign to primary location

Figure 1-73 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (6 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
DCPK	Directed Call Park		X	X	
DCPU	Directed Call Pick-Up Non Barge-In			X	Must assign to Key 1
DCPX	Directed Call Pick-Up Non Barge-In Exempt				
DIN	Denied Incoming				Terminating Restriction Code Alternate Terminating Restriction Code
DLH	Distributed Line Hunting	X	X		Pilot DN
DND	Do Not Disturb				
DNH	Directory Number Hunting	X	X		Pilot DN
DOR	Denied Originating Service	X	X		Must assign to key with Directory Number
DQT	Display Queue Threshold for ACD				Key no. 1 assigned as primary Directory Number or INCALLS key. If supervisor set, key no. 1 also assigned SUPR.
DTM	Denied Terminating Service	X	X		Must assign to key with Directory Number
EBO	Executive Busy Override	X		X	
EBX	Executive Busy Override Exempt			X	Must assign to key with Directory Number
ELN	Essential Line Service	X	X		Must Assign to Key with Directory Number

Figure 1-74 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (7 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
EMW	Executive Message Waiting	X	X	X	Assign to Directory Number Key.
EXCFBDN	Call Forwarding Busy External Directory Number				
EXCFDDN	Call Forwarding Don't Answer External Directory Number				
GIAC	Group Intercom All Call	X			Assign to a Group Intercom Key Group Number (0–4095) Initiate GIAC feature (Y, N)
GIC	Group Intercom	X	X		Intercom Group Name Member Number (0-9, 00-99, 000-999, 0000-9999) SMDR (Y, N) Ignore MSB (Y, N)
ICM	Intercom	X	X		
IECFB	Internal External Call Forward Busy DENY				
IECFBCBU	Internal External Call Forward Busy Unrestricted				
IECFD	Internal External Call Forward Don't Answer DENY				
IECFDCDU	Internal External Call Forward Don't Answer Unrestricted				
INCFBDN	Call Forwarding Busy Internal Directory Number				

Figure 1-75 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (8 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
INCFDDN	Call Forwarding Don't Answer Internal Directory Number				Assign each DN key have IRR
INSPECT	Inspect	X	X		
IRR	Inhibit Ring Reminder				
LNR	Last Number Redial			X	
LNRA	Last Number Redial Associated with Set			X	
LOB	Line of Business	X		X	Must assign to key with Directory Number
LVM	Leave Message	X	X		
MCH	Malicious Call Hold	X		X	
MSB	Make Set Busy	X	X	X	
MBSCAMP	Station Camp-On Meridian Bus. Set	X	X		
MSBI	Make Set Busy Intragroup	X	X	X	Make Set Busy Intragroup calls only (Y/N)
MLH	Multi-Line Hunting	X	X		
MWIDC	Message Waiting Indicator	X	X		
MWQRY	Message Waiting Query	X	X		

Figure 1-76 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (9 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
MWT	Message Waiting		X	X	Message Indication only applies to Key 1 Can originate call request (Y/N) Can receive call request (Y/N)
NDC	No Double Connection	X	X		Must assign to key with Directory Number
OLS	Originating Line Select (Idle or No Line Select)	X			Must assign to optkey 1
PBL	Private Business Line	X	X		Must assign to key with Directory Number
PIC	Primary Interlata Carrier				
PRL	Privacy Release	X		X	
PRK	Call Park	X	X	X	
PRV	Privacy	X		X	
QBS	Query Busy Station	X	X		
QCK	Quick Conference Key	X			
QTD	Query Time & Date		X		Assigned only to Business Sets with display feature
RAG	Ring Again	X			

Figure 1-77 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (10 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
REASDSP	Reason Display				Name of the set of display messages to appear
RMB	Random Make Busy	X	X		Must assign to key with Directory Number Trunk Module Type (MTM, RSM, RMM) Trunk Module Number (0-255) Trunk Module Circuit Number (0-23) Scan PT. (0-6); Normal State of Scan Pt. (0-1)
SCL	Speed Calling Long	X	X	X	List Types: 30 Numbers (L30) 50 Numbers (L50) 70 Numbers (L70)
SCS	Speed Calling Short	X	X	X	
SCU	Speed Calling User	X	X	X	
SEC	Security Code	X	X		Must assign to key with Directory Number 1-7 digit security code Must assign Directed Call Park
SFC	Single Functional Call				Assign one Directory Number to PDN key.

Figure 1-78 List of Assignable Features (MDC Business Set) (continued)

List of Assignable Features (MDC Business Set) (11 of 11)					
Acronym	Feature name	Ded. key	Lamp	Code access	Additional information required
SHU	Stop Hunt	X	X		Must assign to key with Directory Number Trunk Module Type MTM, RSM, or RMM Trunk Module Number (0-255) Trunk Module Circuit Number (0-23) Scan PT. (0-6); Normal State of Scan Pt. (0-1)
SLU	Subscriber Line Usage Study				
SMDR	Station Message Detail Recording				
SOR	Station Origination Restrictions				Key number of DN appearance LEN feature assigned SOR Group DN belongs
SORC	Station Origination Restrictions Controller				Restriction Level
SPB	Special Billing	X	X		Must assign to key with Code Directory Number
TBO	Terminating Billing Option	X		X	If MADN, must assign to primary location.
TLS	Terminating Line Select (No line or incoming)				Must assign to optkey 1
WML	Warm Line				Assign to DN key
3WC	Three-Way Call	X	X		

Figure 1-79 Assignment Keys

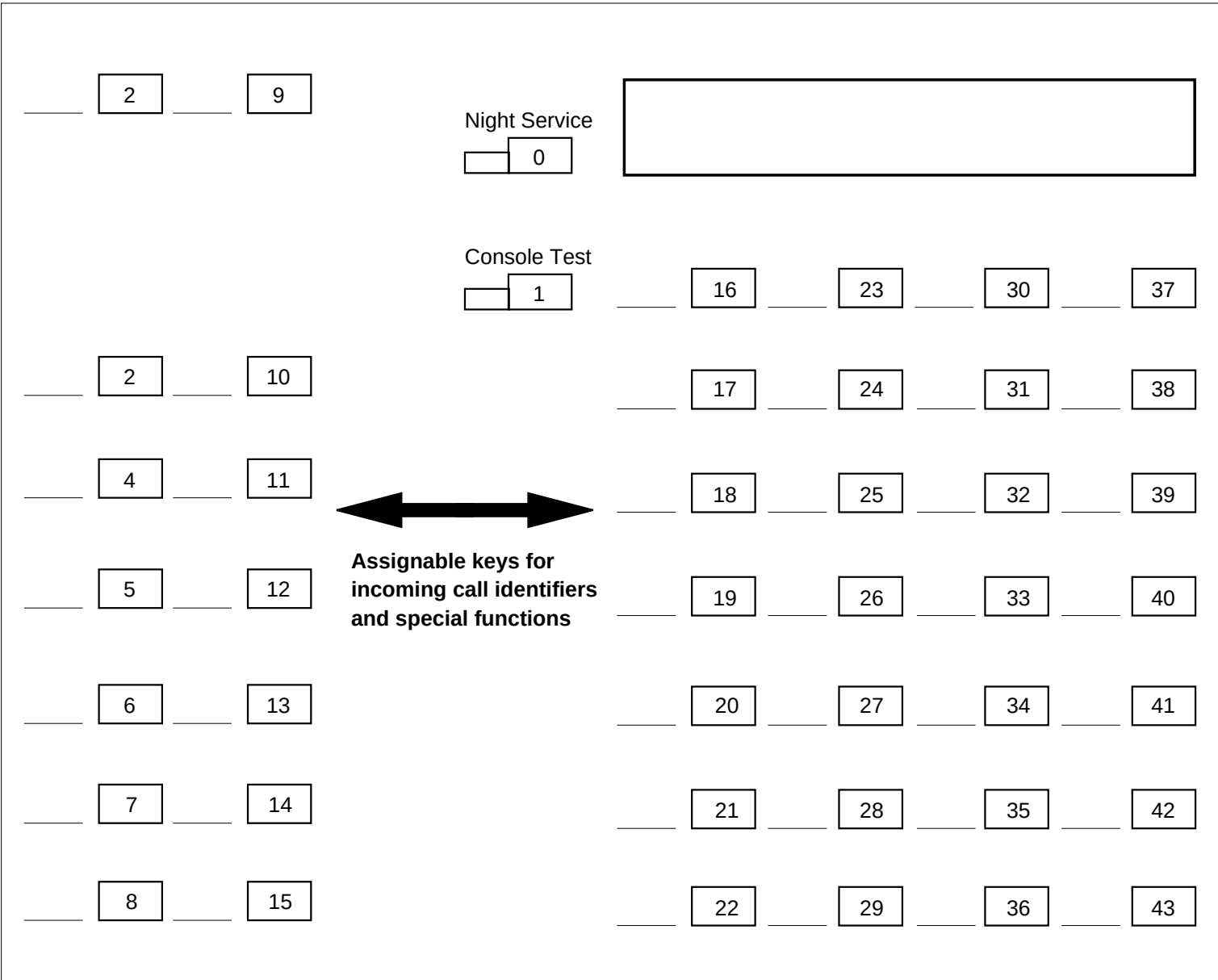


Figure 1-80 Attendant Console Information - Customer Group Information

Attendant Console Information Customer Group Information (1 of 2)			
Complete for Each Attendant Subgroup			
Subgroup Number			
Serving Area Code			
Billing Directory Number			
Treatment when Attendant Queue Registers are Busy			
Call Waiting Lamp Flash Threshold (Number of Seconds)			
Call Queue Divert Threshold (Number of Seconds)			
<i>Use The Following Formula To Calculate:</i>			
No. of Calls Allowed in Queue	=	No. of Available Consoles	X $\frac{\text{Diversion Threshold}}{\text{Weighted Average Service Time}}$
Station Extension Length			
Minimum Digits Dialed by Attendant			
Options		EMALTONE, FORCING, QSTATUS	
<i>Complete the following fields if you provide statuses for the call queue:</i>			
Signal Distribution Group Number			
Signal Distribution Point Number			
Signal Distribution Group Number for the Maximum Calls Threshold			
Signal Distribution Point Number for the Maximum Calls Threshold			
Maximum Number of Calls Allowed in the Subgroup Call Queue			

Figure 1-81 Attendant Console Information - Translation Input

Attendant Console Information Translation Input (1 fo 2)			
Table	Field/Subfield	Value	Default
SUBGRP	SUBGRPNO	0-7	
	SNPA	Numeric	
	DN	Numeric	
	CQOVTRMT	0-63	
	CQFLTHR	0-255 (in 4 s increments)	
	CQDIVTHR	0-255 (in 4 s increments)	
	STNEXTLN	1-7	
	MINDIGSR	1-7	
	OPTION	EMALTONE	
	FLSDGRP	0-511	
	FLSDPT	0-6	
	MAXSDGRP	0-511	
	MAXSDPT	0-6	
	CQMAXTHR	0-4095	

Figure 1-82 Attendant Console Information - Customer Group Information (continued)

Attendant Console Information	
Customer Group Information (2 of 2)	
Complete for Each Attendant Subgroup	
Console Name	_____
Customer Group Name	_____
Subgroup Number	_____
Network Class of Service	_____
SMDR for Attendant Console Calls	Y or N
Attendant Console Type:	300 Baud 1200 Baud 300 Baud, A-law PCM format
Return to Service After Warm SWACT	Y or N
Options	_____
☐ Login/Logout Required for each Attendant	
Three-digit Logon ID	_____
Customer Group Screening	Y or N
☐ The OM Reports for Listed Directory Numbers for Each Console. Maximum of 7 LDNs can have Y.	

Figure 1-83 Attendant Console Information - Translation Input (continued)

Attendant Console Information Translation Input (2 fo 2)			
Table	Field/Subfield	Value	Default
ATTCONS	CONSOLE	Alphanumeric	
	CUSTNAME	Alphanumeric	
	SUBGRP	0-7	
	NCOS	0-511	
	CDR	Y or N	
	CARDCODE	4X08AA (300 Baud) 4X08AB (1200 Baud) 4X08BA (300 Baud - PCM)	
	INSV	Y or N	
	OPTION	BUZZ, LANG, SPR	
ACLOGID	LOGINID	0001-9999	
	CUSTSEL	Y or N	
DNROUTE	LDN_OM_REPORT	Y or N	

Figure 1-84 Attendant Console Incoming Call Identifiers - Customer Group Information

Attendant Console Incoming Call Identifiers Customer Group Information		
Complete the following key assignments for Each Attendant Console:		
Console Name	_____	
Key	Call Type	ICI Code
_____	Attendant	_____
_____	Don't Answer Recalls	_____
_____	Campon Recall	_____
_____	Call Waiting Recall	_____
_____	Call Forward to Attendant	_____
_____	Call Forward Don't Answer to Attendant	_____
_____	Call Forward Busy to Attendant	_____
_____	Intercept	_____
_____	Serial	_____
_____	Conference Call Recall	_____
_____	Do Not Disturb	_____
_____	Direct Inward System Access (DISA)	_____
_____	Message Waiting Indirect	_____
_____	Message Waiting Direct	_____
_____	Direct ICI	_____
	DN _____	
_____	Listed Directory Number	_____
	DN _____	
_____	Listed Directory Number	_____
	DN _____	
_____	Listed Directory Number	_____
	DN _____	
_____	Additional Incoming Call Types	_____
_____	Additional Incoming Call Types	_____
_____	Additional Incoming Call Types	_____
_____	Additional Incoming Call Types	_____

Figure 1-85 Attendant Console Incoming Call Identifiers - Translation Input

Attendant Console Incoming Call Identifiers Translation Input			
Table	Field/Subfield	Value	Default
FNMAP	ICICODE	0-254	

Figure 1-86 Attendant Console Special Functions - Customer Group Information

Attendant Console Special Functions Customer Group Information (1 of 4)		
Key	Special Function	
_____	Account Code Entry	
_____	Aggregate Trunk Access Control	
_____	*Attendant Autodial	
	Attendant Programmable	Y or N
	Autodial Number	_____
_____	Attendant Console End-to-End Signalling	
	Authorization Code Entry	
_____	Authorization Code Validation	
_____	Busy Verification Line	
	*Attendant Preempt	Y or N
_____	Busy Verification Trunk	
	Attendant Preempt	Y or N
	*Busy Verification Trunks Audible	Y or N
_____	Attendant Activate/Deactivate Call Forwarding	
_____	Attendant Conference	
_____	Display Queued ICI Calls	
_____	Do Not Disturb	
_____	Flexible Console Alerting	
_____	Flexible Display Language	
* Can Have More Than One Key Assigned This Feature		

Figure 1-87 Attendant Console Special Functions - Translation Input

Attendant Console Special Functions Translation Input (1 of 4)		
Table	Field/Subfield	Value
FNMAP	SPFN	ACC
	SPFN	ATAC
	SPFN	AUTOD
	SPFN	ACEES
	SPFN	AUTH
	SPFN	AUVAL
	SPFN	BVL
	SPFN	BVT
	SPFN	CFS
	SPFN	CONF
	SPFN	DQC
	SPFN	DND
	SPFN	BUZZ
	SPFN	LANG

Figure 1-88 Attendant Console Special Functions - Customer Group Information (continued)

Attendant Console Special Functions Customer Group Information (2 of 4)		
Key	Special Function	
_____	Global Virtual Facility Group Access Control	
_____	Global Virtual Facility Group Busy	
_____	Group Trunk Access Control	
_____	Group Trunk Group Busy	
_____	Incoming Call Identification	
_____	Key and Lamp Display	
_____	Login/Logout	
_____	Message Waiting	
_____	Name Display	
_____	Night Service Programming	
_____	Call Park	
_____	Unpark	
_____	Position Busy	
_____	Private Virtual Network (PVN) Authorization Code	
_____	PVN Calling Number Attendant Access	
_____	PVN Remote Access Call Attendant	
_____	Serial Calling	
	Recall	Y or N
_____	Station Origination Restriction Control	
_____	Speed Call 10 Numbers	
_____	Speed Call 30 Minutes	
_____	Speed Call 50 Numbers	

Figure 1-89 Attendant Console Special Functions - Translation Input (continued)

Attendant Console Special Functions Translation Input (2 of 4)			
Table	Field/Subfield	Value	Default
FNMAP	SPFN	GVAC	
	SPFN	GVGB	
	SPFN	GTAC	
	SPFN	GTGB	
	SPFN	ICICODE	
	SPFN	DSPC	
	SPFN	LOGIN	
	SPFN	MSGIND	
	SPFN	NAME	
	SPFN	NSPRG	
	SPFN	PARK	
	SPFN	UNPK	
	SPFN	POS	
	SPFN	PVNAUTH	
	SPFN	PVNRMAC	
	SPFN	PVNSRCDN	
	SPFN	SERIAL	
	SPFN	SORC	
	SPFN	SC10	
	SPFN	SC30	
	SPFN	SC50	

Figure 1-90 Attendant Console Special Functions - Customer Group Information (continued)

Attendant Console Special Functions Customer Group Information (3 of 4)			
Key	Special Function		
_____	Speed Call 70 Numbers		
_____	Speed Call User		
_____	Att. Console Name of Controller		
	CLLI Name _____		
_____	Time		
	Trouble Code		
_____	Code _____	Message _____	
_____	Code _____	Message _____	
_____	Code _____	Message _____	
_____	Code _____	Message _____	
_____	Trunk Access Control		
	Trunk Group Name _____		
_____	Trunk Group Busy		
	Trunk Group Name _____		
_____	Virtual Facility Group Access Control		
	VFG Name _____		
_____	Virtual Facility Group Busy		
	VFG Name _____		

Figure 1-91 Attendant Console Special Functions - Translation Input (continued)

Attendant Console Special Functions Translation Input (3 of 4)			
Table	Field/Subfield	Value	Default
FNMAP	SPFN	SC70	
	SPFN	SCU	
	SPFN	TIME	
	SPFN	TRBL	
TRBLCODE	CODE	--	
	MESSAGE	--	
	CODE	--	
	MESSAGE	--	
	CODE	--	
	MESSAGE	--	
FNMAP	TAC	--	
	TGB	--	
	VAC	--	
	VGB	--	

Figure 1-92 Attendant Console Special Functions - Customer Group Information
(continued)

Attendant Console Special Functions Customer Group Information (4 of 4)		
Key	Special Function	
_____	Wild Card	
	Code	Special Function
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

Figure 1-93 Attendant Console Special Functions - Translation Input (continued)

Attendant Console Special Functions Translation Input (4 of 4)			
Table	Field/Subfield	Value	Default
FNMAP	SPFN	WC	
WCKCODES	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	
	TABIDX	--	
	WCSPFN	--	

Figure 1-94 Uniform Call Distribution Information - Customer Group Information

Uniform Call Distribution Information Customer Group Information (1 of 3)	
Complete 1 Form for Each UCD Group Required	
UCD Group Name	_____
UCD Ringing Threshold	_____
Threshold Route	_____
Please Define Route	_____
Night Service Route	_____
Please Define Route	_____
Priority Promotion Timeout	_____
Maximum Number of Positions	_____
Delayed Billing (Y or N)	_____
Default Priority	_____
Release Count	_____
Maximum Wait Time	_____
Maximum Call Queue Size	_____

Figure 1-95 Uniform Call Distribution Information - Translation Input

Uniform Call Distribution Information Translation Input (1 of 3)			
Table	Field/Subfield	Value	Default
UCDGRP	UCDNAME	Alphanumeric	
	UCDRNGTH	0-63	
	THROUTE		
	TABID	OFRT, IBNRTE	
	INDEX	1-1023	
	NSROUTE		
	TABID	OFRT, IBNRTE	
	INDEX	1-1023	
	PRIORPRO	0-255	
	MAXPOS	0-1023	
	DBG	Y or N	
	DEFPRIO	0-3	
	RLSCNT	0-31	
	MAXWAIT	0-1800	
	MAXCQSIZ	0-511	

Figure 1-96 Uniform Call Distribution Information - Customer Group Information
(continued)

Uniform Call Distribution Group Options	
Customer Group Information (2 of 3)	
☐	Announcement/Music
	Y or N
	If Yes, Number of Seconds the Incoming Caller Waits Before Receiving

☐	Queue Status Lamps
	Y or N
	If Yes, Please assign correct SD points

☐	Simplified Message Desk Interface
	Link Name
	Desk Number
	Messaging Class of Services, maximum of 4 different names

☐	Terminating Billing Option
	Call Code
	Service Feature Code Present
	Service Feature Value

	Y or N

Figure 1-97 Uniform Call Distribution Information - Translation Input (continued)

Uniform Call Distribution Group Options Translation Input (2 of 3)			
Table	Field/Subfield	Value	Default
UCDGRP	OPTION	AUDIO	
	RANTH	0, 6-63	
	ANNMUSIC	Y or N	
	AUDIOGRP	AUDIO1 to AUDIO512	
	OPTION	QSL	
	SDGRPNO1	0-511	
	SDPOINT1	0-6	
	SDGRPNO2	0-511	
	SDPOINT2	0-6	
	SDGRPNO3	0-511	
	SDPOINT3	0-6	
	OPTION	UCD_SMDI	
	SMDI_LINK	Alphanumeric	
	SMDI_DESK_NO	1-63	
	MCOS_LIST	CLASSA to CLASSP	
	OPTION	TBO	
	CALLCODE	800-999	
	SFPRSNT	Y or N	
	SFVAL	800-999	

Figure 1-98 Uniform Call Distribution Information - Customer Group Information
(continued)

Uniform Call Distribution Group Options Customer Group Information (3 of 3)	
UCD Directory Number(s)	Priority Level
Primary: _____	_____
Supplementary: (0) _____	_____
Supplementary: (1) _____	_____
Supplementary: (2) _____	_____
Supplementary: (3) _____	_____

Figure 1-99 Uniform Call Distribution Information - Translation Input (continued)

Uniform Call Distribution Group Options Translation Input (3 of 3)			
Table	Field/Subfield	Value	Default
DNROUTE	AREACODE	Numeric	
	OFCCODE	Numeric	
	STNCODE	Numeric	
	DNSEL	FEAT	
	FEATURE	UCD	
	UCDGRP	Alphanumeric	
	DNTYPE	PRIM, SUPP	
	TOLLPRIO	0-3	
	MEMNO	1-3	
	DNPRIO	0-3	

Figure 1-100 Hunt Groups

HUNT GROUPS (1 of 2)	
Customer Group	_____
Hunt Group Pilot Number	_____
Hunt Group Type (Circle One)	Directory Number (DNH) Distributed Line Hunt (DLH) Multiline (MLH)
Options:	
Customer Group	Circular or Sequential
Customer Group	Announcement (LOR)
	Directory Number (LOD)

Hunt Group Pilot Number	_____
Hunt Group Type (Circle One)	Directory Number (DNH) Distributed Line Hunt (DLH) Multiline (MLH)
Options:	
Customer Group	Circular or Sequential
Customer Group	Announcement (LOR)
	Directory Number (LOD)

Figure 1-101 Hunt Groups (continued)

HUNT GROUPS (2 of 2)

Associated Member Numbers/Line Equipment (LEN) Numbers

Associated Member Numbers/Line Equipment (LEN) Numbers

2 Datafilling MDC Minimum

The following chapter describes the MDC Minimum, MDC00001, functionality.

2-Way Digital FX Trunk - Business Services

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

The 2-Way Digital FX Trunk - Business Services feature requires the following functional groups:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The 2-Way Digital FX Trunk - Business Services feature uses dedicated FX trunks. These trunks provide access to a remote class 5 central office (CO). The feature provides this access for a private branch exchange (PBX) or a class 5 Centrex end user. The FX two-way trunk capability can operate with ground start lines. The FX two-way trunk capability outputs dial pulse (DP) or dual-tone multifrequency (DTMF) digits.

Operation

Calls that use digital FX trunks can originate at a remote CO for an attendant. The system can queue these calls. The system can route calls that leave an DMS-100 IBN switch to a night service station.

An end user at a remote CO goes off-hook. The end user dials the optional access code. The end user dials the seven-digit listed directory number (LDN) of an IBN end user in a DMS-100 office. The remote CO selects an idle line in a hunt group. The remote CO terminates the call on the line. The calling party receives audible ringing from the remote CO. The line termination applies ground on the tip. The line termination sends the ringing current to the DMS-100 office.

When a digital carrier module (DCM) receives the ground on tip signal, the DCM informs the central control (CC) of a possible origination. The CC marks the trunk as busy to prevent any attempt to seize the outgoing call. If the DCM does not receive ringing in 4 s to 20 s, the system places the trunk in a lockout mode. When the DCM detects the ringing, the DCM informs the CC of the origination. The system queues the call for an attendant.

2-Way Digital FX Trunk - Business Services (continued)

When the attendant answers, the DCM sends a loop closed signal to the remote CO as an answer signal. The remote CO detects the loop closure and trips ringing. The calling party can talk to the attendant.

When the calling party disconnects, the remote CO sends a clear forward signal to the DMS-100 office. A clear forward signal is no ringing and no ground on tip. When the attendant or the called party hangs up, the trunk becomes idle.

Calls queued for the attendant

A DMS-100 office can have multi-end user business services. When this condition occurs, the system queues incoming calls to the attendant that serves the customer group. For additional information on calls queued for the attendant, see the previous paragraphs.

Outgoing calls from a DMS-100 IBN switch

The user can dial outgoing calls from a DMS-100 office directly or through the attendant. Access to digital FX trunks requires the user to dial an access code and the seven-digit LDN. When the user dials the access code and the LDN, the CC selects an idle digital FX trunk. The CC selects an idle digital FX trunk from the assigned group for the specified end user. The DCM seizes the trunk and sends the dialed digits to the remote CO. The remote CO receives the digits and rings the associated party. If a party goes on-hook, the connection fails. The trunk becomes idle for the next call.

Calls routed to night service

If night service is active for a specified customer group, the system routes incoming calls to a night service station. See "Night Service Trunk Answer from Any Station - Fixed" in this document. If the night service station is available, the CC establishes a connection to the station. When the night station answers, answer supervision returns to the remote CO.

If the night service station is busy, the calling party receives audible ringback from the remote CO. Audible ringing stops when the calling party hangs up. The system does not queue calls to night service stations.

User interface

The 2-Way Digital FX Trunk - Business Services feature does not affect user interface.

Translations table flow

The 2-Way Digital FX Trunk - Business Services feature does not affect translations table flow.

2-Way Digital FX Trunk - Business Services (continued)

Limits

The following limits apply to 2-Way Digital FX Trunk - Business Services:

- This feature does not support operator ringback.
- This feature does not support the loop start mode of signaling.
- This feature does not support audio tone detectors that detect tone from the remote CO.
- The IBN office must have a DCM.

Interactions

The 2-Way Digital FX Trunk - Business Services feature interacts with the following IBN features:

- Night Service Trunk Answer from Any Station - Fixed. When night service is active in a customer group, the system routes incoming calls to the night service station.
- Attendant Service

Activation/deactivation by the end user

The 2-Way Digital FX Trunk - Business Services feature does not require activation or deactivation by the end user.

Billing

The 2-Way Digital FX Trunk - Business Services feature does not affect billing.

Station Message Detail Recording

The 2-Way Digital FX Trunk - Business Services feature does not affect Station Message Detail Recording.

Datafilling office parameters

The 2-Way Digital FX Trunk - Business Services feature does not affect office parameters.

2-Way Digital FX Trunk - Business Services (continued)

Datafill sequence

The tables that require datafill to provide 2-Way Digital FX Trunk - Business Services appear in the following table. The tables appear in the correct entry order.

Datafill requirements for 2-Way Digital FX Trunk - Business Services

Table	Function of table
TRKGRP	Trunk Group Table. Table TRKGRP contains data associated with each trunk group in the switching unit. The customer defines the switching unit.

Datafilling table TRKGRP

Table TRKGRP (Trunk Group) contains specified data associated with each trunk group in the switching unit. The end user defines this data. The datafill in table TRKGRP must define the IBN trunk group data associated with the 2-Way Digital FX Trunk - Business Services feature.

Datafill for 2-Way Digital FX Trunk - Business Services for table <NAME> appears in the following table. The fields that apply to 2-Way Digital FX Trunk - Business Services appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table TRKGRP

Field	Subfield or refinement	Entry	Description and action
GRPINFO			Group Information This field contains many subfields. Subfield SUPV relates to 2-Way Digital FX Trunk - Business Services.
	SUPV		Supervision This subfield specifies the type of supervision required. Enter ANSDISC for answer disconnect.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

2-Way Digital FX Trunk - Business Services (continued)

MAP example for table TRKGRP

TABLE: TRKGRP

GRPKE	GRPINFO
REGOEAS IBNT2 0 NPDGP NCRT IBNTST 0 MIDL 0 5551212	
ANSDISC 3 Y 1 3 Y Y Y Y 0 2 Y 3 4 1 1 N N N N N N N N	
NATL \$	

Tools for verifying translations

The 2-Way Digital FX Trunk - Business Services does not use tools to verify translations.

SERVORD

The 2-Way Digital FX Trunk - Business Services feature does not use SERVORD.

2-Way Digital FX Trunk - Business Services (continued)

2-Way Digital FX Trunk - Business Services (continued)

2-Way Digital FX Trunk - Business Services (continued)

2-Way Digital FX Trunk - Business Services (end)

3-Way Conference/Transfer

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: do not apply

Release applicability

BCS08 and later versions

Requirements

The 3-Way Conference/Transfer feature does not have requirements.

Description

The 3-Way Conference/Transfer feature contains three-way conference and call transfer features. Different types of call transfer capabilities are available. The following paragraphs describe these types of call transfer capabilities and the three-way conference feature.

Three-way conference

The three-way conference feature allows the end user to add a third party to the conversation. This action occurs when the end user talks to a single party. The system can assign this feature to a line.

Call transfer of incoming calls

The call transfer of incoming calls feature allows the end user to hold and transfer calls. The end user can hold and transfer calls to a party in the customer group. These calls originate outside the customer group. The system can assign this feature to a customer group.

Call transfer of outgoing calls

The call transfer of outgoing calls feature allows the end user to hold and transfer calls. The end user can hold and transfer calls to a party in the customer group. These calls originate outside the customer group. This feature also allows the end user to hold and transfer calls to a party out of the customer group. These calls originate in the customer group. The system can assign this feature to a customer group.

Call transfer of all calls

The call transfer of all calls feature allows the end user to hold and transfer calls. The end user can hold and transfer calls to a party in or out of the customer group. These calls originate outside the customer group. This feature allows the end user to hold and transfer calls to a party outside the customer group. These calls originate in the customer group. This feature also

3-Way Conference/Transfer (continued)

allows the end user to hold and transfer calls in the customer group. The system can assign this feature to a customer group.

All three types of call transfer include the following features:

- Consultation hold—The consultation hold feature allows the transferring party to talk in private with the party at the transfer destination. This action occurs before the system transfers the call. Consultation hold only occurs one time. The end user cannot speak to both parties. The end user can flash the hookswitch and connect the party on hold again. This procedure allows the end user to talk to both parties at the same time.
- Add-on—The add-on feature allows the transferring party to talk to both parties at the same time. This procedure establishes a three-way conference. This procedure occurs before the party goes on-hook and the system connects the two parties.

Operation

The following events occur during transfer of a call to another station:

- The party that transfers flashes the hookswitch. This party receives special dial tone. This action causes the system to place the call on hold.
- The party that transfers dials the station to which the call must transfer.
- The party that transfers hears audible ringback. This party performs one of the following actions:
 - flashes the hookswitch and talks to the call on hold when both parties hear audible ringback
 - goes on-hook. This action transfers the call on hold to the called station.
 - waits for the called party to answer and talks in private with the called party. The party flashes the hookswitch to establish a three-way conference.

The end user can place a call on hold and dial the number that is not correct to which the call must transfer. When this action occurs, the end user can flash the hookswitch one time to connect to the party on hold again. This condition applies if time-out did not occur. If time-out occurred, the end user must flash the hookswitch twice to connect to the party on hold again.

After establishing a three-way conference, the end user can perform the following actions:

- flash the hookswitch. This action drops the held party added to the call.
- go on-hook. This action connects the held party and the called party.

3-Way Conference/Transfer (continued)

Translations table flow

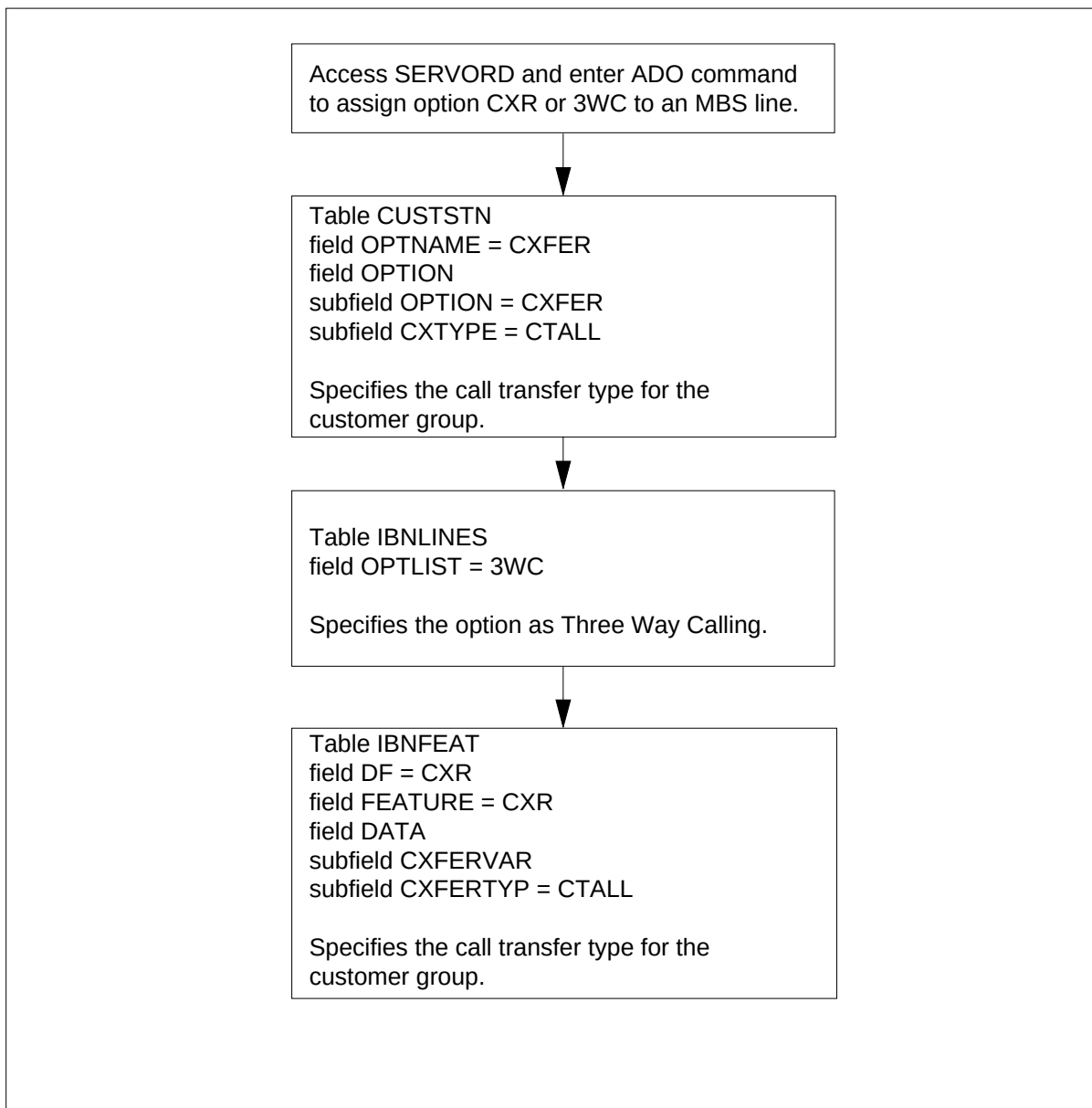
The 3-Way Conference/Transfer translations tables appear in the following list:

- Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups. Datafill for table CUSTSTN assigns the call transfer option to the customer group.
- Table IBNLINES (IBN Line Assignment) lists line assignments for each 500/2500 set assigned an MDC or station number. Datafill occurs in this table when the system assigns the line in SERVORD.
- Table IBNFEAT (IBN Line Feature) contains the line features assigned to the MDC lines in Table IBNLINES. This table contains the DN and numbering plan area (NPA) of the line. The table also contains the group name to which the line belongs, and any options assigned to the line. Enter data in this table when the system assigns features in SERVORD.

The 3-Way Conference/Transfer translation process appears in the following flowchart.

3-Way Conference/Transfer (continued)

Table flow for 3-Way Conference/Transfer



3-Way Conference/Transfer (continued)

Datafill content in the flowchart appears in the following table.

Datafill example for 3-Way Conference/Transfer

Datafill table	Example data
CUSTSTN	MDCGRP1 CXFER CXFER CTALL Y 12 STD
IBNLINES	HOST 0 0 1 1 01 DT STN IBN 5554667 919 (3WC) \$
IBNFEAT	HOST 0 0 1 1 0 CXR CXR CTALL \$

Limits

The following limits apply to the 3-Way Conference/Transfer feature:

- The call transfer field defines the type of call transfer assigned to the customer group. An end user can attempt a type of call transfer that is not assigned to the group. When this condition occurs, the system drops all connections or ignores the hookswitch flash.
- An end user with a station assigned to three-way calling can transfer the three-way call. This procedure can occur only if definition of the transfer type for the customer group occurs. The established three-way call must conform with the transfer type for this procedure to occur. For example, the end user establishes a three-way call to two parties outside the customer group. The customer group has the call transfer of outgoing calls feature assigned. If the member of the customer group goes on-hook, the system drops all connections.

Interactions

The interactions between 3-Way Conference/Transfer and other functionalities appear in the following list.

- When a station is busy and informed of a waiting call, the system stops the 3-Way Conference/Transfer feature for a short period of time.
- When a station is busy and informed of a camped-on call, 3-Way Conference/Transfer is in suspension for a limited time.
- Station restrictions still apply to stations that have 3-Way Conference/Transfer.

Activation/deactivation by the end user

The 3-Way Conference/Transfer feature does not require activation or deactivation by the end user.

3-Way Conference/Transfer (continued)

Billing

The 3-Way Conference/Transfer feature does not affect billing.

Station Message Detail Recording

The 3-Way Conference/Transfer feature does not affect Station Message Detail Recording.

Datafilling office parameters

The 3-Way Conference/Transfer feature does not affect office parameters.

Datafill sequence

Tables that require datafill to provide 3-Way Conference/Transfer appear in the following table. The tables appear in the correct entry order.

Datafill requirements for 3-Way Conference/Transfer

Table	Function of table
CUSTSTN	Customer Group Station Option. A list of options for the customer groups appears in this table.
IBNLINES (Note)	IBN Line Assignments table. The line assignments for data channel links for the Bulk Calling Line Identification (BCLI) feature under the format name of BL appear in this table.
IBNFEAT (Note)	IBN Line Feature table. This table lists line features assigned to the MDC lines listed in table IBNLINES.
Note: Datafill for this table occurs through SERVORD. This feature does not provide a datafill procedure or example. Refer to "SERVORD" for an example on how to use SERVORD to enter data in this table.	

Datafilling table CUSTSTN

A list of options for the customer groups appears in table CUSTSTN. Enter data in table CUSTSTN to assign the call transfer option to the customer group.

Datafill for 3-Way Conference/Transfer for table CUSTSTN appears in the following table. The fields that apply to 3-Way Conference/Transfer appear in

3-Way Conference/Transfer (continued)

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

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Description and action
OPTNAME		CXFER	Option Name. This field specifies the name of the option. Enter CXFER.
OPTION		see subfields	Option. This field contains several subfields. The subfields OPTION and CXTYPE apply to this feature.
	OPTION	CXFER	Option. This subfield specifies the name of the option. Enter CXFER.
	CXTYPE	see explanation	Call transfer type. This subfield specifies the call transfer type that applies to the customer group. Enter CTINC, CTOUT, CTINTRA, CTALL, NCT, ATTRCLF, or CUSTOM.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
MDCGRP1	CXFER	CXFER CTALL Y 12 STD

Tools for verifying translations

The 3-Way Conference/Transfer feature does not use tools to verify translations.

SERVORD

SERVORD limits

The 3-Way Conference/Transfer does not have SERVORD limits.

3-Way Conference/Transfer (continued)

SERVORD prompts

The SERVORD prompts that assign 3-Way Conference/Transfer to a line appear in the following table.

SERVORD prompts for 3-Way Conference/Transfer

Prompt	Correct input	Description
OPTION	CXR	This field specifies the name of the option. Enter CXR.
CXFERTYP	CTALL	This field specifies the call transfer type. Enter CTALL.
CXRRCL	Y or N	This field specifies if the system must enable the call transfer recall. Enter Y or N.
METHOD	STD	This field specifies 7 or 10 digits. Enter STD.
RCLTIM	12 - 120 seconds	This field specifies the number of seconds of the recall timer for transfer recall. Enter a number from 12 to 120.

SERVORD example for adding the 3-Way Conference/Transfer feature

The addition of the 3-Way Conference/Transfer feature to a line with the SERVORD command appears in the following example.

SERVORD example for 3-Way Conference/Transfer in prompt mode

```
>ADO
SONUMBER:  NOW 93 2 5 AM

DN_OR_LEN:
>02 0 04 01
OPTION:
>CXR
CXFERTYP:
>CTALL
CXRRCL:
>Y
RCLTIM:
>30
METHOD:
>STD
OPTION:
>$
```

3-Way Conference/Transfer (end)

SERVORD example for 3-Way Conference/Transfer in no-prompt mode

>ADO 02 0 04 01 CXR CTALL Y 30 STD \$

3WC Dial 0 for 608 Cord Board

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS18 and later versions

Requirements

The 3WC Dial 0 for 608 Cord Board feature requires BAS Generic, BAS00003.

Description

The Three-Way Dial 0 for 608 Cord Board feature applies to calls coming to a model 608 cordboard. The feature allows the system to route these calls to a line appearance that is not the normal appearance. This condition occurs when the incoming call is the second leg of a three-way call. The subscriber dialed a 0 for that call. The attendant can identify a normal call and a three-way call. This feature allows the system to route calls to a line, trunk, or attendant console (AC).

Datafill allows the system to specify a maximum of three flash translators for asterisk, octothorpe, and digits. This feature uses only the digit flash translator.

Operation

The Three-way Dial - for 608 Cord Board feature adds a translation stage to the normal IBN translation stages. Translations starts at the flash_initial_stage after flashes. If the translations do not start, IBN translations do not change from before this feature. Translations starts at IBN_initial_stage.

The 3WC Dial 0 for 608 Cord Board feature does not affect user interface.

Translations table flow

The 3WC Dial 0 for 608 Cord Board feature does not affect translations table flow.

Limits

This feature has the same limit as the Three-Way Calling (3WC) feature. Use of an inactive Directory Number (DN) key causes the system to place any current active DN on hold. This action includes the conference. When the conference is on hold, the second and third parties can continue to talk.

3WC Dial 0 for 608 Cord Board (continued)

Interactions

The interactions between 3WC Dial 0 for 608 Cord Board and other functionalities appear in the following paragraphs.

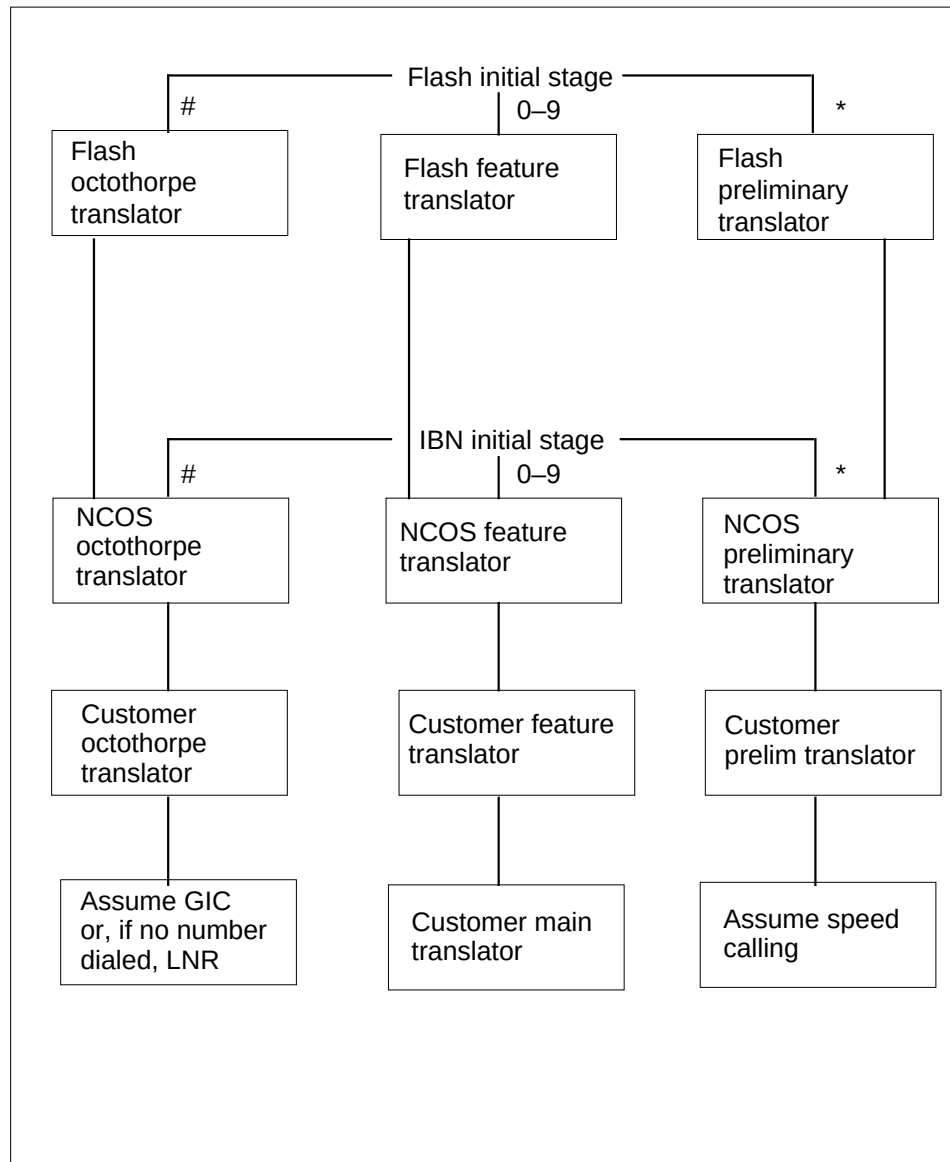
The following features interact with 3WC Dial 0 for 608 Cord Board:

- Call Forwarding (CFW)
- Call Forwarding Busy (CFB)
- Call Forwarding Don't Answer (CFD)
- Call Forwarding Intragroup (CFI)
- Call Forwarding Universal (CFU)

For example, station end user B can send the telephone to another station. Station end user A can call B during the second leg of a three-way call. End user A started the call. The system sends the call to the station that end user B required. The translations of the forwarded call proceed through the normal translations process. Translations of this call pass the flash translator. See the following figure.

3WC Dial 0 for 608 Cord Board (continued)

IBN translation after switchhook flash



- Features that a flashhook activates. Flash translators apply to any feature that uses a flashhook for end-user activation.

The features are as follows:

- Authorization Code: MADN Hold
- Call Hold: Make Set Busy
- Call Park: Message Waiting
- Call Transfer: Privacy Release

3WC Dial 0 for 608 Cord Board (continued)

- Dial Call Waiting: Station Conference
- Executive Busy Override: Uniform Call Distribution
- Ring Again (RAG)

For example, an MBS user can press the Three-way Calling (TWC) key. The end user can dial digits a flash translator translates to an agent at a 608 cordboard. If the agent is busy and the MBS user activates RAG, the system places recall to the 608 cordboard. The system routes recall through the flash translator. A 500/2500 set cannot activate RAG on the second leg of a three-way call.
- Speed Calling (SCL),(SCS)
- Speed Calling Long List (L30) (SC2)
- Speed Calling Long List (L50) (SC3)
- Speed Calling Short List (SC1)

Flash feature translator datafill overrides speed calling datafill. For example, if the operating company can enter data in a flash feature translator FFEAT 0. The datafill sends FFEAT 0 to a switchboard. When this condition occurs, the system can route users that flash the hook and dial 0 to the switchboard. The system does not route these users to the DN that speed call location 0 specifies.

Activation/deactivation by the end user

The 3WC Dial 0 for 608 Cord Board feature does not require activation or deactivation by the end user.

Billing

The 3WC Dial 0 for 608 Cord Board feature does not affect billing.

Station Message Detail Recording

The 3WC Dial 0 for 608 Cord Board feature does not affect Station Message Detail Recording.

Datafilling office parameters

The 3WC Dial 0 for 608 Cord Board feature does not affect office parameters.

3WC Dial 0 for 608 Cord Board (continued)

Datafill sequence

The tables that require datafill to provide 3WC Dial 0 for 608 Cord Board appear in the following table. The tables appear in the correct entry order.

Datafill requirements for 3WC Dial 0 for 608 Cord Board

Table	Function of table
NCOS	Network Class of Service. This table defines the specified features or dialing patterns available to the consoles in a customer group.

Datafilling table NCOS

The NCOS numbers assigned to each attendant console appear in table NCOS (Network Class of Service).

Datafill for 3WC Dial 0 for 608 Cord Board for table NCOS appears in the following table. The fields that apply to 3WC Dial 0 for 608 Cord Board appear in this table. See the data schema section of this document for descriptions of the other fields.

Datafilling table NCOS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
OPTIONS		see subfields	Options. This field contains subfields NCOSOPTN, PRELMXLA, FEATXLA, OCTXLA, and CONTMARK.
	NCOSOPTN	FLSHXLA	Network Class of Service Options. This subfield specifies the options and associated subfields assigned to the NCOS number. Enter FLSHXLA to specify flash translators.
	PRELMXLA	1 - 8 character name or NXLA	Preliminary Translator. This subfield specifies the 1-character to 8-character name assigned to the translator. This condition occurs when the NCOS number has a preliminary flash translator. Enter a 1-character to 8-character name or enter NXLA if assignment of a preliminary translator does not occur.

If the setting of NCOSOPTIN is FLSHXLA, subfields PRELMXLA, FEATXLA, and OCTXLA require datafill.

3WC Dial 0 for 608 Cord Board (end)**Datafilling table NCOS (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
	FEATXLA	1 - 8 character name or NXLA	Feature Translator. This subfield specifies the 1-character to 8-character name assigned to the translator. This condition occurs when assignment of a feature flash translator to the NCOS number occurs. Enter a 1-character to 8-character name or enter NXLA if a preliminary translator is not assigned.
	OCTXLA	1 - 8 character name or NXLA	Octothorpe Translator. This subfield specifies the 1-character to 8-character name assigned to the translator. This condition occurs when assignment of an octothorpe flash translator to the NCOS number occurs. Enter a 1-character to 8-character name or enter NXLA if a preliminary translator is not assigned.
Note: Table IBNXLA (IBN Translation) must define the flash preliminary, feature and octothorpe translator names.			

Datafill example for table NCOS

Sample datafill for table NCOS appears in the following example.

MAP example for table NCOS

TABLE: NCOS									
CUSTGRP	NCOS	NCOSNAME	LSC	TRAFSNO	OPTIONS				
BNRMC	3	AREST	2	12	(FLSHXA	FLSHPREL	NXLA	NXLA)	\$

Tools for verifying translations

The 3WC Dial 0 for 608 Cord Board feature does not use tools to verify translations.

SERVORD

The 3WC Dial 0 for 608 Cord Board feature does not use SERVORD.

3WC/Call Transfer for UCD

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS27 and later versions

Requirements

To operate, the 3WC/Call Transfer for UCD feature requires BAS Generic, BAS00003.

Description

The 3WC/Call Transfer for UCD feature allows the system to transfer calls to a uniform call distribution (UCD) group. This feature allows a member of a UCD group to be the add-on party in a three-way call.

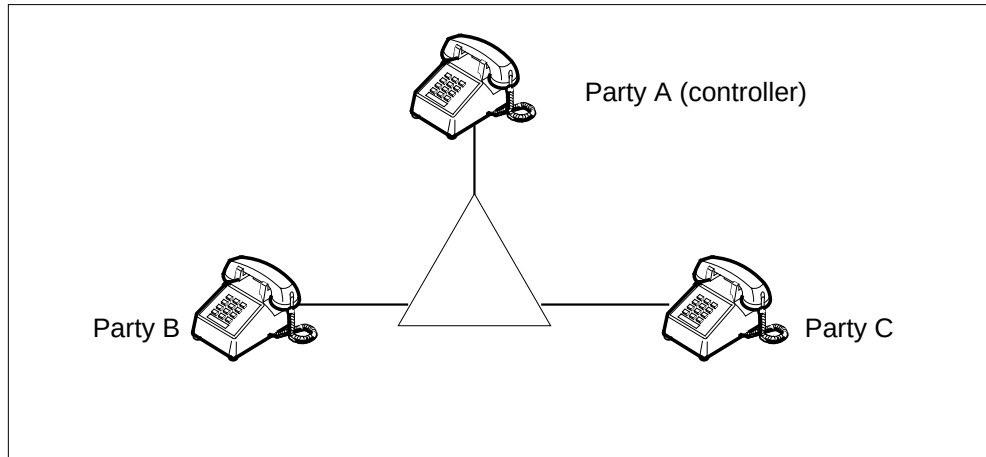
The party that starts the call transfer or three-way call is party A. Party A starts the call transfer or three-way call. Party A is the station that controls the call. Party A can be a 500/2500 set or a Meridian business set (MBS) end user. The party that party A connects to before the three-way call occurs is party B. The add-on party that party A dials is party C.

Operation

The three parties involved in the call appear in the following figure. The controller is on top of the diagram. Each feature descriptions uses this configuration.

3WC/Call Transfer for UCD (continued)

Three-party configuration



Before this feature, a UCD agent only participated in a call transfer or three-way call as party A or party B. This feature allows a UCD agent to participate in a call transfer or three-way call as the add-on party C.

The UCD feature distributes incoming calls between a group of specified telephone sets called UCD agent positions. The system presents calls to a UCD directory number (DN) to an idle UCD agent position. If agents are not available, the system queues the call in the UCD incoming call queue.

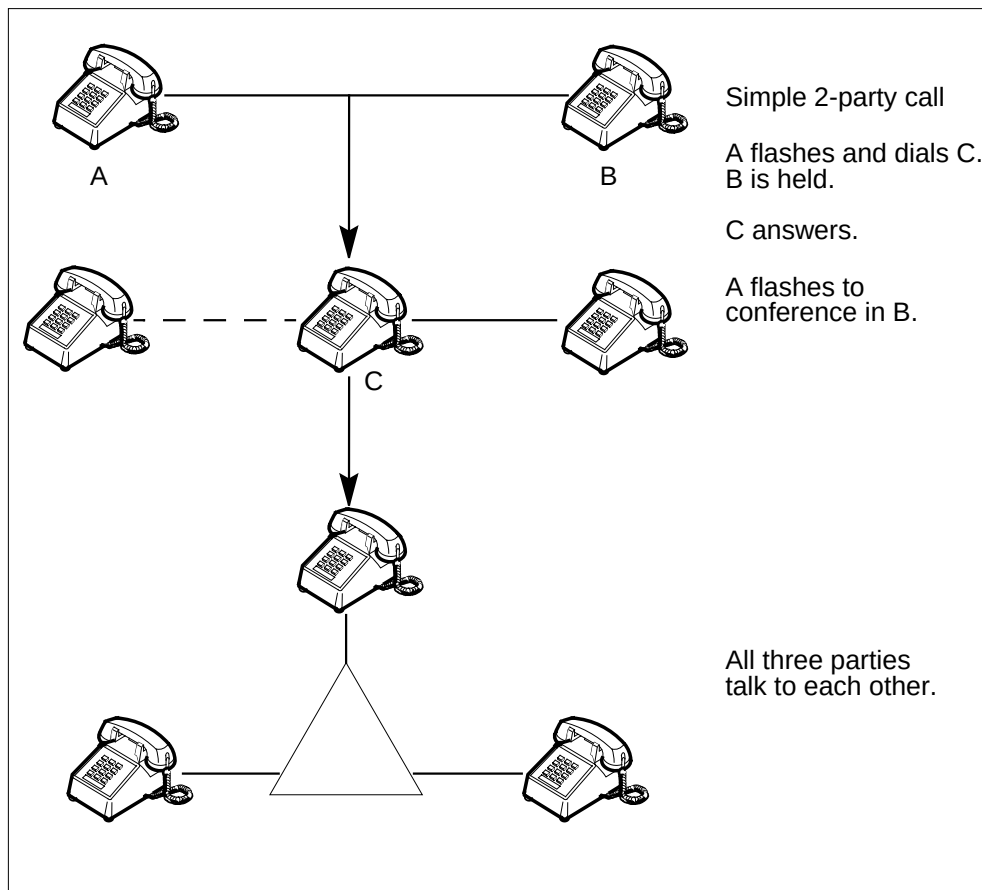
The UCD feature can require the system to transfer a call to a UCD DN. For example, a UCD group can require a call that terminates on one UCD group to transfer to another UCD group. The sales and service departments are examples of UCD groups. Before this feature, loop-around trunks established call transfer and three-way calling. To place a call transfer or three-way call to a UCD DN through a loop-around trunk is expensive. This feature provides the same ability at a lower cost.

Three-way calling (3WC)

Three-way calling allows a station to add a third party to a current conversation. Party A places party B on hold when party A dials party C. Party A can later include party B in the three-way call. Party A can take party B off hold before or after party C answers the call. Party A uses a hookswitch flash to drop the connection with party C. The following figure describes a three-way call. In this example, party A waits for party C to answer before party A takes party B off hold.

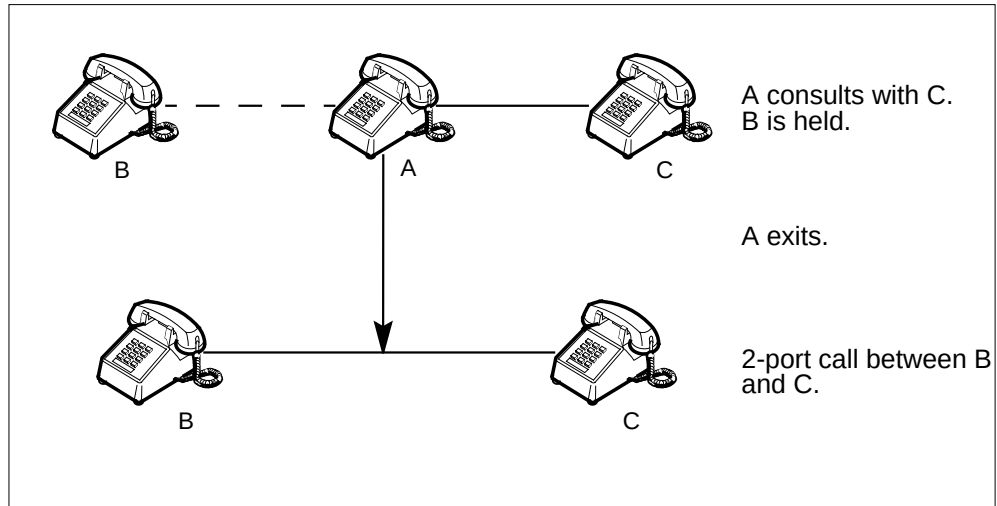
3WC/Call Transfer for UCD (continued)

Three-way call

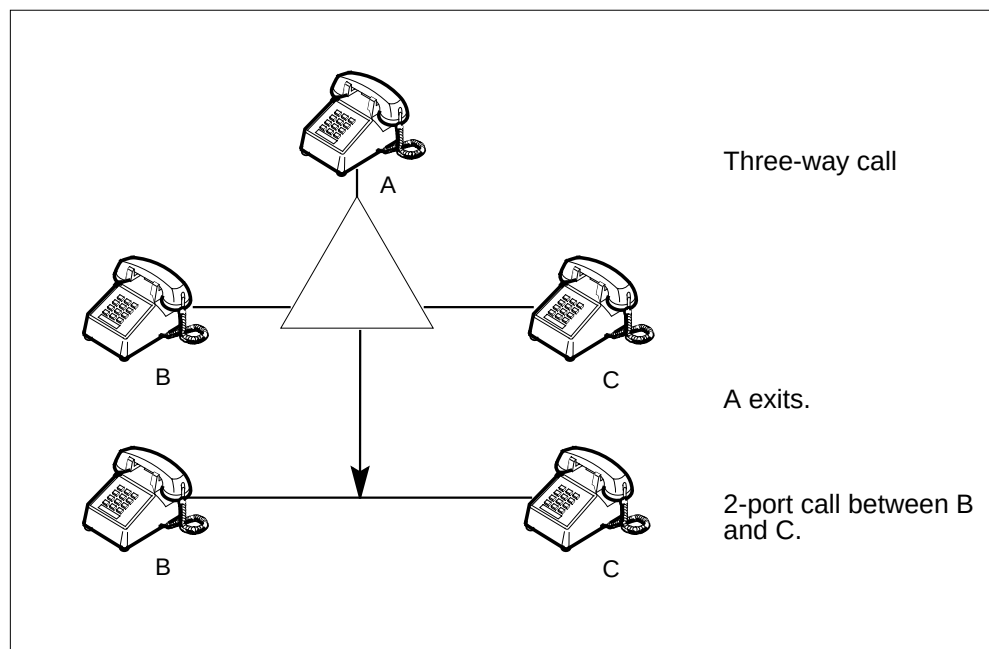


Call transfer

Call transfer connects party B and party C from a three-way call to a normal two-party call. This action occurs when party A goes on-hook. Party A can leave the call any time after party A dials party C. An example of how party A exits a call with party C appears in the following figure.

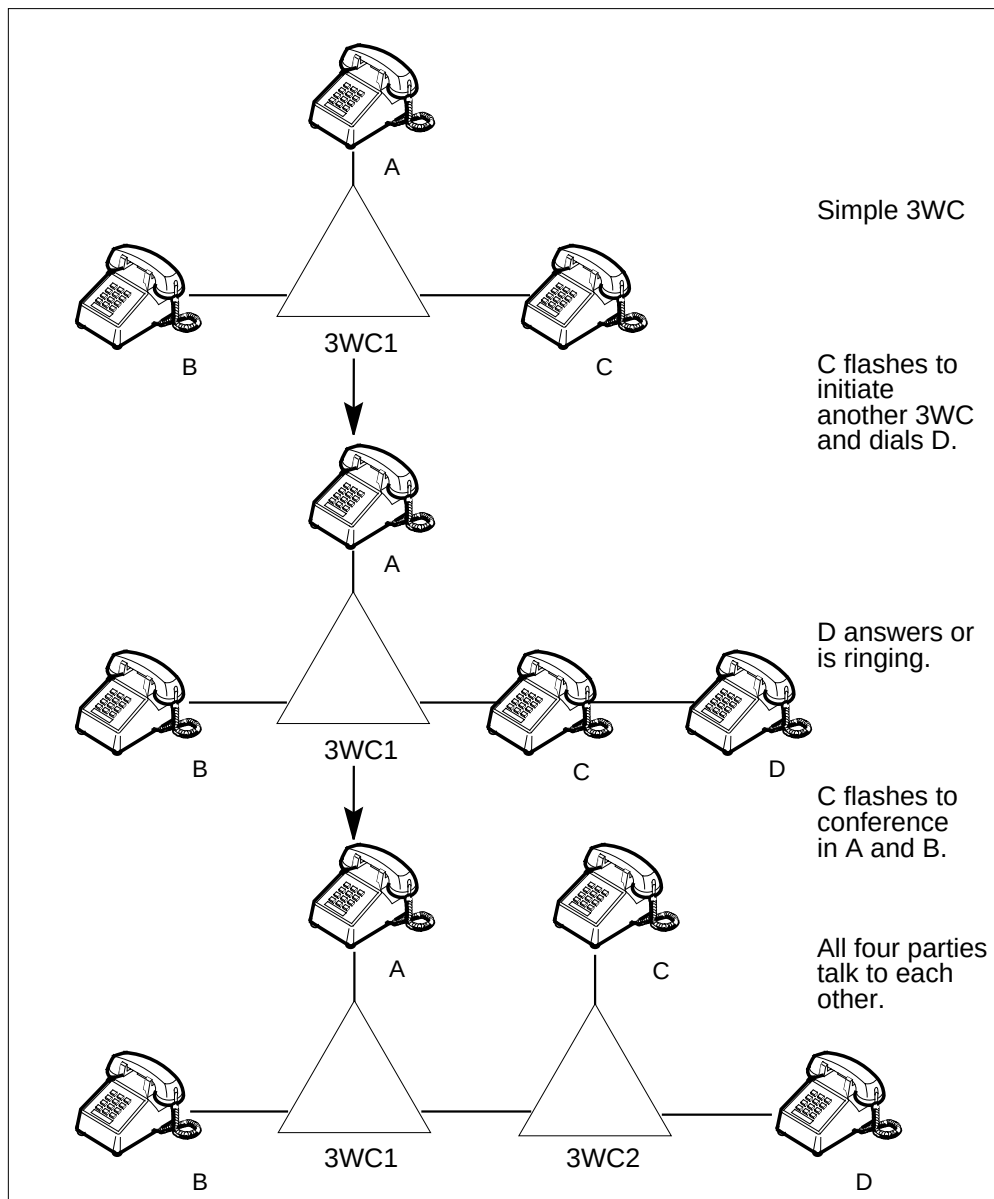
3WC/Call Transfer for UCD (continued)**Call transfer example 1**

An example of how party A conferences in party B before party A hangs up appears in the following figure.

Call transfer example 2

3WC/Call Transfer for UCD (continued)**Three-way call chaining**

This feature allows a non-controlling party of a three-way call or current three-way call chain to flash. Party B or party C are non-controlling parties. This action starts another three-way call. This condition can occur if the non-controller has the 3WC feature or CXR feature. An example of three-way call chaining appears in the following figure.

Three-way call chaining

3WC/Call Transfer for UCD (continued)

Translations table flow

The 3WC/Call Transfer for UCD feature does not affect translations table flow.

Interactions

This feature allows 3WC and CXR to interact with UCD. Any features that cannot function with 3WC or CXR cannot function with 3WC/CXR to UCD.

Limits

The following limits apply to the 3WC/Call Transfer for UCD feature:

- **Blind Transfer Recall.** This feature allows transferred calls to return (recall) to the party that transferred the call. This condition occurs when the transferred-to party does not answer the call.

The system cannot recall a call that the system transfers to a UCD position. The system can recall a call that the system transfers from a UCD position to another party.
- **Call Forward Don't Answer.** A party can call a UCD agent with CFD as the add-on party in a three-way call. The first leg of the call is not a conferenced leg. If these events occur the system forwards the call to the remote station. The controller can flash to conference in the held party when ringing the UCD agent. If this event occurs the system does not forward the call. This action can also occur when the controller presses the 3WC key in the case of an MBS. This feature does not change this CFD restriction. The controller or the held party can release out of the conferenced call. If this event occurs the call returns to a two-party configuration. The call forwards to the remote station.
- **Call Hold.** A station involved in a three-way call cannot activate the Call Hold feature. This condition does not occur because the system suppresses all flash-related features when the system allocates the conference circuit.

A party held by call hold cannot start a three-way call.
- **Permanent Hold.** A station involved in a three-way call cannot activate the Permanent Hold feature. The station cannot activate the feature because the system suppresses all flash-related features when the system allocates the conference circuit.

A party held by permanent hold cannot start a three-way call.
- **Simplified Message Desk Interface.** The Simplified Message Desk Interface (SMDI) feature allows the configuration 500/2500 sets and MBSs to a message desk. A message desk contains a UCD group, a pilot DN, and a full-duplex data link. This link provides an answering service for forwarded stations.

3WC/Call Transfer for UCD (continued)

The SMDI feature provides the following functions to a message desk:

- the identification of called and calling party numbers
- the indication of the call forward condition encountered

- The interactions for a three-way call or call transfer to a UCD line with the SMDI option follow:

The system records zeroes as the calling party number when the forwarded station has one of the following features:

- call forward universal (CFU)
- call forward intragroup (CFI)
- call forward busy (CFB)

If the forwarded station has CFD, and the system records zeroes as the calling party number for multilinked calls. If the call is a conference call, the system does not forward the call. The system rings the called station.

- Three-Way Call Chaining. When a UCD agent functions in a three-way call chain, any UCD or three-way call event proceeds as normal. A three-way call event includes a UCD ring threshold time-out, abandonment, or transfer. This event does not occur when the following conditions apply:

- a three-way call chain enters a mutual ringback state
- one of the parties that remain is a UCD agent

When one of the controllers in a three-way call chain hangs up, the chain enters a different call configuration. The ability of the controller to transfer the call determines the configuration

One of the call configurations that a three-way call chain can enter is *mutual ringback*. In this state, two stations are on-hook and ring each other.

A three-way call chain can enter a mutual ringback state. A ringing stations can be the UCD agent position. If these events occur the system takes the call down. Mutual ringback can not occur with UCD.

- Three-way Call from Attendant Console to UCD. The UCD blocks calls from attendant consoles when the source on the console is in a three-way call.

Activation/deactivation by the end user

The 3WC/Call Transfer for UCD feature does not require activation or deactivation by the end user.

3WC/Call Transfer for UCD (end)

Billing

The 3WC/Call Transfer for UCD feature does not affect billing.

Station Message Detail Recording

The 3WC/Call Transfer for UCD feature does not affect Station Message Detail Recording.

Datafilling office parameters

The 3WC/Call Transfer for UCD feature does not affect office parameters.

Datafill sequence

The 3WC/Call Transfer for UCD feature does not affect datafill.

Tools for verifying translations

The 3WC/Call Transfer for UCD feature does not use tools to verify translations.

SERVORD

The 3WC/Call Transfer for UCD feature does not use SERVORD.

3WC/CXR to 2500 Set Call Waiting Interactions

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS27 and later versions

Requirements

The 3WC/CXR to 2500 Set Call Waiting Interactions feature requires BAS Generic, BAS00003.

Description

The 3WC/CXR to 2500 Set Call Waiting Interactions feature allows a caller to establish a three-way call. The caller can establish a three-way call with a busy 500/2500 station that has the call waiting feature. This feature also allows a caller to transfer a call to a busy 500/2500 station that has the call waiting feature. Before this feature, a caller established a three-way call or call transfer with a busy business set with call waiting. The caller did not establish a three-way call with a busy 500/2500 set. This feature removes that limit.

Operation

The following example describes how three-way calling interacts with call waiting:

- Party B calls party A.
- Party A attempts to establish a three-way call with party C. Party A flashes the hookswitch and dials party C.
- Party C is in a call with party D. Party C has a type of call waiting and hears call waiting tone. Party A hears a type of call waiting ringback. This ringback can be normal ringing, distinctive call waiting ringback, or audio treatment. The datafill determines the type of ringback. Normal ringing is the default.
- Party C flashes and talks with party A. Party D is on hold.
- Party A flashes to include party B in the call. Parties A, B, and C are now in a three-way call.

The following example describes how call transfer interacts with call waiting:

- Party B calls party A.
- Party B requires to talk to party C. Party A flashes and dials party C.

3WC/CXR to 2500 Set Call Waiting Interactions (continued)

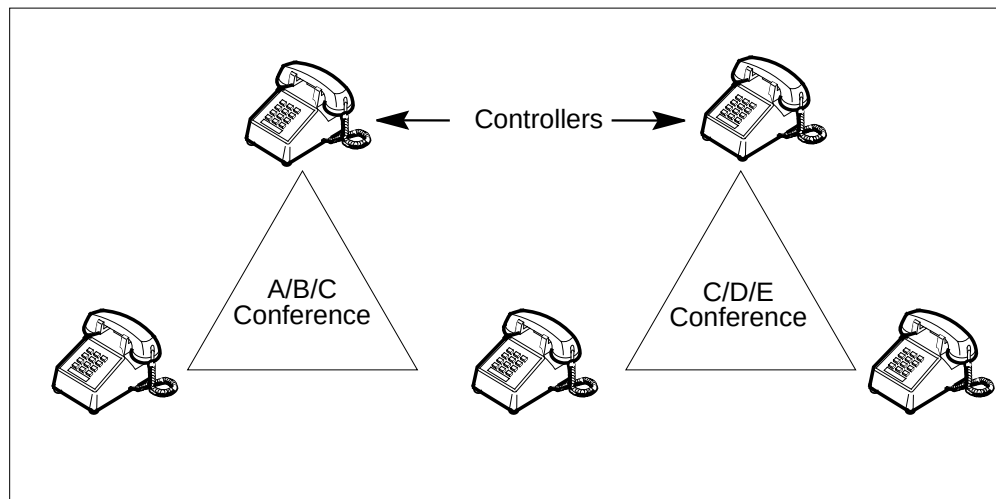
- Party C is in a call with party D. Party C has a type of call waiting and hears call waiting tone. Party A hears call waiting ringback.
- Party A flashes to conference in party B. Both party A and party B can hear the ringback.
- Party A hangs up. Party B continues to hear ringback.
- Party C flashes and the system connects party C to party B. Party D is on hold.

This feature also works when the busy station is the noncontrolling member of another three-way call:

- Party A talks to party B.
- Party C is a noncontrolling member of a three-way call with parties D and E.
- Party A flashes and dials party C.
- Party C is involved in the call and can hear call waiting tone. Party A hears call waiting ringback. Party A flashes so that party B can hear the ringback.
- Party C flashes and is in a three-way call with parties A and B. Party C can flash between the A/B/C three-way call and the C/D/E three-way call.

This call configuration appears in the following figure.

Three-way call to three-way call



3WC/CXR to 2500 Set Call Waiting Interactions (continued)

Different examples of this configuration can occur. This feature works for any type of call waiting, such as dial call waiting (CWD) and call waiting originating (CWO).

Translations table flow

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not affect translations table flow.

Limits

Before this feature, a caller did not establish a three-way call or call transfer with a busy 500/2500 station with call waiting. This feature removes that limit. Other limits that involved three-way calling, call transfer, and call waiting do not change in this feature.

Interactions

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not have functionality interactions.

Activation/deactivation by the end user

The 3WC/CXR to 2500 Set Call Waiting Interactions does not require activation or deactivation by the end user.

Billing

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not affect billing.

Station Message Detail Recording

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not affect Station Message Detail Recording.

Datafilling office parameters

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not affect office parameters.

Datafill sequence

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not affect datafill.

Tools for verifying translations

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not use tools to verify translations.

3WC/CXR to 2500 Set Call Waiting Interactions (end)

SERVORD

The 3WC/CXR to 2500 Set Call Waiting Interactions feature does not use SERVORD.

6 Port Conference Circuit Use Control

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS12 and later versions

Requirements

The 6 Port Conference Circuit Use Control feature has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

If this feature reaches the maximum number of circuits in use, the system refuses the request for a conference circuit. The system provides the assigned treatment for different features.

The system does not perform checks between customer group conference allotment and the allotment of conference circuits at datafill time. For example, the number of conference circuits allotted to 10 customer groups can be 100, at 10 circuits for each group. The office can have 0, 50, 100, or 150 circuits.

The system does not perform checks when the system assigns features to determine if enough circuits are provided. The Service Order System (SERVORD) allows end users to establish a six-port or ten-port conference call. The system determines the number of six-port circuits that a customer group can use at one time. The system determines the availability of the resources. This event occurs when the system processes the call.

Six-port conference circuits are a switch resource. The ability of a customer group to specify use of this resource does not indicate that a customer group owns these circuits.

- attendant conference
- meet-me conference
- flexible station controlled conference (500/2500)

6 Port Conference Circuit Use Control (continued)

Description

The 6 Port Conference Circuit Use Control feature allows the operating company to specify the number of six-port conference circuits. The operating company can specify the number of these circuits that the specified customer group can use at the same time. This feature allows an equal number of conference circuits to be available for each customer group.

The operating company must specify if the customer group requires six-port conference circuit counting. Only one customer group does not always require six-port conference circuit counting. The regulatory environment does not always require six-port conference circuit counting.

New requests receive the treatment that associates with the feature. This condition occurs when a customer group reaches the maximum number of six-port conference circuits the system allows at a specified time.

Operation

The 6 Port Conference Circuit Use Control feature provides six-port conference circuits to each customer group. The feature assigns a specified number of circuits to each customer group during datafill. Before the system accepts a request for a six-port conference circuit, the system performs a check. The check determines if the specified customer group reaches the maximum number of circuits the system uses at a specified time. If this condition occurs, the system rejects the request. The system provides the assigned treatment for different features. If the customer group does not use the maximum number of circuits, the system assigns a conference circuit to that customer group. The system updates the count.

Translations table flow

The 6 Port Conference Circuit Use Control feature does not affect translations table flow.

Limits

The following limits apply to the 6 Port Conference Circuit Use Control feature:

- If the group uses the maximum number of circuits, the system rejects the request for a conference circuit. The system provides the assigned treatment for different features.
- The system does not perform checks between customer group conference allotment and the allotment conference circuits at datafill time. For example, the number of conference circuits the system allots to 10 customer groups can be 100, at 10 circuits for each group. The office can have 0 (zero), 50, 100, or 150 circuits.

6 Port Conference Circuit Use Control (continued)

- The system does not perform checks when the system assigns features to determine if enough circuits are available. The Service Order System (SERVORD) allows end users to establish a six-port or ten-port conference call. The system determines the number of six-port circuits to use at one time by a customer group. The system determines the availability of the resources. This event occurs when the system processes the call.
- Six-port conference circuits are a switch resource. The ability of a customer group to specify use of this resource does not indicate that a customer group owns these circuits.

Interactions

The following features interact with the 6 Port Conference Circuit Use Control feature:

- attendant conference
- meet-me conference
- flexible station controlled conference (500/2500)

Activation/deactivation by the end user

The 6 Port Conference Circuit Use Control feature does not require activation or deactivation by the end user.

Billing

The 6 Port Conference Circuit Use Control feature does not affect billing.

Station Message Detail Recording

The 6 Port Conference Circuit Use Control feature does not affect Station Message Detail Recording.

Datafilling office parameters

The 6 Port Conference Circuit Use Control feature does not affect office parameters.

6 Port Conference Circuit Use Control (continued)

Datafill sequence

The tables that require datafill to provide the 6 Port Conference Circuit Use Control feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for 6 Port Conference Circuit Use Control

Table	Function of table
CUSTENG	Customer Group Engineering table. This table lists the values for the engineering parameters and options for each of the customer groups.

Datafilling table CUSTENG

Datafill for 6 Port Conference Circuit Use Control for table CUSTENG appears in the following table. The fields that apply to 6 Port Conference Circuit Use Control 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	Description and action
OPTIONS		CONF6C	Options: This field specifies the assignment of the list of options and associated subfields assigned to the customer group. Enter CONF6C. Note: If OPTIONS is CONF6C, subfields OPTION and MAXCNF6C require datafill.
	OPTION	CONF6C	Option: This subfield specifies the six-port conference circuits option. Enter CONF6C.
	MAXCNF6C	0 to 2047	Maximum Six-Port Conference Circuits: This subfield specifies the maximum number of six-port conference circuits the system allocates 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 example.

6 Port Conference Circuit Use Control (end)

MAP example for table CUSTENG

TABLE: CUSTENG						
CUSTNAME	NONCOS	NOIBNTMT	CONSOLES	DOMAIN	GROUPID	OPTIONS
PRADefault	30	1	Y	PRIVATE	0	(CONF6C4) \$

Tools for verifying translations

The 6 Port Conference Circuit Use Control feature does not use tools to verify translations.

SERVORD

The 6 Port Conference Circuit Use Control feature does not use SERVORD.

AC-Extended Calls to CFB/CFD

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS21 and later versions

Requirements

The AC-Extended Calls to CFB/CFD feature requires BAS Generic, BAS00003.

Description

The AC-Extended Calls to CFB/CFD feature allows an attendant to extend calls to stations. These stations activate the Call Forward Busy (CFB) or Call Forward Don't Answer (CFD) features. The CFB feature sends calls to a determined directory number (DN) when the called station is busy. The CFD feature sends calls to a determined DN when the called station does not answer in a specified period of time.

Before this feature, the system did return attendant extended calls to a station with the CFB or CFD feature activated to the attendant. This event occurs after the attendant recall timer expires.

Operation

Enter the AC-Extended Calls to CFB/CFD according to the customer group. The option list introduces two options. The options are attendant extended calls to call forwarding busy (ACCFB) and attendant extended calls to call forwarding no answer (ACCFNA). When you do not assign the ACCFB or ACCFNA option, CFVB and or CFNA works normally. With the entry of the ACCFB and or ACCFNA option, CFB and CFNA apply to attendant extended calls when appropriate.

Translations table flow

The AC-Extended Calls to CFB/CFD feature does not affect translations table flow.

AC-Extended Calls to CFB/CFD (continued)

Limits

The following limits apply to the AC-Extended Calls to CFB/CFD feature:

- An attendant console (AC) with AC-Extended Calls to CFB/CFD can override Attendant Camp-On.
- An entry in field ACFBOVCO of Table CUSTCONS (Customer Group Attendant Console Option) determines what feature occurs first. If field ACFBOVCO is Y, CFB takes precedence over Attendant Camp-On. If field ACBOVCO is set to N, Attendant Camp-On takes precedence over CFB.
- The E800 and 800+ numbers are correct as forward-to numbers for CFD and CFB. The feature does not support an attendant console-to-CFD line forwarded to an E800 or 800+ number. The system does not forward this call type. The call continues to ring the base station.

Interactions

If Attendant Camp-On has precedence over CFB, the first extended call to the busy station is camped-on. Subsequent extended calls receive a busy no camp-on treatment. If CFB/CFD has precedence over Attendant Camp-On, the system forwards extended calls. If an idle station is not present in the call forward chain, the extended call receives a busy no camp-on treatment.

Activation/deactivation by the end user

The AC-Extended Calls to CFB/CFD feature does not require activation or deactivation by the end user.

Billing

The AC-Extended Calls to CFB/CFD feature does not affect billing.

Station Message Detail Recording

The AC-Extended Calls to CFB/CFD feature does not affect Station Message Detail Recording.

Datafilling office parameters

The AC-Extended Calls to CFB/CFD feature does not affect office parameters.

AC-Extended Calls to CFB/CFD (continued)

Datafill sequence

The following table lists the tables that require datafill to provide AC-Extended Calls to CFB/CFD. The tables appear in the order of data entry.

Datafill tables required for AC-Extended Calls to CFB/CFD

Table	Function of table
CUSTCONS	Customer Group Attendant Console Options. This table lists the attendant console options assigned to each customer group equipped with attendant consoles.

How to enter data into table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Options) lists the attendant console options assigned to each customer group that contains attendant consoles. You can assign a maximum 256 customer groups attendant console options. Table CUSTCONS must have a customer group entry for each customer group. These customer groups must have field CONSOLES in Table CUSTENG set to Y. The maximum number of consoles that can be equipped is 255.

The datafill method for both CFB and CFD extended calls appears in the following table. You can enter a customer group to allow attendant-extended CFB calls and not allow attendant-extended CFD calls. You can enter a customer group to allow attendant-extended CFD calls and not allow attendant-extended CFB calls.

Datafill for AC-Extended Calls to CFB/CFD for table CUSTCONS appears in the following table. The fields that apply to AC-Extended Calls to CFB/CFD

AC-Extended Calls to CFB/CFD (end)

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

How to enter data into table CUSTCONS

Field	Subfield or refinement	Entry	Description and action
OPTIONS		alphanumeric	Options. This field specifies the list of options assigned to the customer group. Enter an option name.
If OPTION is set to ACCFB, subfield CFBOVCO requires datafill.			
CFBOVCO		Y or N	Attendant Extending CFB Calls Over-ride Camp-on. This field specifies if CFB takes order over Camp-On. 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	(ACCFB Y) \$

Tools for verifying translations

The AC-Extended Calls to CFB/CFD feature does not use tools for verifying translations.

SERVORD

The AC-Extended Calls to CFB/CFD feature does not use SERVORD.

Access to CCSA

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

The Access to CCSA feature has the following requirements:

- BAS Generic, BAS00003
- MDC PRO, MDC00009

Description

The Access to CCSA feature contains the following features:

- F1160 (Access to EPSCS)
- F0777 (Access to CCSA)
- BV0417 (Uniform Numbering Plan Capability)
- BV0488 (Access to CCSA)
- BC0204 (Access to CCSA)

The Access to CCSA feature allows station end users in a customer group to access enhanced private switched communication service (EPSCS). Station end users use special access codes and dialing patterns to access EPSCS.

A common control switching arrangement (CCSA) contains operating company switching facilities. These switching facilities connect to leased corporate tie-line networks. Common control central office switching equipment performs the switching functions for the leased lines in the network. The Access to CCSA feature allows all stations in the network to dial other stations in the network. Distance does not affect this condition. Stations do not use exchange or toll facilities to dial other stations. Stations can use local, foreign exchange, or wide area telephone service (WATS) lines to dial outside the network.

The feature provides inward and outward access to the direct distance dialing (DDD) and extended area service (EAS) networks. This feature also provides inward and outward access to and from the EPSCS network.

Access to CCSA (continued)

Operation

A station end user dials the defined access code and the directory number to call. This access code is normally 8. The DMS-100 switch can return an optional second dial tone when the switch receives the dialed access code. The switch uses a specified trunk to connect the end user to the CCSA node. The switch outputs the dialed number.

This feature allows station users in a customer group to access the CCSA with special access codes and dialing patterns.

Translations table flow

The Access to CCSA feature does not affect translations table flow.

Limits

The following limits apply to the Access to CCSA feature:

- The DMS-100 switch does not support outgoing loop start to class 5 offices and does not detect dial tone.
- The network class of service (NCOS) restrictions associated with the station line user control access to CCSA.
- The assignment of access to CCSA only occurs to an outgoing trunk or to the outgoing side of a two-way trunk group.
- For the billing function to operate, all MDC trunks with the CCSA option must carry network direct outward dialing (DOD) DD calls.
- In this application, the DMS-100 switch is not a network node of the CCSA.
- The DMS-100 switch does not support incoming ground start from class 5 offices. The system uses loop start on all calls from class 5 offices.
- This feature does not require the ability to pass class marks between networks. This feature requires dial plan compatibility.
- Switching units with the improved MDC automatic message accounting (AMA) software provide access to CCSA. Access to CCSA requires that the basic MDC and AMA software function correctly.

Interactions

The Access to CCSA feature does not have functionality interactions.

Activation/deactivation by the end user

The Access to CCSA feature does not require activation or deactivation by the end user.

Access to CCSA (continued)

Billing

The Access to CCSA feature does not affect billing.

Station Message Detail Recording

The Access to CCSA feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Access to CCSA feature does not affect office parameters.

Datafill sequence

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

Datafill requirements for Access to CCSA

Table	Function of table
AMAOPTS	Automatic Message Accounting Options Table. Table AMAOPTS controls the activation and time of the recording options for local, toll, and high-revenue calls.
TRKGRP	Trunk Group Table. Table TRKGRP contains customer-defined data associated with each trunk group in the switching unit.
IBNXLA	IBN Translations Table. Table IBNXLA stores the data for the digit translation of calls. These calls originate from: • an Integrated Business Network (IBN) station • an attendant console • an incoming • an incoming side of a two-way IBN trunk group

Datafilling table AMAOPTS

Table AMAOPTS controls the activation and scheduling of the recording options for local, toll, and high-revenue calls. The table contains one tuple for each option. A schedule is associated with each option. This schedule defines if an option is active, active only at specified times, or not active.

Option CCSADATA relates to CCSA data call billing records. The CCSADATA option in table AMAOPTS controls the priority of Call Code 021 over Call Code 072 for CCSA data calls. The CCSADATA option does not affect

Access to CCSA (continued)

non-CCSA calls. The system replaces Call Code 072 record with Call Code 021 record when the following conditions occur:

- the call is a CCSA data call
- the CCSADATA option is ON in table AMAOPTS

Datafill for table AMAOPTS appears in the following table. The field AMASEL applies to CCSA and appears in this table. Refer to the data schema section of the *Translation Guide* for a description of the other fields.

Datafilling table AMAOPTS

Field	Subfield or refinement	Entry	Description and action
OPTION		CCSADATA	Option. Enter CCSADATA.
SCHEDULE		see subfield	Schedule. This field contains the subfield AMASEL. Only subfield AMASEL applies to CCSA.
	AMASEL	ON	AMA selector. Select Call Code 021 for CCSA data calls.

Datafill example for table AMAOPTS

Sample datafill for table AMAOPTS appears in the following example.

MAP example for table AMAOPTS

OPTION	SCHEDULE
CCSADATA	OFF

Access to CCSA (continued)**Datafilling table TRKGRP**

Datafill for Access to CCSA for table TRKGRP appears in the following table. The fields that apply to Access to CCSA appear in this table. Refer to the data schema section of the *Translation Guide* for a description of the other fields.

Datafilling table TRKGRP

Field	Subfield or refinement	Entry	Description and action
GRPINFO		see subfields	Group Information. This field contains many subfields. Subfield OPTION relates to Access to CCSA.
	OPTION	FACTYPE	Options. This subfield specifies the list of options and associated subfields for the trunk group. Enter FACTYPE.
	FACTYPE	CCSA	Facility Type. This subfield specifies the type of facility. Enter CCSA.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

MAP example for table TRKGRP

TABLE: TRKGRP

GRPKEY

GRPINFO

```
REGMADCM  IBNTI 0 NPDGP NCTC IBNTST 0 0 5551212 ANSDISC 3 N 1
3 Y Y N Y 4 0 Y N Y TSPST0 Y Y FGD N N (SAT) $ (FACTYPE CCSA)
```

Access to CCSA (continued)

Datafilling table IBNXLA

Datafill for Access to CCSA for table IBNXLA appears in the following table. The fields that apply to Access to CCSA appear in this table. Refer to the data schema section of this document for a description of the other fields.

Datafilling table IBNXLA

Field	Subfield or refinement	Entry	Description 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-character to 8-character name.
	DGLIDX	numeric (1 to 18 digits)	Digilator Index. This subfield specifies the access code. Enter the 1-digit to 18-digit number that is the access code.
RESULT		see subfields	Result. This field contains subfields TRSEL and NETTYPE.
	TRSEL	NET	Translations Selector. This subfield specifies the translations selector to use. Enter NET. When you enter NET, this field also contains subfield NETTYPE.
	NETTYPE	DOD	Network Type. This subfield specifies the type of the network. Enter DOD.

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	9	NET	N	Y	N	1	Y	POTS	Y	N	DOD	N	36	NONE

Access to CCSA (end)

Tools for verifying translations

The Access to CCSA feature does not use translation verification tools.

SERVORD

The Access to CCSA feature does not use SERVORD.

Access to CO from PBX

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

The Access to CO from PBX feature does not have requirements.

Description

The Access to CO from PBX feature contains NT feature F1161 (Access to CO from PBX). This feature also contains NT feature F1165 (Foreign Exchange Trunk - Analog).

Access to a central office (CO) from a private branch exchange (PBX) occurs when the installation of an access line or access line group occurs. The installation occurs from any PBX to CO to share network facilities. Access lines function like tie trunk operation.

The analog Foreign Exchange (FX) feature allows a PBX end user to access to a remote central office (CO). An FX trunk is a separate trunk from an exchange that does not normally serve the area of the end user. An FX trunk can appear as a trunk or a line in a DMS-100 switch. An FX facility uses a two-wire ground start trunk.

Operation

A station end user dials an assigned access code to seize the FX trunk. The system can return a second dial tone (end user option). The station end user dials the correct directory number (DN).

When a station end user dials the defined access code and the DN to call, the DMS-100 switch returns dial tone. The switch returns dial tone when the switch receives the dialed access code. The switch seizes a trunk and outpulses the called DN. When the DMS-100 switch functions as a PBX, the switch uses a two-wire ground start trunk. The trunks at the DMS-100 end function as line appearances at the CO or class 5 end offices.

Translations table flow

The Access to CO from PBX feature does not affect translations table flow.

Access to CO from PBX (continued)

Limits

The following limits apply to the Access to CO from PBX feature:

- The DMS-100 switch does not support incoming ground start from class 5 offices. The feature uses loop start on all calls from class 5 offices.
- The DMS-100 switch does not support outgoing loop start to the class 5 office and does not detect dial tone.
- Network class of service (NCOS) limits apply to the FX feature.
- The screening class codes limit access to CO from PBX.

Interactions

The Access to CO from PBX feature does not have functionality functionality interactions.

Activation/deactivation by the end user

The Access to CO from PBX feature does not require activation or deactivation by the end user.

Billing

The Access to CO from PBX feature does not affect billing.

Station Message Detail Recording

The Access to CO from PBX feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Access to CO from PBX feature does not affect office parameters.

Datafill sequence

The tables that require datafill to provide Access to CO from PBX appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Access to CO from PBX (Sheet 1 of 2)

Table	Function of table
TRKGRP	Trunk Group Table. Table TRKGRP contains customer-defined data associated with each trunk group in the switching unit.
TRKSGRP	Trunk Subgroup Table. Table TRKSGRP contains the additional information for each subgroup assigned to one of the trunk groups table TRKGRP describes.

Access to CO from PBX (continued)

Datafill requirements for Access to CO from PBX (Sheet 2 of 2)

Table	Function of table
TRKMEM	Trunk Member Table. Table TRKMEM lists the data for each trunk the trunk group and subgroup tables specify. Table TRKMEM does not include members of intertoll trunk groups that have common channel interoffice signaling (CCIS). The table does not include members of CCITT6 trunk groups in DMS*-300 gateway switches.
IBNXLA	IBN Translations Table. Table IBNXLA stores the data for the digit translation of calls. These calls originate from an Integrated Business Network (IBN) station, an attendant console. These calls also originate from an incoming, or an incoming side of a two-way IBN trunk group.

Datafilling table TRKGRP

Datafill for Access to CO from PBX for table TRKGRP appears in the following table. The fields that apply to Access to CO from PBX appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table TRKGRP

Field	Subfield or refinement	Entry	Description and action
GRPINFO		see subfields	This field contains many subfields. Subfields FDV and PREEMPT relate to Access to CO from PBX.
	FDV	Y	FX Toll Diverted. This subfield specifies if a toll call routes to the intercept key and lamp on the attendant console. This condition occurs after the system receives a reversal from the far end. Enter Y.
	PREEMPT	N	Preempt. This field is for Northern Telecom Inc. use only. Enter N.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

Access to CO from PBX (continued)

MAP example for table TRKGRP

TABLE: TRKGRP	
GRPKEY	GRPINFO
PBX1	
IBNT2 0 NPDGP NCID MDCGRP1 1 MIDL 0 N ANSDISC 0 N 0 0	
N N N Y 0 0 N 100 12 50 25 N Y Y N Y N N Y N NATL \$	

Datafilling table TRKSGRP

Datafill for Access to CO from PBX for table TRKSGRP appears in the following table. The fields that apply to Access to CO from PBX appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table TRKSGRP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
SGRPKEY		see subfields	Subgroup Key. This field contains subfields CLLI and SGRP.
	CLLI	alphanumeric	Common Language Location Identifier. This subfield specifies the code from table CLLI assigned to the trunk group that contains the subgroup.
	SGRP	0 or 1	Subgroup Number. This subfield specifies the number assigned to the trunk subgroup. Enter 0 or 1.
CARDCODE		alphanumeric	Card Code. This field specifies the product engineering code (PEC) of the trunk card.
SGRPVAR		see subfields	Variable Subgroup Data. This field contains many subfields.
	SIGDATA	N5	Signaling Data. Enter N5.
	PTSNMSIG	4 to 20	Proceed To Send to Receipt of Numeric Signal. If the trunk group is incoming or two-way, enter the time, in seconds. Enter the time between the proceed to send (PTS) signal and the receipt of numeric signal (NM). Enter the default if trunk group is incoming. The default is 20.

Access to CO from PBX (continued)**Datafilling table TRKSGRP (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
	SZTOPTS	10 to 20	Register Seizure To Proceed To Send. If the trunk group is incoming or two-way, enter the time, in seconds. Enter the time between the register seizure (SZ) and the proceed to send (PTS) signal. Enter the default if trunk group is incoming. The default is 20.
	PTSTOST	20 to 40	Proceed To Send To Signal Terminal. If the trunk group is incoming or two-way, enter the time, in seconds. Enter the time between the proceed to send (PTS) signal and the signal terminal (ST) signal. Enter the default if trunk group is incoming. The default is 20.
	ESUPR	Y or N	Echo Suppressor. Enter Y if the trunk group has echo suppressors. In all other conditions, enter N.
	SAT	Y or N	Satellite. Enter Y if the trunk group connects to the distant office by satellite. In all other conditions, enter N.

Datafill example for table TRKSGRP

Sample datafill for table TRKSGRP appears in the following example.

MAP example for table TRKSGRP

TABLE: TRKSGRP	
SGRPKEY	CARDCODE
PBX1 1	2X88AA
STD 2W DT DIALTONE N 12 12 MF WK 7 0 N NO NO N N N M 70 UNEQ	SGRPVAR

Access to CO from PBX (continued)**Datafilling table TRKMEM**

Datafill for Access to CO from PBX for table TRKMEM appears in the following table. The fields that apply to Access to CO from PBX appear in this table. See the data schema section of this document for a description of the other tables.

Datafilling table TRKMEM

Field	Subfield or refinement	Entry	Description and action
CLLI		alphanumeric	Common Language Location Identifier. This field specifies the code from Table CLLI assigned to the trunk group that contains the trunk.
EXTRKNM		0 to 9999	External Trunk Member. This field specifies the external trunk number assigned to the trunk. Enter a number from 0 to 9999.
SGRP		0 or 1	Subgroup Number. This field specifies the subgroup number assigned to the trunk. Enter 0 or 1.
MEMVAR		see subfield	Variable Data for Members. This field contains subfield PMTYPE.
	PMTYPE	alphanumeric	Peripheral Module Type. This subfield specifies the peripheral module type that connects to the trunk. Associated refinements depend on the entry in this subfield.

Datafill example for table TRKMEM

Sample datafill for table TRKMEM appears in the following example.

MAP example for table TRKMEM

TABLE: TRKMEM						
CLLI	EXTRKNM	SGRP	MEMVAR			
PBX1	0	1	TM8	0	15	

Datafilling table IBNXLA

Datafill for Access to CO from PBX for table IBNXLA appears in the following table. The fields that apply to Access to CO from PBX appear in this

Access to CO from PBX (end)

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 and action
KEY		see subfield	Key. This field contains subfield XLANAME and DGLIDX.
	XLANAME	alphanumeric (1 to 8 characters)	Translator Name. This subfield specifies the name assigned to the translator. Enter the 1-character 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.

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 9	
NET Y Y N 3 N IBN2 Y Y GEN (RTE IBNRTE 100) \$	

Tools for verifying translations

The Access to CO from PBX feature does not use translation verification tools.

SERVORD

The Access to CO from PBX feature does not use SERVORD.

Access to ETN

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

The Access to ETN has the following operation requirements:

- BAS Generic, BAS00003
- MDC Medium, MDC00001

Description

Access to ETN allows the DMS switch to access the electronic tandem network (ETN) or the Northern Telecom electronic switch network (ESN). Outgoing trunk groups can connect to the ETN/ESN. These trunk groups can outpulse the authorization code of the end user to the ETN/ESN before outpulsing the dialed directory number. Calls can start from these trunk groups. For these calls ETN/ESN requires the end user to dial the end user authorization code first. The ETN/ESN verifies the received authorization code. The ETN/ESN returns an optional dial tone if the code is correct. The end user dials the required directory number. If the received authorization code is not correct, the ETN/ESN returns a reorder tone. The end user must dial the number again.

Operation

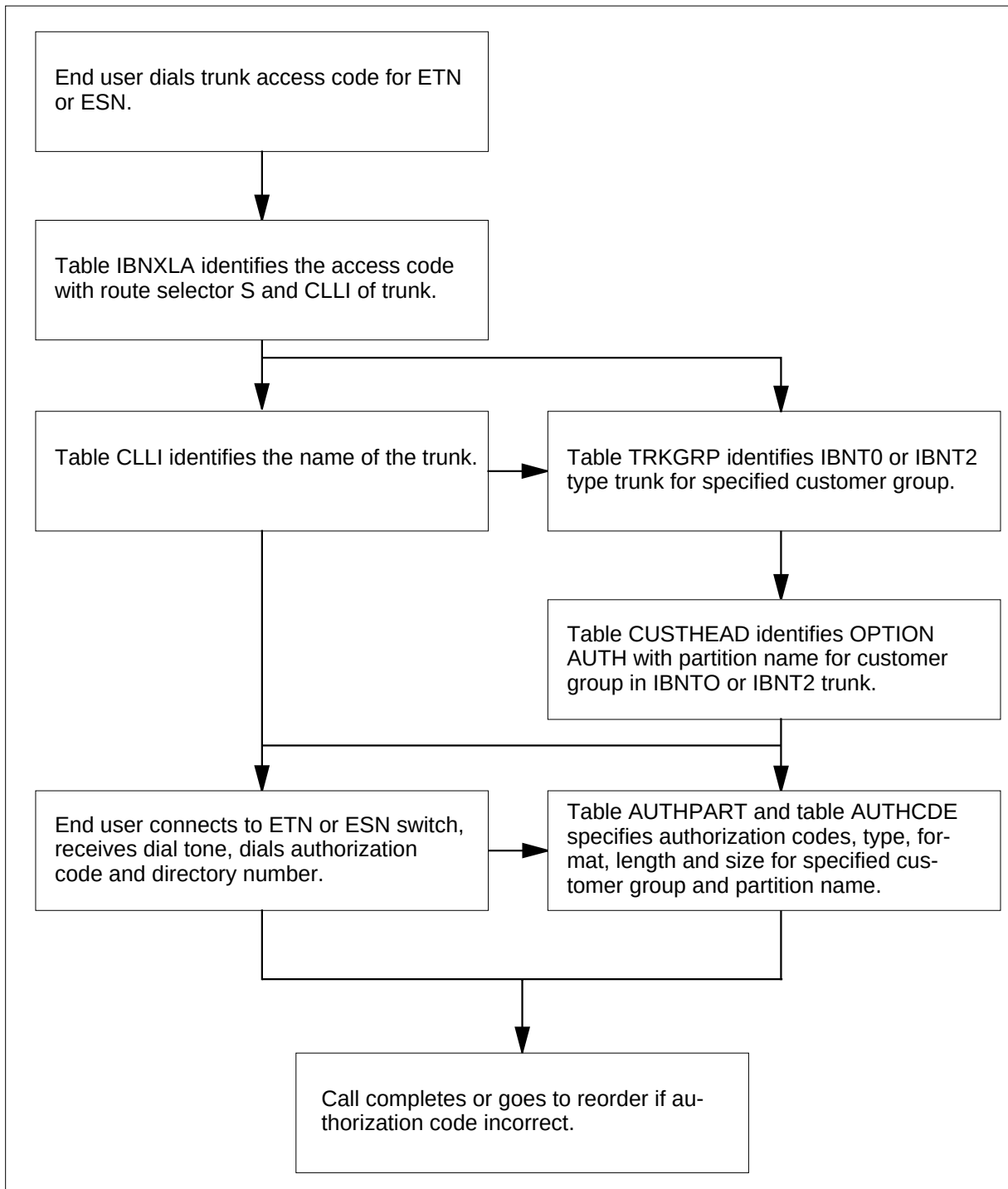
The end user goes off-hook and receives a dial tone from the DMS switch. The end user dials the trunk access code to the ETN/ESN. The system translates the trunk access code, and connects the end user to the ETN/ESN switch. The end user has a transparent connection to the ETN/ESN switch. The DMS switch does not collect additional digits. The end user receives dial tone from the ETN/ESN switch. The end user dials an authorization code through the use of dual tone multifrequency (DTMF) signaling. If the authorization code is correct, the system returns dial tone. The end user can dial the directory number. If the authorization code is not correct, the system returns the reorder tone to the end user.

Access to ETN (continued)

Translations table flow

A description of the Access to ETN translations tables appears in the following list:

- Table CUSTHEAD (Customer Group Head) defines the public and private transaction capability application part (TCAP) translator names for each customer group.
- Table TRKGRP (Trunk Group) contains some of the end user-defined data. This data connects to each trunk group present in the switching unit.

Access to ETN (continued)**Table flow for Access to ETN**

Access to ETN (continued)

Datafill content used in the flowchart appears in the following table.

Datafill example for Access to ETN

Datafill table	Example data
CUSTHEAD	IBNTST CXT1 TST1 NIL (VACTRMT 0) (EXTNCOS 0) (ACCT 4 N N) (OHQA MUSIC1)(AUTH AUTOREG N N) (SUPERCNF) (ACR AUTH 0) (DISAFAC DISARAC) \$
TRKGRP	REGIBNOTDMTT IBNTO 0 NPDGP NCRT AREGMDCA 0 MIDL ANSDISC 0 N 0 0 0 0 N N N N N NATL (CALLCHR DIGDATA) \$

Limits

The following limits apply to Access to ETN:

- The system supports this feature for DTMF sets only.
- This feature does not support special signaling protocols at present between the DMS switch and a node that operates in this environment.
- The user dials the trunk access code and connects to the outgoing trunk. The end user must wait for the second dial tone from the ETN/ESN switch. If the end user does not wait for the second dial tone the system can lose digit information.
- Dial pulse stations cannot access the ETN/ESN feature. The DMS switch connects the end user to an outgoing trunk. After this connection occurs the DMS switch can record dial pulses that follow as an on-hook signal. This condition causes the dial pulse station to drop the trunk connection.

Interactions

Access to ETN does not have functionality interactions.

Activation/deactivation by the end user

Access to ETN does not require activation or deactivation by the end user.

Billing

Access to ETN does not affect billing.

Station Message Detail Recording

This feature can create a Station Message Detail Recording (SMDR) record. The DMS switch only records the access code. The DMS switch does not record the called number.

Access to ETN (continued)**Datafilling office parameters**

Access to ETN does not affect office parameters.

Datafill sequence

A list of the tables that require datafill to implement Access to ETN appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Access to ETN

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 of data store the data for the translation of digits.
TRKGRP	Trunk Group. This table contains some of the end user-defined data associated with each trunk group present in the switching unit.

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) defines the public and private transaction capability application part (TCAP) translator names for each customer group.

Datafill for Access to ETN for table CUSTHEAD appears in the following table. The fields that apply to Access to ETN 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	Options. This field specifies the list of options and associated subfields the system assigns to the customer group. Enter AUTH. Note: If OPTIONS is AUTH, subfields OPTION, PARTNM, SEC, and COMB require datafill.
	OPTION	AUTH	Option. This subfield specifies the authorization codes option. Enter AUTH.
	PARTNM	character	Authorization Partition Name. This subfield specifies the name assigned to the customer group. This customer group is in Table AUTHCODE (Authorization Code) and Table AUTHPART (Authorization Partition). Enter the authorization partition name.

Access to ETN (continued)

Datafilling table CUSTHEAD (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SECRECY	Y or N	Secrecy. This subfield specifies if the user of an authorization code can indicate the end of dialing. To indicate the end of dialing, the user keys in an octothorpe (#) or waits for the expiration 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.

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	IDIGCOL
OPTIONS			
IBNTST	CXT1	TST1	NIL
(VACTRMT 0)	(EXTNCOS 0)	(ACCT 4 N N)	(OHQA MUSIC1)(AUTH
AUTOREG N N)	(SUPERCNF)	(ACR AUTH 0)	(DISAFAC DISARAC) \$

Datafilling table TRKGRP

Table TRKGRP (Trunk Group) contains end user-defined data associated with each trunk group in the switching unit.

Access to ETN (end)

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

Datafilling table TRKGRP

Field	Subfield or refinement	Entry	Explanation and action
GRPTYP		alphanumeric	Trunk Group Type. This field specifies the trunk group type. Enter IBNT0 for trunk group type outgoing. Enter IBNT2 for trunk group type two-way.
IGA		N	Ignore Answer. This field specifies when to use the ignore answer. Enter N.
	OPTION	CALLCHR	Option. This subfield specifies the name of the option. Enter CALLCHR for call characteristic bit. Note: If OPTION is CALLCHR, subfield DIGDATA requires datafill.
	DIGDATA	DIGDATA	Digital Data. This subfield specifies digital data. Enter DIGDATA.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

MAP example for table TRKGRP

TABLE: TRKGRP	
GRPKEY	GRPINFO
REGIBNOTDMTT	
IBNT0 0 NPDGP NCRT AREGMDCA 0 MIDL ANSDISC	
0 N 0 0 0 0 N N N N N N NATL (CALLCHR	
DIGDATA) \$	

Tools for verifying translations

Access to ETN does not use translation verification tools.

SERVORD

Access to ETN does not use SERVORD.

Access to Special Service Facilities

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

The Access to Special Service Facilities has the following requirements to operate:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The attendant or station end user dials an access code to receive access to special service trunk groups. The following are examples of special service trunk groups:

- foreign exchange (FX)
- tie trunks
- wide area telecommunications services (WATS)

Foreign exchange trunks allows a remote central office (CO) to serve a telephone or private branch exchange (PBX). The CO in the immediate geographical area does not provide service.

Tie trunks connect two PBXs.

Wide area telecommunications services trunks allow inward or outward dialing between an end user and specified areas.

Operation

A station end user dials the defined access code. A station end user dials the directory number (DN) the end user must call. The DMS-100 switch can return an optional dial tone in response to the dialed access code. The switch seizes a trunk and outputs the called DN.

Translations table flow

Access to Special Service Facilities does not affect translations table flow.

Access to Special Service Facilities (end)

Limits

Access to Special Service Facilities does not have limits.

Interactions

Access to Special Service Facilities does not have functionality interactions.

Activation/deactivation by the end user

Access to Special Service Facilities does not require activation or deactivation by the end user.

Billing

Access to Special Service Facilities does not affect billing.

Station Message Detail Recording

Access to Special Service Facilities does not affect Station Message Detail Recording.

How to enter office parameters

Access to Special Service Facilities does not affect office parameters.

Datafill sequence

Access to Special Service Facilities does not affect datafill.

Tools for verifying translations

Access to Special Service Facilities does not use translation verification tools.

SERVORD

00000000Access to Special Service Facilities does not use SERVORD.

Attendant - Auto Dial

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions

Requirements

The Attendant - Auto Dial requires BAS Generic, BAS00003 to operate.

Description

The 3WC Dial 0 for 608 Cord Card allows the attendant to dial often called numbers with one key. To dial these called numbers, the attendant presses the Auto Dial key programmed with the number. The attendant presses the key and the system dials the call. The call proceeds in the same method as when the attendant dials the digits manually.

Operation

To program an Auto Dial key, perform the following steps:

- The attendant must not be active on a loop.
- Press the Auto Dial key to program. The Auto Dial lamp blinks at 60 ipm. The system displays AUTODIAL:INPUT.
- Enter the directory number (DN). The Auto Dial lamp continues to blink at 60 ipm. As you enter the digits, the system displays the digits.
- Press the Auto Dial key to program. This action confirms that number entered is the number to store. The system turns the Auto Dial lamp off. If the console has a Display (DSP) key assigned, the following message appears: UPDATE OK. The program of the number is complete and ready for use.
- Press the Release (RLS) key to exit the programming mode.

To delete a number from the Auto Dial key, the attendant performs the following steps:

- The attendant must not be active on a loop.
- Press the Auto Dial key to program. The Auto Dial lamp blinks at 60 ipm. The system displays the currently stored auto dial number.
- Press the octothorpe key (#). The Auto Dial lamp continues to blink at 60 ipm. The # appears on the console.

Attendant - Auto Dial (continued)

- Press the Auto Dial key again. This action confirms that you want to delete the stored number. The system turns the Auto Dial lamp off. The following message appears on the console: UPDATE OK.
- Press the RLS key to exit.

To change an auto dial number, the attendant performs the following steps:

- The attendant must not be active on a loop.
- Press the Auto Dial key to program. The Auto Dial lamp blinks at 60 ipm. The system displays the stored number.
- Enter the new number. The Auto Dial lamp continues to blink at 60 ipm.
- Press the Auto Dial key again. This action confirms that you want to store the replacement number. The system turns the Auto Dial lamp off. The following message appears on the console: UPDATE OK.
- Press the RLS key to exit.

To view an auto dial number, the attendant performs the following steps:

- The attendant must not be active on a loop.
- Press the Auto Dial key. The Auto Dial lamp blinks at 60 ipm. The system displays the stored number. If the number is greater than 16 digits, the system displays the 15 most important digits. In this condition, the sixteenth position on the display contains a plus sign (+). To view the digits that remain, the console must have an assigned Display Control (DSPC) key.
- Press the RLS key to exit. The system clears the display. The Auto Dial lamp turns off.

To use Attendant - Auto Dial to dial a number, the attendant performs the following steps:

- The attendant must be active on a loop.
- Press the Auto Dial key. The Auto Dial lamp turns on for 1 second. The console displays the DN. The system places the call in the summary as a manually dialed number.

Attendant - Auto Dial (continued)

Limits

The following limits apply to Attendant - Auto Dial:

- Each Auto Dial key can have only one assigned number at a time. The console can have a maximum of 42 feature keys installed as Auto Dial keys.
- The attendant cannot store an auto dial number that is greater than 24 digits long.

Interactions

Attendant - Auto Dial does not have functionality interactions.

An assignment of the 3WC Dial 0 for 608 Cord Card to the Wild Card key cannot occur.

Activation/deactivation by the end user

The three modes of use for 3WC Dial 0 for 608 Cord Board appear in the following list.

- The attendant can program an Auto Dial key with a number.
- The attendant can view the number stored against an Auto Dial key.
- The attendant can use the Auto Dial key to dial a number.

To program an Auto Dial key, the attendant must not be active on a loop. The attendant must perform the following steps.

Activation/deactivation of Attendant - Auto Dial by the end user - Programming an Auto Dial Key

At your telephone

- 1** Press the Auto Dial key to program.
Response: The Auto Dial lamp blinks at 60 ipm. A display of AUTODIAL:INPUT appears.
- 2** Enter the directory number (DN).
Response: The Auto Dial lamp continues to blink at 60 ipm. The system displays the digits as you enter the digits.
- 3** Press the Auto Dial key to program.
Response: This action confirms that the number entered is the number you want to store. The Auto Dial lamp turns off. If the console has a Display (DSP) key assigned, the system displays: UPDATE OK. The program of the number is complete and ready for use.
- 4** Press the Release (RLS) key to exit the programming mode.

Attendant - Auto Dial (continued)

To delete a number from the Auto Dial key, the attendant must not be active on a loop. Perform the following steps.

Activation/deactivation of Attendant - Auto Dial by the end user - Deleting a number***At your telephone***

- 1 Press the Auto Dial key to program.
Response: The Auto Dial lamp blinks at 60 ipm. The system displays the currently stored auto dial number.
- 2 Press the octothorpe key (#).
Response: The Auto Dial lamp continues to blink at 60 ipm. The console displays #.
- 3 Press the Auto Dial key again.
Response: This action confirms that you want to delete the stored number. The Auto Dial lamp turns off. The console displays UPDATE OK.
- 4 Press the Release (RLS) key to exit.

To change an auto dial number, the attendant must not be active on a loop. Perform the following steps.

Activation/deactivation of Attendant - Auto Dial by the end user***At your telephone***

- 1 Press the Auto Dial key that you program.
Response: The Auto Dial lamp blinks at 60 ipm. The system displays the stored number.
- 2 Enter the new number.
Response: The Auto Dial lamp continues to blink at 60 ipm.
- 3 Press the Auto Dial key again.
Response: This action confirms that you want to store the replacement number. The Auto Dial lamp turns off. The console displays UPDATE OK.
- 4 Press the Release (RLS) key to exit.

To view an auto dial number, the attendant must not be active on a loop. Perform the following steps.

Attendant - Auto Dial (continued)

Activation/deactivation of Attendant - Auto Dial by the end user

At your telephone

- 1 Press the Auto Dial key.
Response: The Auto Dial lamp blinks at 60 ipm. The system displays the stored number. If the number is greater than 16 digits long, the system displays the 15 most important digits. In this occurrence, the sixteenth position on the display contains a plus sign (+). To view the digits that remain, the console must have an assigned Display Control (DSPC) key.
- 2 Press the Release (RLS) key to exit.
Response: The system clears the display. The Auto Dial lamp turns off.

To use Attendant - Auto Dial to dial a number, the attendant must be active on a loop. Perform the following steps.

Activation/deactivation of Attendant - Auto Dial by the end user

At your location

- 1 Press the Auto Dial key.
Response: The Auto Dial lamp turns on for 1 s. The console displays the directory number (DN). The position of the called number occurs if the number dial occurs manually.

Billing

Attendant - Auto Dial does not affect billing.

Station Message Detail Recording

Attendant - Auto Dial does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant - Auto Dial does not affect office parameters.

Datafill sequence

The tables that require datafill to provide Attendant - Auto Dial appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant - Auto Dial

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields to use in the assignment of a dedicated key and lamp. The key and lamp are for 3WC Dial 0 for 608 Cord Card.

Attendant - Auto Dial (end)**Datafilling table FNMAP**

Table FNMAP (Attendant Console Functional Key) contains fields to use in the assignment of a dedicated key and lamp. Table FNMAP contain the key and lamp for 3WC Dial 0 for 608 Cord Card. Enter data for each number accessed through the use of this feature.

Datafill for Attendant - Auto Dial for table FNMAP appears in the following table. The fields that apply to Attendant - Auto Dial 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	AUTOD	Special Function This subfield specifies the special code for this feature. Enter AUTOD.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

KEY	RESULT
ATTCONS 30	SPECL AUTOD

Tools for verifying translations

Attendant - Auto Dial does not use translation verification tools.

SERVORD

Attendant - Auto Dial does not use SERVORD.

Attendant Call Park Recall Timer

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Attendant Call Park Recall Timer was introduced in BCS13.

Requirements

To operate, Attendant Call Park Recall Timer requires BAS Generic, BAS00003.

Description

The 3WC Dial 0 for 608 Cord Board provides a timer for calls that the attendant parks. The timer defines the maximum time period that a call can spend in the parking lot. If the attendant does not retrieve the call, or abandons the call in the time period, the system unparks the call. When the system unparks the call, the system recalls the attendant.

Operation

The 3WC Dial 0 for 608 Cord Board activates when the attendant parks a call. A call can remain parked from 12 s to 240 s, or for a period without limit. For a period without limit, recall to the attendant does not occur. The attendant call park timer is in Table CUSTCONS (Customer Group Attendant Console Option). The default is 60 s.

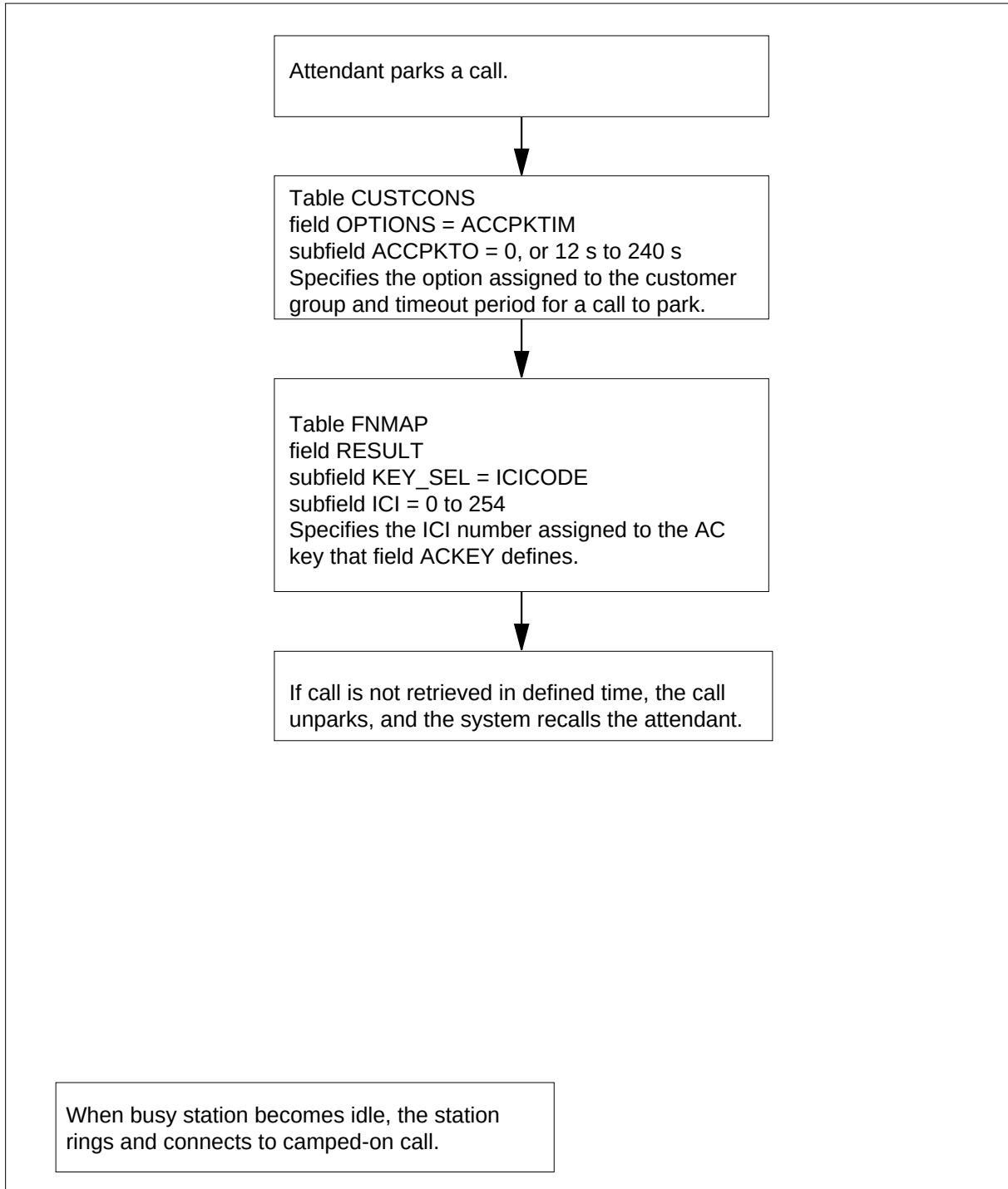
Translations table flow

The description of the Attendant Call Park Recall Timer translations tables appears in the following list:

- Table CUSTCONS. Customer Group Attendant Console Option lists the attendant console options assigned to each customer group with an attendant console (AC).
- Table FNMAP. Attendant Console Functional Key assigns features to keys 2 through 43 on specified consoles. You must enter table FNMAP to assign a dedicated incoming call identification (ICI) key and lamp. Assign these features to 3WC Dial 0 for 608 Cord Board.

The Attendant Call Park Recall Timer translation process appears in the following flowchart.

Attendant Call Park Recall Timer (continued)

Table flow for Attendant Call Park Recall Timer

Attendant Call Park Recall Timer (continued)

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

Datafill example for Attendant Call Park Recall Timer

Datafill table	Example data
CUSTCONS	MDCGRP1 ACCPKTIM 30 \$
FNMAP	IBNCON1 30 IICICODE 2

Limits

Attendant Call Park Recall Timer does not have limits.

Interactions

Attendant Call Park Recall Timer does not have functionality interactions.

Activation/deactivation

Attendant Call Park Recall Timer does not require activation or deactivation by the end user.

Billing

Attendant Call Park Recall Timer does not affect billing.

Station Message Detail Recording

Attendant Call Park Recall Timer does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Call Park Recall Timer does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Attendant Call Park Recall Timer appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Call Park Recall Timer

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option. This table contains the attendant console options for each customer group with an attendant console (AC).
FNMAP	Attendant Console Functional Key. This table assigns features to keys 2 through 43 on specified consoles.

Attendant Call Park Recall Timer (continued)

Datafilling table CUSTCONS

Datafill for Attendant Call Park Recall Timer for table CUSTCONS appears in the following table. The fields that apply to Attendant Call Park Recall Timer appear in this table. Refer to 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		ACCPKTIM	Options. This field specifies the option assigned to the customer group. Enter ACCPKTIM for attendant call parked recall time.
	ACCPKTO	numeric	Attendant calls parked recall timeout. This subfield specifies the timeout period for an attendant to park a call. Enter 0, or a value from 12 s to 240 s.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

MAP example for table CUSTCONS

CUSTNAME	OPTINS
MDCGRP1	ACCPKTIM 30

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields to assign a dedicated Incoming Call Identification (ICI) key and lamp. These fields assign an ICI key and lamp for parked calls that timed out and the system recalls to the attendant.

Datafill for Attendant Call Park Recall Timer for table FNMAP appears in the following table. The fields that apply to Attendant Call Park Recall Timer

Attendant Call Park Recall Timer (end)

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	CICODE	Key selector. This field specifies the ICI code selector. Enter ICICODE.
	ICI	0 to 254	Incoming call identification code. This field specifies the Incoming Identification number assigned to the AC key number that field ACKEY defines. Enter from 0 to 254.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

KEY		RESULT	
IBNCON1	30	ICICODE	2

Tools for verifying translations

Attendant Call Park Recall Timer does not use translation verification tools.

SERVORD

Attendant Call Park Recall Timer does not use SERVORD.

Attendant Call Selection

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Attendant Call Selection requires BAS Generic, BAS00003.

Description

The 3WC Dial 0 for 608 Cord Board allows an attendant to answer incoming calls. The attendant answers calls in the order the attendant receives the calls. The call type does not affect this order. This Cord Board also allows the attendant to select a specified incoming call type to determine the order of the calls.

The system places incoming calls to the attendant in a queue. The system presents the calls to idle consoles on a first-in, first-out condition. When an attendant console (AC) is available, the attendant can press the correct Loop Key. The attendant presses the Loop Key to answer the oldest call in the queue. The attendant can press the associated Incoming Call Identification (ICI) key to select a specified call type.

Note: Attendant Call Selection is only possible if the assignment of ICI keys to call categories occurs. If assignment of ICI keys does not occur, the only method to answer calls is to press the correct Loop key.

Operation

The 3WC Dial 0 for 608 Cord Board allows the attendant to press an ICI key to answer the calls. The ICI key has a lamp that is lit or flashing. The system searches the queue for the oldest call of the type specified. The following conditions occur:

- The specified call type ICI lamp remains on. All other ICI lamps turn off. The Source lamp associated with the selected call on the loop turns on.
- The system updates the Destination lamp to reflect the specified call type. The answered call connects to the attendant.

When the attendant presses the Loop key with a Source lamp that flashes, the Source lamp turns from flashing to on. The correct ICI lamp remains on, and all other lamps that are on, turn off.

Attendant Call Selection (continued)

Translations table flow

The Attendant Call Selection translation process does not affect translations table flow.

Limits

Attendant Call Selection does not have limits.

Interactions

Attendant Call Selection does not have functionality interactions.

Activation/deactivation by the end user

Attendant Call Selection allows the attendant to press an ICI key with a lamp that is lit or flashing to answer the call.

Billing

Attendant Call Selection does not affect billing.

Station Message Detail Recording

Attendant Call Selection does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Call Selection does not affect office parameters.

Datafill sequence

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

Datafill requirements for Attendant Call Selection

Table	Purpose of table
FNMAP	Attendant console functional key. This table assigns features to keys 2 through 43 on specified consoles.

Attendant Call Selection (end)

Datafilling table FNMAP

Datafill for Attendant Call Selection for table FNMAP appears in the following table. The fields that apply to Attendant Call Selection 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		KEYL_SEL or ICI	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	0-254	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number field ACKEY defines. 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

KEY		RESULT	
IBNCON1	2	ICICODE	12

Tools for verifying translations

Attendant Call Selection does not use translation verification tools.

SERVORD

Attendant Call Selection does not use SERVORD.

Attendant Camp-On

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Attendant Camp-On requires BAS Generic, BAS00003.

Description

Attendant Camp-On allows the attendant to extend an incoming call to a busy station. When the busy station becomes idle, the station automatically rings and connects to the camped on call.

The called party can hear a campon tone. The tone is 440 Hz at -17dBm for 300 ms. This tone indicates that a call is waiting. The calling party hears silence while the call is camped on. The called party can flash the switchhook to connect to the camped on call. This action automatically places the original call on hold. The called party can flash the switchhook again to return to the original call. If the system does not provide a tone, the busy station rings when the station becomes idle. If the called party chooses to not interrupt the current call, the busy station rings when the busy station becomes idle.

Operation

When an attendant attempts to extend a call to a busy station, the attendant hears two seconds of busy tone. After the busy tone, the Destination lamp flashes. The attendant returns to the calling party and reports the busy station. If the calling party decides to wait, the attendant presses the Release (RLS) or Hold/Release key. The system camped on the call to the busy station.

When the busy station does not become idle in a set time period, the camped on call recalls the attendant. The set time period is 12 s to 60 s. The attendant can campon the call again if the calling party decides to continue to wait.

Attendant Camp-On (continued)

Translations table flow

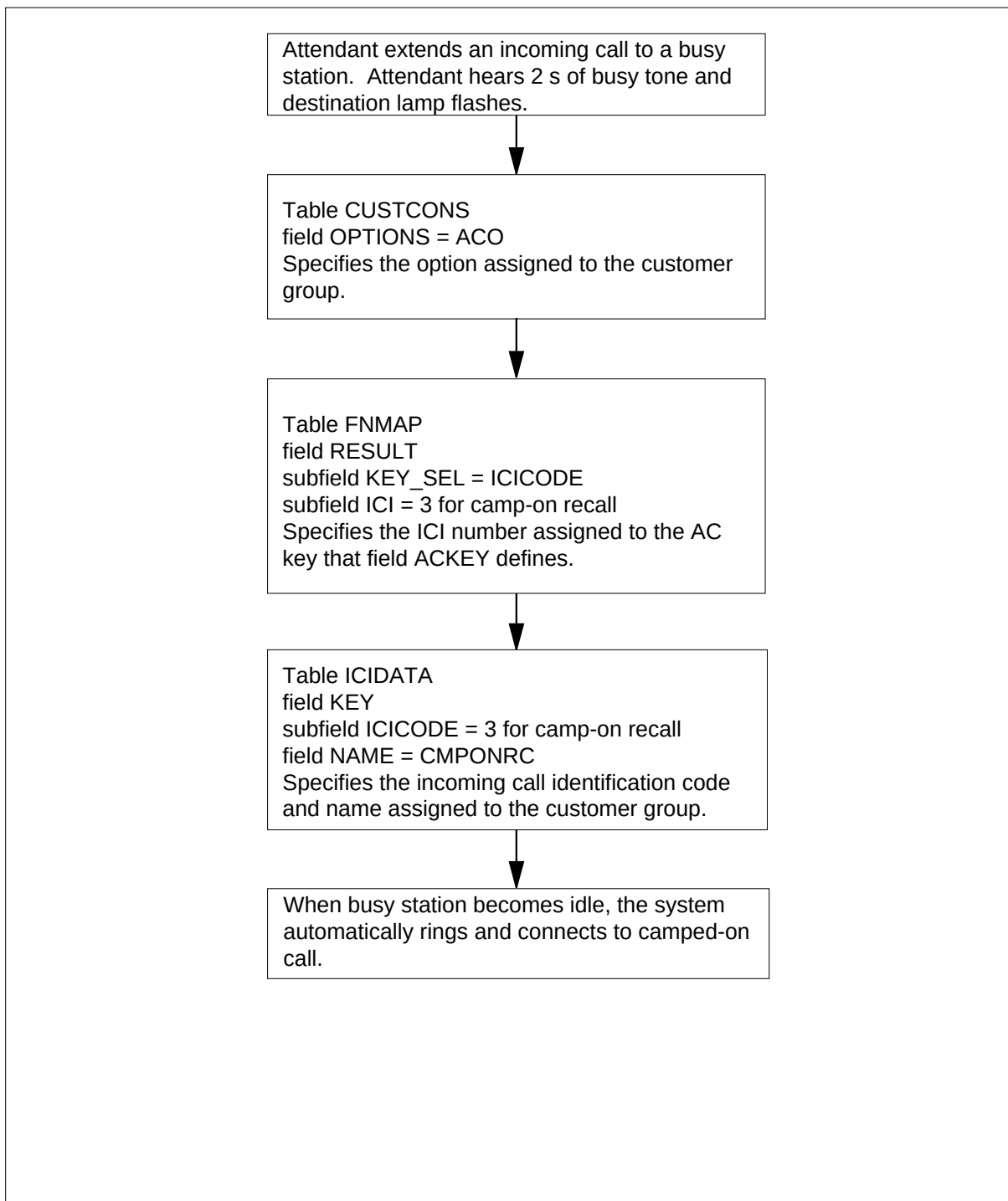
The description of the Attendant Camp-On translations tables appear in the following list:

- Table CUSTCONS (Customer Group Attendant Console Option) lists the attendant console options assigned to each customer group with an attendant console (AC).
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 to 43 on specified consoles. You must enter data in table FNMAP to assign a dedicated incoming call identification (ICI) key and lamp for Attendant Camp-On.
- Table ICIDATA (Incoming Call Identification Data) contains the key and lamp display for each ICI number. You must enter data in table ICIDATA to assign a key and lamp display for Attendant Camp-On.

The Attendant Camp-On translation process appears in the following flowchart.

Attendant Camp-On (continued)

Table flow for Attendant Camp-On



Attendant Camp-On (continued)

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

Datafill example for Attendant Camp-On

Datafill table	Example data
CUSTCONS	MDCGRP1 (ACO 12 CAMPON 13 N) \$
FNMAP	IBNCON1 2 IICICODE 3
ICIDATA	BNRMC 3 CMPONRC \$

Limits

The following limits apply to Attendant Camp-On:

- Only one call can be camped-on to a busy station.
- An attendant can have Attendant Camp-On or Call Waiting, but not both of these features.
- Attendant Camp-On with tone is not compatible with stations that have the no double connect (NDC) option assigned.
- Only calls from outside the customer group can be camped-on to a busy station in the group.
- A call can be camped-on to a busy station when the attendant attempts to campon another call. When this condition occurs, the attendant hears 2 s of reorder tone. The Destination lamp lights for 2 s, then turns off. This condition also applies if the system does not allow campon for the line.
- Attendant Camp-On does not apply to attendant-originated calls.
- A called station that is in a ringing, dialing, lock-out, or held state is not compatible with Attendant Camp-On. A held state is any state that is not stable.

Interactions

The following paragraphs describe the interactions between Attendant Camp-On and other functionalities.

- Multi-Line Hunt Groups
A call that extends to a Multi-Line Hunt (MLF) Group cannot be camped.
- Call Forwarding Busy (CFB)
If the station has campon and CFB and the attendant extends a call to the station, only campon applies. The CFB does not apply.
- Call Forwarding Universal/Call Forwarding Intragroup (CFU/CFI)

Attendant Camp-On (continued)

The system disables Attendant Camp-On when CFU or CFI is active.

- Call Pickup (CPU)

The Call Pickup feature can answer Camped-On calls when ringing begins.

- Calling Line Identification with Flash (CLF)

Attendant Camp-On and CLF are not compatible features.

- Three-Way Calling (3WC)

If a station has Attendant Camp-On and 3WC, 3WC disables when a call is camped-on or alternates between parties.

- Call Waiting (CWT)

For Meridian business sets (MBS), Call Waiting has priority over campon. When the system assigns CWT to one of the keys on an MBS, two conditions can occur. The primary key can be busy when the CWT key is idle. When this condition occurs, the attendant hears ringing after extending the call. The call enters a queue against the CWT key. The primary key can be busy when the CWT key is busy. When this condition occurs, the attendant hears busy tone and "BUSY NO CAMP-ON" appears on the attendant console.

Activation/deactivation by the end user

Attendant Camp-On does not require activation or deactivation by the end user.

Billing

Attendant Camp-On does not affect billing.

Station Message Detail Recording

Attendant Camp-On does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Camp-On does not affect office parameters.

Attendant Camp-On (continued)

Datafill sequence

Tables that require datafill to implement Attendant Camp-On appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Camp-On

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option. This table contains fields for assigning Attendant Camp-On to the customer group.
FNMAP	Attendant Console Functional Key. This table contains fields to assign a dedicated Incoming Call Identification (ICI) key and lamp for Attendant Camp-On
ICIDATA	Incoming Call Identification Data. This table contains fields to assign Camp-On Recall to ICI code number 3.

Datafilling table CUSTCONS

Table CUSTCONS contains fields to assign Attendant Camp-On to the customer group.

Datafill for Attendant Camp-On for table CUSTCONS appears in the following table. The fields that apply to Attendant Camp-On 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	Options. This field specifies the option assigned to the customer group. Enter ACO for attendant camp-on.
If the setting of OPTIONS is ACO, subfields ACORECTO, FLASH, DURATION, ANNMUSIC, and AUDIOGRP require datafill.			
	ACORECTO	12 to 60 or 0	Attendant Camp-On Recall Timeout. This subfield contains the number of seconds after which the system recalls an unanswered camped-on call to the attendant. Enter a number from 12 to 60, or enter 0 for without limit

Attendant Camp-On (continued)

Datafilling table CUSTCONS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	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	0-15	Duration. This subfield specifies the length of the interval, in 100 ms to apply the 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 N for no announcement or music.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

MAP example for table CUSTCONS

CUSTNAME	OPTIONS
MDCGRP1	(ACO 12 CAMPON 13 N) \$

Datafilling table FNMAP

Table FNMAP contains fields to assign a dedicated Incoming Call Identification (ICI) key and lamp for Attendant Camp-On.

Attendant Camp-On (continued)

Datafill for Attendant Camp-On for table FNMAP appears in the following table. The fields that apply to Attendant Camp-On appear in this table. Refer to 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		KEY_SEL or ICI	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	3	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number defined in field ACKEY. Enter 3 for camp on recall.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	ICICODE 3

Datafilling table ICIDATA

Table ICIDATA contains fields to assign Camp-On Recall to ICI code number 3.

Attendant Camp-On (end)

Datafill for Attendant Camp-On for table ICIDATA appears in the following table. The fields that apply to Attendant Camp-On appear in this table. Refer to 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		CUSTGRP or ICICODE	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	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.
	ICICODE	3	Incoming Call Identification Code. This subfield specifies the incoming call identification (ICI) code. Enter 3.
NAME		CM PONRC	KLD Name. This field specifies the 1-character to 7-character alphanumeric name assigned to the specified ICI code. This code is in the specified customer group for the key and lamp display at the attendants console. Enter CM PONRC.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

KEY		NAME	OPTION
BNRMC	3	CM PONRC	\$

Tools for verifying translations

Attendant Camp-On does not use translation verification tools.

SERVORD

Attendant Camp-On does not use SERVORD.

Attendant Conference Max Six Conferees by end user

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Attendant Conference Max Six Conferees by end user requires BAS Generic, BAS00003.

Description

Attendant Conference Maximum Six Conferees by the end user allows the attendant to establish a conference call when a request occurs. The system uses a six-port bridge for each conference call. When the system establishes a conference call, the attendant can add a new conferee. A free port must be available on the bridge. When the system establishes a conference call, the attendant can hold the conference and release the conference. The attendant can also handle attendant recall requests from conferees that are members of held or released conferences.

Operation

This document does not provide an explanation of operation for Attendant Conference Max Six Conferees by end user.

Translations table flow

The Attendant Conference Max Six Conferees by end user translations tables appear in the following list:

- Table CUSTHEAD (Customer Group Head) lists the values and options assigned to customer groups. Enter data in table CUSTHEAD to allow a maximum of six conferees to participate in an attendant conference call. This feature creates option SUPERCNF.
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 to 43 on specified consoles. Enter data in table FNMAP to assign a dedicated incoming call identification (ICI) key and lamp for Attendant Conference Max Six Conferees by end user.
- Table WCKCODES (Wild Card Key Codes) contains fields to assign a Wild Card key access code to Attendant Conference Max Six Conferees by

Attendant Conference Max Six Conferees by end user (continued)

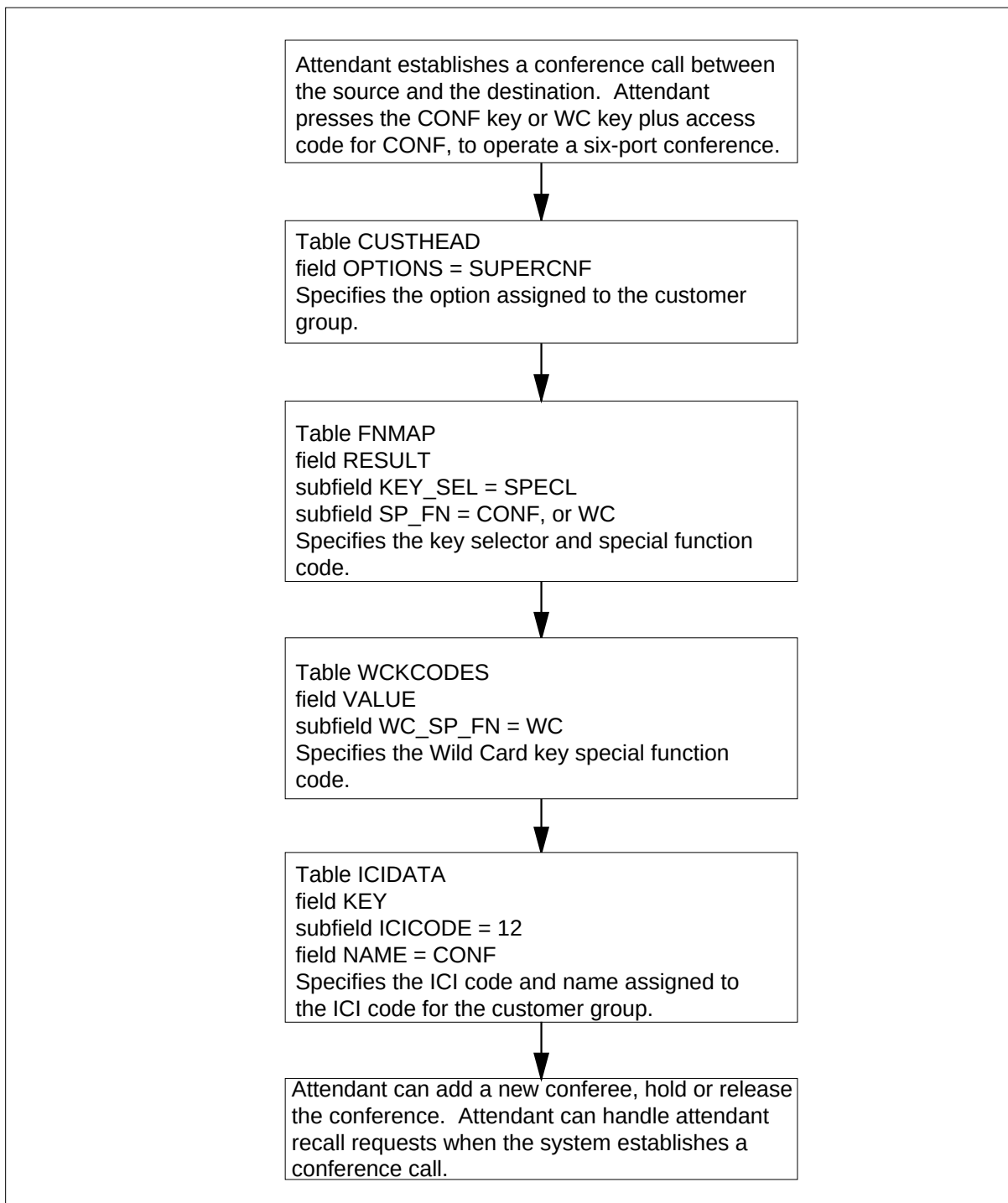
end user. Enter data in this table if the Conference feature activates from a Wild Card key instead of a dedicated Conference (CONF) key.

- Table ICIDATA (Incoming Call Identification Data) contains the key and lamp display for each ICI number. If ICI is a requirement, enter data in table ICIDATA. This data entry assigns Attendant Conference Max Six Conferees by end user to ICI code number 12.

The Attendant Conference Max Six Conferees by end user translation process appears in the following flowchart.

Attendant Conference Max Six Conferees by end user (continued)

Table flow for Attendant Conference Max Six Conferees by end user



Attendant Conference Max Six Conferees by end user (continued)

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

Datafill example for Attendant Conference Max Six Conferees by end user

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 limits apply to Attendant Conference Max Six Conferees by end user. These features do not apply to a six-port conference call:

- Attendant Locked Loop Operation
- Delayed Operation
- Call Waiting
- Attendant Camp-On
- Call Park

Interactions

The following paragraphs describe the interactions between Attendant Conference Max Six Conferees by end user and other functionalities:

- Calling Party
The calling party must stay off-hook while the attendant establishes the connections. The attendant can release the calling party, establish the conference call, and recall the requesting party.
- Customer Group Billing Directory Number
The system can charge a minimum of one leg of the conference call on some conference calls. When this event occurs, the system writes the calling directory number (DN) to tape as the customer group billing DN.
- Service Feature Code
The system writes each leg to tape includes the service feature code assigned to the conference.

Attendant Conference Max Six Conferees by end user (continued)

Activation/deactivation by the end user

A conference call initiates as follows.

Activation/deactivation of Attendant Conference Max Six Conferees by end user

At your telephone

- 1 The attendant establishes a two-port call between the source and the destination. The source is the person that requests the conference.
- 2 The attendant operates the Conference (CONF) key, and dials the number of the third conferee. The CONF key moves the source and the destination to the six-port bridge.
Response:
When the third conferee answers the call, the attendant and the third conferee can talk in private.
- 3 To add the third conferee to the conference, the attendant operates the CONF key.
- 4 To add the fourth and fifth conferees to the conference, the attendant operates the CONF key.
- 5 To add the sixth conferee, the attendant operates the Hold (HOLD) key. When the attendant presses the Release (RLS) key, the call releases from the loop and the console.
- 6 During the conference, any conferee can flash the switchhook to recall the attendant. During the conference, any conferee can go on-hook for a period longer than the flash interval to leave the conference.

Billing

Attendant Conference Max Six Conferees by end user does not affect billing.

Station Message Detail Recording

Attendant Conference Max Six Conferees by end user does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Conference Max Six Conferees by end user does not affect office parameters.

Attendant Conference Max Six Conferees by end user (continued)

Datafill sequence

The tables that require datafill to implement Attendant Conference Max Six Conferees by end user appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Conference Max Six Conferees by end user

Table	Purpose of table
CUSTHEAD	Customer group head. This table contains the values and options assigned to customer groups.
FNMAP	Attendant console functional key. This table contains fields to set up a dedicated key and lamp.
WCKCODES	Wild card key codes. This table contains fields to assign a Wild Card key access code to Attendant Conference Max Six Conferees by end user.
ICIDATA	Incoming call identification data. This table contains fields to assign the Conference feature to incoming call identification (ICI) code number 12.

Datafilling table CUSTHEAD

Table CUSTHEAD lists the values and options assigned to customer groups. Enter data in table CUSTHEAD to allow a maximum of six conferees to participate in an attendant conference call. This feature creates option SUPERCNF.

Datafill for Attendant Conference Max Six Conferees by end user for table CUSTHEAD appears in the following table. The fields that apply to Attendant Conference Max Six Conferees by end user appear in this table. Refer to 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 option. Enter SUPERCNF for super conference.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example. In this example, table CUSTHEAD assigns Attendant Conference Max Six Conferees by end user to a customer group.

Attendant Conference Max Six Conferees by end user (continued)

MAP example for table CUSTHEAD

CUSTNAME	CUSTXLA	DGCOLNM	IDIGCOL	OPTIONS
MDCGRP1	BNRXLA	NTIDIG	NIL	(SUPERCNF) \$

Datafilling table FNMAP

Table FNMAP contains fields to set up a dedicated key and lamp.

The two options to set up the AC keys for this feature are:

- to assign this feature to a dedicated key and lamp on the AC
- to assign this feature to a Wild Card key on the AC

Datafill for Attendant Conference Max Six Conferees by end user for table FNMAP, Option #1, and Option #2, appears in the following table. The fields that apply to Attendant Conference Max Six Conferees by end user appear in this table. Refer to the data schema section of this document for a description of the other fields.

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	Explanation and action
RESULT		KEY_SEL or SP_FN	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 code. Enter CONF.

Attendant Conference Max Six Conferees by end user (continued)**Option #2**

Enter data in table FNMAP to set up a dedicated key and lamp for the Wild Card function.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		KEY_SEL or SP_FN	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.

If call identification (ICI) is a requirement, enter data in table FNMAP. This action allows you to set up a dedicated key and lamp for conference call recall.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		KEY_SEL or ICI	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	12	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number that field ACKKEY defines. Enter 12 for conference call recall.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following examples. In the first example, the user assigns Table FNMAP a dedicated key and lamp for Conference Call.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL CONF

Attendant Conference Max Six Conferees by end user (continued)

In the next example, the user assigns table FNMAP a dedicated key and lamp for the Wild Card function.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL WC

In the last example, the user assigns table FNMAP key 12 to conference call recall.

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 to Attendant Conference Max Six Conferees by end user.

Datafill for Attendant Conference Max Six Conferees by end user for table WCKCODES appears in the following table. The fields that apply directly to Attendant Conference Max Six Conferees by end user appear in this table. Refer to 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		CUSTGRP or TABIDX	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-alphanumeric to 16-alphanumeric character name.
	TABIDX	00-99	Table Index. This subfield specifies the Wild Card key access code. Enter a value from 00 to 99.

Attendant Conference Max Six Conferees by end user (continued)

Datafilling table WCKCODES (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
VALUE		WC_SP_FN	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 appears in the following example.

MAP example for table WCKCODES

WCKEY	VALUE
BNRMC 14	WC

Datafilling table ICIDATA

Table ICIDATA contains fields to assign the Conference feature to incoming call identification (ICI) code number 12.

Datafill for Attendant Conference Max Six Conferees by end user for table ICIDATA appears in the following table. The fields that apply directly to Attendant Conference Max Six Conferees by end user appear in this table. Refer to the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		CUSTGRP or ICICODE	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	alphanumeric (1-16 characters)	Customer Group Name. This subfield specifies the 1-character to 16-character alphanumeric name assigned to the customer group. Enter the customer group name.
	ICICODE	12	Incoming Call Identification Code. This subfield specifies the ICI code. Enter 12.

Attendant Conference Max Six Conferees by end user (end)

Datafilling table ICIDATA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NAME		CONF	KLD Name. This field specifies the 1-character to 7-character alphanumeric name assigned to the specified ICI code. This code is in the specified customer group 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 appears in the following example.

MAP example for table ICIDATA

KEY	NAME	OPTIONS
BNRMC 12	CONF	\$

Tools for verifying translations

Attendant Conference Max Six Conferees by end user does not use translation verification tools.

SERVORD

Attendant Conference Max Six Conferees by end user does not use SERVORD.

Attendant Console Call Hold Recall

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS30 and later versions

Requirements

To operate, Attendant Console Call Hold Recall requires BAS Generic, BAS00003.

Description

Attendant Console Call Hold Recall provides a recall timer for the hold key on the attendant console (AC). This timer reminds the attendant that a call is on hold for a specified amount of time.

Note: This feature only applies to calls that have a source party on the loop but not a destination party. This feature applies to calls that have a destination party on the loop but not a source party. This feature does not operate for calls that have a source party and a destination party. The name loop refers to each of the six keys on the AC. These keys allow the attendant to answer calls and originate calls. Each loop has two lamps to indicate that a source party and/or a destination party is present.

Operation

Attendant Console Call Hold Recall operates with a timer. The operating company sets the timer value in Table CUSTCONS (Customer Group Attendant Console Option).

When an attendant places a call on hold, the system starts a hold recall timer. When the timer expires, a tone alerts the attendant. When the timer expires, the source or destination lamp on the held loop starts to flash faster. This flash reminds the attendant that the call is on hold for a specified amount of time. The attendant can press the loop key to enter the held call again.

If the attendant enters a loop again that has the hold recall timer in progress against the loop, the system cancels the timer. If the attendant places the call on hold again, the system starts the timer again.

The system does not start the hold recall timer for calls that involve a source party and a destination party. If party disconnects from the call, the system

Attendant Console Call Hold Recall (continued)

starts the hold recall timer. The call calls to the attendant again when the timer expires.

Two methods are available for an attendant to place a call on hold. The first method is to press the Hold (HOLD) key. The second method is to press another Loop key. Both methods start the hold recall timer.

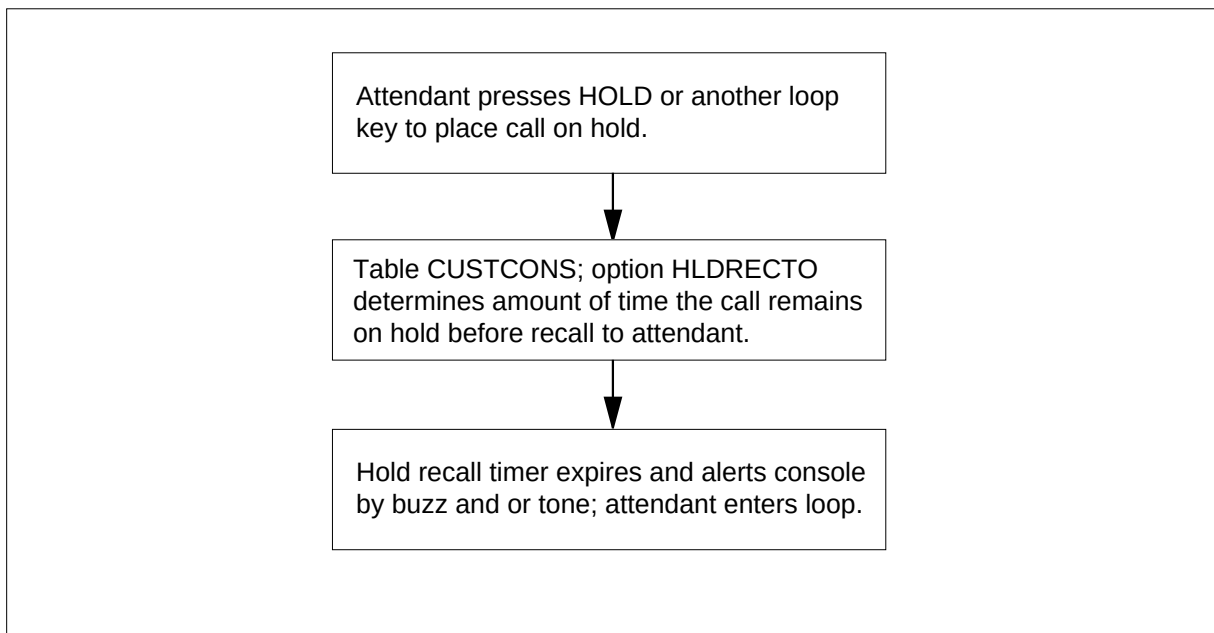
Translations table flow

The following paragraph describes the Attendant Console Call Hold Recall translations table.

Table CUSTCONS (Customer Group Attendant Console Option) contains fields to assign options to the ACs in a customer group. For the Attendant Console Call Hold Recall feature, table CUSTCONS defines the number of seconds for the hold recall timer. Option HLDRECTO defines the timer

The Attendant Console Call Hold Recall translation process appears in the following flowchart.

Table flow for Attendant Console Call Hold Recall



Attendant Console Call Hold Recall (continued)

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

Datafill example for Attendant Console Call Hold Recall

Datafill table	Example data
CUSTCONS	CUST1 (HLDRECTO 30) \$

Limits

The following limits apply to Attendant Console Call Hold Recall:

- This feature only applies to loops that have a source party, or a destination party. This feature does not apply to loops that have a source party and a destination party. Calls can have two parties on the loop. For these calls the hold recall timer starts if one of the parties disconnects from the call.
- The attendant can extend a call to a destination and place the call on hold while the destination continues to ring. When this event occurs, the system does not use the hold recall timer. The system uses the don't answer recall timer.
- The attendant extends an intragroup call to a destination that is busy and places the call on hold. If this event occurs, the system does not use the hold recall timer. The system uses the call waiting recall timer.

Interactions

The following paragraphs describe the interactions between Attendant Console Call Hold Recall and other functionalities.

Attendant Call Park

If the system parks a call and places the call on hold, the system does not use the hold recall timer. When this event occurs the system uses the call park recall timer.

Attendant Camp-On

A call can be camped-on to a busy station and the system can place the call on hold. When this event occurs the system uses the hold recall timer. The system uses the camp-on recall timer. The Attendant Camp-On feature applies only to intergroup calls.

Activation/deactivation by the end user

Attendant Console Call Hold Recall does not require activation or deactivation by the end user. The timer automatically starts when the attendant places a call on hold. The system alerts the attendant when the timer expires.

Attendant Console Call Hold Recall (continued)

Billing

Attendant Console Call Hold Recall does not affect billing.

Station Message Detail Recording

Attendant Console Call Hold Recall does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Console Call Hold Recall does not affect office parameters.

Datafill sequence

The tables that require datafill to start Attendant Console Call Hold Recall appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Console Call Hold Recall

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option. This table defines the number of seconds for the hold recall timer.

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields to assign options to the ACs in a customer group. For the Attendant Console Call Hold Recall feature, table CUSTCONS defines the number of seconds for the hold recall timer. Option HLDRECTO defines the timer. This option is present in table CUSTCONS with a default value of zero. The default of zero indicates that the hold recall timer is not active for any calls. The feature is off. To activate the feature, change table CUSTCONS, option HLDRECTO, to a non-zero timer value.

Datafill for Attendant Console Call Hold Recall for table CUSTCONS appears in the following table. The fields that apply to Attendant Console Call Hold

Attendant Console Call Hold Recall (end)

Recall appear in this table. Refer to 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		HLDRECTO	Options. This field specifies the list of options that are assigned to the customer group. Enter HLDRECTO.
If OPTIONS is HLDRECTO, subfield HLDRECTO requires datafill.			
	HLDRECTO	0 - 240	Hold Recall Total. This subfield specifies the time, in 1-s increments, that the system holds a call before the recall timer activates. Enter a value from 0 to 240. A value of 0 turns the feature off.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example. In this example, the hold recall timer is 30 seconds for the attendant consoles in customer group CUST1.

MAP example for table CUSTCONS

CUSTNAME	OPTIONS
CUST1	(HLDRECTO 30) \$

Tools for verifying translations

Attendant Console Call Hold Recall does not use translation verification tools.

SERVORD

Attendant Console Call Hold Recall does not use SERVORD.

Attendant Console Display

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

To operate, Attendant Console Display requires BAS Generic, BAS00003.

Description

The Attendant Console Display feature includes the Attendant Console Display (Enhance 2) and Attendant Console Completeness features. Feature Attendant Console Display (Enhance 2) was introduced in BCS11. Feature Attendant Console Completeness was introduced in BCS12.

The attendant console (AC) display is a 16-character alphanumeric display that provides information on incoming and outgoing calls. The attendant uses the display for information in the following types of calls:

- an incoming call
- an outgoing call
- a call that held on an attendant loop
- an outgoing call that the system forwards
- a call release

With the optional Display Control (DSPC) key, the attendant can view an additional message. The additional display can contain the following information:

- treatments that occur during termination of outgoing calls
- identification of features activated during calls

Operation

Incoming call information

Incoming call information appears when an attendant presses an Active Loop key or Incoming Call Identifier (ICI) key to answer a call. The source of the call appears on the display. The incoming call display format appears in the following figure.

Attendant Console Display (continued)

Attendant console display for an incoming call

```
iiiiiii ccccccc
```

i = call identifier

c = caller information

The call identifier is a seven-character alphanumeric field assigned to each incoming call in each customer group. Correct characters are A to Z, 0 to 9, and the underscore (_). The underscore echoes on the display as a blank.

The ICI names recommended for the current system-defined ICIs (0 to 25) appear in the following table.

Recommended system-defined ICI names

Name	ICI code	Description
DIAL0	1	Dial "0"
NOANRC	2	Don't Answer Recall
CMPONRC	3	Camp On Recall
CWAITRC	4	Call Waiting Recall
CFW	5	Call Forward to Attendant
CFWNOAN	6	Call Forward Don't Answer
CFWBUSY	7	Call Forward Busy
INTECPT	8	Intercept (all kinds)
SERIAL	9	Serial Call
CONF	12	Conference Call
DND	13	Do Not Disturb
DIRECT	25	Direct Call from Another Attendant

The caller information can be the network class of service (NCOS) or the common language location identifier (CLLI) of an AC or trunk.

You can assign a maximum of 512 NCOS codes to each customer group. Every line in the group maps in NCOS data, where specification of limits

Attendant Console Display (continued)

occurs. You can specify a limit that is correct for the customer group that uses IBN translators as an NCOS limit.

Outgoing call information

When an attendant places a call, the digits dialed echo on the display. After the attendant enters the first digit, the previous entry clears. The first digit appears on the left side of the display, and the digits that remain follow in sequence. The attendant can enter digits that the DMS-100 switch does not expect. If this event occurs the system rejects and deletes the digits from the display. The previous entry appears again. The display for an outgoing call appears in the following figure.

Attendant console display for an outgoing call



dddddddddddddd

dddddddddddddd = 13-digit terminating directory number (DN)

Held loop call information

The held loop reenter indication displays a call held on an attendant loop. The directory number (DN) that appears can be the source or the destination number. The type of call determines if the DN is the source or the destination number.

The source can be a held loop recall from a three-way or conference call. If this event occurs the display indicates the party that initiates the recall. This party is always the destination party. If the source is a conference call, the destination always appears.

When the attendant enters a held loop again without a recall, the source number appears if the party remains online. If the party does not remain online the destination number appears.

Outgoing forwarded call information

The system can forward an outgoing call before the call terminates on a line, trunk, or agent. When this event occurs, the display indicates that the call the system forwarded. This condition appears in the following figure.

Attendant Console Display (continued)

Attendant console display for a forwarded call

CF dddddddddddddd

CF = call forwarding

ddddddddddddd = 13-digit terminating DN

The system can update the display with the new terminating number. This event occurs if a call forwards with the Call Forwarding Don't Answer feature. The final terminating number appears only if a chain of call forwarding occurs.

An example of call forwarding assignments for a set of five DNs appears in the following table.

Station	Station DN	Call Forwarding feature	Forwarded-to DN
A	621-1111	CFD (Call Forward Don't Answer)	621-2222
B	621-2222	CFU (Call Forward Universal)	621-3333
C	621-3333	CFB (Call Forward Busy)	621-4444

An attendant can call station A (621-1111) and the attendant at station A can pick up. The display that appears in this condition appears in the following figure.

Attendant console display when station A picks up

6211111

An attendant can call station A (621-1111). The display that appears in this condition appears in the following figure. The call forwards to station B (621-2222). The call forwards to station C (621-3333). The attendant answers at station C.

Attendant console display when station C picks up

CF 6213333

CF = call forwarding

Attendant Console Display (continued)

Call release information

The call release clears the display when the active party releases or the console idles. A console can become idle in any of the following methods:

- the source releases
- the destination releases
- the active loop releases
- the attendant presses the Release (RLS) key without an active loop. The RLS key functions as a Clear Display key.
- a single-party disconnect occurs where the party is outside the serving customer group
- the attendant originates or extends a call with the Idle Loop key
- a hold call initiates
- a jack-out lasts for over one minute
- the console returns to service
- the call fails on console

Call termination treatment information

If a call does not terminate and the attendant receives an audible treatment, a corresponding treatment message appears. This message appears in the additional display. The Display (DSP) lamp illuminates to indicate to the attendant that additional information is available. The attendant can press the DSPC key to view the second display. The DSP lamp turns off when the attendant presses the DSPC key to change back to the original display.

The information in the additional display is not available if the DSPC key is not assigned. This information is not available if the audible treatment returns from a remote switch.

The treatment message display for calls that do not forward appears in the following figure.

Attendant console display for treatment of a non-forwarded call



ccccccccccccc = 13-character treatment message

Attendant Console Display (continued)

The treatment message display for calls that forward appear in the following figure.

Attendant console display for treatment of a forwarded call

CF cccccccccccccc

CF = Call Forwarding

ccccccccccccc = 13-character treatment message

The treatment messages and associated treatment codes appear in the following table. Enter the treatment codes in Table TMTCTL (Treatment Control).

(Sheet 1 of 2)

Treatment message	Treatment code
TRY AGAIN	RODR (reorder), SYFL (system failure)
ALL CKTS BUSY	NOSC (no service circuit), NCRT (no circuit), GNCT (generalized no circuit), SORD (storage overflow reorder)
NETWORK BLOCK	NBLH (network blockage heavy traffic), NBLN (network blockage normal traffic)
DEFLECTED	EMR1 (emergency treatment 1), EMR2 (emergency treatment 2), EMR3 (emergency treatment 3), EMR4 (emergency treatment 4)
INTERCEPTED	ANCT (machine intercept), OPRT (regular intercept), TRBL (trouble intercept), ATBS (attendant busy), MHLN (music on hold)
UNASSIGNED DN	BLDN (blank DN), UNDN (unassigned DN)
BUSY	BUSY (busy)
BSY NO CAMPAIGN	BUSY (busy)

Attendant Console Display (continued)

(Sheet 2 of 2)

Treatment message	Treatment code
DISALLOWED	- VACT (vacant code) - HNPI (home numbering plan area [NPA] intercept) - UNIN (unauthorized inward wide area telephone service [INWATS] call) - UNOW (unauthorized outward wide area telephone service [OUTWATS] call) - UNCA (unauthorized centralized automatic message accounting [CAMA] call)
DIALING ERROR	MSCA (misdirected CAMA call), MSLC (misdirected local call—prefix digit not dialed), MSOA (misdirected operator assisted call—0+ dialing not allowed)
TOLL DENIED	TDND (toll denied), TOVD (toll overload)
TERM DENIED	DNTR (denied terminating), TESS (terminating service suspension)
PARTIAL DIAL	PDIL (partial dial time-out), PSIG (permanent signal time-out)
TRUNK TROUBLE	SSTO (start signal time-out)
UNDEFINED	any other treatment

Feature information

An attendant presses a feature key. This event can cause the mode of operation to change. When this event occurs, the system updates the display with feature information. One exception to this condition is the Conference (CONF) key. If an attendant presses the CONF key and correctly adds a party to the conference, the phrase CONFeree ADDED appears. The use of the DSPC key cannot toggle between displays at this point.

Using keys during termination of outgoing calls

The AC display can change if the attendant presses keys during termination of an outgoing call.

- If the attendant presses the Hold (HOLD) key, the display clears. If another call is active, the system updates the display with the information of that call.
- If the attendant presses the RLS or Source Release (SRC RLS) key, the display clears. The call releases.

Attendant Console Display (continued)

- If the attendant presses the Release Destination (RLS DEST) key during a correctly terminating call, the display clears. The call releases. If the attendant presses a key to correct a dialing error, the display clears.
- If the attendant enters digits during a correctly terminating call, the system rejects the digits, and the display clears. If the attendant enters digits after the attendant receives a tone treatment, the system echoes the digits dialed to the display.
- If the attendant initiates an active loop when dialing, the default display appears.
- The display does not change if the attendant presses any of the following keys:
 - ICI keys, Exclude Source (EXC SRC)/DEST
 - Position Busy (POS BUSY)
 - Night Service (NITE)
 - Signal (SGNL) Source (SRC)/DEST

Translations table flow

Attendant Console Display does not affect translations table flow.

Limits

Attendant Console Display does not have limits.

Interactions

The following features interact with Attendant Console Display

- Access to Code Calling Phase 2
- Access to Loudspeaker Paging through Line Interface
- Attendant Call Detail Entry
- Attendant Speed Calling
- Authorization Code
- Busy Verification - Lines
- Busy Verification - Trunks
- Call Park
- Do Not Disturb
- Night Service - Flexible
- Trunk Access Control

Attendant Console Display (end)

- Trunk Group Busy Lamps
- TGB/TAC Access Through Special Keys
- Wild Card Key

Activation/deactivation by the end user

Attendant Console Display does not require activation or deactivation by the end user.

If the assignment of the DSPC key occurs, you can receive additional information on another call in the following ways:

- press a Held-loop key for information on another call
- answer another call
- terminate a call
- extend a call

Billing

Attendant Console Display does not affect billing.

Station Message Detail Recording

Attendant Console Display does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Console Display does not affect office parameters.

Datafill sequence

Attendant Console Display does not affect datafill.

Tools for verifying translations

Attendant Console Display does not use translation verification tools.

SERVORD

Attendant Console Display does not use SERVORD.

Attendant Console End-to-End Signaling

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS24 and later versions

Requirements

To operate, the Attendant Console End-to-End Signalling feature requires BAS Generic, BAS00003.

Description

The Attendant Console End-to-End Signalling feature allows the Meridian Digital Centrex (MDC) attendant to use dual tone multi-frequency (DTMF) signaling. For example, some outgoing trunks or lines that an MDC attendant can dial up require dual tone (DT) signaling. The trunks or lines require DT signaling for additional dialing. These trunks or lines include paging and dial dictation circuits. The Attendant Console End-to-End Signalling feature attaches a hardware DTMF sender (3X68AB) through the network to the line or trunk to provide signaling.

Operation

The MDC attendant can activate the Attendant Console End-to-End Signalling feature through normal attendant console (AC) operation. The DMS switch selects a port on which to transmit the DTMF digits, according to the following figure. The key lamp display (KLD) reads SRC DGTS: INPUT or DEST DGTS: INPUT. The KLD reads these data to indicate if the switch selects the source or destination port, in that order.

The conditions under which the switch selects the ports appear in the following table.

(Sheet 1 of 2)

Connection and status	Port selected
SRC ANSWERED, DEST ANSWERED	DEST
SRC NOT ANS, DEST ANSWERED	DEST
Note: The ANSWERED status and NOT ANSWERED status also imply SUITABLE. The UNSUITABLE status means connection not present or connection not correct.	

Attendant Console End-to-End Signaling (continued)

(Sheet 2 of 2)

Connection and status	Port selected
SRC ANSWERED, DEST NOT ANS	SRC
SRC NOT ANS, DEST NOT ANS	DEST
SRC ANSWERED, DEST UNSUITABLE	SRC
SRC NOT ANS, DEST UNSUITABLE	SRC
SRC UNSUITABLE, DEST ANSWERED	DEST
SRC UNSUITABLE, DEST NOT ANS	DEST
SRC UNSUITABLE, DEST UNSUITABL	FEATURE DISALLOWED
Note: The ANSWERED status and NOT ANSWERED status also imply SUITABLE. The UNSUITABLE status means connection not present or connection not correct.	

To outpulse on the other port, the attendant presses the Signal Source (SIG SRC) or Signal Destination (SIG DEST) key. The switch does not select the other port. The attendant presses this key to indicate the port on which to send the DTMF digits. If the port the attendant indicated is idle, the system deactivates the feature. The attendant hears 3 s of reorder tone, and the KLD updates to indicate the selected port.

Translations table flow

The Attendant Console End-to-End Signalling feature does not affect translations table flow.

Limits

The following limits apply to the Attendant Console End-to-End Signalling feature:

- The attendant can activate DTMF end-to-end signaling to a single line or trunk. For example, an attendant cannot use ACEES on a connection to another AC or a six-port conference circuit. An attendant cannot cause ACEES while the attendant performs a busy verify or a barge-in.
- The Attendant Console End-to-End Signalling feature inhibits some normal AC call processing. The system must deactivate this feature before normal attendant call processing can resume. The system cannot perform

Attendant Console End-to-End Signaling (continued)

the following AC call processing functions in the Attendant Console End-to-End Signalling feature:

- enter another loop
- exclude the port on which the feature is active
- hold the call
- release the call
- release the port on which the feature is active
- The Attendant Console End-to-End Signalling feature processes the following AC keys:
 - active loop key
 - digit keys (0 to 9, *, and #)
 - EES feature key
 - SIG SRC/SIG DEST key
- The Attendant Console End-to-End Signalling feature processes the following AC keys while the feature runs:
 - Exclude Destination (EXC DEST)
 - Exclude Source (EXC SRC)
 - Night Service (NITE)
 - Position Busy (POS BSY)
 - Query Time and Date
 - Release Source (RLS SRC)
 - Release Destination (RLS DEST)
- If the attendant presses other AC keys while the EES feature is active, the system deactivates the feature. The system ignores the ACEES digits for which a request for transmission will occur. The normal AC key processors process the key.
- If a six-port conference is on the source port, the attendant can use EES on the destination port. If the attendant conferences in the destination port, the system deactivates the EES feature.

Interactions

Descriptions of the interactions between Attendant Console End-to-End Signalling and other functionalities appear in the following paragraphs.

Attendant Console End-to-End Signaling (continued)

Dial Dictation

The Attendant Console End-to-End Signalling feature provides DTMF signaling for ACs for the dial dictation feature.

Multizone Voice Paging

The Attendant Console End-to-End Signalling feature provides DTMF signaling for ACs for the multizone voice paging feature.

Radio Paging

The Attendant Console End-to-End Signalling feature provides DTMF signaling for ACs for the radio paging feature.

Voice Messaging

The Attendant Console End-to-End Signalling feature provides DTMF signaling for ACs for the voice messaging feature.

Activation/deactivation by the end user

An example of how an attendant can use the Attendant Console End-to-End Signalling feature on a tie trunk call appears in the following section.

Activation/deactivation of Attendant Console End-to-End Signaling by the end user***At your telephone***

- 1 The attendant enters an idle loop and dials up a tie trunk.
Response:
There is no response.
- 2 The attendant realizes that DTMF is a requirement.
Response:
There is no response.
- 3 The attendant presses the Attendant Console End-to-End Signalling (ACEES) feature key.
Response:
The ACEES feature key lamp lights, and SRC DGTS: INPUT. appears on the key lamp display (KLD).
- 4 The attendant keys digits or presses the Signal Source (SIG SRC) key. In this condition, the SIG SRC key is not a requirement.
Response:
There is no response.
- 5 The attendant keys the first required digits.
Response:

Attendant Console End-to-End Signaling (continued)

- The first required digits appear on the KLD.
- 6 The attendant presses the ACEES feature key again.
Response:
The dual tone multi-frequency (DTMF) sender output pulses the first required digits on the trunk. The DIGITS SENT appear on the KLD.
- 7 The attendant knows that more digits are required, and keys an extension number.
Response:
The extension number appears on the KLD, which is not correct.
- 8 The attendant presses the Loop key to cancel the extension number, and keys the correct extension number.
Response:
The correct extension number appears on the KLD.
- 9 The attendant presses the feature key to send the digits.
Response:
The DIGITS SENT appear on the KLD.
- 10 The attendant presses the feature key again, two times.
Response:
The system deactivates the feature, the feature key lamp goes off, and the KLD clears.
- 11 The attendant can process calls in the normal way.
- Note:** While the attendant transmits a group of attendant console end-to-end signalling (ACEES) digits, the system interrupts the speech path. The system restores the speech path after the attendant transmits the digits.

Billing

The Attendant Console End-to-End Signalling feature does not affect billing.

Station Message Detail Recording

The Attendant Console End-to-End Signalling feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Console End-to-End Signalling feature does not affect office parameters.

Attendant Console End-to-End Signaling (continued)

Datafill sequence

The tables that require datafill to implement Attendant Console End-to-End Signalling appear in the following tables. The tables appear in the correct entry order.

Datafill requirements for Attendant Console End-to-End Signaling

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains keys that a console CLLI name identifies. The name is used when the attendant enters data in a single AC.
WCKCODES	Wild Card Key Codes. This table contains fields for the assignment of a Wild Card key access code to Attendant Console End-to-End Signalling.
Note: If the attendant uses a dedicated key for the ACEES feature, table FNMAP requires datafill. In other conditions, the attendant can use a Wild Card key. The attendant must enter data in table FNMAP and table WCKCODES.	

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains keys that a console CLLI name identifies. The name is for use when the attendant enters a single AC.

Datafill for the Attendant Console End-to-End Signalling feature for table FNMAP appears in the following table. The fields that apply to Attendant Console End-to-End Signalling 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	Description
KEY		see subfields	Key. This field contains subfields CONSCLLI and ACKEY.
	CONSCLLI	alphanumeric	Console Common Language Location Identifier. This field specifies the code assigned to the attendant console (AC) in the CLLI table. Enter an alphanumeric value.
	ACKEY	2 - 43	Attendant Console Key and Lamp Number. This field specifies the number of the AC key and lamp assigned to the Attendant Console End-to-End Signalling feature. Enter a value from 2 to 43.

Attendant Console End-to-End Signaling (continued)

Datafilling table FNMAP (Sheet 2 of 2)

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 field specifies the special function code for the Attendant Console End-to-End (DTMF) Signalling feature. Enter SPECL.
	SP_FN	ACEES	Special Function. This field specifies the special function code for the Attendant Console End-to-End (DTMF) Signalling feature. Enter ACEES.
If SP_FN is ACEES, subfields SENDBFA and ADIGSEND require datafill.			
	SENDBFA	N	Send Before Answer. This subfield specifies enabling of send before answer. Enter N.
	ADIGSEND	Y or N	Automatic Digit Sending. This subfield specifies enabling of automatic digit sending. Enter Y of N.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

KEY		RESULT			
ATTCONS	30	SPECL	ACEES	Y	N

Datafilling table WCKCODES

Table WCKCODES (Wild Card Key Codes) contains fields for the assignment of a Wild Card key access code to the Attendant Console End-to-End Signalling feature.

Datafill for the Attendant Console End-to-End Signalling feature for table WCKCODES appears in the following table. The fields that apply to the

Attendant Console End-to-End Signaling (end)

Attendant Console End-to-End Signalling 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
WCKEY		see subfields	Wild Card Key. This field contains subfields CUSTGRP and TABIDX.
	CUSTGRP	alphanumeric (1 to 16 characters)	Customer Group. This subfield specifies the name assigned to the customer group. Enter a 1- to 16-alphanumeric character name.
	TABIDX	0 to 99	Table Index. This field specifies the Wild Card key access code assigned to the Conference Call feature. Enter a value from 0 to 99.
VALUE		see subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	ACEES	Wild Card Key Special Function. This field specifies the Wild Card key special function for the Attendant Console End-to-End Signalling feature. Enter ACEES.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

MAP example for table WCKCODES

WCKEY		VALUE		
BNRMC	14	ACEES	Y	N

Tools for verifying translations

The Attendant Console End-to-End Signalling feature does not use translation verification tools.

SERVORD

The Attendant Console End-to-End Signaling feature does not use SERVORD.

Attendant Control of Trunk Group Access

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: NTX100AA

Release applicability

BCS09 and later versions

Requirements

To operate, Attendant Control of Trunk Group Access requires BAS Generic, BAS00003.

Description

The Attendant Control of Trunk Group Access feature does not allow stations and incoming trunks to use a specified trunk group.

Operation

When Attendant Control of Trunk Group Access is active, unauthorized stations that dial a trunk group receive an intercept treatment. The customer group specifies this treatment. The intercept treatment can route the call to:

- an attendant
- a reorder tone
- an announcement

To use Attendant Control of Trunk Group Access, the customer assigns a trunk group to a lighted feature key on the attendant console (AC). The attendant presses the key to activate Attendant Control of Trunk Group Access.

Every console with the correct lighted feature key displays the status of trunk group control. The designated control console can activate and deactivate access for a specified trunk group. A console can control several trunk groups. A single console can control a specified trunk group.

Line screening codes (LSC) and alternate line screening code (ALSC) flag fields allow authorized users to bypass Attendant Control of Trunk Group Access. The LSCs can associate with trunks, stations, and authorization codes.

If the trunk group has a specified alternate route, the DMS-100 switch proceeds with the alternate routing. This route must be part of an automatic

Attendant Control of Trunk Group Access (continued)

route selection pattern. Automatic route selection treats the trunk group as busy.

Translations table flow

The Attendant Control of Trunk Group Access feature does not affect translations table flow.

Limits

The following limits apply to the Attendant Control of Trunk Group Access feature:

- Attendant Control of Trunk Group Access is an AC feature. The Attendant Control of Trunk Group Access feature does not affect ACs. The ACs cannot deny access to another AC in a customer group. Attendant Control of Trunk Group Access requires that the controller have a lighted Feature key that associates with a specified trunk group. When a headset plugs into the console, the Console lamps indicate the status of each trunk group. Trunk groups must terminate on a DMS-100 switch.
- One console can control access for a specified trunk group. If the attendant presses the same key on another console, nothing happens.
- Attendant Control of Trunk Group Access applies to one-way outgoing and two-way trunk groups. These trunk groups must belong to the customer group. The LSCs apply only to one-way outgoing and two-way trunk groups.
- A caller normally dials a whole number before the system provides a treatment. For example, a station dials 28, the DMS-100 switch returns a second dial tone. The station dials the rest of the number and the DMS-100 switch delivers a treatment. The same condition applies to incoming trunks. If Cut Through Dialing applies, the station gets a treatment after the attendant dials an access code. For incoming trunk groups from a PBX, the system must generate one or more digits before determination of routing and control. Overlap transmission and Attendant Control of Trunk Group Access can apply. If these functions apply, the DMS-100 switch gives intercept treatment when the caller dials enough digits to obtain a route.
- The customer can assign an incoming call identifier (ICI) to Attendant Control of Trunk Group Access.
- The attendant can activate the Attendant Control of Trunk Group Access feature during Night Service. The attendant can activate this feature if a headset plugs into the controlling console. When Night Service is on, controls remain in effect. The system can route Trunk Access Control (TAC) intercept to the attendant during daytime service. The controls can

Attendant Control of Trunk Group Access (continued)

be active during Night Service. In this condition, the system transfers blocked calls to the flexible-intercept treatment processor. You can specify a separate treatment for IBN lines and incoming trunks for each customer group.

- If trunk maintenance makes a trunk group busy, the AC does not display this information.
- When the Attendant Control of Trunk Group Access feature is active, an attendant can give a caller access to the controlled trunk group immediately or later. An attendant can also give a station access through Through Dialing.

Interactions

Call Back Queuing (CBQ) must not occur when a trunk group is busy and Attendant Control of Trunk Group Access is active.

Activation/deactivation by the end user

The attendant presses the key assigned to a trunk group to activate the Attendant Control of Trunk Group Access feature. The attendant presses this key again to turn the feature off. The Attendant Control of Trunk Group Access feature activation does not affect stations that use the trunks. The Attendant Control of Trunk Group Access feature takes effect when the station hangs up.

Attendants that cannot control access to trunks can monitor trunk group availability. The attendants can watch the lamp associated with the feature key. How different lamp states indicate trunk group availability appears in the following table.

Trunk Group Lamp States Per Trunk Group

Trunk Group Status	Attendant Control	Lamp State	Caller Treatment	On-Hook Queuing Allowed
Available	Off	Off	Route Call	No
Available	On	60 IPM	Intercept	No
Busy	Off	On	Intercept	Yes
Busy	On	120 IPM	Intercept	No

Billing

The Attendant Control of Trunk Group Access feature does not affect billing.

Attendant Control of Trunk Group Access (continued)

Station Message Detail Recording

The Attendant Control of Trunk Group Access feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Control of Trunk Group Access feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Attendant Control of Trunk Group Access feature appear in the following tables. The tables appear in the correct entry order.

Datafill requirements for Attendant Control of Trunk Group Access

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields for the assignment of features to the keys on the AC.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields for the assignment features to the keys on the AC. For the Attendant Control of Trunk Group Access feature, enter data in Table FNMAP to assign a TAC key to the AC.

Datafill for the Attendant Control of Trunk Group Access feature for table FNMAP appears in the following table. The fields that apply to the Attendant Control of Trunk Group Access 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
RESULT		see subfields	Result. This field contains the subfields KEY_SEL and TRK_CLLI.
	KEY_SEL	TGB	Key Selector. This subfield specifies the Trunk Group Busy (TGB) key selector. Enter TGB.
	TRK_CLLI	alphanumeric	Trunk Common Language Location Identifier. This subfield specifies the code of the trunk group assigned to this AC key. This code must be in Table CLLI. Enter the alphanumeric code.

Attendant Control of Trunk Group Access (end)

Datafill example for table FNMAP

Sample datafill for table FNMAP appear in the following example.

MAP example for table FNMAP

KEY			RESULT
BNRMCCON1	9	TGB	BNRCENT

Tools for verifying translations

The Attendant Control of Trunk Group Access feature does not use translation verification tools.

SERVORD

The Attendant Control of Trunk Group Access feature does not use SERVORD.

Attendant Display of Queued Calls by ICI Key

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS19 and later versions

Requirements

To operate, the Attendant Display of Queued Calls by ICI Key feature requires BAS Generic, BAS00003.

Description

The Attendant Display of Queued Calls by ICI Key feature provides the attendant with a visual indication of the number of calls to answer. A new feature key, Display Queued Calls (DQC), can be assigned to the console. The attendant uses this key to display the number of calls queued to be answered. The attendant uses this key to display the time, in seconds, that the oldest call in the queue waits. This information can appear for the attendant subgroup to which the console belongs. This information can appear for a specified incoming call identification (ICI) category.

Operation

To activate DQC, the attendant presses the DQC key. The DQC: INPUT appears on the console. The attendant performs the following steps:

- Presses the octothorpe key (#). In response, the console displays the number of calls queued for the subgroup of the attendant. The console also displays the time the oldest call waits.
- Presses an ICI key. The console displays the number of calls queued for the ICI category. The console also displays the time the oldest call waits.
- Enters the ICI code (0-254, except 25). The console displays the number of calls queued for the ICI code entered. The console also displays the time the oldest call waits.

Note: The attendant must first enter the ICI code. The attendant must enter the octothorpe (#) to indicate that the digits are entered.

The attendant presses the DQC key a second time to terminate the feature.

Attendant Display of Queued Calls by ICI Key (continued)

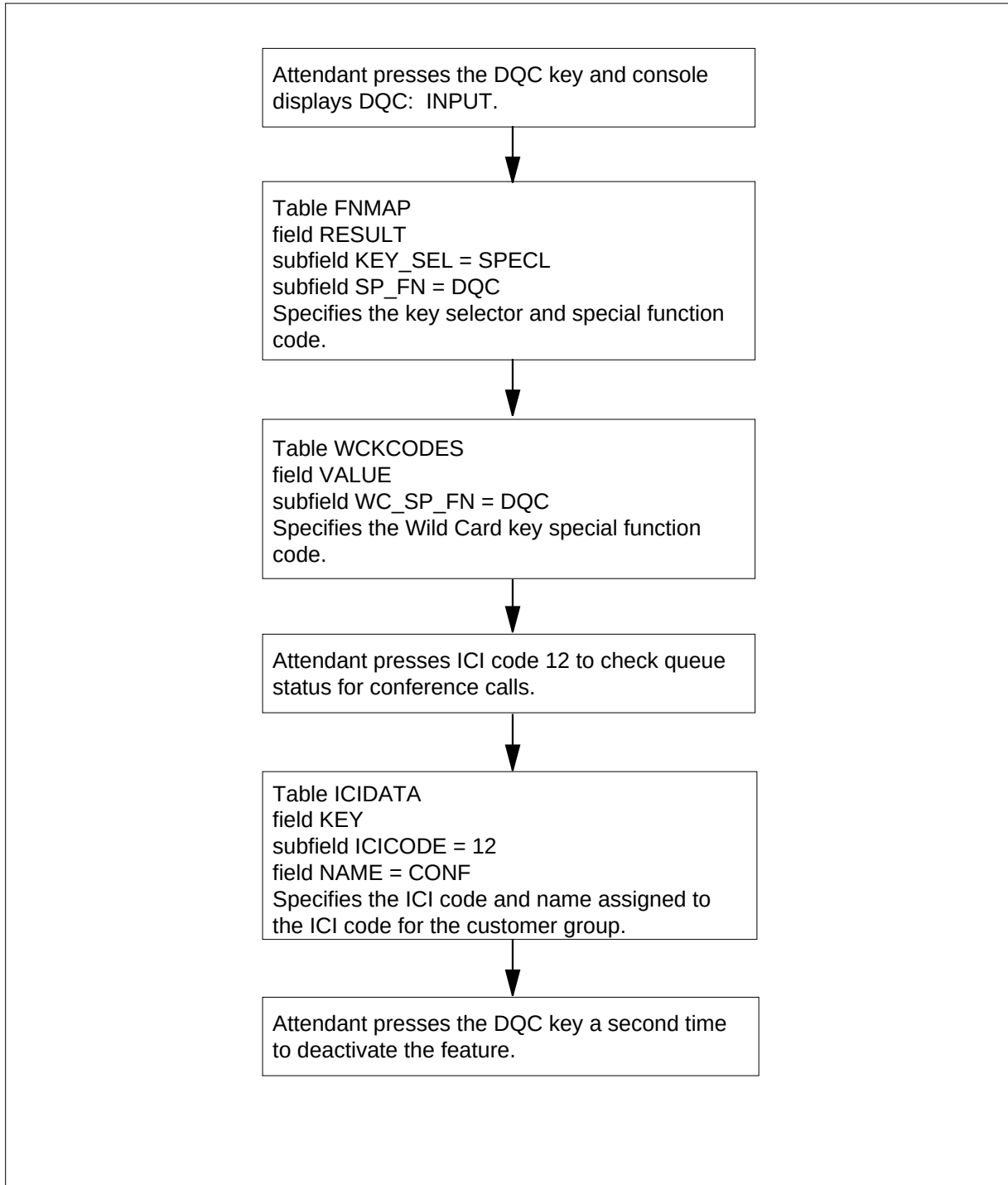
Translations table flow

Descriptions of the Attendant Display of Queued Calls by ICI Key feature translations tables appear 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) to display queued calls.
- Table WCKCODES, Wild Card Key Codes, contains fields that allow the attendant to use a wild card key access code to display of queued calls.
- Table ICIDATA, Incoming Call Identification Data Table, contains fields that specify visual indications. The fields specify visual indications of the number and category of calls that wait for the called party to answer. Enter data in this table for each incoming call type that the system presents to the AC.

The Attendant Display of Queued Calls by ICI Key feature translation process appears in the following flowchart.

Attendant Display of Queued Calls by ICI Key (continued)

Table flow for Attendant Display of Queued Calls by ICI Key

Attendant Display of Queued Calls by ICI Key (continued)

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

Datafill example for Attendant Display of Queued Calls by ICI Key

Datafill table	Example data
FNMAP	ATTCONS 30 SPECL DQC
WCKCODES	BNRMC 14 DQC
ICIDATA	BNRMC 12 CONF \$

Limits

Limits that are not in this release appear in future releases of this document.

Interactions

Descriptions of the actions between the Attendant Display of Queued Calls by ICI Key feature and other functionalities appear in the following paragraphs.

- *Attendant Direct Call Queue* - The direct call queue for an attendant cannot appear with DQC. The direct call queue appears if you press the direct ICI key or enter the ICI code number of 25.
- *Incompatible Feature Key* - If you enter an incompatible feature key when in DQC, the system terminates DQC. The system processes the incompatible feature key according to standard procedure.
- *Speed Calling/Auto Dial* - The Speed Calling and Auto Dial are not allowed when you enter the digits for an ICI category. The system terminates DQC and treats these two features according to standard procedure.
- *Trouble, Position Busy, Query Time and Date* - Only the Trouble, Position Busy (POS BSY), and Query Time and Date keys are compatible with this feature. If you press these keys when DQC is invoked, the system activates DQC for a short time. The system starts the features that the Trouble, POS BSY, and Query Time and Date keys represent. The console returns to activation of DQC.
- *Wild Card Key* - The DQC can operate with the Wild Card Key feature.

Activation/deactivation by the end user

To operate Attendant Display of Queued Calls by ICI key, the attendant performs the following steps.

Attendant Display of Queued Calls by ICI Key (continued)

Activation/deactivation of Attendant Display of Queued Calls by ICI Key by the end user

At the attendant telephone

- 1 Press the DQC key.
Response:
Message DQC: INPUT appears at the console.
- 2 Press the octothorpe key (#).
Response:
The console responds. The number of calls queued for the subgroup of the attendant and the time the oldest call waits appears on the console.
- 3 Press an ICI key.
Response:
The console displays the number of calls queued for the ICI category and the time the oldest call waits.
- 4 Enter the ICI code (0-254, except 25).
Response:
The console displays the number of calls queued for the ICI code entered and the time the oldest call waits.
Note: The attendant must first enter the ICI code. The attendant must enter the octothorpe (#) to indicate that every digit is entered.
- 5 Press the DQC key a second time.
Response:
The system terminates the feature.

Billing

The Attendant Display of Queued Calls by ICI Key feature does not affect billing.

Station Message Detail Recording

The Attendant Display of Queued Calls by ICI Key feature does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

The Attendant Display of Queued Calls by ICI Key feature does not affect office parameters.

Attendant Display of Queued Calls by ICI Key (continued)

Datafill sequence

The tables that require datafill to implement the Attendant Display of Queued Calls by ICI Key feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Display of Queued Calls by ICI Key

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields for the assignment of a dedicated key and lamp on the AC for the display of queued calls.
WCKCODES	Wild Card Key. This table contains fields that allow the attendant to use a wild card key access code to cause the display of queued calls.
ICIDATA	Incoming Call Identification Data. This table contains fields that specify the visual indications. The fields specify visual indications of the number and category of calls that wait for the called party to answer.

Datafilling table FNMAP

Table FNMAP, Attendant Console Functional Key, contains fields for the assignment of a dedicated key and lamp on the AC to display queued calls.

Datafill for the Attendant Display of Queued Calls by ICI Key feature for table FNMAP appear in the following table. The fields that apply to the Attendant Display of Queued Calls by ICI Key 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
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	DQC	Special Function. This subfield specifies the special function code for this feature. Enter DQC.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

Attendant Display of Queued Calls by ICI Key (continued)

MAP example for table FNMAP

KEY	RESULT
ATTCONS 30	SPECL DQC

Datafilling table WCKCODES

Table WCKCODES, Wild Card Key Codes, contains fields that allow the attendant to use a wild card key access code to display queued calls.

Datafill for the Attendant Display of Queued Calls by ICI Key feature for table WCKCODES appear in the following table. The fields that apply to the Attendant Display of Queued Calls by ICI Key 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
WCKEY		see subfields	Wild Card Key. This field contains subfields CUSTGRP and TABIDX.
	CUSTGRP	alphanumeric	Customer Group. This subfield specifies the name of the customer group. Enter a 1-16 alphanumeric character name.
	TABIDX	00 to 99	Table Index. This field specifies the Wild Card key access code of the Conference Call feature. Enter a value from 00 to 99.
VALUE		see subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	DQC	Wild Card Key Special Function. This subfield specifies the Wild Card key special function for the Display Queued Calls feature. Enter DQC.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appear in the following example. Table WCKCODES with a Wild Card key assigned to the Attendant Display of Queued Calls by ICI Key feature appears in the following example.

Attendant Display of Queued Calls by ICI Key (continued)

MAP example for table WCKCODES

WCKEY		VALUE
BNRMC	14	DQC

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data Table) contains fields that specify visual indications. These fields specify visual indications of the number and category of calls that wait for the called party to answer. Enter data in this table for each incoming call type presented to the AC.

Datafill for the Attendant Display of Queued Calls by ICI Key feature for table ICIDATA appear in the following table. The fields that apply to the Attendant Display of Queued Calls by ICI Key feature 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 alphanumeric character 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	The KLD Name. This field specifies the 1-7 alphanumeric character name of the specified ICI code in the specified customer group. This field specifies the name for the key and lamp display at the console of the attendant. Enter CONF.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appear in the following example.

Attendant Display of Queued Calls by ICI Key (end)

MAP example for table ICIDATA

KEY		NAME	OPTION
BNRMC	12	CONF	\$

Tools for verifying translations

The Attendant Display of Queued Calls by ICI Key feature does not use translation verification tools.

SERVORD

The Attendant Display of Queued Calls by ICI Key feature does not use SERVORD.

Attendant Locked Loop Operation

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, the Attendant Locked Loop Operation feature requires BAS Generic, BAS00003.

Description

The Attendant Locked Loop Operation feature combines features with Northern Telecom numbers F0374 (Call Hold), F1177 (Serial Call), and F1174 (Delayed Operation).

The Attendant Locked Loop Operation feature allows the attendant to enter a connection held earlier on one of the loops. This feature allows a calling station or line to remain connected to the attendant console (AC) even if the called party hangs up. The attendant can hold a call on the loop. To hold the call, the attendant presses the Hold (HOLD) key. The attendant can automatically hold the call on the loop. To hold the call, the attendant presses another Loop key.

The Attendant Locked Loop Operation feature allows an attendant to place a call for a calling station when the calling station waits on-hook. When the called station answers, the attendant recalls the calling station. To recall the station, the attendant presses the Signal Source (SIG SRC) key. When the called party answers, the calling station and the called station connect.

The Attendant Locked Loop Operation feature allows an attendant to hold the loop on an incoming call. The attendant can hold the call so that attendant recall occurs when the called extension goes on-hook. The system can extend the caller to other stations and not dial the attendant, the desired extensions, or the listed directory number (LDN) again.

Operation

The attendant holds calls on the loop when the attendant presses the HOLD key. After the attendant operates the HOLD key, the console becomes idle. The attendant can receive or originate another call on another loop. The RLS lamp turns on and the Incoming Call Identification (ICI) lamp for the held call

Attendant Locked Loop Operation (continued)

turns off. The RLS lamp does not turn on. The ICI lamp does not turn off if calls waiting or held calls are in queue.

When the attendant presses another Loop key, the system holds the calls on the loop. This action causes the console to remain busy. The attendant can originate another call. The system does not alert the attendant to a new call that waits in the queue.

Translations table flow

The Attendant Locked Loop Operation feature does not affect translations table flow.

Limits

The following limits apply to the Attendant Locked Loop Operation feature:

- The system can hold a maximum of six calls on a console at the same time. The system can hold one call on each of the six loops on which calls terminate or originate.
- The calling party must be in the same customer group as the AC.
- The incoming call that the system extends must originate or terminate in the customer group that the AC serves.

Interactions

The following features interact with the Attendant Locked Loop Operation feature:

- *Busy Verification* The system cannot hold busy verification calls.
- *Lockout* When the system holds a call and receives answer supervision, an attendant cannot enter the held loop again. The attendant cannot enter the held loop again if the Lockout feature is set. The attendant presses the Loop key to enter the held loop.
- *Secrecy* The system removes the Secrecy feature when the system activates the Attendant Locked Loop Operation feature. If the system excludes the source or the destination through the Two-way Splitting feature, the system cancels exclusion. The system cancels exclusion after activation of the 3WC Dial 0 for 608 Cord Board feature.
- *Attendant Conference* The Attendant Locked Loop Operation feature and attendant conference features are incompatible.

Attendant Locked Loop Operation (continued)

- *Attendant Console* The Attendant Locked Loop Operation feature is compatible with features assigned to the AC for the normal processing of calls.
- *Attendant Hold* The Attendant Hold feature supports the Attendant Locked Loop Operation feature for calls that originate or terminate in the customer group of the AC.

Activation/deactivation by the end user

When a calling station reaches the attendant, requests a call placed, and goes on-hook, the attendant performs the following steps.

Activation/deactivation of Attendant Locked Loop Operation by the end user

At the attendant telephone

- 1 Press the HOLD key.
Response:
The system holds the calling station on loop.
- 2 Place the call. Ask for the specified party.
- 3 When the party answers, press the Exclude Destination (EXC DEST) key. The attendant must press the SIG SRC key to recall the calling party.
- 4 Inform the calling party that the attendant reached the called party.
- 5 Press the Release (RLS) key.
Response:
The calling and called parties connect and the console is idle.

To activate Attendant Locked Loop Operation, the attendant answers and performs the following steps.

Activation/deactivation of the Attendant Locked Loop Operation feature by the end user

At the attendant telephone

- 1 Press the Loop key of the incoming call.
- 2 Enter the desired extension number.
Response:
The Destination lamp of the Loop key blinks. The attendant hears the ringback tone.
- 3 Press the HOLD key to hold the call on the loop.

Attendant Locked Loop Operation (end)

Response:

- The Source and the Destination lamps on the Loop key wink.
- When the destination goes on-hook, the Destination lamp on the Loop key turns off and the console makes a buzz sound.

4 Press the Loop key and ask the source for the next extension number. Repeat steps 2 and 3 until extension of the series of calls occurs.

5 Press the RLS key.

Response:

The attendant releases the incoming call from the console. The console is idle.

Billing

The Attendant Locked Loop Operation feature does not affect billing.

Station Message Detail Recording

The Attendant Locked Loop Operation feature does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

The Attendant Locked Loop Operation feature does not affect office parameters.

Tools for verifying translations

The Attendant Locked Loop Operation feature does not use translation verification tools.

SERVORD

The Attendant Locked Loop Operation feature does not use SERVORD.

Attendant Release Upon Completion of Dialing

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, the Attendant Release Upon Completion of Dialing feature requires BAS Generic, BAS00003.

Description

The Attendant Release Upon Completion of Dialing feature allows an attendant to extend a call to an MDC or plain old telephone service (POTS) trunk. This feature allows the attendant to release the call after the caller dials the digits. Transmission to the trunk must complete before the attendant can release the call.

The Attendant Release Upon Completion of Dialing feature allows the transmission call to complete without attendant supervision. This feature allows the attendant to handle other calls quickly.

The Attendant Release Upon Completion of Dialing feature applies to each customer group. When option IMMREL is specified, every attendant console (AC) in a customer group can release a call before transmission to the trunk completes.

Operation

To activate the Attendant Release Upon Completion of Dialing feature, the attendant keys in the called station number, and first presses the octothorpe key (#). The attendant presses the Release (RLS) key. The octothorpe indicates that every digit is present and transmission can begin.

The destination lamp lights before transmission is complete. The light indicates that the system can release the call.

The attendant can cancel a call before transmission is complete. To cancel the call, the attendant presses the Release Source (RLS SRC) key. The attendant can press the RLS SRC key during origination. The attendant must not press the RLS SRC key during the extension of a call.

Attendant Release Upon Completion of Dialing (continued)

If the extended call encounters problems during transmission, the system returns the call to the attendant. The attendant must start a failed call again.

Translations table flow

The Attendant Release Upon Completion of Dialing feature does not affect translations table flow.

Limits

The Attendant Release Upon Completion of Dialing feature applies to calls that an attendant extends to MDC and POTS trunks. This feature does not apply to attendant origination. The system ignores calls that the attendant originates before transmission is complete. The attendant presses the RLS key to originate the calls.

Interactions

Descriptions of the interactions between the Attendant Release Upon Completion of Dialing feature and other functionalities appear in the following paragraphs.

- Call Waiting/No Answer Recall - If the call waiting/no answer recall option is available, the recall timer starts when transmission is complete. The recall timer does not start when the system releases the call.
- Conference Calling - Attendant release and conference calling are not compatible.
- No Disconnect Trunk - The source party or the destination party can be a no disconnect trunk. In this feature, the system ignores the RELS key when the attendant presses the RLS key before transmission is complete.

Activation/deactivation by the end user

To operate the Attendant Release Upon Completion of Dialing feature, the attendant performs the following steps.

Activation/deactivation of Attendant Release Upon Completion of Dialing by the end user

At the attendant telephone

- 1 Key in the number of the called station, press the octothorpe key (#), and press the Release (RLS) key. The octothorpe indicates that every digit is present and transmission can start.

Response:

The destination lamp lights before transmission is complete. This light indicates that the system can release the call.

Attendant Release Upon Completion of Dialing (continued)

- 2 To cancel a call before transmission is complete, press the Release Source (RLS SRC) key. The attendant can press the RLS SRC key during origination. The attendant must not press the RLS SRC key during the extension of a call.
- Response:
- If the extended call encounters problems during transmission, the system returns the call to the attendant.
- 3 The attendant must start a failed call again.

Billing

The Attendant Release Upon Completion of Dialing feature does not affect billing.

Station Message Detail Recording

The Attendant Release Upon Completion of Dialing feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Release Upon Completion of Dialing feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Attendant Release Upon Completion of Dialing feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Release Upon Completion of Dialing

Table	Purpose of table
CUSTCONS	Customer Group Attendant Console Option. This table defines the Attendant Release Upon Completion of Dialing feature for the customer group.

Datafilling table CUSTCONS

Enter data in Table CUSTCONS (Customer Group Attendant Console Option). Enter data in this table to define the Attendant Release Upon Completion of Dialing feature for the customer group.

Datafill for the Attendant Release Upon Completion of Dialing feature for table CUSTCONS appears in the following table. The fields that apply to the Attendant Release Upon Completion of Dialing feature appear in this table.

Attendant Release Upon Completion of Dialing (end)

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

Datafilling table CUSTCONS

Field	Subfield or refinement	Entry	Description
OPTIONS		IMMREL	Options. This field specifies the option 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 example for table CUSTCONS

CUSTNAME	OPTIONS
MDCGRP1	(IMMREL) \$

Tools for verifying translations

The Attendant Release Upon Completion of Dialing feature does not use translation verification tools.

SERVORD

The Attendant Release Upon Completion of Dialing feature does not use SERVORD.

Attendant Speed Calling

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

To operate, the Attendant Speed Calling feature requires BAS Generic, BAS00003.

Description

The Attendant Speed Calling feature allows an attendant to access frequently dialed numbers. To access the numbers, the attendant presses a Speed Call key and dials a one-digit or two-digit code. The attendant does not dial the number. The frequently dialed number can be a directory number (DN), authorization code, account code, or access code.

A console can have a speed call short list of 10 numbers. A console can have a speed call long list of 30, 50, or 70 numbers. A console can use a long list of another user. Each list must receive a Speed Call key.

Operation

The Attendant Speed Calling feature does not affect operation.

Translations table flow

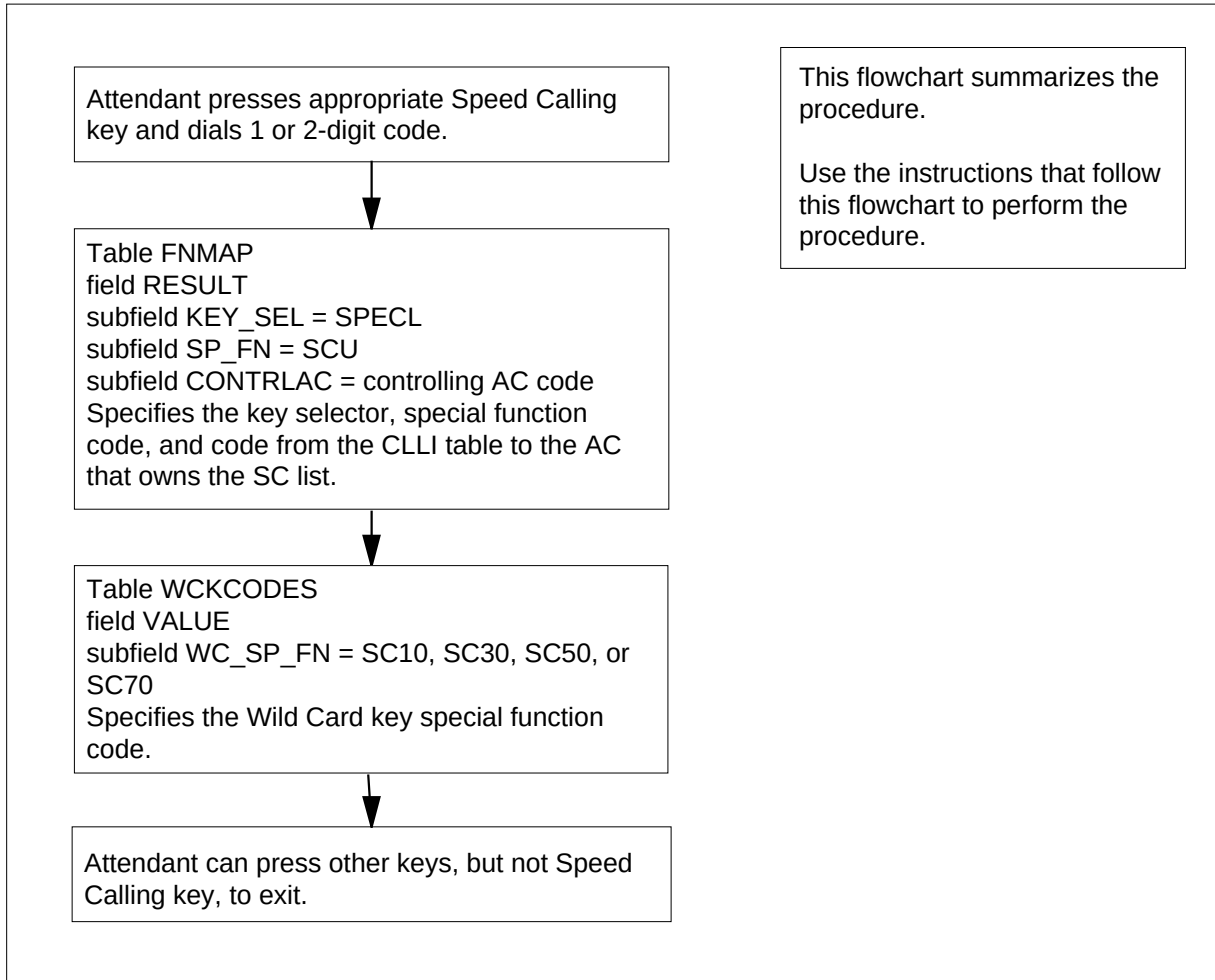
Descriptions of the Attendant Speed Calling translations tables appear in the following list:

- Table FNMAP (Attendant Console Functional Key) contains fields for the assignment of the dedicated Speed Calling key(s) for the Attendant Speed Calling feature.
- Table WCKCODES (Wild Card Key Codes) contains fields for the assignment of the Attendant Speed Calling Feature to a Wild Card key access code.

The Attendant Speed Calling translation process appears in the following flowchart.

Attendant Speed Calling (continued)

Table flow for Attendant Speed Calling



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

Datafill example for Attendant Speed Calling

Datafill table	Example data
FNMAP	IBNCON1 2 SPECL SCU CLLI1 IBNCON1 2 SPECL WC
WCKCODES	BNRMC 14 SC30 BNRMC 13 WC

Attendant Speed Calling (continued)

Limits

The following limits apply to the Attendant Speed Calling feature:

- An attendant cannot use this feature when calls require pauses in the dialing pattern.
- An attendant console (AC) cannot program the Attendant Speed Calling feature if the console is a speed call user (SCU).
- An AC cannot use a station speed calling list.
- The DMS-100 switch does not validate speed calling numbers that the system stores at programming time. The switch validates these numbers when the feature is in use.
- To operate a Loop key after pressing the Speed Calling key turns the Speed Calling lamp off and the Source lamp on. The system does not store digits that a caller enters in programming mode.

Interactions

Descriptions of the interactions between the Attendant Speed Calling feature and other functionalities appear in the following paragraphs.

- Account Code - An attendant can use the Attendant Speed Calling feature to enter an account code. The attendant, when active on a loop, presses the Account key. The attendant enters the Speed Calling key and the speed calling code for the account number.
- Customer Group - Users and controllers must belong to the same customer group. The subgroups can be different.
- Six-port Conference Call - An attendant can use the Attendant Speed Calling feature to establish a six-port conference call.
- Speed Call User - To assign a SCU, the attendant must specify the line equipment number (LEN) of the attendant console that owns the list to be used.
- Speed Calling List - A 500/2500 set user can use an attendant speed calling long list. A station that uses an attendant speed calling list can permit or deny access to toll numbers can permit or deny access to toll numbers.

Activation/deactivation by the end user

To add a number, the attendant performs the following steps.

Attendant Speed Calling (continued)

Activation/deactivation of Attendant Speed Calling by the end user

At the attendant console

- 1 Press the appropriate Speed Calling key.
Response:
The Speed Call lamp flashes at 120 ipm and the KLD reads SOURCE.INPUT. Through the headset/handset, the attendant hears special dial tone. This dial tone contains two bursts of tone and a steady dial tone.
- 2 Key the one-digit or two-digit speed call number for the location of the number for addition to the list. The short list uses single digits 0-9. The long list uses double digits 00-69.
- 3 Dial the number to add the number to the list.
- 4 Press the Speed Calling key.
Response:
The Speed Calling lamp changes from flashing to ON. This lamp flash indicates that the system stores the number. The attendant hears a confirmation tone. The KLD reads UPDATE OK. The confirmation tone is a dial tone of 300 ms off, 150 ms on, 150 ms off, 300 ms on, for a 1 s duration.
- 5 Press a key other than the Speed Calling key to exit the programming phase.
- 6 End of procedure.

To change a number, the attendant overwrites the current number. To overwrite the current number, the attendant follows the same procedure used to add a number to the list.

Activation/deactivation of Attendant Speed Calling by the end user

At the attendant console

- 1 Select an idle Loop key for the call.
- 2 Press the Speed Calling key that corresponds to the desired list.
- 3 Key the one-digit or two-digit speed call number assigned earlier to the location of the stored number.
Response:
The system transmits the stored number.
- 4 End of procedure.

To extend a call, the attendant presses the Loop or ICI key. The second and third processes are the same as originating a call.

Billing

The Attendant Speed Calling feature does not affect billing.

Attendant Speed Calling (continued)

Station Message Detail Recording

The Attendant Speed Calling feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Attendant Speed Calling feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Attendant Speed Calling feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Attendant Speed Calling

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains fields for assignment of the dedicated Speed Calling key(s) for Attendant Speed Calling.
WCKCODES	Wild Card Key. This table contains fields for assignment of Attendant Speed Calling to one of the Wild Card key access codes.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields for the assignment of the dedicated Speed Calling key(s) for the Attendant Speed Calling feature.

Datafill for the Attendant Speed Calling feature for table FNMAP appears in the following table. The fields that apply to the Attendant Speed Calling feature 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	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.

Attendant Speed Calling (continued)**Datafilling table FNMAP (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description
	SP_FN	alphanumeric	Special Function. This subfield specifies the special function code. Enter SC10 for speed calling short list. Enter SC30, SC50, or SC70 for speed calling long list. Enter SCU for speed calling user.
If SP_FN is set to SCU, subfield CONTRLAC requires datafill.			
	CONTRLAC	alphanumeric or blank	Controlling Attendant Console. This subfield specifies the code from the CLLI table to the AC that owns the SC list. Enter the controlling AC code.

If the attendant uses the Wild Card key to access the Attendant Speed Calling feature, enter WC in subfield SP_FN. Enter data in Table WCKCODES. The assigned Wild Card function appears in the following procedure.

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.

Datafill examples for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL SCU CLLI1

Attendant Speed Calling (continued)

Sample datafill for Table FNMAP for the Wild Card function 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 the assignment of the Attendant Speed Calling feature to a Wild Card key access code.

Datafill for the Attendant Speed Calling feature for table WCKCODES appears in the following table. The fields that apply to the Attendant Speed Calling 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
VALUE		see subfield	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	SC10, SC30, SC50, or SC70	Wild Card Key Special Function. This subfield specifies the Wild Card key special function code. Enter SC10, SC30, SC50, or SC70.
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 appears in the following example.

MAP example for table WCKCODES

WCKEY	VALUE
BNRMC 14	SC30

Attendant Speed Calling (end)

Table WCKCODES with a Wild Card key assigned to the Attendant Speed Calling feature appears in the following example.

MAP example for table WCKCODES

WCKEY	VALUE
BNRMC	13WC

Tools for verifying translations

The Attendant Speed Calling feature does not use translation verification tools.

SERVORD

The Attendant Speed Calling feature does not use SERVORD.

Attendant to Recorded Announcement

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS11 and later versions

Requirements

To operate, Attendant to Recorded Announcement requires BAS Generic, BAS00003.

Description

Attendant to Recorded Announcement permits the routing of attendant calls to an announcement in the treatment or office route table. The calls can be originated or extended. The attendant normally receives a reorder tone. The attendant can hear the announcement or release the console from the call.

Operation

When the attendant extends a call that receives an announcement, the following occurs. The system excludes the source even if the secrecy feature is in effect. The attendant cannot release the source when the system excludes the source. When the announcement is complete, the system includes the source. The lamp states are the following:

- source lamp on
- destination lamp on (the announcement)
- exclude source lamp on (the system excludes the source)

The destination lamp turns off when treatment completes.

If you press the active Loop key while the announcement is present, you include the source. The source hears the announcement. Activate the Exclude Source key to exclude the source again. If you use the Hold (HOLD) key or an idle Loop key to terminate the announcement, the system holds. If you use the Release (RLS) or Release Source key, the system releases the source and the announcement, and idles the console. If you press any other key, the announcement terminates. The attendant can dial another number. If you press a feature key, you invoke that feature.

When the attendant originates a call that receives announcement, the SOURCE lamp is on. If you press the RLS or HOLD key, the announcement terminates.

Attendant to Recorded Announcement (end)

This action idles the console, so that you cannot hold announcements. Any other key removes the announcement but leaves the active loop for redialing.

Translations table flow

Attendant to Recorded Announcement does not affect translations table flow.

Limits

Attendant to Recorded Announcement does not have limits.

Interactions

Attendant to Recorded Announcement does not have functionality interactions.

Activation/deactivation by the end user

Attendant to Recorded Announcement does not require activation or deactivation by the end user.

Billing

Attendant to Recorded Announcement does not affect billing.

Attendant to Recorded Announcement does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant to Recorded Announcement does not affect office parameters.

Datafill sequence

Attendant to Recorded Announcement does not affect datafill.

Tools for verifying translations

Attendant to Recorded Announcement does not use translation verification tools.

SERVORD

Attendant to Recorded Announcement does not use SERVORD.

Attendant to UCD

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS20 and later versions

Requirements

To operate, Attendant to UCD requires BAS Generic, BAS00003.

Description

Attendant to UCD allows the even distribution of calls among a number of agent positions. The agent that idles the longest time receives a call.

Attendant to UCD enhances the Uniform Call Distribution (UCD) feature. The Attendant to UCD allows the origination and/or transfer of calls from attendant consoles to UCD directory numbers (DN). The Attendant to UCD allows the origination and/or transfer of calls to enhance the UCD feature.

Operation

Operation of Attendant to UCD is transparent to the console attendant that dials the UCD DN. The differences follow:

- The attendant that originates the call cannot exclude a UCD call with the Exclude Source key until the called party answers the call.
- When the attendant releases a call extended to a Meridian Digital Centrex (MDC) or plain old telephone service (POTS) line, a recall time is in effect. If the recall time expires after the call terminates and rings the station, Attendant to UCD presents the call again to a console. This console is in the attendant subgroup on the Recall No Answer ICI (RWNAICI) key.

Translations table flow

Attendant to UCD translations tables appear in the following list:

- Table UCDGRP (Uniform Call Distribution Group) contains the attributes that associate with each UCD group. Enter table UCDGRP to define the queue parameters for the UCD group and to assign options to the group.
- Table IBNLINES (IBN Line Assignment) lists line assignments for each 500/2500 set assigned an MDC or SS station number. Enter this table when SERVORD assigns the line.

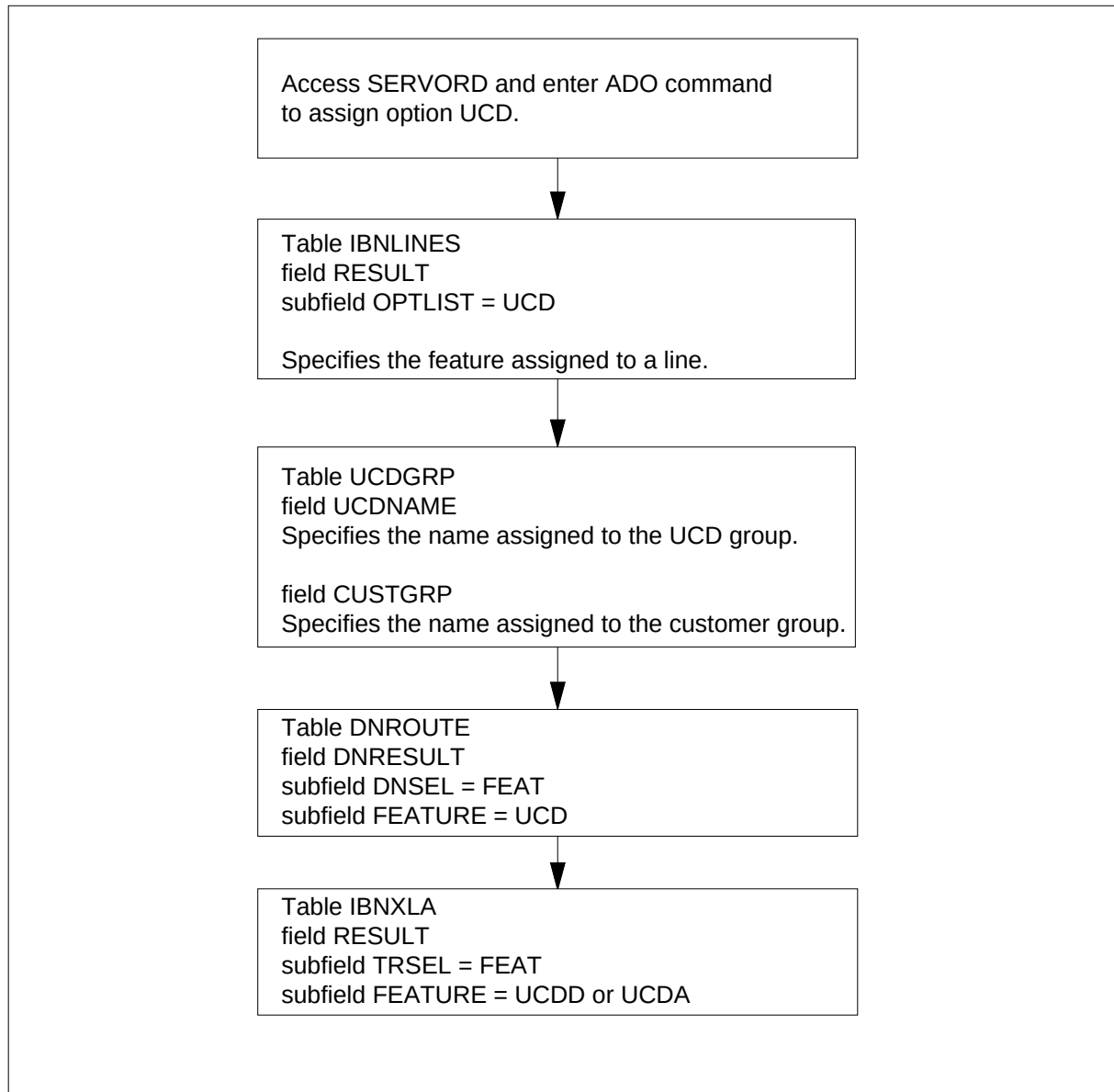
Attendant to UCD (continued)

- 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 table DNROUTE to establish the listed DNs of the UCD group. The listed DNs are a primary DN and a maximum of four additional DNs.
- Table IBNXLA (IBN Translation) contains data for the digit translation of calls from the following:
 - an MDC station
 - an attendant console (AC)
 - an incoming side of a two-way IBN trunk group

The Attendant to UCD translation process appears in the following flowchart.

Attendant to UCD (continued)

Table flow for Attendant to UCD



Attendant to UCD (continued)

Datafill content used in the flowchart appears in the following table.

Datafill example for Attendant to UCD

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 UCDA

Limits

The following limits apply to Attendant to UCD:

- You cannot make conference calls that involve a UCD DN.
- If an agent becomes available when a call receives a delay announcement, the system routes the call to the agent.
- The system removes abandoned calls from incoming call queues and recorded announcements.
- A station can forward a call to a UCD DN. If agents are not available, the forwarded call is queued in the incoming call queue for that UCD group.
- You can dial a station DN that is part of a UCD group but is not the UCD DN. You can perform this action on the second leg of a three-leg call.
- A UCD agent can initiate a three-way call.
- If an active UCD agent flashes the hookswitch when talking to another party and dials the UCD deactivation code, the following occurs. The system does not return the agent to the list of available agents after the current call terminates. Other active agents are not always available in the UCD group. When this event occurs, calls remain in the call queue until the system abandons the calls.
- You cannot assign call waiting and attendant camp-on to DNs in a UCD group that are not the UCD DN. Call waiting and attendant camp-on function separately. You cannot assign call waiting and attendant camp-on to the same line.
- Per Call Screening (PCS) fails to a UCD group.
- Customers can assign music on hold for calls waiting in the UCD queue.
- The UCD agents can activate call hold and permanent hold. If an agent has a call on hold and goes on-hook before the agent retrieves the held call, the

Attendant to UCD (continued)

following occurs. The agent receives any UCD queued calls that occur before the held call

- A UCD station can be a member of a call pickup group. Any other member of the same pickup group can pick up calls that terminate on the UCD station

Interactions

The following paragraphs describe the interactions between Attendant to UCD and other functionalities.

Call Forward Universal and Call Forward Intragroup

You can assign Call Forward Universal and Call Forward Intragroup to a line that is a member of a UCD group. Call forwarding can occur when you assign the called DN to the station and not the UCD DN.

Uniform Call Distribution

If agents that serve a UCD DN deactivate the Uniform Call Distribution feature, the UCD DN is in night service. All calls in the queue when the DN moves to night service remain queued until the system abandons the calls. A night recorded announcement occurs for calls that arrive to a queue while the DN is in night service.

Activation/deactivation by the end user

Attendant to UCD does not require activation or deactivation by the end user.

Billing

Attendant to UCD does not affect billing.

Station Message Detail Recording

Attendant to UCD does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant to UCD does not affect office parameters.

Attendant to UCD (continued)**Datafill sequence**

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

Datafill requirements for Attendant to UCD

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: Enter this table through SERVORD. A Data entry procedure or example is not present. See "SERVORD" for an example of how to use SERVORD to enter this table.
UCDGRP	Uniform call distribution group. This table contains the attributes associated with each UCD group.
DNROUTE	Directory number route. This table contains information for DNs that identify a route and not a line equipment number (LEN).
IBNXLA	IBN translation. This table contains 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

Datafilling table UCDGRP

Table UCDGRP contains the attributes that associate with each UCD group. Enter table UCDGRP to define the queue parameters for the UCD group. Enter table UCDGRP to assign options to the group.

Attendant to UCD (continued)

Datafill for Attendant to UCD for table UCDGRP appears in the following table. The fields that apply to Attendant to UCD appear in this table. Refer to the data schema section of this document for a description of the other fields.

Datafilling table UCDGRP (Sheet 1 of 2)

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 s intervals. Enter a value from 0 to 63. 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 route in Table IBNRTE or Table OFRT to which overflow and UCD ring timeouts are routed. 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 has to route. Enter a value from 0 to 1023.
NSROUTE		see subfields	Night service route. This field consists of subfields TABNAME and INDEX.
	TABNAME	IBNRTE or OFRT	Table name. This subfield specifies the night service route to which the system routes all incoming calls. The system routes the calls if active agents in the UCD group are not present. Enter IBNRTE or OFRT.

Attendant to UCD (continued)

Datafilling table UCDGRP (Sheet 2 of 2)

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 has to route. Enter a value from 0 to 1023.
PRIPIO		0-255	Priority promotion timeout. This field specifies the maximum time in seconds that a call can wait in one queue. Enter a value from 0 to 255.
MAXPOS		0-1023	Maximum number of positions. This field specifies the maximum number of agent positions that activate in a group at one time. Enter a value from 0 to 1023, with 0 disallowing agents to activate the UCD group.
DBG		Y or N	Delayed billing. This field specifies if billing starts with the answered call. Enter Y where billing starts with the answered call. Enter N where billing starts when the caller receives 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 DN. Enter a value from 0 to 3.
RLSCNT		0-31	Release count. This field specifies the maximum number of calls that terminate on a UCD station but are not answered. 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 before the called party answers. Enter a value from 0 to 1800.
MAXCQSIZ		0-511	Maximum call queue size. This field specifies the maximum number of calls that the system can queue in the incoming call queue of the group at one time. Enter a value from 0 to 511.
OPTIONS		see explanation	Options. This field specifies the list of options and associated subfields assigned to the UCD group. Enter the name of the option.

Attendant to UCD (continued)

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
IBNRTE	1	0	2	Y
		0	0	30
				3
				\$

Datafilling table DNROUTE

Table DNROUTE 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. You must enter data in table DNROUTE to establish the listed DNs for the UCD group. The listed DNs include one primary DN and a maximum of four additional DNs.

Datafill for Attendant to UCD for table DNROUTE appears in the following table. The fields that apply to Attendant to UCD 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 DNSEL 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.

Attendant to UCD (continued)**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 the following:

- an IBN station
- an attendant console (AC)
- an incoming side of a two-way IBN trunk group

Datafill for Attendant to UCD for table IBNXLA appears in the following table. The fields that apply to Attendant to UCD appear in this table. See the data schema section of this document.

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 (1 to 8 characters)	Translator name. This subfield specifies the name assigned to the translator. Enter the 1-character to 8-character name.
	DGLIDX	numeric (1 to 18 digits)	Digilator index. This subfield specifies the access code. Enter a 1-digit to 18-digit number assigned as the access code.
RESULT	TRSEL	TRSEL	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 necessary. Enter Y or N.

Attendant to UCD (continued)**Datafilling table IBNXLA (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is necessary. Enter Y or N.
	FEATURE	UCD	Feature. This subfield specifies the feature assigned to a line. Enter UCD.

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 UCDA

Tools for verifying translations

Attendant to UCD does not use tools for verifying translations.

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 permits calls to distribute evenly among a number of predetermined sets.

SERVORD limits

Attendant to UCD does not have SERVORD limits.

Attendant to UCD (end)**SERVORD prompts**

The SERVORD prompts used to assign Attendant to UCD to a line appear in the following table.

SERVORD prompts for Attendant to UCD

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	UCD	Indicates the name of the option. Enter UCD.

Note: The system enters table IBNLINES when you use SERVORD to assign Attendant to UCD.

SERVORD example for implementing Attendant to UCD

How to use the ADO command to add Attendant to UCD to a line appears in the following SERVORD example.

SERVORD example for Attendant to UCD in prompt mode

```

S0:
> ADO
SONUMBER:      NOW 87 10 10 PM
>
DN_OR_LEN:
> 2 1 2 11
OPTION:
> UCD
OPTION:
> $

```

SERVORD example for Attendant to UCD in no-prompt mode

```
>ADO $ 2 1 2 11 UCD $
```

Attendant Transfer

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Attendant Transfer requires BAS Generic, BAS00003.

Description

Attendant Transfer permits a call that the station transfers to the attendant queue on a first-in, first-out base. The customer group level defines the types of calls that transfer.

Operation

Attendant Transfer does not affect operations.

Translations table flow

Attendant Transfer does not affect translations table flow.

Limits

Attendant Transfer does not have limits.

Interactions

The interactions between Attendant Transfer and other functionalities appear in the following paragraphs.

- Lockout—The Lockout feature does not apply when a station activates call transfer to the attendant.
- Secrecy—When you set the Secrecy feature, the attendant can talk in private with the transferring party or destination.

Activation/deactivation by the end user

A description of how an end user activates and deactivates Attendant Transfer appears in the following procedure.

Attendant Transfer (continued)

Activation/deactivation of Attendant Transfer by the end user

At your telephone

- 1 The off-hook station flashes the switchhook or flashes the switchhook and dials zero.
Response:
The station transfers the call to the attendant.
- 2 The attendant presses the Loop key to answer the call transfer. The Loop key associates with the call under the following conditions:
 - If the transferring station goes on-hook before the attendant answers, the Attendant Transfer queues the call for the attendant. The transferring station can place or receive calls.
 - If the transferring station remains off-hook and you set the secrecy option, the following occurs. The attendant can talk in private with the destination, or the party that activates the transfer. If secrecy is not set, the attendant, the transferring station, and the transferred party connect in a three-way call. Another name for the transferred party is the source. The transferring station connects to the attendant, in queue or in a talking state. The transferring station cannot place or receive calls. The transferring station cannot activate features.
 - If the system holds a transferred call on a loop, the call transfer does not queue for an idle console. The call transfer appears on the same console and loop where the system held the call.
- 3 When the attendant talks to the transferring station, the attendant presses the Release Destination (RLS DEST) key.
Response:
The system drops the transferring station from the connection.
- 4 End of procedure.

Billing

Attendant Transfer does not affect billing.

Station Message Detail Recording

Attendant Transfer does not affect Station Message Detail Recording.

Datafilling office parameters

Attendant Transfer does not affect office parameters.

Datafill sequence

Attendant Transfer does not affect datafill.

Tools for verifying translations

Attendant Transfer does not use tools for verifying translations.

Attendant Transfer (end)

SERVORD

Attendant Transfer does not use SERVORD.

Audio Input on Incoming Calls in Queue

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS11 and later versions

Requirements

To operate, Audio Input on Incoming Calls in Queue has the following requirements:

- BAS Generic, BAS00003
- MDC Medium, MDC00001

Description

The Audio Input on Incoming Calls in Queue feature connects a call in a queue to an audio source. End users can provide a program of announcements, music, and other treatments when callers wait for services. End users with Audio Input on Incoming Calls in Queue can control the following:

- the callers that receive a specified program
- the time a call waits before the feature connects the call to an audio source
- if digital or analog equipment provides the audio source
- if the caller hears the following:
 - an announcement
 - music
 - silence
 - ringing
 - a combination of the above
- the number of times the program repeats

Callers can hang up if the callers wait too long for service. Audio Input on Incoming Calls in Queue lets end users provide announcements about the following:

- status of a call
- information about products and services
- entertainment

Audio Input on Incoming Calls in Queue (continued)

Callers wait longer for service.

Audio Input on Incoming Calls in Queue works with calls in an attendant queue (ATTQ) or in a uniform call distribution queue (UCDQ).

Operation

A call normally enters a queue when delay exceeds a set period. Audio Input on Incoming Calls in Queue provides a 10 s ringing tone. A recorded announcement follows the ringing tone. Music follows the recorded announcement. The announcement is normally information about the delay. The call disconnects from audio sources when the attendant answers the call or the caller hangs up.

End users specify the delay period as an option in Table CUSTHEAD (Customer Group Head). A field in the subgroup data, AC_SERVICE_TIME, records the time the attendant takes to answer the last call. The way expected service time affects operation appears in the following examples:

- If AC_SERVICE_TIME is less than the delay period, the end user specifies the caller hears a ringing tone for the delay period. If the attendant does not answer the call by this time, the caller hears a recorded announcement. Music follows this announcement. The music continues until the attendant answers the call.
- If AC_SERVICE_TIME is more than the delay period the end user specifies, the caller hears a ringing tone for 10 s. A recorded announcement follows the ringing tone. Music follows the recorded announcement. The music continues until the attendant answers the call.

Translations table flow

The Audio Input on Incoming Calls in Queue translations tables appear in the following list:

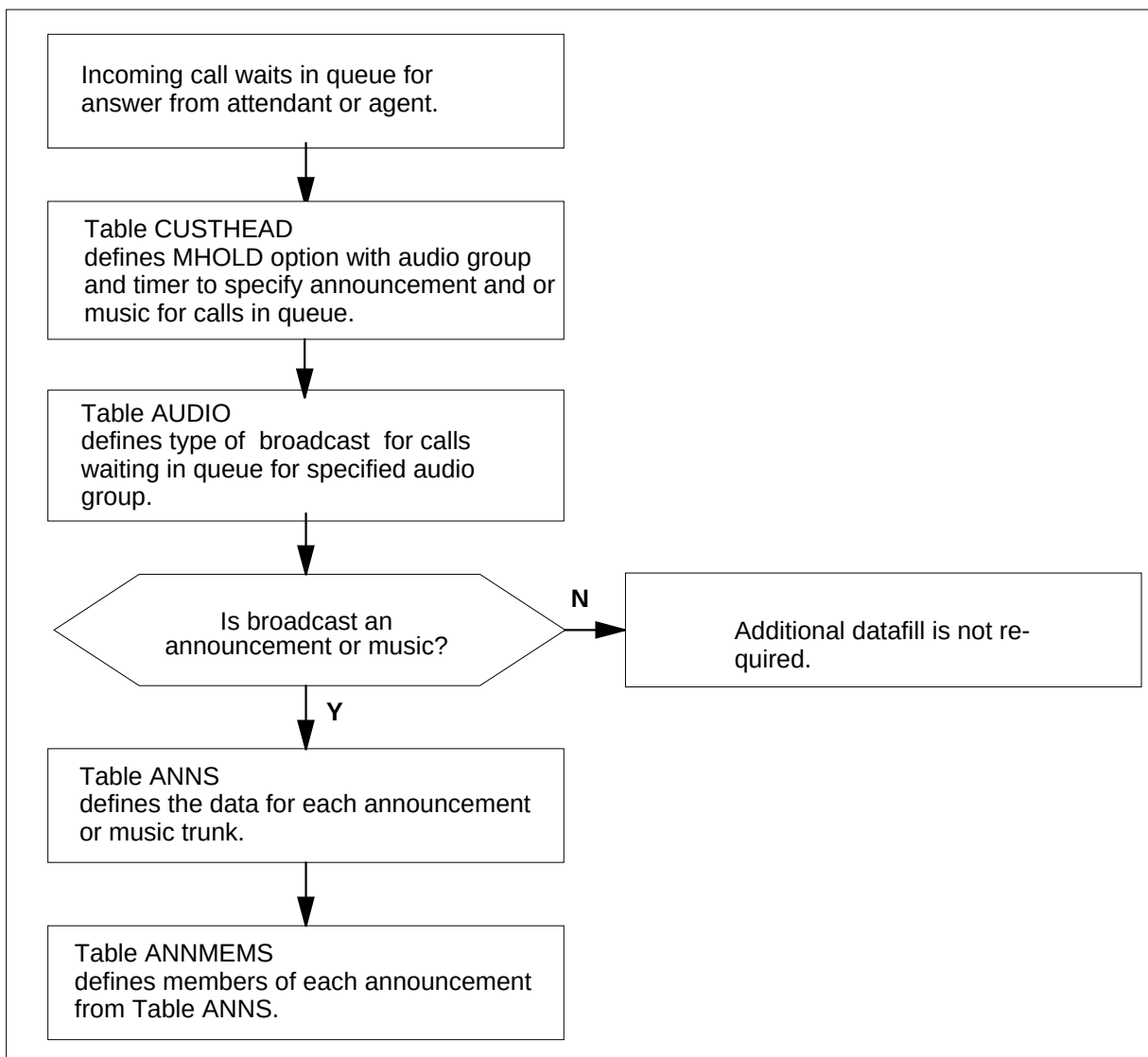
- Table CUSTHEAD (Customer Group Head) defines the public and private transaction capability application part (TCAP) translator names for each customer group.
- Table AUDIO (Audio Interlude) defines the audio interlude broadcasts provided for some features for Integrated Business Network (IBN). These broadcasts can include broadcast elements. These elements are ANNOUNCEMENT, MUSIC, SILENCE, or RINGING. Each tuple in the table specifies the audio broadcast issued for a given audio group and feature name. This table specifies the announcement and music trunk common language location identifier (CLLI) names. These names must appear in Tables ANNS and ANNMEMS.

Audio Input on Incoming Calls in Queue (continued)

- Table ANNS (Announcements) contains data for each announcement, analog, and digital, assigned in the switching unit.
- Table ANNMEMS (Announcement Members) contains the assignments for each member assigned to the announcements in Table ANNS. Table ANNMEMS defines the members of each announcement Table ANNS determines.

The Audio Input on Incoming Calls in Queue translation process appears in the following flowchart.

Translations data flow for activating Audio Input on Incoming Calls in Queue



Audio Input on Incoming Calls in Queue (continued)

Datafill content that the flowchart uses appears in the following table.

Datafill example for Audio Input on Incoming Calls in Queue

Datafill table	Example data
CUSTHEAD	BNRMC BNRXLA BNRCOL (MHOLD 15 AUDIO3) \$
AUDIO	AUDIO1 ATTQ ANN Y 1 ANN2 SILENCE 20 \$
ANNS	ACTSTOPS ACTS 0 1 0 1
ANNMEMS	CFRAANN 1 DRAM DRA (0 MTM 4 5) \$

Limits

The following limits apply to Audio Input on Incoming Calls in Queue:

- Audio Input on Incoming Calls in Queue does not apply to IBN attendant recall or meet-me conference attendant recall.
- The system ignores a hookswitch flash when the caller receives audio.
- The system can send the end user to the attendant console (AC) queue by three-way calling (3WC). When this action occurs, the end user receives ring back. The end user does not receive audio announcement.

Interactions

Audio Input on Incoming Calls in Queue does not have functionality interactions.

Activation/deactivation by the end user

Audio Input on Incoming Calls in Queue does not require activation or deactivation by the end user.

Billing

Audio Input on Incoming Calls in Queue does not affect billing.

Station Message Detail Recording

Audio Input on Incoming Calls in Queue does not affect Station Message Detail Recording.

Datafilling office parameters

Audio Input on Incoming Calls in Queue does not affect office parameters.

Audio Input on Incoming Calls in Queue (continued)

Datafill sequence

The tables that require datafill to implement Audio Input on Incoming Calls in Queue appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Audio Input on Incoming Calls in Queue

Table	Purpose of table
ANNS	Announcements. This table contains data for each announcement, analog, and digital, assigned in the switching unit.
ANNMEMS	Announcement Members. This table contains the assignments for each member assigned to the announcements that appear in Table ANNS. Table ANNMEMS defines the members of each announcement Table ANNS determines.
AUDIO	Audio Interlude. This table defines the audio interlude broadcasts for some features for Meridian Digital Centrex (MDC).
CUSTHEAD	Customer Group Head. This table defines the public and private TCAP translator names for each customer group.

Datafilling table ANNS

Table ANNS contains data for each announcement, analog, and digital, assigned in the switching unit.

Datafill for Audio Input on Incoming Calls in Queue for table ANNS appears in the following table. The fields that apply to Audio Input on Incoming Calls in Queue appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ANNS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric	Announcement CLLI Keys. This field specifies the code that represents the announcement in Table CLLI. Enter an alphanumeric code.
ANTYPE		ACTS	Announcement Type. This field specifies the type of announcement. This field contains several entries. Enter ACTS for automatic coin toll service for this feature.

Audio Input on Incoming Calls in Queue (continued)

Datafilling table ANNS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TRAFSNO		0 - 27	Traffic Separation Numbers. This field specifies if the switch has the traffic separation assigned. Enter a value from 0 to 127. If you do not require the traffic separation, enter 0.
MAXCONN		1 - 255	Maximum Connections. This field specifies the maximum number of simultaneous connections permitted on the announcement. Enter a value from 1 to 255.
CYTIME		1 - 18, 0	Cycle Times. This field specifies the time in seconds for one announcement cycle on one channel. Enter a value from 1 to 18 or 0.
MAXCYC		1 - 3	Maximum Cycles. This field specifies the maximum number of times the complete announcement plays before the system advances the call. The system advances the call to the next route in the route list. Enter a value from 1 to 3.

Datafill example for table ANNS

Sample datafill for table ANNS appears in the following example.

MAP example for table ANNS

ANNS					
CLLI	ANTYPE	TRAFSNO	MAXCONN	CYTIME	MAXCYC
ACTSTOPS	ACTS	0	1	0	1

Datafilling table ANNMEMS

Table ANNMEMS (Announcement Members) contains the assignments for each member assigned to the announcements in Table ANNS. Table ANNMEMS defines the members of each announcement Table ANNS determines.

Datafill for Audio Input on Incoming Calls in Queue for table ANNMEMS appears in the following table. The fields that apply to Audio Input on

Audio Input on Incoming Calls in Queue (continued)

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

Datafilling table ANNMEMS

Field	Subfield or refinement	Entry	Explanation and action
ANNMEM		see subfields	Announcement Member Key. This field contains subfields ANN and MEMBER.
	ANN	alphanumeric	Announcement. This subfield specifies the trunk circuit in the trunk list for the announcement member. Enter the alphanumeric code that represents the announcement group in Table CLLI.
	MEMBER	0 - 255	Member. This subfield specifies the number assigned to the member. Enter a value from 0 to 255.
HDWTYPE		AUDICHRON or DRAM	Hardware Type. This field specifies the hardware type for the member. Enter AUDICHRON or DRAM.
CARD		alphanumeric	Cardcode. This field specifies the type of cardcode. Enter the cardcode.
MEMINFO		see subfields	Member Information. This field contains subfields TRACK, PMTYPE, TMNO, and TMCKT.
	TRACK	0 - 31	Track Number. This subfield specifies the track number assigned to the trunk circuit. Enter a value from 0 to 31.
	PMTYPE	TMB, MTM, STM	Peripheral Module Type. This subfield specifies the type of peripheral module with the assigned trunk circuit. Enter TMB, MTM, or STM.
	TMNO	0 to 2047	Trunk Module Number. This subfield specifies the trunk module number assigned to the trunk module with the assigned trunk circuit. Enter a value from 0 to 2047.
	TMCKT	0 to 29	Trunk Module Circuit Number. This subfield specifies the trunk module circuit number with the assigned trunk circuit. Enter a value from 0 to 29.

Datafill example for table ANNMEMS

Sample datafill for table ANNMEMS appears in the following example.

Audio Input on Incoming Calls in Queue (continued)

MAP example for table ANNMEMS

ANNMEMS									
ANNMEM		HDWTYPE	CARD					MEMINFO	
CFRAANN	1	DRAM	DRA		(0	MTM	4	5	) \$

Datafilling table AUDIO

Table AUDIO (Audio Interlude) defines the audio interlude broadcasts provided for some features for IBN. These broadcasts can include broadcast elements. The broadcast elements are ANNOUNCEMENT, MUSIC, SILENCE, or RINGING. Each tuple in the table specifies the audio broadcast issued for a given audio group and feature name. Table AUDIO specifies the CLLI names of the announcement and music trunks. The CLLI names must appear in Tables ANNS and ANNMEMS.

Table AUDIO specifies the type of broadcast or announcement given for audio input on hold, or music on hold. End users can provide an announcement, music, ringing, or silence when a call waits.

Datafill for Audio Input on Incoming Calls in Queue for table AUDIO appears in the following table. The fields that apply directly to Audio Input on Incoming Calls in Queue 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 2)

Field	Subfield or refinement	Entry	Explanation and action
AUDIOKEY		see subfields	Audio Key. This field contains subfields GROUP and FTRINDEX.
	GROUP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group name required. Enter a value from AUDIO1 to AUDIO512.

Audio Input on Incoming Calls in Queue (continued)

Datafilling table AUDIO (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CHOICE	FTRINDEX	ATTQ, UCDQ	Feature Index. This subfield specifies the feature that requires a broadcast. Enter ATTQ for attendant queue. Enter UCDQ for uniform call distribution queue.
		ANN, MUSIC, SILENCE, RINGING, REPEAT	Audio Choice. This field specifies the audio choice. Enter ANN for announcement or MUSIC for continuous music. Enter SILENCE for absence of announcement or music, RINGING for ringing, or REPEAT to repeat a sequence.

Datafill example for table AUDIO

Sample datafill for table AUDIO appears in the following example.

MAP example for table AUDIO

AUDIOKEY		CHOICE			
AUDIO01	ATTQ	ANN	Y	1	ANN2
		SILENCE	20	\$	

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) defines the public and private TCAP translator names for each customer group.

Datafill for Audio Input on Incoming Calls in Queue for table CUSTHEAD appears in the following table. The fields that apply to Audio Input on Incoming Calls in Queue 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		MHOLD	Options. This field specifies the list of options and associated subfields assigned to the customer group. Enter MHOLD.
If OPTIONS is MHOLD, subfields OPTION, MOHTh, and AUDIOGRP require datafill.			

Audio Input on Incoming Calls in Queue (end)

Datafilling table CUSTHEAD (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	MHOLD	Option. This subfield specifies the music on hold option. Enter MHOLD.
	MOHTh	0 - 27	Music on Hold Threshold. This subfield specifies the time, in 1 s increments, that passes before the system applies music. Enter a value from 0 to 127.
	AUDIOGRP	AUDIO01 - AUDIO512	Audio Group. This subfield specifies the audio group you enter in Table AUDIO. Option ATTQ defines the announcement or music provided. Enter a value from AUDIO01 to AUDIO512. Note: Enter data in Table ANNS and option ATTQ or UDCQ in Table AUDIO before you enter data in this table.

Datafill example for table CUSTHEAD

Sample datafill for Table CUSTHEAD for customer group BNRMC, customer translator BNRXLA, appears in the following example. Table DIGCOL (IBN Digit Collection) contains data block BNRCOL. This data collects the IBN digit for the IBN line. The threshold for music on hold is 15 s. The audio group is AUDIO03.

MAP example for table CUSTHEAD

CUSTHEAD			
CUSTNAME	CUSTXLA	DGCOLNM	OPTIONS
BNRMC	BNRXLA	BNRCOL	(MHOLD 15 AUDIO03)\$

Tools for verifying translations

Audio Input on Incoming Calls in Queue does not use tools for verifying translations.

SERVORD

Audio Input on Incoming Calls in Queue does not use SERVORD.

Audio Interlude

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS15 and later versions

Requirements

To operate, Audio Interlude requires BAS Generic, BAS00003.

Description

The Audio Interlude feature provides common utility procedures and centralized table control. This feature allows many features to provide music and announcements. Audio Interlude:

- allows each feature to have a maximum of four types of audio broadcast, announcements, or music
- eliminates the requirement for a feature processing environment (FPE) feature to:
 - define the FPE feature treatment name
 - recover the CP_ID of the announcement trunk
 - bind the feature treatment name and the CP_ID of the announcement trunk at IPL time
- eliminates the requirement for non-FPE features to establish routines for audio connection and disconnection
- prevents repetition of music recordings

Background

Announcements about the status of the call, entertainment, and information about products and services encourage the caller to wait longer for service.

Audio Input on Incoming Calls in Queue provides these announcements to calls in an attendant or uniform call distribution (UCD) queue. The feature does not provide service for held calls, parked calls, waiting calls, or camp-on calls.

Features originate in several environments. These environments include FPE, non-FPE, and CCF. The features handle audio in a different way. Each feature

Audio Interlude (continued)

must have a set of utilities to provide service. Repetitive code occurs because of this condition. Table control for audio is scattered.

Operation

Audio Interlude provides a standard and easy way to add music and announcements to many features. Information is consolidated into Table AUDIO, which reduces repetitive codes.

Features implemented in FPE can use Audio Interlude utilities to provide service. Features implemented in non-FPE environments use inline code and procedures to provide service. Features implemented in CCF cannot use Audio Interlude.

Audio Interlude provides announcements at the beginning of a cycle. Audio Interlude works for calls on a line or a trunk. Audio Interlude adds time to the set ringback time of a feature so that ringback ends when the announcement cycle begins. If a feature recalls a party, audible ringing replaces music. All calls disconnect from audio sources when the party answers the call or when the caller hangs up.

Translations table flow

Audio Interlude does not affect translations table flow.

Limits

If the announcement or music circuit is not available, the feature acts like the audio interlude option is not chosen.

Interactions

The following paragraphs describe the interactions between Audio Interlude and other functionalities.

Attendant queue

Audio Interlude makes sure announcements start at the beginning. See "Audio Input on Incoming Calls in Queue" for additional information.

UCD queue:

Audio Interlude makes sure announcements start at the beginning.

Attendant hold

When the attendant answers an incoming call and places the call on hold, the feature provides music. The feature provides music if the call remains on hold or the attendant transfers the call. The feature provides music if the destination

Audio Interlude (continued)

is busy. The feature provides music if camp on or call waiting is available. The feature provides music if the attendant originates the call.

Call hold

Audio Interlude provides music when a call is on hold. See "Call Hold" for additional information.

Permanent hold

Audio Interlude provides music when a call is on hold. See "Call Hold" for additional information.

Attendant camp-on rewrite

Audio Interlude provides music when the attendant camps-on a call to a busy station.

Call park

Audio Interlude provides music when a call is parked. Table AUDIO must contain the correct data for this process to occur. To provide music, enter KEY in Table AUDIO and select audio. If you do not want to provide audio, enter KEY in Table AUDIO and leave the cell empty. If you do not choose the audio option, the caller hears ringing. See "Attendant Call Park Recall Timer" for additional information.

MBS call park:

Audio Interlude provides music when a call is parked. Table AUDIO must contain the correct data for this process to occur. To provide music, enter KEY in Table AUDIO and select audio. If you do not want to provide audio, enter KEY in Table AUDIO and leave the cell empty. If you do not choose the audio option, the caller hears ringing. See "MBS Call Park" for additional information.

Dial call waiting:

Audio Interlude provides audible ringback, tone, announcement, or music when a caller imposes dial call waiting on a busy station. See "Dial - Call Waiting" for more information.

Call waiting originating:

Audio Interlude provides audible ringback, tone, announcement, or music when a caller imposes call waiting originating on a busy station. See "Call Waiting - Originating" for additional information.

Activation/deactivation by the end user

Audio Interlude does not require activation or deactivation by the end user.

Audio Interlude (continued)

Billing

Audio Interlude does not affect billing.

Station Message Detail Recording

Audio Interlude does not affect Station Message Detail Recording.

Datafilling office parameters

Audio Interlude does not affect office parameters.

Datafill sequence

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

Datafill requirements for Audio Interlude

Table	Purpose of table
AUDIO	Audio Interlude. This table defines the audio interlude broadcasts available for some features for MDC.
CUSTHEAD	Customer Group Head. This table allows stations to provide music to calls on hold and parked calls.
CUSTCONS	Customer Group Attendant Console Option. This table contains the attendant console options assigned to each customer group that has attendant consoles.
CUSTSTN	Customer Group Station Option. Use this table to assign station options to customer groups.
UCDGRP	Uniform Call Distribution Group. This table allows attendant consoles to provide music and announcements to calls. The attendant consoles can provide these features when the attendant places a call on hold or camp-on.

Datafilling table AUDIO

Table AUDIO (Audio Interlude) defines the audio interlude broadcasts available for some features for MDC. These broadcasts can include the following broadcast elements: ANNOUNCEMENT, MUSIC, SILENCE, or RINGING. Each tuple in the table specifies the audio broadcast that the system issues for a given audio group and feature name. This table specifies the CLI names of the announcement and music trunks. The CLI names must appear in Tables ANN and ANNMEMS.

Audio Interlude (continued)

Datafill for Audio Interlude for table AUDIO appears in the following table. The fields that apply to Audio Interlude 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	Explanation and action
CHOICE		ANN, MUSIC, SILENCE, RINGING, REPEAT	Audio Choice. Enter ANN for announcement or MUSIC for continuous music. Enter SILENCE for absence of announcement or music. Enter RINGING for ringing. Enter REPEAT to repeat a sequence.
If you choose ANN, you must enter fields AR, CYCLES, and ANNCLLI.			
AR		Y	Audible Ringing. Enter Y.
CYCLES		1 - 30	Announcement Cycles. Enter the number of announcement cycles from 1 to 30.
ANNCLLI		alphanumeric	Announcement CLLI. Enter the CLLI of the announcement trunk.
If you select RINGING in the CHOICE field, you must enter field TIME.			
TIME		0 - 1800	Time. Enter the delay threshold time. Correct range is 0 through 1800.
If you select SILENCE in the CHOICE field, you must enter field TIME.			
TIME		0 - 1800	Time. Enter the delay threshold time. Correct range is 0 through 1800.

Datafill example for table AUDIO

Sample datafill for table AUDIO appears in the following example.

MAP example for table AUDIO

AUDIO	
AUDIOKEY	
ROUTES	
AUDI01	CHD
(ANN Y 1 VCAANNC)	(RINGING 10) (ANN Y 1 VCAANNC) (SILENCE 0) \$

Audio Interlude (continued)

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) allows stations to provide music to calls on hold and parked calls.

Datafill for Audio Interlude for table CUSTHEAD appears in the following table. The fields that apply to Audio Interlude 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		CPK, MHOLD	Options. This field specifies the list of options and associated subfields assigned to the customer group. Enter CPK and MHOLD.
If you set OPTIONS to CPK, subfields OPTION, ANNMUSIC, and CPKMAXNO require datafill.			
	OPTION	CPK	Option. This subfield specifies the call park option. Enter CPK.
	ANNMUSIC	Y or N	Announcement/Music. This subfield specifies if the parked call requires an announcement or music. Enter Y or N.
If you set ANNMUSIC to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	AUDIO1, AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the audio group that Table AUDIO contains. Option CPARK specifies the announcement/music that the feature must apply. Enter a value from AUDIO1 to AUDIO512.
	CPKMAXNO	0 - 32,767	Maximum Number. This subfield specifies the maximum number of calls that can be parked at the same time for the customer group. Enter a value from 0 to 32, 767.
If you set OPTIONS to MHOLD, subfields OPTION, MOHTR, and AUDIOGRP require datafill.			
	OPTION	MHOLD	Option. This subfield specifies the music on hold option. Enter MHOLD.

Audio Interlude (continued)**Datafilling table CUSTHEAD (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	MOHTH	0 - 127	Music on Hold Threshold. This subfield specifies the time that passes before the feature applies music. The time is in 1 s increases. Enter a value from 0 to 127.
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the audio group that Table AUDIO contains. Option ATTQ defines the announcement/music that the feature must provide. Enter a value from AUDIO1 to AUDIO512.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the following example.

MAP example for table CUSTHEAD

```

CUSTHEAD

CUSTNAME CUSTXLA DGCOLNM IDIGCOL OPTIONS
-----
ASR1 CXNET DCNET NIL (VACTRMT 0) (EXTNCOS 0) (FETXLA
FXNET) (AUTH NETWORK N N) (PRITCXLA NETPRITC) (PUBTCXLA
NETPUBTC) $

```

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains the attendant console options. The assignment of attendant console options occurs for each customer group that has attendant consoles. Table CUSTCONS allows attendant consoles to provide music or announcements to calls. This condition occurs when the attendant places the call on hold or camp-on.

Audio Interlude (continued)

Datafill for Audio Interlude for table CUSTCONS appears in the following table. The fields that apply to Audio Interlude 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		ACO, ACHOLD	Options. This field specifies the list of options assigned to the customer group. Enter ACO and ACHOLD.
If you set OPTIONS to ACO, subfields OPTION and ANNMUSIC require datafill.			
	OPTION	ACO	Option. This subfield specifies the attendant camp-on option. Enter ACO.
	ANNMUSIC	Y OR N	Announcement/Music. This subfield specifies if announcement or music is available to the caller. Enter Y or N.
If you set ANNMUSIC to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the music option that Table AUDIO contains under the option CAMPON. Enter a value from AUDIO1 to AUDIO512.
If you set OPTIONS to ACHOLD, subfields OPTION and AUDIOGRP require datafill.			
	OPTION	ACHOLD	Option. This subfield specifies the attendant call hold with music option. Enter ACHOLD.
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the announcement or music option that Table AUDIO contains. Enter a value from AUDIO1 to AUDIO512.

Datafill example for table CUSTCONS

Sample datafill for table CUSTCONS appears in the following example.

Audio Interlude (continued)**MAP example for table CUSTCONS**

CUSTCONS	
CUSTNAME	OPTIONS
IBNGRP6A	
(SGRPNUM 3) (FLASHTHR 3) (9C9NUM 27) (CWNATIM 45) (ACO 30	
CAMPON 10 N) (SEC N) (LPKEY 6) (PEGLA 15) (NDSCTIM 30)	
(HLDRECTO 0) (ACCPKTIM 15) (ACHOLD AUDIO1) (ACCFB Y) (ACCFD)	
\$	

Datafilling table CUSTSTN

Use table CUSTSTN (Customer Group Station Option) to assign station options to customer groups. For Audio Interlude, use this table to assign music to the following features:

- permanent hold (PHOLD)
- call waiting originating (CWO)
- dial call waiting (CWD)
- call hold with audio (CHD)

Datafill for Audio Interlude for table CUSTSTN appears in the following table. The fields that apply to Audio Interlude 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 3)

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		alphanumeric (1 - 16 characters)	Customer Group Name. This field specifies the 1-to 16-character alphanumeric name assigned to the customer group. Enter the customer group name.
OPTNAME		PHOLD	Option Name. This field specifies the name of the option. Enter PHOLD for permanent hold.
OPTION		see subfields	Option. This field contains subfields OPTION and ANNUSIC.
	OPTION	PHOLD	Option. This subfield specifies the name of the option. Enter PHOLD for permanent hold.

Audio Interlude (continued)

Datafilling table CUSTSTN (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ANNMUSIC	Y or N	Announcement/Music. This subfield specifies if the parked call requires an announcement or music. Enter Y or N.
If you set ANNMUSIC to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the audio group that Table AUDIO contains. Option PHOLD specifies the type of announcement/music that the feature provides. Enter a value from AUDIO1 to AUDIO512.
OPTNAME		CWO	Option Name. This field specifies the name of the option. Enter CWO for call waiting originating.
OPTION		see subfields	Option. This field contains subfields OPTION and ANNMUSIC.
	OPTION	PHOLD	Option. This subfield specifies the name of the option. Enter CWO for call waiting originating.
	ANNMUSIC	Y or N	Announcement/Music. This subfield specifies if the parked call requires an announcement or music. Enter Y or N.
If you set ANNMUSIC to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the audio group that Table AUDIO contains. Option CWO specifies the type of announcement/music that the feature provides. Enter a value from AUDIO1 to AUDIO512.
OPTNAME		CHD	Option Name. This field specifies the name of the option. Enter CHD for call hold with audio.
OPTION		see subfields	Option. This field contains subfields OPTION and AUDIOGRP.

Audio Interlude (continued)**Datafilling table CUSTSTN (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CHD	Option. This subfield specifies the name of the option. Enter CHD for call hold with audio.
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the audio group that Table AUDIO contains. This audio group specifies the announcement/music that the feature applies to the held party. Enter a value from AUDIO1 to AUDIO512.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTCONS

CUSTSTN			
CUSTNAME	OPTNAME	OPTION	
POTSDATA	PHOLD	PHOLD	24 HLDREM Y AUDIO1
POTSDATA	CWD		CWD Y AUDIO1
POTSDATA	CHD		CHD AUDIO1

Datafilling table UCDGRP

Table UCDGRP (Uniform Call Distribution Group) allows attendant consoles to provide music and announcements to calls. The features are available when the attendant places a call on hold or camp-on.

Audio Interlude (continued)

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

Datafilling table UCDGRP

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		AUDIO	Options. This field specifies the list of options and associated subfields assigned to the UCD group. Enter AUDIO.
	RANTH	0, 6 - 60	Recorded Announcement Threshold. This subfield specifies the time that an incoming call waits before a recorded announcement plays. This subfield specifies the time in seconds. Enter a 0 or a value from 6 to 60.
	ANNMUSIC	Y or N	Announcement/Music. This subfield specifies if an announcement or music are available to calls that the attendant does not answer immediately. Enter Y or N.
If you set ANNMUSIC to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group ID. This subfield identifies the audio group that Table AUDIO contains. Table AUDIO option UCDQ specifies the announcement/music applied to calls that the attendant does not answer immediately. Enter a value from AUDIO1 to AUDIO512.

Datafill example for table UCDGRP

Sample datafill for table UCDGRP appears in the following example.

MAP example for table UCDGRP

```
UCDGRP

UCDNAME ACD CUSTGRP UCDRNGTH THROUTE NSROUTE PRIOPRO
MAXPOS DBG DEFPRIO RLSCNT MAXWAIT MAXQSIZ OPTIONS

MDCXLA N POTSDATA 3 IBNRTE 1 IBNRTE 1 22 22 Y 3 23 33 33
(AUDIO 22 Y AUDIO1 ) $
```

Audio Interlude (end)

Tools for verifying translations

Audio Interlude does not use translation verification tools.

SERVORD

Audio Interlude does not use SERVORD.

Audio Table Expansion

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions

Requirements

To operate, Audio Table Expansion requires BAS Generic, BAS00003.

Description

Audio Table Expansion increases the number of audio groups that you can enter in Table AUDIO (Audio Interlude). Table AUDIO defines the music and announcement sequences that a caller hears when the call is on hold. An increase of Table AUDIO allows a maximum of 512 audio groups. A maximum of 15 audio groups were available before this feature. Audio groups are AUDIO1, AUDIO2, AUDIO3, and continue to AUDIO512.

The addition of tuples dynamically allocates the data store for Table AUDIO. The system uses less data store if you add audio group one after the other. Start with AUDIO1 to add audio groups. For example, the assignment of AUDIO1 through AUDIO12 uses less store than the assignment of AUDIO500 through AUDIO512.

Operation

Audio Table Expansion expands the number of available audio groups. This expansion allows more customer groups or subgroups to have different music and announcements in conjunction with other features.

For example, with a maximum limit of 512 audio groups, the following condition applies. Each of 256 Meridian automatic call distribution (ACD) groups can be assigned two audio groups for the Call Hold feature. The ACD groups can be assigned one audio treatment for business hours and a different audio treatment for non-business hours. When the maximum limit was 15 audio groups, this capability was available for only seven ACD groups.

Audio groups associate with the following features:

- Attendant Call Park
- Attendant Camp On
- Attendant Hold

Audio Table Expansion (continued)

- Call Hold
- Call Waiting - Originating
- Dial Call Waiting
- Music on Delay (Automatic Call Distribution)
- Music on Hold (Attendant Console)
- Music on Hold (Business Set)
- Permanent Hold
- Uniform Call Distribution

Note: The capacity of 512 audio groups represents the maximum software definable parameter. The number of features assigned a line and the applications that run in each switch determine the actual line and variable limits.

Translations table flow

Audio Table Expansion does not affect translations table flow.

Limits

Audio Table Expansion does not have limits.

Interactions

Audio Table Expansion does not have functionality interactions.

Activation/deactivation by the end user

Audio Table Expansion does not require activation or deactivation by the end user.

Billing

Audio Table Expansion does not affect billing.

Station Message Detail Recording

Audio Table Expansion does not affect Station Message Detail Recording.

Datafilling office parameters

Audio Table Expansion does not affect office parameters.

Audio Table Expansion (continued)

Datafill sequence

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

Datafill requirements for Audio Table Expansion

Table	Purpose of table
AUDIO	Audio Interlude. This table defines the audio interlude broadcasts available for some features for MDC.

Datafilling table AUDIO

Table AUDIO (Audio Interlude) defines the audio interlude broadcasts available for some features for IBN. These broadcasts can include the following broadcast elements: ANNOUNCEMENT, MUSIC, SILENCE, or RINGING. Each tuple in the table specifies the audio broadcast that the system issues for a given audio group and feature name. This table specifies the common language location identifier (CLLI) names of the announcement and music trunks.

Table AUDIO specifies the type of broadcast or announcement to provide for audio input on hold or music on hold. End users can provide an announcement, music, ringing, or silence while a call waits.

Datafill for Audio Table Expansion for table AUDIO appears in the following table. The fields that apply to Audio Table Expansion 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 2)

Field	Subfield or refinement	Entry	Explanation and action
AUDIOKEY		see subfields	Audio Key. This field contains subfields GROUP and FTRINDEX.
	GROUP	AUDIO1 - AUDIO512	Audio Group. This subfield specifies the audio group name required. Enter a value from AUDIO1 to AUDIO512.

Audio Table Expansion (end)**Datafilling table AUDIO (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CHOICE	FTRINDEX	ATTQ, UCDQ	Feature Index. This subfield specifies the feature that requires a broadcast. Enter ATTQ for attendant queue. Enter UCDQ for uniform call distribution queue.
		ANN, MUSIC, SILENCE, RINGING, REPEAT	Audio Choice. This field specifies the audio option. Enter ANN for announcement and MUSIC for continuous music. Enter SILENCE for absence of announcement or music. Enter RINGING for ringing. Enter REPEAT to repeat a sequence.

Datafill example for table AUDIO

Sample datafill for table AUDIO appears in the following example.

MAP example for table AUDIO

AUDIO									
AUDIOKEY					CHOICE				
AUDIO01	ATTQ				(ANN	Y	1		
VCAANNC)	(RINGING	10)	(ANN	Y 1	VCAANNC)	(SILENCE	0)	\$	
AUDIO0512	UCDQ					(	MUSIC		
	MUSIC		0)	\$					

Tools for verifying translations

Audio Table Expansion does not use translation verification tools.

SERVORD

Audio Table Expansion does not use SERVORD.

Automatic Intercept System (AIS) Enhancement

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

Automatic Intercept System (AIS) Enhancement was introduced in NA005.

Requirements

This document describes the information for the specified functionality. This feature can require software or hardware to function correctly.

Description

The Automatic Intercept System (AIS) is a centralized announcement package system. Separate operating companies use AIS to handle playback of messages to callers of directory numbers (DN) that route to AIS.

The AIS Enhancement functionality allows the DMS-100 Automatic Intercept System to comply with Bellcore specification TR-TSY-000532. This feature makes sure that the system output a correct seven-digit DN to the AIS.

Operation

The operating company requires the ability to place a DN on automatic intercept for several reasons. The most common reasons follow:

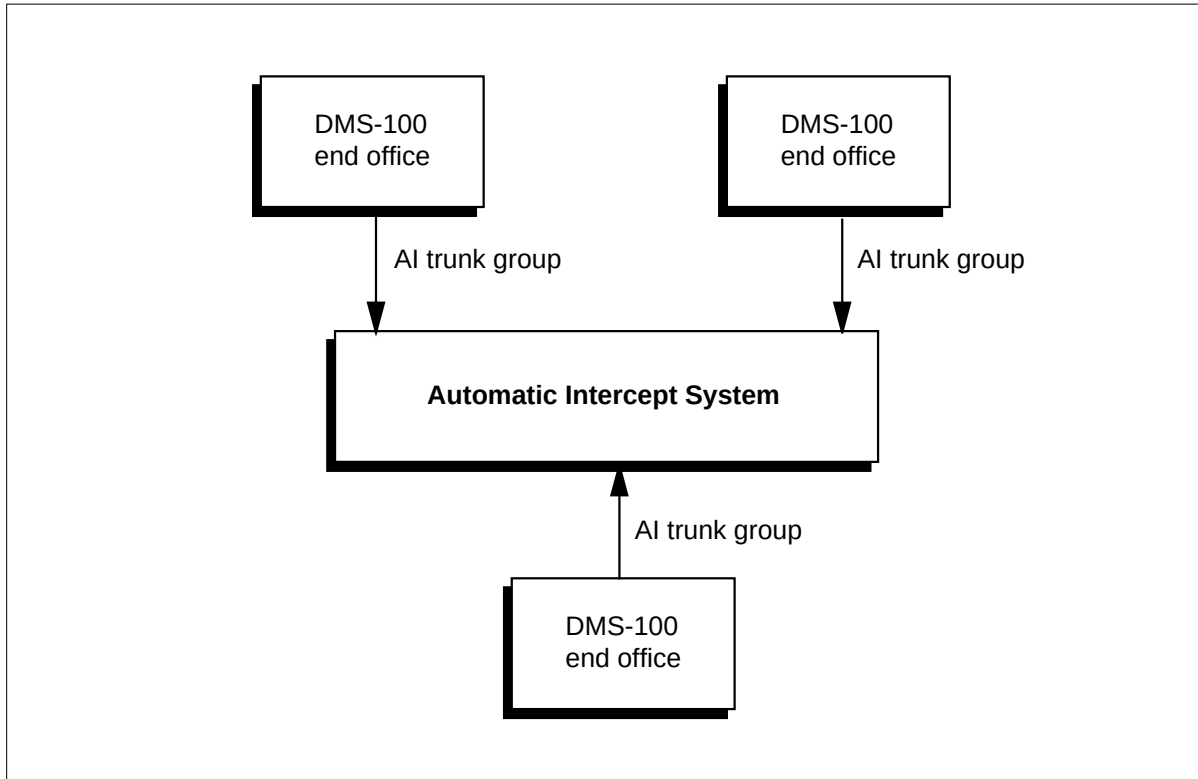
- The DN changes because the subscriber changed location.
- The DN disconnects because hardware problems or non-payment occur.
- The DN is not assigned or equipped in the central office.

The operating company determines if a DN qualifies for intercept treatment. The operating company assigns the intercept treatment to the DN and enters an AI trunk group. The system intercepts incoming calls and routes the calls over the AI trunk to the AIS. The AIS checks the CALLED DN and plays back the appropriate message to the CALLING party.

How the DMS-100 end offices use AI trunk groups to connect with the AIS appears in the following figure.

Automatic Intercept System (AIS) Enhancement (continued)

Automatic intercept system



Intercept types and treatments

When the system cannot complete calls as dialed, the calls receive the following intercept treatments:

- regular intercept
- blank number intercept
- trouble or special intercept

Regular intercept

A call to a recent changed or disconnected DN generates a regular intercept. The assignment of regular intercepts to Regular Intercept Treatment (OPRT) occurs. Enter the DNs with OPRT with the Service Order System (SERVORD) command CICIP (Change Intercept).

Blank number intercept

A call to a DN that is not assigned generates a blank number. The DN that is not assigned can be an empty number that is not assigned to terminating office equipment. The DN that is not assigned can be a DN of a series of numbers in

Automatic Intercept System (AIS) Enhancement (continued)

the DMS-100 switch. These numbers are not assigned to terminating office equipment.

The system assigns blank number intercepts to Blank DN Treatment (BLDN) or to Unassigned DN Treatment (UNDN).

BLDN: A call to a DN that is not assigned to a line equipment number (LEN) causes the BLDN treatment. This DN is from an assigned block of DNs.

UNDN: A call to a DN that belongs to a block of DNs that are not assigned causes the UNDN treatment.

Trouble or special intercept

A call to a DN that the operating company assigns a special intercept generates a trouble or special intercept.

The system assigns trouble or special intercepts to the following treatments:

- Trouble Intercept Treatment (TRBL)
- Termination Suspension Treatment (TESS)
- Denied Termination Treatment (DNTR)

TRBL: A call to a DN with an assigned Plug-Up (PLP) option causes the TRBL treatment.

TESS: A call to a DN with the Suspension (SUS) option causes the TESS treatment.

DNTR: A call to a DN with the Denied Termination (DTM) feature causes the DNTR treatment.

The operating company must enter an AI trunk group. The operating company routes the intercept treatments to the trunk group.

Required trunk outputting patterns

The Bellcore Specification TR-TSY-000532 requires the following trunk outputting patterns:

- Regular intercept >Key Pulse (KP) + 3 + 7 digits (d) + Stop (ST)
- Blank number intercept >KP + 0 + 7d + ST
- Trouble or special intercept >KP + 1 + 7d + ST

The Bellcore specification states the following. If the switching system cannot output the seven-digit called number, the AI trunk must prefix the numbers

Automatic Intercept System (AIS) Enhancement (continued)

dialed with the number 2. This action can occur when the system fails to identify the number. The system sends the prefix digit to the AIS to determine the appropriate playback message.

Residential lines

The DMS-100 interface complies with the above specification when two events occur. These events are when the system routes calls to residential lines for intercept treatment and outpulses calls to an AIS.

Centrex lines

The system can route calls to Centrex lines for intercept treatment and outpulse calls to an AIS. When these conditions occur, the AI trunk performs one of the following actions:

- extension dialing >KP + 2-6d + ST
- Local Network Access >KP + 9 + 7d + ST
- ESN dialing >KP + ESN + 4d
- Centrex trunk access from Table IBNXLA >access code + 2-7d
- Virtgrp access >access code + 2-7d

The AIS Enhancement makes sure that the system outpulses a complete seven digit DN to an AIS.

Translations table flow

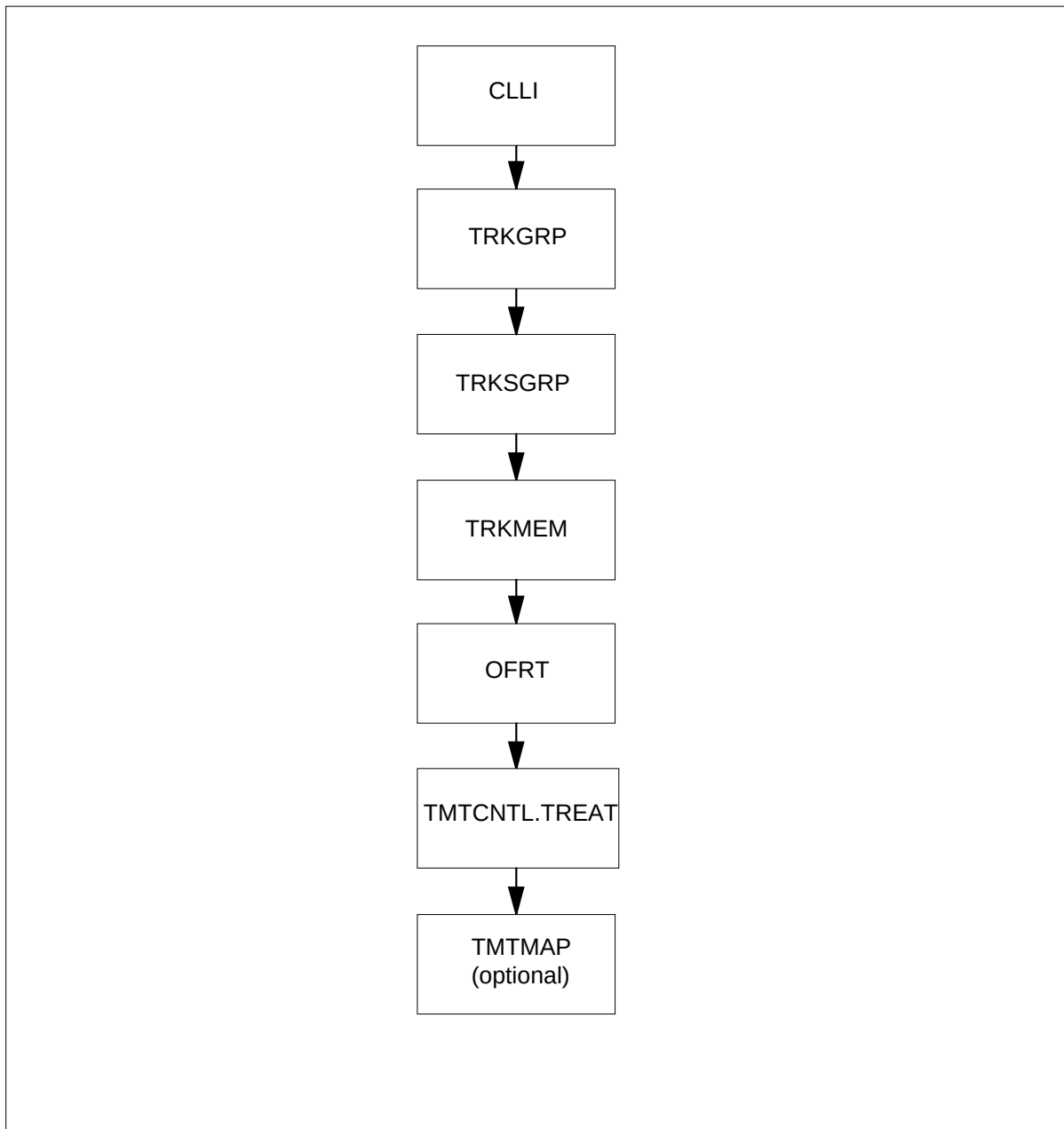
The AIS Enhancement translations tables appear in the following list:

- Table CLLI identifies the far end of each announcement, tone, trunk group, test trunk, national milliwatt test line and service circuit.
- Table TRKGRP enters the AI trunk group for AIS.
- Table TRKSGRP enters the AI trunk subgroup for AIS.
- Table TRKMEM adds a trunk member for AIS.
- Table OFRT enters office routes to allow the system to outpulse the appropriate prefix digits with the CALLED DN. This event occurs when the system routes calls to AIS treatment.
- Table TMTCNTL.TREAT enters the six supported AIS treatments under the required head table positions. This event causes the system to route all call types to treatment in the same method.
- Table TMTMAP maps AIS treatments to support local treatments for incoming ISDN user part (ISUP) trunk calls.

The AIS Enhancement translation process appears in the following flowchart.

Automatic Intercept System (AIS) Enhancement (continued)

Table flow for Automatic Intercept System (AIS) Enhancement



Automatic Intercept System (AIS) Enhancement (continued)

Datafill content used in the flowchart appears in the following table.

Datafill example for Automatic Intercept System (AIS) Enhancement

Datafill table	Example data
CLII	AISTEST 900 5 AIS_TEST
TRKGRP	AISTEST AI 0 ELO NCRT NIL N
TRKSGRP	AISTEST 0 2X83AA STD OG MF WK 10 0 NO NO N N N 45 UNEQ
TRKMEM	AISTEST 1 0 TM8 2 0
OFRT	800 N D AISTEST 0 0 N \$
TMTCNTL. TREAT	BLDN Y T OFRT 800
TMTMAP	Q764 BLDN ALLBC ISUP LOCAL

Limits

The following limits apply to the Automatic Intercept System (AIS) Enhancement feature:

- One limit to the AIS Enhancement is secondary DN (SDN). Another name for this limit is Teen Service. The system outpulses the primary DN (PDN) to the AIS unit. This event occurs when the AIS calls to an SDN with the SERVORD prompt SDN_OPT input as N, regular type SDN. Calls to PDN *and* calls to SDNs cause TESS or TRBL treatments when the system assigns SUS and PLP options.
- This feature does not support SS7 to AI interworking. Incoming calls over a trunk group with a PULSE_TYPE of SS7 that terminate to AIS over a trunk with a TRNK_GROUP_TYPE of AI do not function.

Interactions

The AIS Enhancement feature does not have functionality interactions.

Activation/deactivation by the end user

The Automatic Intercept System (AIS) Enhancement feature does not require activation or deactivation by the end user.

Billing

The AIS Enhancement feature does not affect billing.

Automatic Intercept System (AIS) Enhancement (continued)

Station Message Detail Recording

The AIS Enhancement feature does not affect Station Message Detail Recording.

Datafilling office parameters

The AIS Enhancement feature does not affect office parameters.

Datafill sequence

The tables that require datafill to provide AIS Enhancement appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Automatic Intercept System (AIS) Enhancement

Table	Function of table
CLLI	Common Language Location Identifier. This table contains the common language location identification (CLLI) codes. These codes identify the far end of each announcement, tone or trunk group.
TRKGRP	Trunk Group. This table contains customer-defined data associated with each trunk group in the switching unit.
TRKSGRP	Trunk Subgroup. This table contains the additional information for each subgroup assigned to one of the trunk groups in table TRKGRP.
TRKMEM	Trunk Member. This table contains the data for each trunk tables TRKGRP and TRKSGRP specify.
OFRT	Office Route. The system uses this table if the system translates an originating call and a previous stage identifies a route reference index.
TMTCNTL	Treatment Control. This table defines the tones, announcements, states like, IDLE or LOCKOUT, or groups of these that return to the call originator. This event occurs if the system encounters a specified treatment code during call translation. The software packages available in the switch determine the entry for field EXTTMTNM in table TMTCNTL. All EXTTMTNM values appear in the switch as correct entries. The entries appear in all software loads as a BCS form. The EXTTMTNM values are a part of the DMS base software.
TMTMAP	Treatment to Cause Map. This table provides mapping of DMS treatments to call failure messages that specified Signaling System 7 protocols support.

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table CLLI

Datafill for AIS Enhancement for table CLLI appears in the following table. The fields that apply to AIS Enhancement 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	Description and action
CLLI		alphanumeric vector of a maximum of 16 characters	Common language location identifier. Enter a CLLI code to identify the far end of each announcement, tone, or trunk group.
ADNUM		numeric 0 to 8191	Administrative trunk group number. Enter a number in the range from 0 to one less than the current size of table CLLI. The entry of the size of table CLLI occurs in field SIZE of table DATASIZE.
TRKGRSIZ		numeric 0 to 2047	Trunk group size. Enter the maximum quantity of trunk members expected for assignment in the trunk group. This number allocates storage. This number can be greater than the number of initial trunks that function.
ADMININF		alphanumeric vector of a maximum of 32 characters	Administrative information. Enter operating company administration information. The switch does not use information in this field.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
AISTEST	900	5	AIS_TEST

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table TRKGRP

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

Datafilling table TRKGRP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
GRPKEY		see subfield	Group key. This field contains subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier. Enter AIS. This entry is the pseudocode of the trunk group in table CLLI.
GRPINFO		see subfields	Variable group data. This field contains subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS and PROPAGAT. See section "General field information" in table TRKGRP. Check for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	AI	Group type. Enter AI. This entry is the trunk group type for AIS trunk groups.
	TRAFSNO	numeric (0 to 127)	Traffic separation number. Enter the outgoing traffic separation number assigned to the trunk group. If the number is not required, enter 0. If the switching unit has Traffic Separation Peg Count, enter a number between 1 and the value of parameter TFAN_OUT_MAX_NUMBER. Parameter TFAN_OUT_MAX_NUMBER appears in table OFCENG. For switching units that do not have Traffic Separation Peg Count, enter a number between 1 and 15. Generic traffic separation numbers use incoming and outgoing traffic separation numbers 1 to 9. See table TFANINT for additional information.
	PADGRP	alphanumeric (1 to 5 characters)	Pad group. Enter the name of the pad group assigned to the trunk group in table PADDATA. See table PADDATA for additional information.

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table TRKGRP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
	NCCLS	NCBN, NCID, NCIM NCIT, NCLT NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	No-circuit class. Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate the OM register that increases if treatment GNCT, generalized no circuit, occurs. The first value for this trunk group type is NCRT, no circuit.
	TRAFCLS	alphabetic (2 characters)	Traffic use class. Enter the traffic use class assigned to the trunk group. See table TRKGRP for additional information.
	PROPAGAT	Y or N	Propagate answer back. Enter Y if the trunk group monitors the Answer Back message sent to the originating central office switching center. In all other conditions, enter N.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

MAP example for table TRKGRP

GRPKEY	GRPINFO				
AISTEST	AI	0	ELO	NCRT	NIL N

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table TRKSGRP

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

Datafilling table TRKSGRP

Field	Subfield or refinement	Entry	Description and action
SGRPKEY		see subfields	Subgroup key. This field contains subfields CLLI and SGRP.
	CLLI	alphanumeric 1 to 16 characters	Common language location identifier. Enter the CLLI code assigned in table CLLI to the trunk group that contains the subgroup.
	SGRP	numeric 0 or 1	Subgroup number. Enter the number assigned to the trunk subgroup.
CARDCODE		DS1SIG	Card code. Enter DS1SIG.
SGRPVAR		see subfield	Variable subgroup data. This field contains subfields SIGDATA and DIR, and refinements for the value in subfield DIR.
	SIGDATA	STD	Signaling data. Enter STD.
	DIR	IC, OG or 2W	Direction. Enter the trunk group direction: 2W (two-way), IC (incoming), or OG (outgoing). If the entry in field DIR is 2W, enter data in refinements ESUPR, SAT, ECSELECT, ABCNTL, PROTOCOL, OPTIONS, TMRNAME and GLAREVAR. If the entry in field DIR is IC, enter data in refinements ESUPR, SAT, ECSELECT, ABCNTL, PROTOCOL, OPTIONS and TMRNAME. If the entry in field DIR is OG, enter data in refinements ESUPR, SAT, ECSELECT, ABCNTL, PROTOCOL, OPTIONS and TMRNAME.

Datafill example for table TRKSGRP

Sample datafill for table TRKSGRP appears in the following example.

Automatic Intercept System (AIS) Enhancement (continued)

MAP example for table TRKSGRP

SGRPKEY	CARDCODE	SGRPVAR
-----	-----	-----
AINTEST 0	DS1SIG	STD OG MF WK 10 0 NO NO N N N 45 UNEQ \$

Datafilling table TRKMEM

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

Datafilling table TRKMEM (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
CLLI		alphanumeric 1 to 16 characters	Common language location identifier (CLLI). Enter the CLLI code assigned to the trunk group that contains the trunk. The assignment of this CLLI code occurs in table CLLI.
EXTRKNM		0 to 9999	External trunk number. Enter the external trunk number assigned to the trunk. The external trunk number must be different over all trunks and lines with the same AIOD group. This condition applies to members of trunk groups that use the Automatic Identification of Outward Dialing (AIOD) option.
SGRP		0 or 1	Subgroup number. Enter the subgroup number to which the system assigns the trunk.
MEMVAR		see subfield	Variable data for members. This field contains subfield PMTYPE and refinements.

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table TRKMEM (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
	PMTYPE	TM8	Peripheral module type. Enter the peripheral module (PM) type that connects to the trunk. Enter the refinements associated with this entry value. Separate each refinement entry with a blank space. If the value of field PMTYPE is one of the following, enter data in subfields TMNO and TMCKTNO: • ATM • DTM • ISM • MMA • MTM • OAU • PTM • RMM • RSM • STM • TAN • T8A • TM2 • TM4 • TM8 • TMA
	TMNO	0 to 2047	Trunk module number. Enter the number assigned to the trunk module on which the system assigns the trunk group member.
	TMCKTNO	0 to 29	Trunk module circuit number. Enter the number of the trunk module circuit to which the system assigns the trunk group member.

Datafill example for table TRKMEM

Sample datafill for table TRKMEM appears in the following example.

Automatic Intercept System (AIS) Enhancement (continued)

MAP example for table TRKMEM

CLLI	EXTRKNM	SGRP	MEMVAR
-----	-----	-----	-----
AISTEST	1	0	TM8 2 0

Datafilling table OFRT

Datafill for AIS Enhancement for table OFRT appears in the following table. The fields that apply to AIS Enhancement 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 and action
RTE		1 to 1023 or blank	Route reference index. If the record is the first in the route list, enter the route reference number assigned to the route list. For other conditions, leave the entry blank. An entry outside of this range is not correct.
RTELIST		see subfields	Route list. This field contains subfields RTESEL, CONNTYPE, and CLLI. The RTELIST field can repeat a maximum of seven times, for a total of eight possible routes.
	RTESEL	N	Route selector.
	CONNTYPE	D	Connection type.
	CLLI	alphanumeric (1 to 16 characters)	CLLI. Enter the code in the CLLI table to which the system routes the call.

Datafill example for table OFRT

Sample datafill for table OFRT appears in the following example.

Automatic Intercept System (AIS) Enhancement (continued)

MAP example for table OFRT

RTE	RTELIST					
800	N	D	AISTEST	0	0	N \$
801	N	D	AISTEST	0	1	N \$
802	N	D	AISTEST	0	2	N \$
803	N	D	AISTEST	0	3	N \$

Datafilling table TMTCNTL.TREAT

Table TMTCNTL, Treatment Control, contains the subtable TREAT. The system routes treatments you enter in table TMTCNTL.TREAT through table OFRT.

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

Datafilling table TMTCNTL.TREAT (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
TREATMT		BLDN, DNTR, TESS, TRBL, OPRT, or UNDN	Treatment. This field specifies the feature treatment. For call treatment routing to be equal, enter the six supported treatments under the following head table positions: • OFFTREAT (Office Treatments) • LNT (Line Treatments) • ITTRKGRP (Intertoll Treatments) • TITRKGRP (Local Incoming Trunk Treatments) • INTRKGRP (Incoming CAMA Treatments) • PXTRKGRP PBX (Two-way Trunk Treatments)
LOG		Y or N	Log. This field specifies if the system must generate a log report each time the system activates treatment.

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table TMTCNTL.TREAT (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
FSTRTE		see subfields	First route. This field specifies the first route selector. This field contains subfields FSTRTSEL, TABID and KEY.
	FSTRTSEL	S or T	First route selector. This subfield specifies the first route selector. Enter S for standard or T for table.
	TABID	OFRT, OFR2, OFR3, or OFR4	Table name. This subfield specifies the office route table name.
	KEY	1 to 1023	Key. This subfield specifies the index to the office route table to define the route list for the treatment.

Datafill examples for table TMTCNTL.TREAT

Sample datafill for table TMTCNTL.TREAT at position OFFTREAT appears in the following example. For call treatment routing to be equal, enter the AIS treatments the same method for the following table positions:

- OFFTREAT
- LNT
- ITTRKGRP
- TITRKGRP
- INTRKGRP
- PXTRKGRP

Automatic Intercept System (AIS) Enhancement (continued)

MAP example for table TMCNTL.TREAT position OFFTREAT

Table TMCNTL				
EXTTMTNM	TREAT			

OFFTREAT	(110)			
SUBTABLE				
TREATMT	LOG	FSTRTE		

BLDN	Y	T	OFRT	800
DNTR	Y	T	OFRT	801
TESS	Y	T	OFRT	801
TRBL	Y	T	OFRT	801
OPRT	Y	T	OFRT	803
UNDN	Y	T	OFRT	800

Datafilling table TMTMAP

Table TMTMAP (Treatment Map) maps DMS treatments to failure messages that specified Common Channel Signaling 7 (CCS7) protocols supports.

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

Datafilling table TMTMAP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
TMTMPKEY		see subfields	TMTMAP key. This field contains subfields PROTOCOL, TMT, and BC_CT.
	PROTOCOL	alphanumeric	Protocol. Enter the protocol variant specified for the trunk that carries the call.
	TMT	BLDN, DNTR, TESS, TRBL, OPRT, or UNDN	Treatment code Enter one of the treatment codes table TMCNTL.TREAT, field TREATMT defines.
	BC_CT	ALLBC	Bearer capability call type. Enter the specified bearer capability type mapped different from other bearer capability call types. If the default value is ALLBC, the system must map bearer capability call types to the same treatment.
TMTMPVAR		see subfield	Treatment map. This field contains subfields FORMAT and ISUPPROC.

Automatic Intercept System (AIS) Enhancement (continued)

Datafilling table TMTMAP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
	FORMAT	ISUP	Protocol format. Enter ISUP to specify the type of trunk that carries the call.
	ISUPPROC	see subfields	ISUP procedure. This subfield contains refinements TMTPROC, CAUSE, LOCATION, and LOG.
	TMTPROC	LOCAL	Treatment procedure. Enter LOCAL to specify that the application of the treatment must occur locally. Leave the refinements that remain blank. The system generates an in-band tone or announcement. The tone or announcement depends on the treatment code in table TMTCNTL.TREAT.

Datafill example for table TMTMAP

Sample datafill for table TMTMAP appears in the following example.

MAP example for table TMTMAP

TMTMPKEY			TMTMPVAR	
-----			-----	
Q764	BLDN	ALLBC	ISUP	LOCAL
Q764	DNTR	ALLBC	ISUP	LOCAL
Q764	TESS	ALLBC	ISUP	LOCAL
0764	TRBL	ALLBC	ISUP	LOCAL
0764	OPRT	ALLBC	ISUP	LOCAL
0764	UNDN	ALLBC	ISUP	LOCAL

Tools for verifying translations

A description of the output from TRAVER when the output calls a BLDN that routes to AIS Enhancement appears in the following example.

Automatic Intercept System (AIS) Enhancement (continued)

TRAVER output example for AIS Enhancement

Line	Output
	>traver l 6215001 6217777 b
1	TABLE LINEATTR
2	01FR NONE NT NSCR 0 613P621 NLCA TSPS 10NIL NILSFC LATAI 0
3	NIL NIL 00 Y RESGRP 0 2 \$
4	LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
5	TABLE DNATTRS
6	613 621 5001
7	(PUBLIC (NAME TOM) \$) \$ \$
8	TABLE DNGRPS
9	TUPLE NOT FOUND
10	TABLE LENFEAT
11	TUPLE NOT FOUND
12	TABLE OFCVAR
13	AIN_OFFICE_TRIGGRP NIL
14	AIN Orig Attempt TDP: no subscribed trigger
15	TABLE STDPRTCT
16	P621 (1) (65021) 0
17	.SUBTABLE STDPRT
18	WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
19	BILING. CALL TYPE DEFAULT IS NP. PLEASE REFER TO
20	DOCUMENTATION.
21	6217 632 N NP 0 NA
22	.SUBTABLE AMAPRT
23	.KEY NOT FOUND
24	.DEFAULT VALUE IS: NONE OVRNONE N
25	TABLE HNPACONT
26	613 128 2 (43) (1) (0) (0) 0
27	AIN Info Collected TDP: no subscribed trigger.
28	AIN Info Analyzed TDP: no subscribed trigger.
29	TABLE TOFCNAME
30	613 621
31	TABLE DNINV
32	613 621 7777 D BLDN
33	AIN Term Attempt TDP: no subscribed trigger.
34	TABLE DNATTRS
35	TUPLE NOT FOUND

—continued—

Automatic Intercept System (AIS) Enhancement (end)

TRAVER output example for AIS Enhancement (continued)

```

36      TABLE TMTCNTL
37      LNT (112)
38      .SUBTABLE TREAT
39      .BLDN Y T OFRT 800
40      .TABLE OFRT
41      .800 N D AISTEST 0 0 N
42      .EXIT TABLE OFRT
43
44      *** TRAVER SUCCESSFUL CALL TRACE ***
45      TREATMENT ROUTES.  TREATMENT IS BLDN  TRUNK GROUP CLLI
46      TRUNK GROUP CLLI:  AISTEST, GROUP TYPE AI
47
48      1 AISTEST
49      *** TRAVER SUCCESSFUL CALL TRACE ***
50

```

The previous TRAVER output example for AIS Enhancement describes the following steps:

1. Party A (DN 621 5001) dials DN 621 7777 (local call).
2. The DMS determines that DN 621 7777 is BLDN.
3. The DMS translations software directs the call to treatment with TREATMENT = BLDN.
4. Position LNT in table TMTCNTL determines the call routing.
5. Position LNT entry BLDN in table TMTCNTL routes the call to OFRT 800.
6. Table OFRT, entry 800 routes the call over trunk group AISTEST and prefixes a zero. The zero tells the AIS the category of the call that goes to treatment.

SERVORD

The AIS Enhancement feature requires current SERVORD commands for the Plug-Up, the Suspension and the Denied Termination features. Use the SERVORD CICP command to enter DNs with OPRT treatment.

Automatic Line

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

The Automatic Line feature requires BAS Generic, BAS00003.

Description

The Automatic Line feature provides an automatic connection between a calling station that goes off-hook and a set location.

Operation

The calling station does not receive dial tone. The automatic connection occurs to a stored number that contains 1 to 11 digits.

Translations table flow

The Automatic Line feature does not affect translations table flow.

Limits

The following limits apply to the Automatic Line feature:

- If the automatic connection occurs to the attendant, the system queues the call. When the system queues the call, the system ignores flashing. The calling station can go on-hook and abandon or wait for the attendant to answer. If the calling station flashes the hookswitch when active on a call type, the flash causes an attendant recall. The transfer type defined for the customer group does not affect this condition.
- If the called station is off-hook, the system returns a busy tone to the calling station.

Interactions

The Automatic Line feature does not have functionality interactions.

Activation/deactivation by the end user

The Automatic Line does not require activation or deactivation by the end user.

Automatic Line (continued)

Billing

The Automatic Line feature does not affect billing.

Station Message Detail Recording

The Automatic Line feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Automatic Line feature does not affect office parameters.

Datafill sequence

The tables that require datafill to provide the Automatic Line feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Automatic Line

Table	Function of table
IBNFEAT (Note)	IBN Line Feature. The line features assigned to the IBN lines in table IBNLINES appear in this table.
Note: Enter this table through SERVORD. Datafill procedure or example is not necessary. See SERVORD for an example of how to use SERVORD to enter this table.	

Tools for verifying translations

The Automatic Line feature does not use tools for verifying translations.

SERVORD

SERVORD limits

The Automatic Line feature does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that assign Automatic Line to a line appear in the following table.

SERVORD prompts for Automatic Line

Prompt	Correct input	Description
OPTION	AUL	Specifies the option to assign. Enter AUL.
AULDN	15 digits maximum	Specifies the local or toll DN that connects to the AUL.

Automatic Line (end)

SERVORD example to add the Automatic Line feature

The following SERVORD example describes how to add the Automatic Line feature with the ADO command.

SERVORD example for Automatic Line in prompt mode

```
S0:  
> ADO  
SONUMBER: NOW 93 2 5 AM  
>  
DN_OR_LEN:  
> 2 0 3 1  
OPTION:  
> AUL  
AULDN:  
> 7875123  
OPTION:  
> $
```

SERVORD example for Automatic Line in no-prompt mode

```
> ADO 2 0 3 1 AUL 7875123 $
```

Automatic Recall

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

The Automatic Recall feature requires BAS Generic, BAS00003.

Description

The Automatic Recall feature allows any call that is not answered that the attendant extends to return to the attendant after a specified period. If the console holds a call, the call recalls to the same console. If the console released the call, the call recalls to the most idle console in the group.

Operation

Two automatic recall timers are in use with the Automatic Recall feature. One timer is for call waiting and no answer recalls. The other timer is for camp-on recalls.

- The call waiting/no answer recall timer has a default value of 30 s. Set the timer in 1-s increments from 12 to 60 s. When the timer expires, the system recalls a call-waited call or a call that terminated on a ringing telephone. The system recalls these calls to the attendant. If you set the value to zero (0), the call remains call-waited or the telephone continues to ring. The telephone does not ring after the called station answers or the calling party abandons the call. The involvement of an outgoing trunk connection means the system maintains the connection. The system maintains the connection until one of the following events occur:
 - the called station answers
 - reception of answer supervision from the outgoing trunk occurs
 - the outgoing trunk abandons
- The camp-on recall timer does not have a default value. Specify a time from 12-60 s. When the timer expires, the system recalls a camped-on call to the attendant. You can set the value to zero (0). In this event, the call remains camped-on until the called station answers or the calling party abandons.

Automatic Recall (continued)

After the attendant answers the recall, the attendant can extend the call to the same station. To extend the call, the attendant presses the Release (RLS) key, the Hold (HOLD) key, or another Loop key. The attendant can press HOLD or another Loop key to hold the call on loop. The system does not limit the number of times that an attendant can extend a call to the same station.

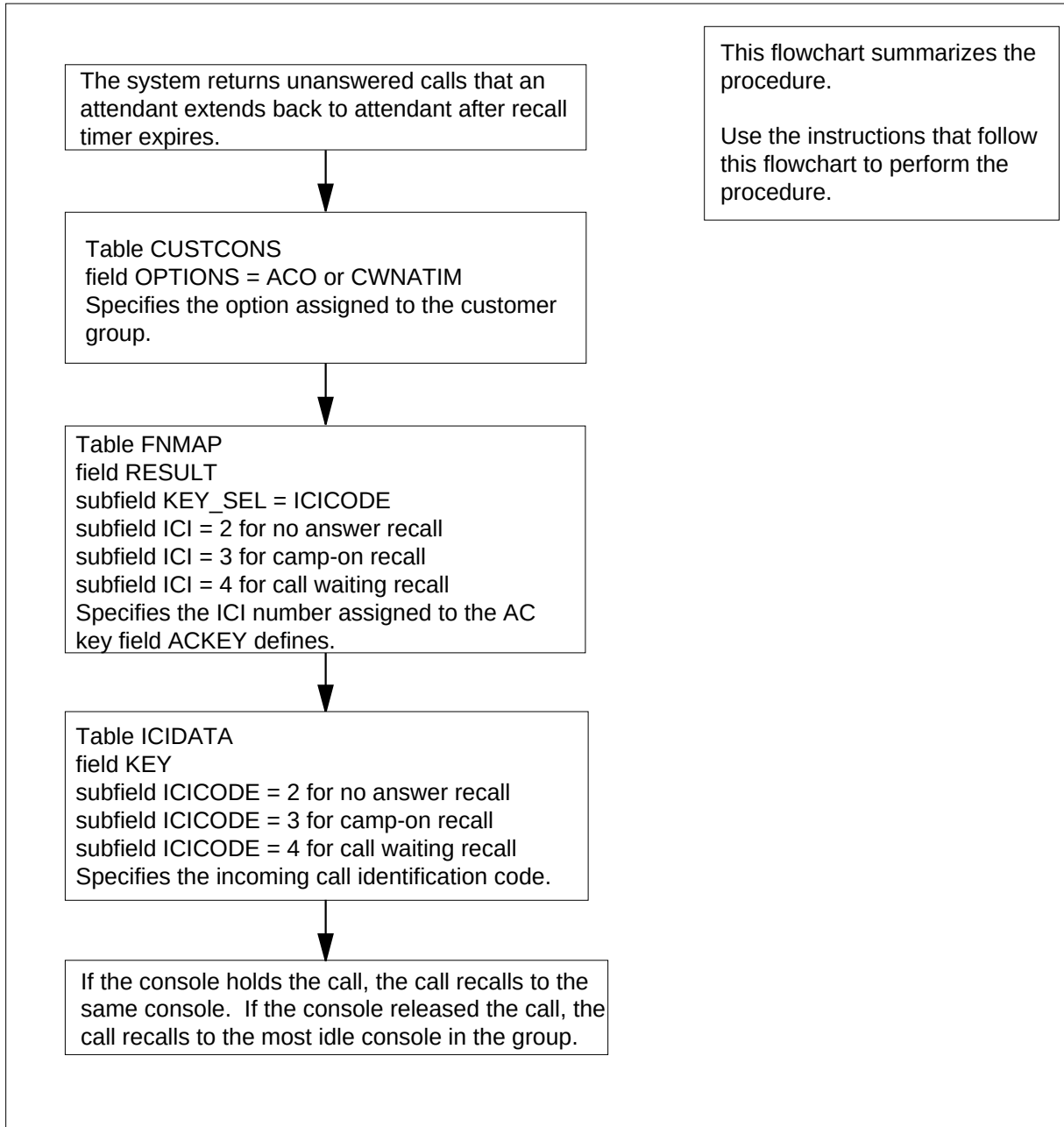
If a terminating station answers when the system queues the recall, the system the call out of the queue. The system connects the parties.

Translations table flow

The Automatic Recall translations tables appear in the following list:

- *Table CUSTCONS* (Customer Group Attendant Console Option) lists the attendant console options assigned to each customer group with an attendant console (AC). Enter data in this table if a new value for the call waiting/no answer recall timer is a requirement.
- *Table FNMAP* (Attendant Console Functional Key) assigns features to keys 2 through 43 on specific consoles. Enter table FNMAP to assign a dedicated incoming call identification (ICI) key and lamp for Automatic Recall.
- *Table ICIDATA* (Incoming Call Identification Data) provides a key and lamp display for each ICI number. Enter table ICIDATA to assign a key and lamp display for Automatic Recall.

The Automatic Recall translation process appears in the following flowchart.

Automatic Recall (continued)**Table flow for Automatic Recall**

Automatic Recall (continued)

Datafill content in use in the flowchart appears in the following table.

Datafill example for Automatic Recall

Datafill table	Example data
CUSTCONS	MDCGRP1 (CWNATIM 15) (AC 12 CAMPON 13 N) \$
FNMAP	IBNCON1 2 IICICODE 2
ICIDATA	BNRMC 2 NONANSRC \$

Limits

On outgoing trunks, the recall timer that handles both call waiting and no answer recalls applies to this feature.

The no don't answer recall for a 3WC on the SRC does not function on this feature. If the console extends and releases when the DEST rings, a no recall occurs.

Interactions

The following paragraphs describe the interactions between the Automatic Recall feature and other functionalities.

- Call Hold - The called party can answer a held loop recall call before the attendant presses the Loop key. When this condition occurs, the attendant cannot enter the connection on the loop if the lockout option is set.
- Three-Way Calling (3WC) - If the called party answers when the call connects to the attendant loop, the system creates a 3WC. The 3WC involves the attendant, the calling party, and the called party.

Activation/deactivation by the end user

The Automatic Recall feature does not require activation or deactivation by the end user.

Billing

The Automatic Recall feature does not affect billing.

Station Message Detail Recording

The Automatic Recall feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Automatic Recall feature does not affect office parameters.

Automatic Recall (continued)**Datafill sequence**

The tables that require datafill to provide the Automatic Recall feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Automatic Recall

Table	Function of table
CUSTCONS	Customer Group Attendant Console Option. This table contains fields to define the attendant camp-on option for the customer group
FNMAP	Attendant Console Functional Key. This table contains fields to assign dedicated Incoming Call Identification (ICI) keys and lamps for Automatic Recall.
ICIDATA	Incoming Call Identification Data. This table contains fields to assign a key and lamp display for the ICI code.

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields to define the attendant camp-on option for the customer group. Enter data in this table if a new value (the default is 30 s) for the call waiting/no answer recall timer is a requirement.

Datafill for Automatic Recall for table CUSTCONS appears in the following table. The fields that apply to Automatic Recall 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	Description and action
OPTIONS		ACO or CWNATIM	Options. This field specifies the option assigned to the customer group. Enter ACO for attendant camp-on. Or, enter CWNATIM for call waiting, no answer recall.
If OPTIONS contains ACO, subfields ACORECTO, FLASH, DURATION, ANNMUSIC, and AUDIOGRP require datafill.			
	ACORECTO	12 to 60, 0	Attendant Camp-On Recall Timeout. This subfield contains the number of seconds that pass before the system recalls an unanswered camped-on call to the attendant. Enter a number from 12 to 60, or 0 for infinite.

Automatic Recall (continued)**Datafilling table CUSTCONS (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
	FLASH	CAMPON or FEATURES	Flash. This subfield specifies if a party with 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. Or, 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 milliseconds, that the system must apply a 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.
If ANNMUSIC is set to Y, subfield AUDIOGRP requires datafill.			
	AUDIOGRP	alphanumeric AUDIO1 to AUDIO512	Audio Group. This subfield specifies the ID of the audio group that identifies the music option entered in Table AUDIO. Enter a value from AUDIO1 to AUDIO512.
If OPTIONS is set to CWNATIM, subfield CWNATO requires datafill.			
	CWNATO	12 to 60, 0	Call Waiting/No Answer Recall Timeout. This subfield specifies the length of the interval. After this interval, the system recalls a call-waited call or terminated call on a ringing phone to an attendant. 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

CUSTNAME	OPTIONS
MDCGRP1	(CWNATIM 15) (ACO 12 CAMPON 13 N) \$

Automatic Recall (continued)**Datafilling table FNMAP**

Table FNMAP (Attendant Console Functional Key) contains fields to assign dedicated Incoming Call Identification (ICI) keys and lamps for Automatic Recall.

Enter data in table FNMAP three times. Enter the following values in field ICI:

- 2 for no answer recall
- 3 for camp-on recall
- 4 for call waiting recall

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

In the first procedure, the assignment of no answer recall to the ICI code occurs.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description and action
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	2	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number defined in field ACKKEY. Enter 2 for no answer recall.

In the second procedure, the assignment of camp-on recall to the ICI code occurs.

Datafilling table FNMAP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL and ICI.

Automatic Recall (continued)**Datafilling table FNMAP (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
	KEY_SEL	ICICODE	Key Selector. This subfield specifies the key selector. Enter ICICODE for ICI code selector.
	ICI	3	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number defined in field ACKKEY. Enter 3 for camp-on recall.

In the third procedure, the assignment of call waiting recall to the ICI code occurs.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Description and action
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	4	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number defined in field ACKKEY. Enter 4 for call waiting recall.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example. In the first example, the assignment of no answer recall as the ICI code occurs.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	ICICODE 2

In the second example, assignment of the camp-on recall as the ICI code occurs.

Automatic Recall (continued)**MAP example for table FNMAP**

KEY	RESULT
IBNCON1 2	ICICODE 3

In the third example, the assignment of call waiting recall as the ICI code occurs.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	ICICODE 4

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains fields to assign a key and lamp display for the ICI code. Enter data in this table three times.

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

In the first procedure, the assignment of no answer recall to the key lamp display name occurs.

Datafilling table ICIDATA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	1- to 16-character alphanumeric	Customer Group Name. This subfield specifies the 1- to 16-character alphanumeric name assigned to the customer group. Enter the customer group name.
	ICICODE	2	Incoming Call Identification Code. This subfield specifies the ICI code. Enter 2.

Automatic Recall (continued)

Datafilling table ICIDATA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description and action
NAME		NOANSRC	Key Lamp Display Name. This field specifies the 1- to 7-character alphanumeric name. The assignment of this name to the specified ICI code occurs. The ICI code appears in the specified customer group for the key and lamp display at the console of the attendant. Enter NOANSRC.
OPTION		\$	Option. This field specifies the option. Enter \$.

In the second procedure, the assignment of camp-on recall to the key lamp display name occurs.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Description and action
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	1- to 16-character alphanumeric	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.
NAME		CMONRC	Key Lamp Display Name. This field specifies the 1- to 7-character alphanumeric name assigned to the specified ICI code. The ICI code appears in the specified customer group for the key and lamp display at the console of the attendant. Enter CMONRC.
OPTION		\$	Option. This field specifies the option. Enter \$.

Automatic Recall (continued)

In the third procedure, the assignment of call waiting recall to the key lamp display name occurs.

Datafilling table ICIDATA

Field	Subfield or refinement	Entry	Description and action
KEY		see subfields	ICIDATA Key. This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	1- to 16-character alphanumeric	Customer Group Name. This subfield specifies the 1- to 16-character alphanumeric name assigned to the customer group. Enter the customer group name.
	ICICODE	4	Incoming Call Identification Code. This subfield specifies the ICI code. Enter 4.
NAME		CWAITRC	Key Lamp Display Name. This field specifies the 1- to 7-character alphanumeric name assigned to the specified ICI code. The ICI code appears in the specified customer group for the key and lamp display at the console of the attendant. Enter CWAITRC.
OPTION		\$	Option. This field specifies the option. Enter \$.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example. In the first example, the assignment of no answer recall to the key lamp display name occurs.

MAP example for table ICIDATA

KEY	NAM	OPTION
BNRMC 2	NONANSRC	\$

In the second example, the assignment of camp-on recall to the key lamp display name occurs.

Automatic Recall (end)

MAP example for table ICIDATA

KEY		NAME	OPTION
BNRMC	3	CM PONRC	\$

In the third example, the assignment of call waiting recall to the key lamp display name occurs.

MAP example for table ICIDATA

KEY		NAME	OPTION
BNRMC	4	CWAITRC	\$

Tools for verifying translations

The Automatic Recall feature does not use translation verification tools.

SERVORD

The Automatic Recall feature does not use SERVORD.

Blind Transfer Recall

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions.

Requirements

To operate, the Blind Transfer Recall feature requires BAS Generic, BAS00003.

Description

The Blind Transfer Recall feature allows a call that transfers to a third party to:

- return to the party that transferred the call
- recall to the party that transferred the call

These actions occur if the third party does not answer in a specified amount of time.

The following terms describe the parties that the call involves:

- The *transferred party* is the party transferred.
- The *transferring party* is the party that transfers the transferred party.
- The *third party* is the party to which the transferring party transfers the transferred party.

Operation

A third party does not always answer the call. Before this feature, the only option for the transferred caller was to hang up. With the Blind Transfer Recall feature, a timer measures the period of the call transfer. The timer initiates a recall. The third party does not always answer the telephone before the recall timer expires. When this condition occurs, the application of ringing to the station that transferred the call occurs. The third-party station continues to ring. At this point, the transferring party or the third party can answer the call.

The recall timer does not expire and the call does not recall when one of the following actions occur:

- the third party answers
- the transferred party hangs up

Blind Transfer Recall (continued)

You can assign the Blind Transfer Recall feature on a customer group basis in table CUSTSTN (Customer Group Station Option). You can assign this feature for separate lines in table IBNFEAT (IBN Line Feature) or table KSETFEAT (Business Set and Data Unit Feature). Use the Service Order system (SERVORD) to perform this process. Use table IBNFEAT for 500/2500 telephone sets. Use table KSETFEAT for Meridian business sets (MBS). The time-out period can range from 12 s to 120 s.

Call transfer recall to a 500/2500 telephone set

For a 500/2500 telephone set, ringing alerts the transferring party of the recall. The Generalized Distinctive Ringing feature (AD0011) can allow the transferring party to distinguish recalls from other types of incoming calls. A recall does not occur while the station is busy. If the station is busy, a restart of the recall timer occurs.

Call transfer recall to an MBS

For an MBS, the system presents the recall to the directory number (DN) appearance of the DN that transferred the call. When a recall occurs, the liquid crystal display (LCD) next to the DN flashes. The station rings if the DN is idle. The station buzzes if the DN is busy. This feature can use optional distinctive ringing.

The recall timer can expire when the transferring party is active on the DN that transferred the call. In this event, the recall timer restarts.

To access a recall, the end user presses the flashing DN. This action retrieves the call and places any active call on hold.

The MBS can have a display and the Blind Transfer Recall Identification feature. When these conditions occur, a message appears on the bottom line of the display. This message alerts the transferring party of the recall of a transferred call.

Translations table flow

The Blind Transfer Recall feature does not affect translations table flow.

Limits

The following limits apply to the Blind Transfer Recall feature:

- Only calls transferred to lines recall. Calls transferred to IBN trunks or plain old telephone service (POTS) trunks do not recall.
- Calls transferred to an attendant console (AC) do not recall.
- Calls transferred to automatic call distribution (ACD) do not recall.

Blind Transfer Recall (continued)

- Limits that apply to the call transfer feature continue to apply. Call transfer is not compatible with the following options:
 - FIG
 - NDC
 - NOH
- To achieve distinctive ringing on call transfer recalls, you must assign the Generalized Distinctive Ringing feature (AD0011). Use the DRING option in table CUSTSTN to enter the Generalized Distinctive Ringing feature. Field RECALL specifies the ring code for recall type calls. These calls include call transfer recalls.
- For MBSs, the system can display a message to alert the transferring party that the incoming call is a call transfer recall. You must assign the Blind Transfer Recall Identification feature (AD0990). Use the REASDISP option in table CUSTSTN to enter data in this feature. Display messages are in table REASONS (Business Set Reason Display). The default display message for a call transfer recall is TRANSFER RCL. You can enter data for customized messages. Refer to feature description "Blind Transfer Recall Identification" for additional information.

Interactions

The following paragraphs describe the interactions between Blind Transfer Recall and other functionalities.

Call Forwarding

The system does not recall calls transferred to a station that has any type of call forwarding active.

The system does not forward call transfer recalls to the transferring party. This condition applies when a set has call forwarding active. This condition applies to all types call forwarding.

Call Pickup

Call pickup can occur on the third-party station. Call pickup can occur on a call that the system recalled to the transferring party.

Call Waiting

The transfer of a call that is active on the call waiting key can occur. In this occurrence, the system always presents the recall to the call waiting key from which the call transferred.

A transferred call that activates call waiting on the third party does not start the recall timer. This call does not recall to the transferring station.

Blind Transfer Recall (continued)

The system does not place call transfer calls recalls to the transferring station in call wait if the station is busy. The system restarts the recall timer. The third-party station continues to ring.

Distinctive Ringing

The end user can require distinctive ringing to identify calls that the system recalled. In this event, the entry of data for Generalized Distinctive Ringing feature must occur. This feature is DRING in table CUSTSTN. The entry of the different ring code for recall type calls is in field RECALL.

Do Not Disturb and Make Set Busy

The party that transfers a call can activate the Do Not Disturb or Make Set Busy feature. This action does not prevent recalls to the station.

Group Intercom

A group intercom (GIC) call that transfers and recalls, uses the GIC ring code. The GIC call can have the distinctive ringing option. In this event, the RECALL field of option DRING in table CUSTSTN specifies the ring code for the call.

Hunting

Calls transferred to a hunt group or member recall. The transferred call searches for an idle member in the group. If idle members are not present when the recall occurs, the recall timer restarts. The third-party station continues to ring.

Key Short Hunt

Calls that transfer to an MBS with the Key Short Hunt feature hunt for an idle DN. The recall timer starts. A recall occurs if the timer expires.

A transferred call can recall to an MBS with the Key Short Hunt feature. In this event, the recall hunts the DN appearances for an idle DN. All DN appearances in the key short hunt group can be busy. In this event, the recall timer restarts and the third-party station continues to ring.

Multiple Appearance Directory Number (MADN)

The MADN group members with single call arrangement (SCA) or multiple call arrangement (MCA) can have access to call transfer recall. All members of a MADN group share the same DN. The transfer recall only rings or buzzes the MADN group member that originally transferred the call.

Blind Transfer Recall (continued)

For MCA members, consider the following conditions:

- A call from outside the MADN group. The call terminates on a MADN group member. The system transfers the call outside of the MADN group.

The recall only rings and updates the lamp of the transferring MADN group station if the MADN group station is idle. If the member is busy, the recall timer restarts and the third-party station continues to ring.

- A call from outside the MADN group terminates on a MADN group member. The MADN group member dials the secondary DN of the station to transfer the call to another MADN group member.

In this condition, only the lamp of the transferred-to station updates. Only that station rings. The recall only rings and updates the lamp of the transferring MADN group station if the MADN group station is idle. The transferring MADN group station can be busy on an incoming call or a call in the MADN group. In this event, the recall timer restarts. The third-party station continues to ring. This action applies to a MADN group member that is also the transferred party.

- A call from outside the MADN group terminates on a MADN group member. This member dials the MADN DN to transfer the call to another MADN group member.

In this condition, all stations in the MADN group ring. These stations include the transferring station when this station goes on-hook. The system does not recall the transferred call. The recall timer does not start. This condition applies to a MADN group member that is also the transferred party.

- A station outside the MADN group transfers a call from outside the MADN group. The call terminates on a MADN group member.

This action occurs when the dialing of the MADN DN or the secondary DN of that member occurs. The recall occurs at time-out if the MADN group member does not answer the recall.

For SCA members, the recall only occurs if the group is idle. For other conditions, the recall timer restarts. On a recall to an SCA member, the lamp states of DN LCDs of other members become solid when the recall occurs.

Reason Display

For MBSs with a display, a message can appear. This message alerts the transferring party that the incoming call is a call transfer recall. You must assign of the Blind Transfer Recall Identification feature (AD0990). Use the REASDISP option in table CUSTSTN to enter data for this feature. Display messages are in table REASONS. The default display message for a call

Blind Transfer Recall (continued)

transfer recall is TRANSFER RCL. You can also enter data for customized messages.

Uniform Call Distribution

Call transfer to a uniform call distribution (UCD) DN cannot occur. To transfer a call to a specified UCD agent, transfer to the DN associated with the station of an agent.

Calls can transfer from a UCD agent to another party. The system recalls the transferred party to the transferring agent. This action occurs if the third party does not answer in the recall time associated with the transferring UCD agent.

Activation/deactivation by the end user

The Blind Transfer Recall feature does not require activation or deactivation by the end user.

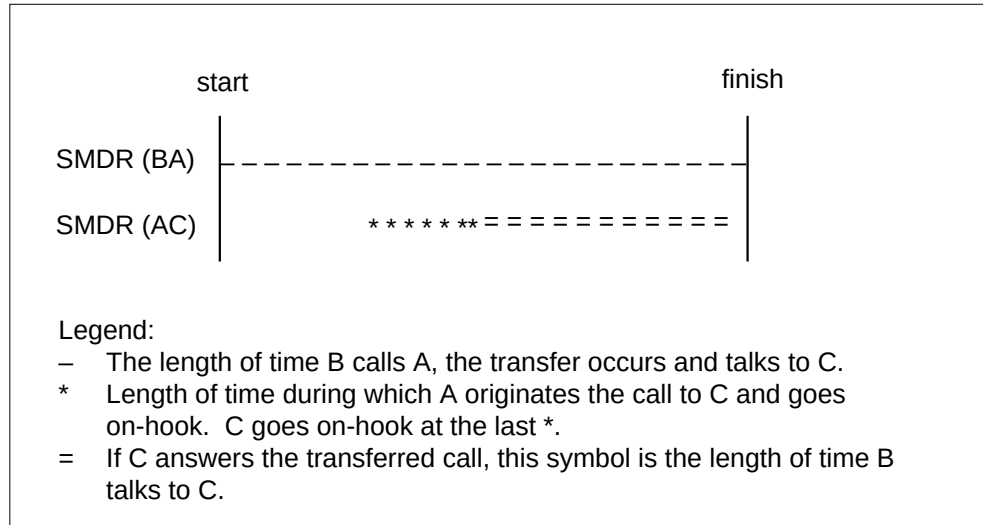
Billing

The system generates Station Message Detail Recording (SMDR) records for each billable leg of a call transfer or three-way call. The system generates these records as if each leg is a stand-alone two-port call. A call involves two SMDR records for the call transfer feature. The first record is associated with the first leg of the call. The first leg of the call occurs when party A calls party B. The second record is associated with the second leg of the call. The second leg of the call occurs when party A or party B transfers to party C. When call transfer occurs, the transferring party can hang up. In this event, the system continues to bill the first and second legs of the call. This action occurs until one of the remaining parties hangs up.

Billing for call transfer without recall

This example describes the billing for a normal call transfer without recall.

Party B calls party A. This action starts the first leg of the call and starts the billing of SMDR(BA). When party A originates the second leg of the call to party C, the start of SMDR(AC) occurs. Party A can transfer the call and goes on-hook. In this event, the system continues to bill party B for the first leg of the call (BA). The system continues to bill party A for the second leg of the call (AC). The SMDR(BA) and SMDR(AC) attach to the transferred call. When party B or party C goes on-hook, the system processes the two records immediately.

Blind Transfer Recall (continued)**Billing configuration for call transfer without recall****Billing for a recall to first-leg terminator**

This example explains the billing for a blind transfer recall to the terminator of the first leg of the call transfer.

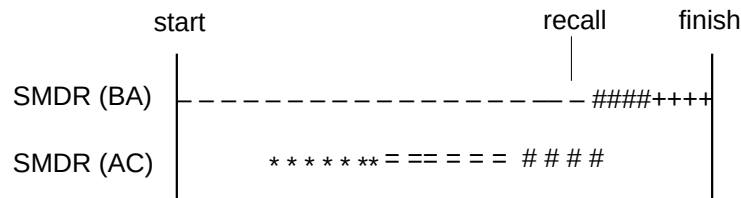
Party B calls party A. This call starts the billing of SMDR(BA). Party A transfers party B to party C. This transfer starts the billing of SMDR(AC). With the Blind Transfer Recall feature, if party C rings longer than the prescribed amount of time, the system recalls the call to party A. Parties A and C now ring.

If party C answers the transferred call first, party A stops ringing. The system processes SMDRs as if a normal call transfer without recall occurred.

If party A answers the call first, C stops ringing. The system processes SMDR(AC) immediately. The system continues to bill SMDR(BA) until party A or party B goes on-hook.

Blind Transfer Recall (continued)

Billing configuration for recall to first-leg terminator



Legend:

- The length of time Party B calls Party A and the transfer to C occurs. B hears audible ringing.
- * The length of time for Party A to transfer B to C, and to go on-hook. Party A goes on-hook at the last *.
- = The length of time Party C rings before the recall occurs. In this example, C does not answer.
- # This symbol represents when the recall occurs. A and C are ringing.
- + In this example, A answers the recall first. The system processes the SMDR (AC) at the first +. From the first + is the length of time A talks to B for the second time.

Billing for a recall to first-leg originator

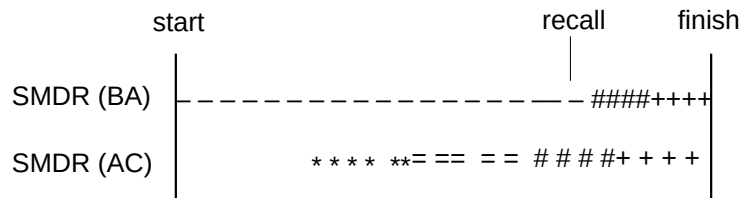
This example explains the billing for blind transfer recall to the originator of the first leg of the call.

Party B originates the call to party A and starts SMDR(BA). In this example, party B transfers party A to party C. When party B goes on-hook, the system continues to bill party B for SMDR(BC).

In this example, party C answers the recall first. The system continues to bill party B for transferring the call. When parties A and C go on-hook, the system processes SMDR(BA) and SMDR(BC).

Blind Transfer Recall (continued)

Billing configuration for recall to first-leg originator



Legend:

- The length of time B talks to A and transfers A to C. Party A hears audible ringing.
- * The length of time for B to transfer A to C and to go on-hook. A goes on-hook at the last *.
- = The length of time C rings before the recall occurs. In this example, C does not answer before the recall occurs.
- # This length of time that A and C ring.
- + In this example, C answers the recall first. When A and C finish with the call, the system processes SMDR (BA) and SMDR (BC).

Station Message Detail Recording

The Blind Transfer Recall feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Blind Transfer Recall feature does not affect office parameters.

Blind Transfer Recall (continued)

Datafill sequence

The tables that require datafill to implement Blind Transfer Recall appear in the following table. These tables appear in the correct entry order.

Datafill requirement for Blind Transfer Recall

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table
IBNFEAT (see note)	IBN Line Feature Table
KSETFEAT (see note)	Business Set and Data-Unit Feature Table
Note: This document does not provide a datafill procedure because entry of this table occurs through SERVORD.	

Note 1: This feature description does not include the datafill necessary to provide the distinctive ringing and reason display options. Refer to feature descriptions, "Generalized Distinctive Ringing" and "Blind Transfer Recall Identification", for information on the entry of these options.

Note 2: The assignment of Blind Transfer Recall for customer groups occurs in table CUSTSTN. The entry of this option occurs as part of the call transfer (CXFER) option.

Note 3: The assignment of call transfer recall can occur for individual stations in tables IBNFEAT and KSETFEAT. The entry of this option occurs as part of the call transfer (CXR) option. Table IBNFEAT contains feature assignments for 500/2500 telephone sets. Table KSETFEAT contains feature assignments for MBSs, keysets. The entry for call transfer recall in table IBNFEAT or table KSETFEAT overrides the entry in table CUSTSTN (Customer Group Station Option).

Datafilling table CUSTSTN

Table CUSTSTN contains the station options for each of the customer groups.

Datafill for the Blind Transfer Recall feature for table CUSTSTN appears in the following table. The fields that apply to the Blind Transfer Recall feature

Blind Transfer Recall (continued)

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

Datafilling table CUSTSTN

Field	Subfield or refinement	Entry	Explanation and action
OPTNAME		CXFER	Option Name This field specifies options for customer groups. Enter CXFER to assign call transfer to all stations in the customer group.
OPTION		CXFER	Option This field specifies options for customer groups. Enter CXFER.
	CXTYPE	type of call transfer	Call Transfer Type This subfield specifies the call transfer type. Enter the type of call transfer.
	XFERRCL	Y	Call Tranfter Recall This subfield specifies if a call can return to the transferring station after the call recall timer expires. Enter Y for Blind Transfer Recall.
If XFERRCL is Y, subfields XRCLTIM and METHOD require datafill.			
	XRCLTIM	12 to 120	Call Transfer Recall Timer This subfield specifies the call transfer recall timer length. Enter a value from 12 to 120 to indicate the length in seconds of the recall timer for call transfers.
	METHOD	STD or DIAL	Method This subfield specifies the method of call transfer. Enter STD or DIAL.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

Blind Transfer Recall (continued)

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
NETDMT1	CXFER	CXFER CTALL Y 45 STD

Tools for verifying translations

The Blind Transfer Recall feature does not use translation verification tools.

SERVORD

You can assign the Blind Transfer Recall feature to separate IBN stations through SERVORD.

SERVORD limits

The Blind Transfer Recall feature does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts for the assignment of the Blind Transfer Recall feature to separate IBN stations appear in the following table.

SERVORD prompts for Blind Transfer Recall

Prompt	Valid input	Explanation
CXRRCL	Y, N	Specifies if the IBN station can have Blind Transfer Recall. Enter Y or N.
RCLTIM	12 to 120	Specifies the amount of time in seconds that a transferred call remain unanswered before the system recalls the call. Enter a value from 12 to 120. Note: This prompt only appears if you enter Y at the CXRRCL prompt.

Note: The system enters data in table IBNFEAT or table KSETFEAT when you use SERVORD to assign the Blind Transfer Recall feature.

To assign the Blind Transfer Recall feature to a whole customer group, enter data in table CUSTSTN. The entry of data in table CUSTSTN cannot occur

Blind Transfer Recall (end)

through service orders. The following values in table IBNFEAT or table KSETFEAT override the entry in table CUSTSTN:

- the entry for transfer recall
- the value of the recall timer

SERVORD example for adding Blind Transfer Recall

The addition of Blind Transfer Recall to an IBN station through the ADO command appears in the following SERVORD example.

SERVORD example for Blind Transfer Recall in prompt mode

```
SO:
> ADO
DN_OR_LEN:
> 2 1 0 8
OPTION:
> CXR
CXFERTYP:
> CTALL
CXRRCL:
> Y
RCLTIM:
> 45
METHOD:
> std
OPTION:
> $
```

SERVORD example for Blind Transfer Recall in no-prompt mode

```
>ADO NOW 92 7 23 AM HOST 00 0 02 03 ( CSR CTALL Y 45 STD ) $
```

Blind Transfer Recall Identification

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions

Requirements

Blind Transfer Recall Identification requires BAS Generic, BAS00003 to operate.

Description

Blind Transfer Recall Identification works with the Blind Transfer Recall feature (AD0905). The Blind Transfer Recall feature allows calls that a station transfers to a third party to return, or recall, to the station. The call returns to the station that transfers the call if the third party does not answer. Blind Transfer Recall Identification allows a reason message on the display to alert the end user of a Meridian business set (MBS) with display to a call. A reason message on the bottom line of the display notifies the party that transfers the call that the system recalls the call.

Sets can have the optional display with the reason message option. For these sets, the following indicate a blind transfer recall on the primary directory number (PDN):

- Standard ringing and liquid crystal display (LCD) indications for an MBS
- The appearance of the directory number (DN) for the calling party on the top line of the display. The appearance of a blind transfer recall message on the lower line of the display

On blind transfer recalls to a secondary directory number (SDN), this information does not appear until the end user presses the key associated with the SDN.

A display of the DNs and reason messages can occur on an MBS. A display occurs if the MBS Display Calling Number feature (BV0989) and the MBS Display Called Number feature (BV0987) are active. A display of names can occur if the Name and Reason Display feature (AL0617) is active.

Operation

Customer groups and individual stations can have Blind Transfer Recall Identification. The system automatically activates this feature when the call

Blind Transfer Recall Identification (continued)

transfer recall timer expires. Each customer group specifies a time-out period from 12 s to 120 s, in 1 s increments. The call transfer recall timer stops if the party answers the transferred call. The call transfer recall timer stops if the transferred party exits, or the recall occurs.

When the call transfer recall timer expires, the transferred party continues to hear ringing and enters the recall state. At this point, the transferring station can answer the recall. If a Call Pickup assignment is present, Call pickup can become active. Call pickup can become active at another station in the same call pickup group to retrieve the recall. On an MBS, when the call transfer recall timer expires, the system recalls the MBS. The MBS receives physical ringing if the set is idle.

The LCD of the DN appearance where the transferred call originates flashes at 60 ipm on recall. To access a recall, the end user goes off-hook and presses the DN that flashes. This process retrieves the call and places active calls on hold.

The responses from the MBS of the party that transfers under different recall conditions appear in the following examples. The reaction of the MBS depends on if the recall occurs to the PDN or the SDN. The reaction of the MBS also depends on if the DN is idle or busy when the recall occurs.

Note: These examples use the default message for call transfer recalls, TRANSFER RCL. The Name and Reason Display and MBS Display Calling Number features are active.

Recall to a PDN on an MBS

A recall to a PDN is the same as a recall to an SDN, with one exception. The display appears before a party answers the call. The events that occur for a call transfer recall to a PDN when the PDN is idle appear in the following table. The transferred party is in the same customer group.

Call transfer recall to a PDN (MBS)

Recall progression	Display	LCD next to PDN	Tones
Before recall	(blank)	Off	None
At recall	NAME DN TRANSFER RCL	Flashing	Ring
After PDN is answered	NAME DN TRANSFER RCL	On	None

Blind Transfer Recall Identification (continued)

Recall to an SDN on an MBS

The events that occur for a call transfer recall to an SDN appear in the following table. The originating party is in the same customer group. The set is idle at the time of the recall. The display of the recall message does not occur until the end user presses the SDN key to answer the call.

Call transfer recall to a SDN (MBS)

Recall progression	Display	LCD next to PDN	Tones
Before recall	(blank)	Off	None
At recall	(blank)	Flashing	Ring
After you press SDN	NAME DN TRANSFER RCL	On	None

Recall to a busy DN on an MBS

The events that occur for a call transfer recall to a busy DN on an MBS appear in the following table. The transferring party is active on a call when the recall occurs. The transferring party is not active on a three-way call when the recall occurs. The transferred party is in the same customer group.

The set is busy. In this condition, the display of the recall message does not occur until a party answers the call. This condition does not change if the recall is to the PDN or the SDN. When the DN is busy, the set buzzes. The set does not ring.

Call transfer recall to a busy DN (MBS)

Recall progression	Display	LCD next to PDN	Tones
Before recall	NAME DN	Off	None
At recall	NAME DN	Flashing	Buzz
After you press the flashing DN	NAME DN TRANSFER RCL	On	None

Recall to an MBS with three-way calling

The events that occur for a call transfer recall to an MBS with three-way calling appear in the following table. When the transferred party recalls, this action involves the transferring party in a three-way call. The transferred party is in the same customer group. When the set is busy, the recall message does not appear until a party answers the call.

Blind Transfer Recall Identification (continued)

The state of the three-way call when the recall occurs determines the following. This state determines the state of the LCD of the three way call (3WC) and call transfer (CXR) feature key. The LCD is in one of the following states. When the recall is answered, the LCD turns off.

- off—indicates the connection of the three parties
- on—indicates talking to the second leg of the call and the first leg is on hold
- flashing—indicates talking to the first leg of the call and the second leg is on hold or both legs are on hold

Call transfer recall to an MBS with three-way calling

Recall progression	Display	LCD of 3WC and CXR feature key	LCD of transferring DN	Tones
Before recall	(three-way call display)	Off, flashing, or on	Off	None
At recall	(three-way call display)	Off, flashing, or on	Flashing	Buzz
After you press flashing DN	NAME DN TRANSFER RCL	Off	On	None

Translations table flow

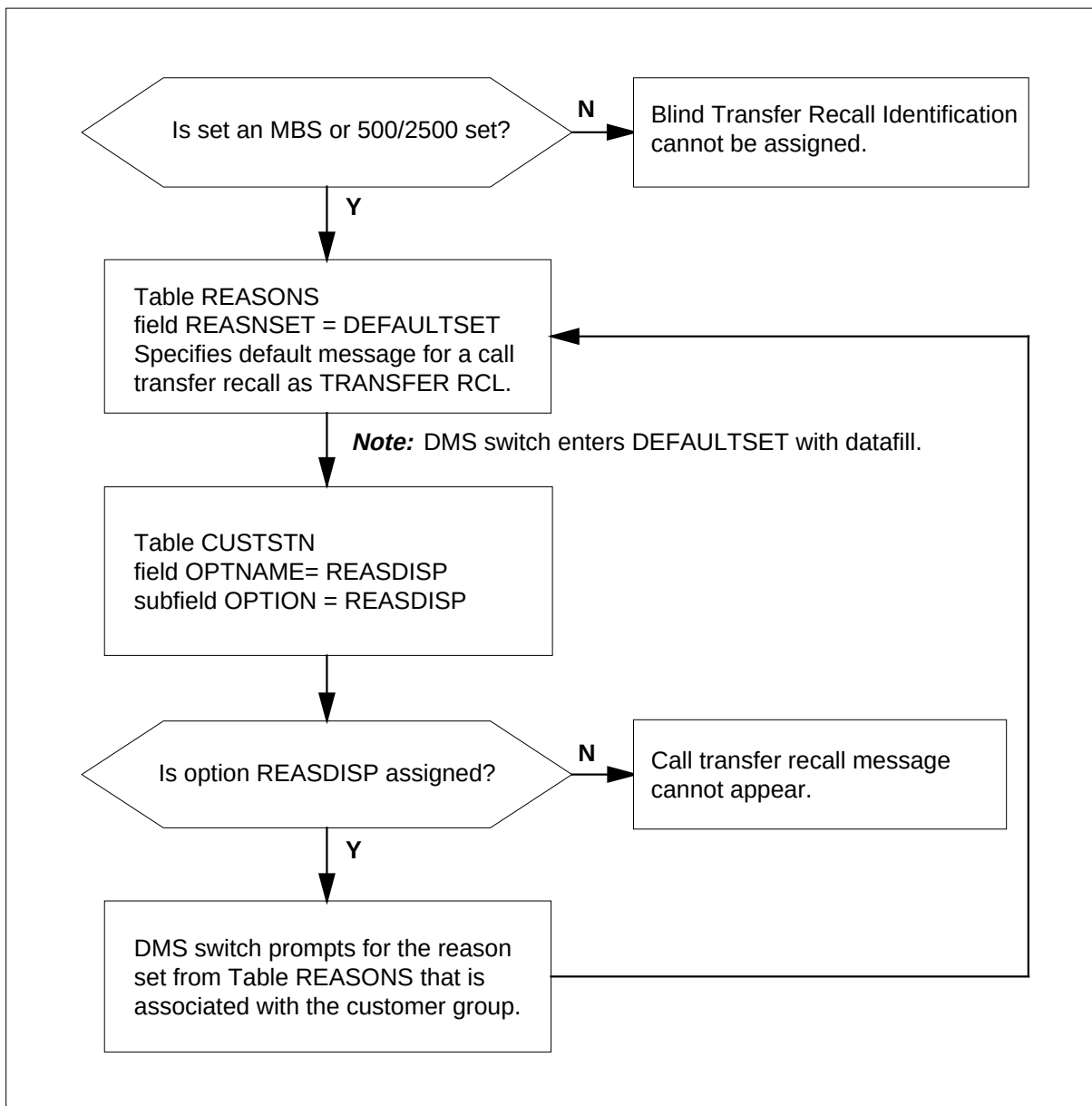
The Blind Transfer Recall Identification translations tables appear in the following list:

- Table REASONS (Business Set Reason Display) contains displays of different feature and call progress information messages on an MBS with display.
- Table CUSTSTN (Customer Group Station Option) contains the station options for each customer group. For an MBS to display a call transfer recall message, the customer group must have option REASDISP in Table CUSTSTN.

The Blind Transfer Recall Identification translation process appears in the following flowchart. The translation flow to assign Blind Transfer Recall Identification to an MBS appears in the following flowchart and data.

Blind Transfer Recall Identification (continued)

Table flow for Blind Transfer Recall Identification



Blind Transfer Recall Identification (continued)

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

Datafill example for Blind Transfer Recall Identification

Datafill table	Example data
REASONS	DEFAULTSET CXRRMSG TRANSFER_RCL
CUSTSTN	MDCGRP1 REASDISP REASDISP DEFAULTSET MDCGRP2 REASDISP REASDISP SET1

Activation/deactivation by the end user

Blind Transfer Recall Identification does not require activation or deactivation by the end user.

Limits

The following limits apply to Blind Transfer Recall Identification:

- If the transferred-to party has a feature active on an MBS to handle incoming calls, the following occurs. The call transfer recall timer does not start.
- The call transfer recall timer can expire when the transferring party is active on a DN where the transferred call originated. In this condition, the call transfer recall timer starts again.

Feature interactions

The following features interact with Blind Transfer Recall Identification:

- Blind Transfer Recall

For stations with the Blind Transfer Recall feature, Blind Transfer Recall Identification becomes active when the call transfer recall timer expires.

- Name and Reason Display

The reason message on an MBS displays the recall message on the bottom line of the transferring station. This action occurs at each recall of a transferred call.

- Keyset Short Hunt

Transferred calls that terminate on an MBS with the Keyset Short Hunt feature hunt that search for an idle DN. The call transfer recall timer starts. Recall occurs if the transferred-to party does not answer before the call transfer recall timer expires.

Blind Transfer Recall Identification (continued)

Billing

Blind Transfer Recall Identification does not affect billing.

Station Message Detail Recording

Blind Transfer Recall Identification does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

Blind Transfer Recall Identification does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Blind Transfer Recall Identification appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Blind Transfer Recall Identification

Table	Purpose of table
REASONS	Business set reason display. This table contains displays of different feature and call progress information messages on an MBS with display.
CUSTSTN	Customer group station option. This table contains the station options for each customer group.
IBNFEAT (Note)	IBN line feature. Line features for the IBN lines that table IBNLINES lists appear in this table.
KSETFEAT (Note)	Business set and data-unit features. The line features for the business sets and data units (DU) that appear in table KSETLINE appear in this table. The line features for the Meridian digital telephone sets and DUs that appear in table IVDINV appear in this table.
Note: Enter this table through SERVORD. A datafill procedure or example is not provided. Refer to "SERVORD" for an example of how to use SERVORD to datafill this table.	

Datafilling table REASONS

Table REASONS contains displays of different feature and call progress information messages on an MBS with display.

Table REASONS contains the display messages for different call events or reasons. These events include call transfer recall. Table REASONS contains a default set of reasons and display messages that associate with the reasons. The name of this default reason set is DEFAULTSET. The DMS switch automatically enters data in this default reason. Table REASONS requires datafill if the customer group wants display messages that DEFAULTSET does

Blind Transfer Recall Identification (continued)

not provide. The default display message for a call transfer recall is TRANSFER RCL. If the customer group wants a different display message, the creation of a new reason set is a requirement.

For an MBS to display a call transfer recall message, the customer group must have option REASDISP in Table CUSTSTN. After the assignment of option REASDISP, the following occurs. The DMS switch prompts for the reason set from Table REASONS that associates with the customer group.

Datafill for Blind Transfer Recall Identification for table REASONS appears in the following table. The fields that apply to Blind Transfer Recall Identification appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table REASONS

Field	Subfield or refinement	Entry	Explanation and action
REASNSET		alphanumeric (1 to 16 characters)	Reason Set This field specifies the 1-character to 16-character alphanumeric name of the reason set. Enter the reason set name. The default is DEFAULTSET.
REASONID		CXRRMSG	Reason Identification This field specifies the name of the reason. Enter CXRRMSG to indicate a display message for call transfer recall.
MESSAGE		refer to the note	Displayed Message This field specifies a descriptive message for the option being programmed. Enter a message. Note: Messages can contain a maximum of 15 characters. The correct characters are uppercase A to Z, 0 to 9, period (.), colon (:), dash (-), asterisk (*), octothorpe (#), and underscore (_). An underscore appears as a space on the display.

Datafill example for table REASONS

In the following example, the data entry for table REASONS contains three reason sets. The three reason sets are DEFAULTSET, SET1 and SET2. The DMS switch automatically adds the DEFAULTSET. The message that displays for a call transfer recall is TRANSFER RCL. For SET1, the display message is T RECALL. For SET2, a call transfer recall message is not entered. The DEFAULTSET message TRANSFER RCL appears.

Blind Transfer Recall Identification (continued)

Sample datafill for table REASONS appears in the following example.

MAP example for table REASONS

REASNSET	REASNID	MESSAGE
DEFAULTSET	UNKNOWNMSG	NO_CALL_INFO
DEFAULTSET	EXTERNALMSG	OUTSIDE_CALL
DEFAULTSET	CONFMSG	CONFERENCE
DEFAULTSET	BARGEINMSG	BARGE_IN
DEFAULTSET	TERMCFUMSG	CALL_FWD
DEFAULTSET	TERMCFDMSG	NO_ANS_FWD
DEFAULTSET	TERMCFBMSG	BUSY_FWD
DEFAULTSET	ORIGFWDMSG	FORWARD
DEFAULTSET	TERMCPUMSG	PICKUP
DEFAULTSET	CPKRMSG	PARK_RECALL
DEFAULTSET	CXRRMSG	TRANSFER_RCL
DEFAULTSET	ORIGCPUMSG	PICKED_UP
SET1	CXRRMSG	T_RECALL
SET1	UNKNOWNMSG	NO_INFO
SET1	CONFMSG	CONFER
SET1	TERMCFDMSG	FWD
SET1	TERMCFUMSG	FWD
SET2	EXTERNALMSG	OUTSIDE

Datafilling table CUSTSTN

Table CUSTSTN contains the station options for each customer group.

For an MBS to display a call transfer recall message, the customer group must have option REASDISP in Table CUSTSTN. A message reason can be present in Table REASONS when option REASDISP is not in Table CUSTSTN. In this condition, a message does not appear at the answer of a call transfer recall.

Datafill for Blind Transfer Recall Identification for table CUSTSTN appears in the following table. The fields that apply to Blind Transfer Recall

Blind Transfer Recall Identification (continued)

Identification 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		alphanumeric (1 to 16 characters)	Customer Group Name This field specifies the 1-character to 16-character alphanumeric name for the customer group. Enter the customer group name.
OPTNAME		REASDISP	Option Name This field specifies the name of the option. Enter REASDISP.
OPTION		OPTION	Option. This field contains the subfield OPTION.
	OPTION	REASDISP	Option. This subfield specifies the name of the option. Enter REASDISP.
If you set OPTION to REASDISP, subfield REASTYPE requires datafill.			
	REASTYPE	alphanumeric (1 to 16 characters)	Reason Type This subfield specifies the 1-character to 16-character alphanumeric reason set name in field REASNSET in Table REASONS. Enter the name of a reason set from Table REASONS. To use the default set of display messages, enter DEFAULTSET.

Datafill example for table CUSTSTN

Sample datafill for Table CUSTSTN with the entry of option REASDISP appears in the following example. In this example, the customer group MDCGRP1 has option REASDISP. The reason set from Table REASONS is DEFAULTSET. For display sets in this customer group, the message that appears for a call transfer recall is TRANSFER RCL.

Sample datafill for table CUSTSTN appears in the following example.

Blind Transfer Recall Identification (continued)

MAP example for table CUSTSTN

CUSTNAME	OPTNAME		OPTION
MDCGRP1	REASDISP	REASDISP	DEFAULTSET
MDCGRP2	REASDISP	REASDISP	SET1
MDCGRP3	REASDISP	REASDISP	SET2

Tools for verifying translations

Blind Transfer Recall Identification does not affect translation verification (TRAVER) tools.

SERVORD

Blind Transfer Recall Identification enhances the Service Order System (SERVORD). To enhance the Service Order System, Blind Transfer Recall Identification allows the addition or deletion of the option CXR. The ADO (add option) and DEO (delete option) commands add or delete this option. Option CXR allows the assignment of a call transfer type other than the type assigned to the customer group.

SERVORD limits

Blind Transfer Recall Identification does not SERVORD limits.

SERVORD prompts

The SERVORD prompts that assign option CXR with call transfer type CTALL for Blind Transfer Recall Identification appear in the following table. The SERVORD prompts that assign option CXR with call transfer type

Blind Transfer Recall Identification (continued)

CUSTOM without Blind Transfer Recall Identification appear in the following table.

SERVORD prompts for Blind Transfer Recall Identification (Sheet 1 of 2)

Prompt	Correct input	Explanation
DN_OR_LEN	7-digit DN or LEN	Specifies the 7-digit directory number (DN) or line equipment number (LEN) of the line that changes. Enter the DN or LEN.
CXFERTYP	ATTRCLF, CTALL, CTINC, CTINTRA, CTOUT, CUSTOM, NCT	Indicates the type of call transfer. Enter ATTRCLF, CTALL, CTINC, CTINTRA, CTOUT, CUSTOM or NCT.
CXRRCL	Y, N	Indicates if option CXR has call transfer recall. Enter Y or N.
METHOD	STD, RLS, DIAL	Specifies the method to define if 7 or 10 digits are expected. Enter STD, RLS, or DIAL.
OPTKEY	1 to 69	Indicates the key on an MBS with an option assignment. Enter a value from 1 to 69.
OPTION	CXR	Indicates the name of the option. Enter CXR.
ORGINTER	AC, INTER, INTRA, TRATER, NOCXFER	Indicates that the first leg of the call is intergroup and the controller is the originator of the call. Enter AC, INTER, INTRA, TRATER or NOCXFER.
ORGINTRA	AC, INTER, INTRA, TRATER, NOCXFER	Indicates that the first leg of the call is intragroup and the controller is the originator of the call. Enter AC, INTER, INTRA, TRATER, or NOCXFER.
RCLTIM	12 to 120	Specifies the time-out period in 1 s increments for the call transfer recall timer to expire. Enter a value from 12 to 120.

Blind Transfer Recall Identification (continued)

SERVORD prompts for Blind Transfer Recall Identification (Sheet 2 of 2)

Prompt	Correct input	Explanation
TRMINTER	AC, INTER, INTRA, TRATER, NOCXFER	Indicates that the first leg of the call is intergroup and the controller is the terminator of the call. Enter AC, INTER, INTRA, TRATER or NOCXFER.
TRMINTRA	AC, INTER, INTRA, TRATER, NOCXFER	Indicates that the first leg of the call is intragroup and the controller is the terminator of the call. Enter AC, INTER, INTRA, TRATER or NOCXFER.

Note: Data entry in table IBNFEAT or KSETFEAT is automatic when you use SERVORD to assign Blind Transfer Recall Identification.

SERVORD example to implement Blind Transfer Recall Identification

The ADO command can add the option CXR with call transfer type CTALL to assist. This process appears in the following SERVORD example.

SERVORD example for Blind Transfer Recall Identification in prompt mode

```
>ADO
SONUMBER:      NOW  87 10 01 PM
>
DN_OR_LEN:
> 2 1 0 8
OPTION:
> CXR
CXFERTYP:
> CTALL
CXRRCL:
> Y
RCLTIM:
> 65
METHOD:
> STD
OPTION:
> $
```

Blind Transfer Recall Identification (end)

SERVORD example for Blind Transfer Recall Identification in no-prompt mode

```
>ADO $ 2 1 0 8 CXR CTALL Y 65 STD $
```

The ADO command can add option CXR with call transfer type CUSTOM and not enable Blind Transfer Recall Identification. This process appears in the following service order example.

SERVORD example for Blind Transfer Recall Identification in prompt mode

```
>ADO
SONUMBER:      NOW  87 10 01 PM
>
DN_OR_LEN:
> 2 1 0 2
OPTKEY:
> 4
OPTION:
> CXR
CXFERTYP:
>CUSTOM
ORGINTER:
> INTRA
ORGINTRA:
> INTRA
TRMINTER:
> INTRA
TRMINTRA:
> INTRA
CXRRCL:
> N
METHOD:
> STD
OPTKEY:
> $
```

SERVORD example for Blind Transfer Recall Identification in no-prompt mode

```
> ADO $ 2 1 0 2 4 CXR CUSTOM INTRA INTRA INTRA INTRA N
STD $
```

Busy Verification - Stations

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Busy Verification - Stations requires BAS Generic, BAS00003 to operate.

Description

Busy Verification - Stations allows an attendant to interrupt a busy connection and request that the station users go on-hook. This procedure allows the attendant to speak to the station user. The attendant can assign this feature to each console as required.

When the station is idle, the attendant can press the Signal Source key to ring the station.

When the station is not in service, the attendant receives the reorder tone.

Operation

An explanation of operation is not available for Busy Verification - Stations.

Translations table flow

A description of the Busy Verification - Stations translations tables appears in the following list:

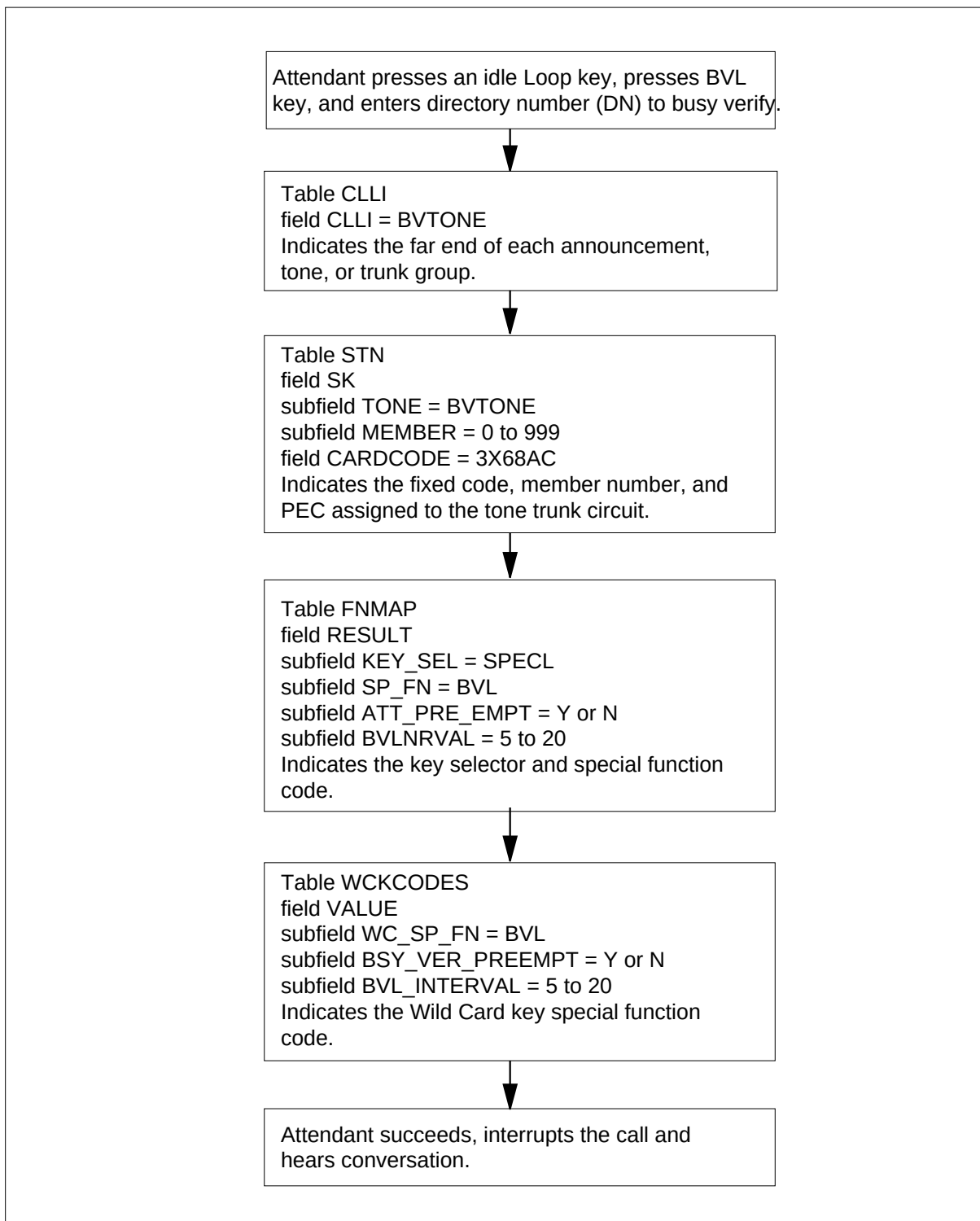
- Code that identifies each announcement, tone, or trunk group appears in Table CLLI (Common Language Location Identifier). Table CLLI contains fields to add the fixed pseudo CLLI BVTONE (busy verification tone)
- Table STN (Special Tone) contains fields to define information about the BVTONE for use with Busy Verification - Stations
- Table FNMAP (Attendant Console Functional Key) contains fields to install a dedicated key and lamp
- Table WCKCODES (Wild Card Key Codes) contains fields to assign the Wild Card key access code to Busy Verification - Stations

Busy Verification - Stations (continued)

The Busy Verification - Stations translation process appears in the following flowchart.

Busy Verification - Stations (continued)

Table flow for Busy Verification - Stations



Busy Verification - Stations (continued)

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

Datafill example for Busy Verification - Stations

Datafill table	Example data
CLLI	BVTONE 55 10 HEADSET
STN	BVTONE 50 MTM 100 10 3X68AC 15 75
FNMAP	IBNCON1 2 SPECL BVL Y 10 IBNCON1 2 SPECL WC
WCKCODES	BNRMC 14 BVL N 10

Limits

The following limits apply to Busy Verification - Stations:

- The attendant cannot force the release of a connection, but can request that the parties disconnect
- The attendant cannot connect another party to the busy connection
- The attendant cannot put on hold a call being busy verified
- The attendant cannot busy verify a three-way call
- The attendant cannot busy verify lines out of the customer group of the attendant
- The attendant cannot interrupt a connection that involves a station with option NDC (No Double Connect)
- The attendant cannot enter a connection if the terminator is a station with option CLF (Calling Line Flash)
- The attendant cannot enter a connection if call waiting is present. The attendant can busy verify a camped-on call or an attendant call-waited call
- The attendant cannot ring an idle line or break in a connection that is not steady (for example, lockout, dialing, ringing)
- The attendant cannot busy verify an on-hold connection on the console
- The attendant cannot busy verify a connection that involves another console

Busy Verification - Stations (continued)

Interactions

The following paragraphs describe the interactions between Busy Verification - Stations and other functionalities:

- Call Forwarding (CFW)

The CFW takes priority over Busy Verification - Stations. This condition does not apply to a station that call forwards to the attendant. When this condition occurs, the call terminates on the call forwarding base station.

- Barge-In

The system ignores all feature keys the attendant presses after barge-in. The system does not ignore the Night (Nite) and the Position Busy (POS BY) keys.

- Flash Features

The system ignores all flash features by a DMS station end user being busy verified.

- Hunt Group

When an attendant busy verifies a station that is part of a hunt group, the hunt does not occur.

When the hunt group is a directory number hunt (DNH), the busy verification applies to the number dialed. Each line equipment number (LEN) has a directory number (DN) for a DNH group.

When the hunt group is a multiline hunt (MLH)/DLH, busy verification applies to the pilot DN.

Activation/deactivation by the end user

The attendant performs the following steps to operate Busy Verification - Stations.

Activation/deactivation of Busy Verification - Stations by the end user

At your telephone

- 1** Press an idle Loop key
- 2** Press the Busy Verification Lines key
- 3** Enter the DN to busy verified

Response:

The attendant receives treatment if a problem occurs with the line or the line is not in service. The attendant can press the Release (RLS) key to halt treatment and release the loop.

Busy Verification - Stations (continued)

The attendant receives silence that indicates an idle line. The attendant can press the Signal Source key to ring the station or press the RLS key to release the station.

The attendant succeeds, interrupts the call and hears conversation.

Note: Before barge-in, the two parties being busy verified receive two seconds of busy verification tone. The parties connect to the attendant for a maximum of 45 s. During this time, the parties receive another 0.5-second burst of the busy verification tone every 15 s.

Billing

Busy Verification - Stations does not affect billing.

Station Message Detail Recording

Busy Verification - Stations does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

Busy Verification - Stations does not affect office parameters.

Datafill sequence

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

Datafill requirement for Busy Verification - Stations

Table	Purpose of table
CLLI	Common language location identifier. This table contains fields to add the fixed pseudo CLLI BVTONE (busy verification tone).
STN	Special tone. This table contains fields used to define information about the BVTONE for use with Busy Verification - Stations.
FNMAP	Attendant console functional key. This table contains fields to install a dedicated key and lamp.
WCKCODES	Wild card key codes. This table contains fields to assign the Wild Card key access code to Busy Verification - Stations.

Datafilling table CLLI

Table CLLI contains fields used to add the fixed pseudo CLLI BVTONE.

Datafill for Busy Verification - Stations for table CLLI appears in the following table. The fields that apply to Busy Verification - Stations appear in this table.

Busy Verification - Stations (continued)

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		BVTONE	Common Language Location Identifier. This 16-character alphanumeric field indicates the far end of each announcement, tone, or trunk group. Enter BVTONE.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
BVTONE	55	10	HEADSET

Datafilling table STN

Table STN contains fields to define information about the BVTONE for use with Busy Verification - Stations.

The datafill for Busy Verification - Stations for table STN appears in the following table. The fields that apply to Busy Verification - Stations 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 subfields	Special Tone Key. This field contains subfields TONE and MEMBER.
	TONE	BVTONE	Tone. This subfield indicates the pseudo fixed code assigned to the tone trunk circuit in the CLLI table. Enter BVTONE.

Busy Verification - Stations (continued)**Datafilling table STN (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE	MEMBER	0-999	Member Number. This subfield indicates the member number assigned to the tone trunk circuit. Enter a number from 0 to 999.
		3X68AC	Card Code. This field indicates 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
BVTONE	50 MTM	100	10	3X68AC	15	75

Datafilling table FNMAP

Table FNMAP contains fields to install a dedicated key and lamp.

When you install the AC keys for this feature:

- assign this feature to a dedicated key and lamp on the AC
- assign this feature to a Wild Card key on the AC

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

Busy Verification - Stations (continued)

Option #1

To install a dedicated key and lamp for Busy Verification - Stations enter data in table FNMAP.

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 indicates the key selector. Enter SPECL for special.
	SP_FN	BVL	Special Function. This subfield indicates the special function code. Enter BVL.
If subfield SP_FN is BVL, subfields ATT_PRE_EMPT and BVLNRVAL require datafill.			
	ATT_PRE_EMPT	Y or N	Attendant Preempt. This subfield allows the attendant to pre-empt all connections to the line. Enter Y or N.
	BVLNRVAL	5-20	Busy Verification Line Time Interval. This subfield indicates the length of interval, in seconds, between BVL tones. Enter a number from 5 to 20.

Option #2

To install a dedicated key and lamp for the wild card function enter data in table FNMAP.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEY_SEL, 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 examples.

Busy Verification - Stations (continued)

In the first example, the user assigns a dedicated key and lamp for Busy Verification - Stations.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL BVL Y 10

In this example, the user assigns Table FNMAP a dedicated key and lamp for the Wild Card function.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL WC

Datafilling table WCKCODES

Table WCKCODES contains fields to assign the Wild Card key access code to Busy Verification - Stations.

Datafill for Busy Verification - Stations for table WCKCODES appears in the following table. The fields that apply to Busy Verification - Stations 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
VALUE		WC_SP_FN	Value. This field contains subfield WC_SP_FN.
	WC_SP_FN	BVL	Wild Card Key Special Function. This subfield indicates the Wild Card key special function code. Enter BVL.
If WC_SP_FN is BVL, subfields BSY_VER_PREEMPT, and BVL_INTERVAL require datafill.			

Busy Verification - Stations (end)

Datafilling table WCKCODES (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	BSY_VER_P REEMPT	Y or N	Busy Verification Pre-emption. This subfield allows an attendant to pre-empt all connections to the line. Enter Y or N.
	BVL_INTERV AL	5-20	Busy Verification Line Interval. This subfield indicates the length of interval between BVL tones in seconds. Enter a number from 5 to 20.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appears in the following example.

MAP example for table WCKCODES

WCKEY		VALUE		
BNRMC	14	BVL	N	10

Tools for verifying translations

Busy Verification - Stations does not use translation verification tools.

SERVORD

Busy Verification - Stations does not use SERVORD.

Busy Verification - Trunks

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Busy Verification - Trunks feature does not have requirements.

Description

Busy Verification - Trunks allows an attendant, when idle trunks are not present, to enter a specified trunk. The attendant requests that the busy stations go on-hook. When the stations go on-hook, the system seizes the trunk and places the call. When the called station answers, the attendant extends the call to the calling station.

Operation

An explanation of operation is not available for the Busy Verification - Trunks feature.

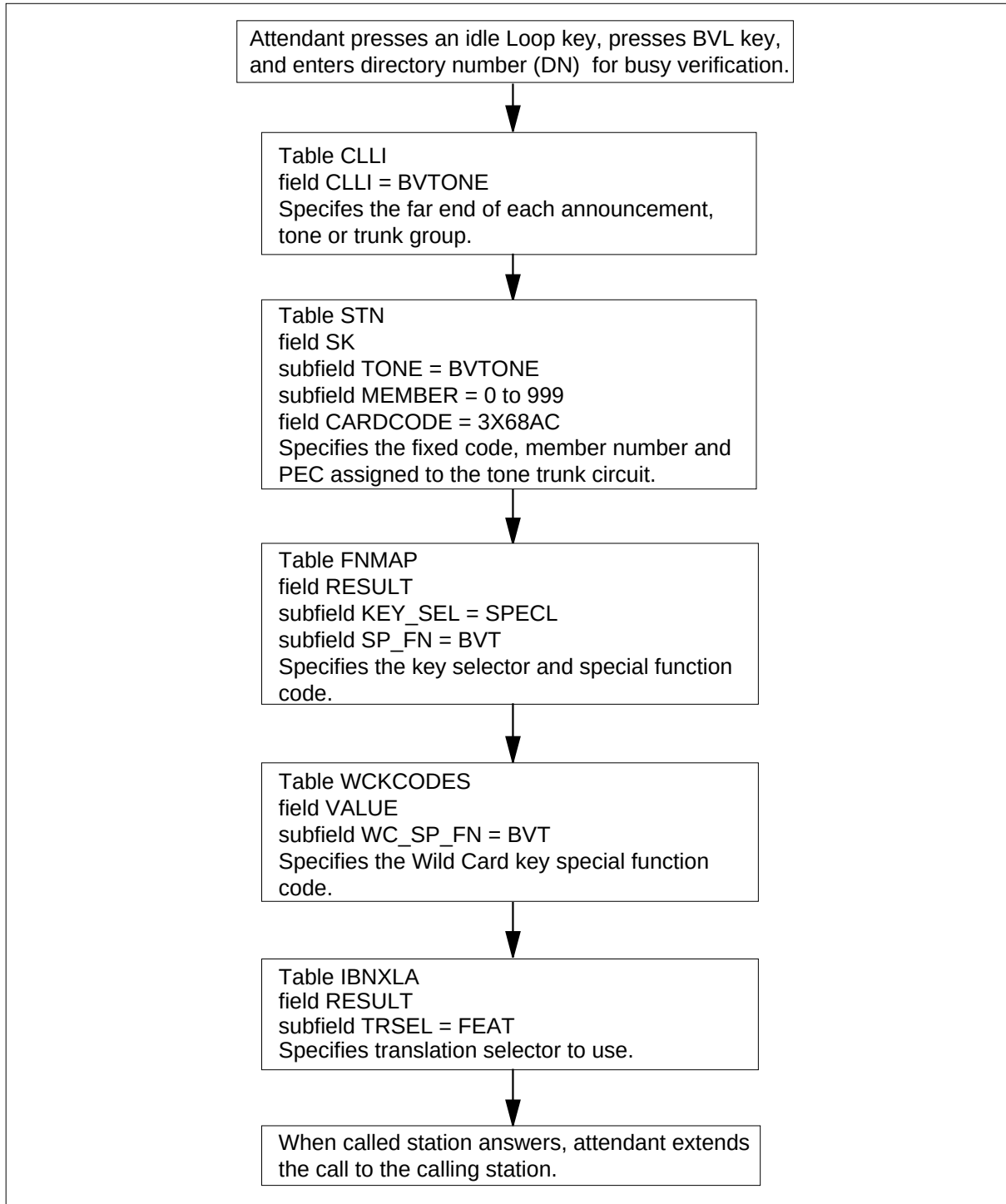
Translations table flow

A description of Busy Verification - Trunks translations tables appears in the following list:

- Table CLLI (Common Language Location Identifier) contains code used to identify each announcement, tone or trunk group. This table contains fields for the addition of the fixed pseudo CLLI BVTONE (busy verification tone).
- Table STN (Special Tone) contains fields for the definition of information about the BVTONE in use with the Busy Verification - Trunks feature.
- Table FNMAP (Attendant Console Functional Key) contains fields to set up a dedicated key and lamp.
- Table WCKCODES (Wild Card Key Codes) contains fields for the assignment of the Wild Card key access code to the Busy Verification - Trunks feature.
- Table IBNXLA (IBN Translation) stores the digits of the MDC access codes and the options or features to which the data belong.

Busy Verification - Trunks (continued)

The Busy Verification - Trunks translation process appears in the following flowchart.

Busy Verification - Trunks (continued)**Table flow for Busy Verification - Trunks**

Busy Verification - Trunks (continued)

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

Datafill example for Busy Verification - Trunks

Datafill table	Example data
CLLI	BVTONE 55 10 HEADSET
STN	BVTONE 50 MTM 100 10 3X68AC 15 75
FNMAP	IBNCON1 2 SPECL BVL Y 10 IBNCON1 2 SPECL WC
WCKCODES	BNRMC 14 BVL N 10
IBNXLA	NTIXLA 123 FEAT N Y N TTTT

Limits

The following limits apply to the Busy Verification - Trunks feature:

- The attendant must have an access code for each busy verified trunk group.
- If ATT_PREEMPT field in table FNMAP is N, the attendant cannot force-release a busy trunk. The attendant can request that the parties hang up. If the ATT_PREEMPT field is Y, the attendant can force-release a busy trunk with the RLS SRC key. Two conditions can occur after the attendant presses the RLS SRC key. If the attendant does not enter a called number, the attendant force-disconnects the two parties of barge-in. If the attendant enters a called number, the attendant force-disconnects the two parties of the barge-in. The attendant seizes the barged-in trunk and uses the trunk to place a call with the entered called number.
- The attendant cannot connect another party to the busy connection.
- A keying sequence that is not the specified sequence is not correct.
- After the attendant presses the Busy Verification key, the system ignores every key except:
 - digits
 - the Night (Nite) key
 - the Position Busy (POS BY) key
 - the RLS key
 - the RLS SRC key, if ATT_PREEMPT is Y

Busy Verification - Trunks (continued)

- After the attendant enters a connection, the system ignores each key except:
 - the Nite key
 - the POS BY
 - the RLS key
 - the RLS SRC key, if ATT_PREEMPT is Y
- The attendant cannot busy verify lines that are not in the associated customer group.
- The attendant cannot busy verify one-way incoming trunks.
- The attendant cannot busy verify a trunk in an state that is not stable.
- The attendant cannot busy verify a connection that is on hold on a console.
- The attendant cannot busy verify a connection that involves another console.
- The attendant cannot remain barged in for more than 45 s. The system removes the barge-in after 45 s.
- The system ignores each flash feature of a DMS station that the attendant busy verifies.

Interactions

The following paragraphs describe the interactions between the Busy Verification - Trunks feature and other functionalities.

- Call Hold
The attendant cannot put a call, that the attendant busy verifies, on hold.
- Call Waiting (CWT)/Camp-on
The attendant cannot busy verify a connection that involves a station that a call waits or is camped-on.
- Calling Line Identification by Flash (CLF)
The attendant cannot enter a connection if the terminator is a station with option CLF.
- Conference Calls
The attendant cannot busy verify conference calls.
- No Double Connection (NDC)
The attendant cannot barge in on a connection if the connection involves a station with option NDC. You cannot assign this feature to trunks.

Busy Verification - Trunks (continued)

- Speed Calling
The attendant cannot use speed calling to enter the digits.
- Three-Way Calling (3WC)
The attendant cannot busy verify 3WC.

Activation/deactivation by the end user

To operate Busy Verification - Trunks, the attendant performs the following steps.

Activation/deactivation of Busy Verification - Trunks by the end user

At the attendant telephone, the attendant must:

- 1 Press an idle Loop key.
- 2 Press the Busy Verification Trunks key.
- 3 Enter the access code of the trunk group that the attendant verifies.
- 4 Enter the called number of the distant office. This step is optional.

Response:

The attendant receives 2 s of busy tone if the trunk group is busy. The attendant receives 1 s of dial tone if the trunk is idle.

The attendant is successful and barges in on the connection and hears conversation.

- 5 Press the octothorpe key (#).
- 6 Enter the number of the external trunk member.
- 7 Press the asterisk key (*).
- 8 Press the Release (RLS) key.

Response:

Busy Verification - Trunks deactivates.

Note: Immediately before barge-in, the two parties that the attendant busy verifies receive 2 s of busy verification tone. Every 15 s, when the two parties connect to the attendant, the parties receive another 0.5-second burst of the busy verification tone. The two parties can connect for a maximum of 45 s.

Billing

The Busy Verification - Trunks feature does not affect billing.

Station Message Detail Recording

The Busy Verification - Trunks feature does not affect Station Message Detail Recording.

Busy Verification - Trunks (continued)

Datafilling office parameters

The Busy Verification - Trunks feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Busy Verification - Trunks feature appear in the following tables. The tables appear in the correct entry order.

Datafill requirements for Busy Verification - Trunks

Table	Purpose of table
CLLI	Common language location identifier. This table contains fields for the addition of the fixed pseudo CLLI BVTONE (busy verification tone).
STN	Special tone. This table contains fields for the definition information about the BVTONE in use with the Busy Verification - Trunks feature.
FNMAP	Attendant console functional key. This table contains fields for the set up a dedicated key and lamp.
WCKCODES	Wild card key codes. This table contains fields for the assignment of the Wild Card key access code to the Busy Verification - Trunks feature.
IBNXLA	IBN translation. This table stores the digits of the MDC access codes and the options or features to which the digits belong.

Datafilling table CLLI

Table CLLI contains fields for the addition of the fixed pseudo CLLI BVTONE (busy verification tone).

The datafill for the Busy Verification - Trunks feature for table CLLI appears in the following tables. Fields that apply to the Busy Verification - Trunks feature appear in the table. See the data schema section of this document for a description of the other fields.

Datafilling table CLLI

Field	Subfield or refinement	Entry	Description
CLLI		BVTONE	Common Language Location Identifier. This 16-character alphanumeric field specifies the far end of each announcement, tone or trunk group. Enter BVTONE.

Busy Verification - Trunks (continued)

Datafill example for table CLLI

Sample datafill for table CLLI appear in the following example.

MAP example for table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
BVTONE	55	10	HEADSET

Datafilling table STN

Table STN contains fields to define information about the BVTONE that the system uses with the Busy Verification - Trunks feature.

The datafill for the Busy Verification - Trunks feature for table STN appears in the following table. Fields that apply to the Busy Verification - Trunks feature appear in the table. See the data schema section of this document for a description of the other fields.

Datafilling table STN

Field	Subfield or refinement	Entry	Description
SK		see subfields	Special Tone Key. This field contains subfields TONE and MEMBER.
	TONE	BVTONE	Tone. This subfield specifies the pseudo fixed code assigned to the tone trunk circuit in the CLLI table. Enter BVTONE.
	MEMBER	0 -999	Member Number. This subfield specifies the member number assigned to the tone trunk circuit. Enter a number from 0 to 999.
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 appear in the following example.

Busy Verification - Trunks (continued)

MAP example for table STN

SK	TMTYPE	TMNO	TMCKTNO	CARDCODE	MAXCONN	TRAFSNO
BVTONE 50	MTM	100	10	3X68AC	15	75

Datafilling table FNMAP

Table FNMAP contains fields to establish a dedicated key and lamp.

The two methods to establish the AC keys for this feature are:

- 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

The datafill for the Busy Verification - Trunks feature for table FNMAP appears in the following table. Fields that apply to the Busy Verification - Trunks feature appear in the table. See the data schema section of this document for a description of the other fields.

Option #1

Enter data in Table FNMAP to establish a dedicated key and lamp for the Busy Verification - Trunks feature.

Datafilling table FNMAP (Sheet 1 of 2)

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	BVT	Special Function. This subfield specifies the special function code. Enter BVT.
If subfield SP_FN is set to BVT, subfields ATT_PRE_EMPT, BVTAUD and BVTNRVAL require datafill.			
	ATT_PRE_EMPT	Y or N	Attendant Pre-empt. This subfield specifies if the attendant can pre-empt each connection to the line. Enter Y or N.

Busy Verification - Trunks (continued)

Datafilling table FNMAP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
	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	5-20	Busy Verification Trunk Time Interval. This subfield specifies the length of interval, in seconds, between BV tones. Enter a number from 5 to 20.

Option #2

Enter data in Table FNMAP to establish a dedicated key and lamp for the wild card function.

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.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example. In the first example, Table FNMAP has a dedicated key and lamp assigned for the Busy Verification - Trunks feature.

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL BVT Y N 10

In this example, Table FNMAP has dedicated key and lamp assigned for the Wild Card function.

Busy Verification - Trunks (continued)

MAP example for table FNMAP

KEY	RESULT
IBNCON1 2	SPECL WC

Datafilling table WCKCODES

Table WCKCODES contains fields for the assignment of the Wild Card key access code to the Busy Verification - Trunks feature.

The datafill for the Busy Verification - Trunks feature for table WCKCODES appears in the following table. Fields that apply to the Busy Verification - Trunks feature appear in the 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	BVT	Wild Card Key Special Function. This subfield specifies the Wild Card key special function code. Enter BVT.
If WC_SP_FN is to BVT, subfields BSY_VER_PREEMPT, BVTAUD, and BVT_INTERVAL require datafill.			
	BSY_VER_P REEMPT	Y or N	Busy Verification Pre-emption. This subfield specifies if an attendant can preempt each connection to the line. 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
	BVT_ INTERVAL	5-20	Busy Verification Line Interval. This subfield specifies the length of interval, in seconds, between BVT tones. Enter a number from 5 to 20.

Datafill example for table WCKCODES

Sample datafill for table WCKCODES appear in the following example.

Busy Verification - Trunks (continued)

MAP example for table WCKCODES

WCKEY	VALUE
BNRMC 14	BVT Y N 10

Datafilling table IBNXLA

Table IBNXLA stores the digits of the MDC access codes and the options or features to which the digits belong. Enter data in Table IBNXLA if you use dialing method TAC + # + TMN + *.

The datafill for the Busy Verification - Trunks feature for table IBNXLA appears in the following table. Fields that apply to the Busy Verification - Trunks feature appear in the 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	Description
KEY		see subfields	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	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 subfields	Result. This field contains subfields TRSEL, ACR, SMDR, NO ACCODE_DIGITS, SECOND_DIAL_TONE, MINDIGS, MAXDIGS, DIGCOLNM, INTRAGRP, ROUTE_SUBSEL and TABID.
	TRSEL	ROUTE	Translation selector. This subfield specifies the type of translation selector. Enter ROUTE.
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y or N.

Busy Verification - Trunks (continued)

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR a requirement. Enter Y or N.
	NO ACCODE _DIGITS	0-7	Number of Access Code Digits. This subfield specifies the number of digits in the access code. Enter a value from 0 to 7.
	SECOND_ DIAL_TONE	Y or N	Second Dial tone. This subfield specifies if second dial tone is a requirement. Enter Y or N.
	MINDIGS	1-25	Minimum Digits. This subfield specifies the minimum number of digits, like the access code that the system collects. Enter a value from 1 to 25.
	MAXDIGS	1-25	Maximum Digits. This subfield specifies the maximum digits, and includes access code that the system collects. Enter a value from 1 to 25.
	DIGCOLNM	alphanumeric	Digit Collection. This subfield specifies the 1-character to 8-character name assigned to the block of data in Table DIGCOL. This specification is for the digit collection for MDC lines. Enter an alphanumeric name.
	INTRAGROUP	Y	Intragroup. This subfield specifies if the call is for the same customer group. Enter Y.
	ROUTE_ SUBSEL	T	Route Sub-Selector. This subfield specifies the route sub-selector. Enter T.
	TABID	IBNRTE	Table Identifier. This subfield specifies the table to which translations routes. Enter IBNRTE.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

Busy Verification - Trunks (end)

MAP example for table IBNXLA

KEY										RESULT		
NTIXLA	123	ROUTE	N	Y	N	4	Y	3	25	POTS		
		Y T	IBNRTE		708	\$						

Tools for verifying translations

The Busy Verification - Trunks feature does not use tools for verifying translations.

SERVORD

The Busy Verification - Trunks feature does not use SERVORD.

Call Forward All Calls

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

CCM011

Requirements

To operate, the Call Forward All Calls feature requires BAS Generic, BAS00003.

Description

The Call Forward All Calls feature allows the system to forward incoming calls to a station to a predetermined directory number (DN). The system forwards these calls for an end user. The system can forward incoming calls in or out of the customer group. The system can forward these calls if the called party is away from the telephone or does not want disruptions. The station that corresponds to the dialed number is the base station. The system forwards the calls to the remote station.

The Call Forward All Calls feature contains the following variants, or types of call forwarding:

- **Call Forwarding Busy (CFB):** The CFB allows the system to forward calls for a busy called station to a predefined station in the customer group. For additional information on this feature, see "Call Forward Busy" in this document.
- **Call Forwarding Don't Answer (CFD):** The CFD allows the system to route calls to another designated station or to the attendant. The system routes these calls if the called station does not answer the call in a prescribed time period. The answer time-out interval is a customer group parameter, field CFDATO of option CFDATIM. For additional information on this feature, see "Call Forward No Answer" in this document.
- **Call Forwarding Fixed (CFF):** The CFF allows a station to forward calls only to a location designated by the operating company. Subscribers cannot program the forwarding number.

Call Forward All Calls (continued)

- **Call Forwarding Intragroup (CFI):** The CFI allows a station to forward calls to end user-defined locations in the customer group. The intragroup flag must be for the appropriate trunk group.
- **Call Forwarding Universal (CFU):** The CFU allows a station to forward calls to end user-defined locations in and out of the customer group. These locations include the attendant. If the end user assigns the CFU feature to the station, feature assignment includes the call forwarding intragroup (CFI) feature.
- **Call Forward With Announcement (CFWANN):** The CFWANN provides enhancements to the CFU, CFD, and CFB features. CFWANN allows CFU, CFD, and CFB to provide an announcement to the originator of a call prior to forwarding the call. The CFWANN performs the playing and the provisioning of the announcement.

The remote station to which the system forwards calls can cause activation of the Call Forward All Calls feature. If this station does not activate the feature, the system can forward the forwarded call again to the next remote station. In the DMS-100 environment, the system can forward a maximum of five calls. If the sixth station activates the Call Forward All Calls feature, the caller hears busy tone.

If two or more station end users activate the Call Forward All Calls feature (a loop), calls that come to the loop receive busy tone. The system forwards one call at a time. If the system forwards a call and another call arrives, the last caller receives busy tone.

The station activates the Call Forward All Calls feature. Activation does not affect the ability of the base station to originate or pick up calls.

Operation

To activate the Call Forward All Calls feature and forward calls in or out of the customer group, the end user must perform the following actions. The caller must go off-hook, listen for dial tone, and dial the activation code assigned to call forwarding.

The activation code for CFU and CFI can be a 3-digit code (1XX). Northern Telecom recommends use of a feature code, an asterisk and two digits (*XX). When the caller dials the activation code, the end user receives a recall dial tone. The caller dials the 7- or 10-digit DN to which the system forwards calls, listens for confirmation tone, and hangs up. The dial tone is three short tones and a steady tone. The confirmation tone is two short tones.

While the Call Forward All Calls feature is active, if the base station dials the activation code, reorder tone occurs. The reorder tone tests the Call Forward

Call Forward All Calls (continued)

All Calls feature. If the base station dials the station DN, the system forwards the call to the forwarding DN. To change the forwarding DN, the station must use the new DN to deactivate and initiate the Call Forward All Calls again.

To deactivate the Call Forward All Calls feature, the end user must perform the following actions. The end user must go off-hook, listen for dial tone, and dial the deactivation code (*XX). The end user must listen for confirmation tone and hang up.

Datafill for subscriber usage billing

To activate subscriber-use billing, set table AMAOPTS option CALL_FWD to ON. See the following figure for an example of table AMAOPTS option CALL_FWD.

Example of table AMAOPTS option CALL_FWD

OPTION	SCHEDULE
CALL_FWD	ON

Translations table flow

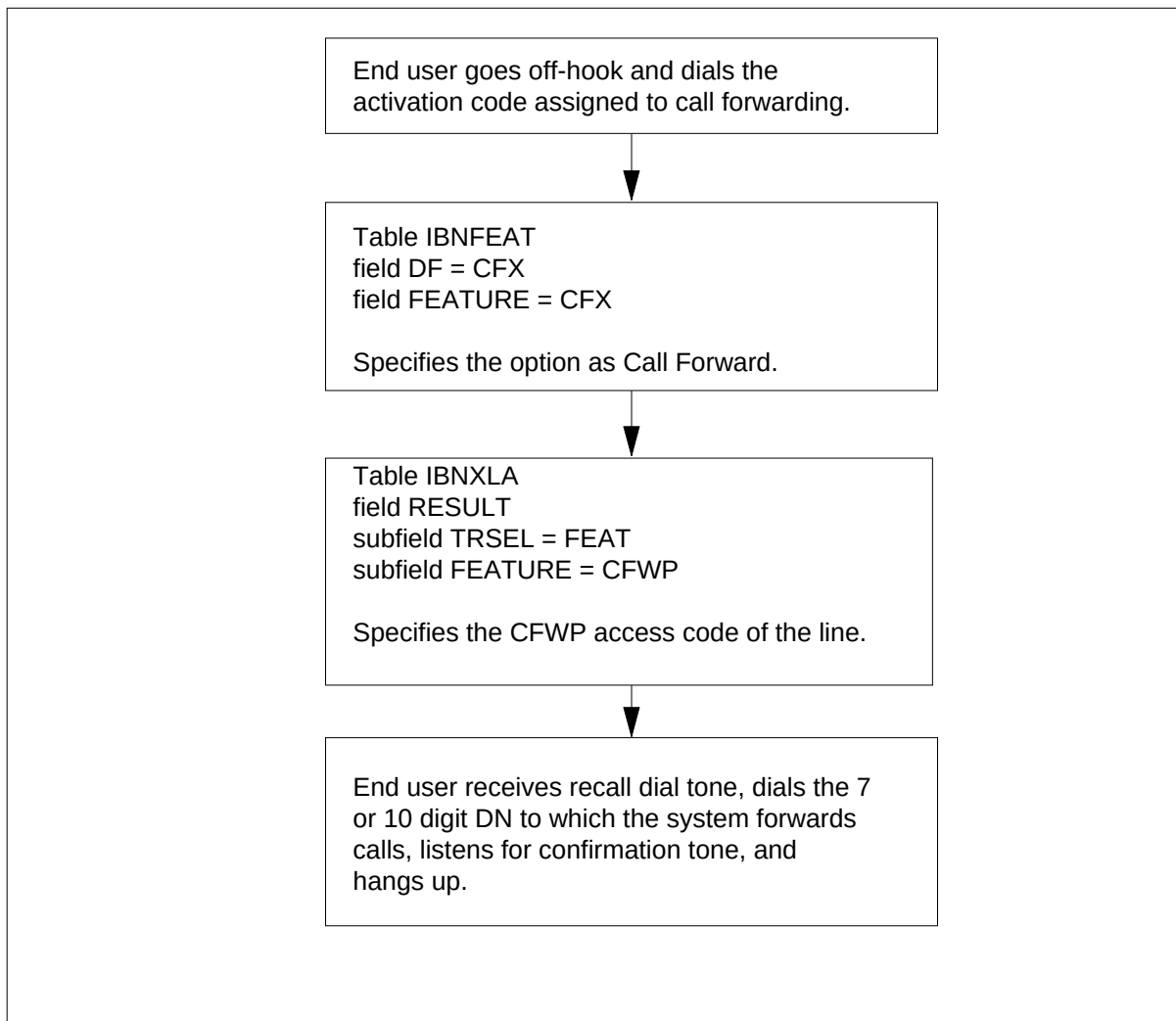
Descriptions of the Call Forward All Calls translations tables appear in the following list:

- Table IBNFEAT (IBN Line Feature) contains the line features that you assign to the MDC lines in Table IBNLINES (IBN Line Assignment). This table contains the DN and numbering plan area (NPA) of the line, and the group name to which the line belongs. This table also contains the options assigned to the line. The system enters data in this table when the user assigns features in SERVORD.
- Table IBNXLA (IBN Translation) contains one of the following parts:
 - the data for the digit translation of calls from an IBN station
 - an attendant console (AC)
 - an incoming side of a two-way IBN trunk group

The Call Forward All Calls translation process appears in the following flowchart.

Call Forward All Calls (continued)

Table flow for Call Forward All Calls



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

Datafill example for Call Forward All Calls

Datafill table	Example data
IBNFEAT	HOST 0 0 1 1 0 CFU Y CFD N 8880 \$
IBNXLA	NTIXLA 123 FEAT N Y N CFWP

Call Forward All Calls (continued)

Limits

The following limits apply to the Call Forward All Calls feature:

- The end user cannot assign the Call Forward All Calls feature to the following lines:
 - automatic or manual lines
 - lines to which the system denies terminations or originations
 - suspended lines
- The base station can activate the Call Forward All Calls feature to service codes (N11), operators (for example, 555-1212), test lines, or like facilities. In this occurrence, the system does not forward the incoming calls to the base station. The calls receive blank DN treatment.
- The base station hears busy tone if the base station activates the Call Forward All Calls feature and the system forwards the call to the system.
- Station restrictions that apply to the remote station apply. If a restriction prevents the remote station from receiving the direct inward dialed (DID) calls, the system does not forward these calls. The caller receives a busy tone.

Interactions

Descriptions of the interactions between the Call Forward All Calls feature and other functionalities appear in the following paragraphs.

Call Waiting (CWT)

The base station can have Call Waiting (CWT) and the Call Forward All Calls feature. In this occurrence, the system disables CWT while the Call Forward All Calls feature is active.

CFB, CFD and Night Service

The system forwards the Call Forward All Calls, CFB, and CFD features to the attendant while night service is active and receives busy tone.

Hunting DNs

The end user can assign the CFU and CFI feature to hunting DNs. When these features are active, these features have priority over the hunting DNs.

Remote station number

The remote station number for the CFU or CFI feature can be a hunt group.

Call Forward All Calls (continued)

Activation/deactivation by the end user

To activate the Call Forward All Calls feature and forward calls in or out of the customer group, the end user must complete the following procedure.

Activation/deactivation of Call Forward All Calls by the end user

At telephone of the end user, the end user must perform the following steps.

- 1 Go off-hook and listen for dial tone.
 - Response:
 - Receive a dial tone
- 2 Dial the activation code assigned to the call forwarding.
 - The activation code for CFU and CFI can be a 3-digit code (1XX). Northern Telecom recommends the use of a feature code, which includes an asterisk and two digits (*XX).
 - Response:
 - Receive a recall dial tone. This dial tone contains three short tones and a steady tone.
- 3 Dial the 7- or 10-digit DN to which the system must forward calls, listens for confirmation tone. The confirmation tone consists of two short tones.
 - Response:
 - Receive confirmation tone, which is two short tones.
- 4 Hang up.

While the Call Forward All Calls feature is active, if the base station dials the activation code, the end user hears the reorder tone. The reorder tone tests the Call Forward All Calls feature. If the base station dials the station DN, the system forwards the call to the forwarding DN. To change the forwarding DN, the end user must use the new DN to deactivate and initiate the Call Forward All Calls feature again.

To deactivate the Call Forward All Calls feature, the end user must perform the following steps. The end user must go off-hook, listen for dial tone, and dial the deactivation code (*XX). The end user must listen for confirmation tone and hang up.

Billing

The Call Forward All Calls feature does not affect billing.

Station Message Detail Recording

The Call Forward All Calls feature does not affect Station Message Detail Recording.

Call Forward All Calls (continued)

Datafilling office parameters

The Call Forward All Calls feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the Call Forward All Calls feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Forward All Calls

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature. This table specifies the options for a single-line MDC station.
IBNXLA	IBN Translation. This table contains IBN translations. The end user must enter data in Table IBNXLA to include the correct translations selector for the Call Forward All Calls feature.
Note: The end user must use SERVORD to enter data in this table. A datafill procedure is not available.	

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains IBN translations. The end user must enter data Table IBNXLA to include the correct translations selector for the Call Forward All Calls feature.

Datafill for the Call Forward All Calls feature for table IBNXLA appear in the following table. The fields that apply directly to the Call Forward All Calls feature 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	Description
KEY		see subfields	Key This field contains subfields XLANAME and DGLIDX.
	XLANAME	1 to 8	Translator Name This subfield specifies the name assigned to the translator. Enter the 1- to 8-character name.

Call Forward All Calls (continued)

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
RESULT	DGLIDX	1 to 18	Digilator Index This subfield specifies the access code. Enter a 1- to 18-digit number assigned as the access code.
		see subfield	Result This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector This subfield specifies the translations selector to be used. Enter FEAT. Note: If TRSEL is set to 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	CFWC or CFWP	Feature This subfield specifies the feature assigned to a line. Enter CFWC for call forwarding cancellation. Enter CFWP for call forwarding programming.

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 CFWP
NTIXLA	124	FEAT N Y N CFWC

Call Forward All Calls (continued)

Tools for verifying translations

The Call Forward All Calls feature does not use translation verification tools.

SERVORD

The SERVORD enters data in the IBNFEAT table.

SERVORD limits

The Call Forward All Calls feature does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that the end user uses to add the Call Forward All Calls feature to a line.

SERVORD prompts for Call Forward All Calls

Prompt	Valid input	Description
OPTION	CFD, CFF, or CFU	Specifies the name of the option. Enter CFD, CFF, or CFU.
OVRDACR	Y or N	Specifies if the Override for Account Code is required. Enter Y or N.
CFDCNTL	F, N, or P	Specifies Call Forwarding Do Not Answer Control. Enter F for fixed assignment for CFD, N for normal (default), or P for programmed assignment for CFD.
CFDDN	Up to 24 digits	Specifies the Call Forwarding DN. Enter a DN that is a maximum of 24 digits long.

SERVORD example for how to add Call Forward All Calls

The addition of the Call Forward All Calls feature to a line, through the ADO command, appears in the following SERVORD example.

Call Forward All Calls (end)

SERVORD example for Call Forward All Calls in prompt mode

```
>ADO
SONUMBER: NOW 92 12 17 PM
>
DN_OR_LEN:
> 0 0 0 3
OPTION:
> CFU
OVRDACR:
> Y
OPTION:
> CFD
CFDCNTL:
> N
CFDDN:
> 8880
OPTION:
> $
```

SERVORD example for Call Forward All Calls in no-prompt mode

```
>ADO 0 0 0 3 CFU Y CFD N 8880 $
```

Call Forward Busy

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Call Forward Busy requires BAS Generic, BAS00003.

Description

When a called station with Call Forward Busy (CFB) is busy, the system forwards all incoming calls. The system forwards these calls to a predefined station in the same customer group.

Note: In this feature description, base station indicates the station that activates Call Forwarding (CFW). Remote station indicates the station that receives the forwarded call.

Operation

Option call forward busy intragroup is available with CFB. This option prevents forwarding of intragroup calls. Installation of call forward busy intragroup prevents intragroup calls from flooding the remote station. This condition is a requirement when a high ratio of incoming calls originates in the same customer group. This condition is important if several stations have CFB or Call Forward No Answer (CFD) assigned to the same station.

The system forwards calls if the forwarded number is intragroup and one of the following conditions occurs:

- the called number routes to intragroup tie trunks or other intragroup routes
- the called number routes to a hunt group
- the called number routes to a station that does not have option denied termination (DTM), denied origination (DOR), suspended (SUS), or plug-up (PLP).

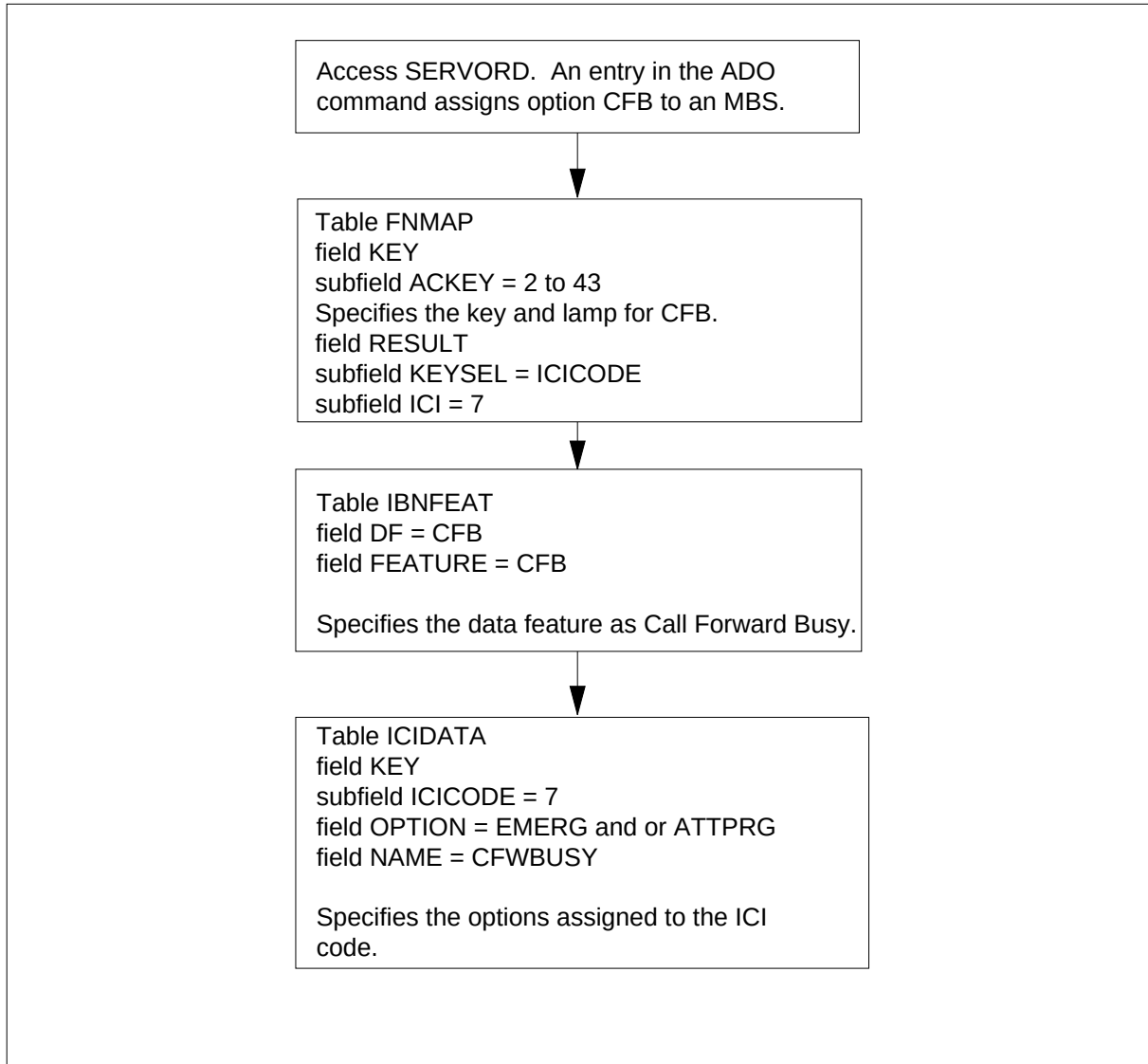
Call Forward Busy (continued)

Translations table flow

A description of the Call Forward Busy translations tables appears in the following list:

- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified consoles. The entry of data in table FNMAP must occur to assign a dedicated incoming call identification (ICI) key and lamp for Call Forward Busy.
- Table IBNFEAT (IBN Line Feature) contains the line features assigned to the MDC lines in Table IBNLINES (IBN Line Assignment). This table contains the DN and numbering plan area (NPA) of the line and the group name to which the line belongs. Assigned options also appear in this table. The entry of this table occurs when the assignment of features occurs in SERVORD.
- Table ICIDATA (Incoming Call Identification Data) provides flexible night service and the key and lamp display for each ICI number. The entry of data in Table ICIDATA must occur to assign a key and lamp display for Call Forward Busy

An example of the Call Forward Busy translation process appears in the following flowchart.

Call Forward Busy (continued)**Table flow for Call Forward Busy**

Datafill content used in the flowchart appears in the following table.

Datafill example for Call Forward Busy

Datafill table	Example data
IBNFEAT	NETDMT1 DN CFB CFB 10
FNMAP	BNRMCCON1 30 ICICODE 7
ICIDATA	MDCGRP1 7 CFWBUSY ATTPRG NSDIGS 5551212

Call Forward Busy (continued)

Limits

The following limits apply to Call Forward Busy:

- Call Forward Busy calls do not forward if the following conditions occur:
 - The call is an intragroup-originated call, and the base station has option call forward busy intragroup assigned.
 - The remote station is the attendant, and Night Service (NS) is in effect.
 - The forwarded number is not an intragroup call.
- the remote directory number (DN) to which calls forward can be 1 to 30 digits. The end user at the base station cannot change the remote DN if CFB N (default) or F (fixed) is datafilled. If CFB P (programmed) is datafilled then Speed Call (SCS, SCL, or SCU) or Automatic Dial (AUD) cannot be used to program the remote DN.
- the assignment of Call Forward Busy to hunt groups cannot occur. The assignment of CFB to a remote station that is a member of an intragroup hunt group cannot occur. The addition of Call Forward Busy to a PSET hunt group member can occur. For details, see the 'Interactions' section of this feature description.
- timers do not apply to CFB
- assignment of an ICI code to CFB on the console is not a condition to forward these calls to the attendant
- the system allows a maximum of five loops in the DMS-100 environment. After five loops, the caller hears busy tone.
- the system detects a closed loop. Reception of busy tone occurs and the call does not forward from station C to station A or B. Station A to station B to station C, back to station A or station B is a closed loop.
- the changes of a call forwarded number can only occur through the Service Order System (SERVORD)
- the CFB in the DMS-100 office is not known to incoming callers. If another private branch exchange (PBX) serves the CFB DN, this condition does not apply.

Interactions

The actions between Call Forward Busy and other functionalities appear in the following paragraphs.

Call Forward All Calls

Call Forward All Calls takes priority over CFB when activation occurs at the base station.

Call Forward Busy (continued)

Call Forwarding Universal, Call Forwarding Intragroup

When the Call Forwarding Universal (CFU) or Call Forwarding Intragroup (CFI) option is active, CFU or CFI takes priority over CFB. If the remote station activates CFU, CBU, or CDU, the call forwards. The call can leave the group with call forwarding option in a forwarding chain that does not contain limits.

Follow two separate service orders for the addition of Call Forwarding Busy to a PSET hunt group member. First, the addition of CFU or CFI to a key other than the DN key must occur. Second, the addition of CFB to the same key must occur.

Call Waiting

Call Waiting (CWT) and CFB are not compatible. Only the assignment of one of these features to the base station can occur unless the use of MBS Call Waiting occurs.

Night Service

Deactivation of CFB to the AC occurs when NS is active. Restoration of daytime service reactivates CFB to the AC. The display of the call to a CFU, CFI, CFF, CFD, or CFB base station can occur. If that call forwards to an AC activates NS, the following interactions occur:

- the AC can have the following incoming calls routed to different NS routes:
 - The attendant listed directory number (LDN) can have NS route in Table ICIDATA.
 - the CFU, CFD, and CFB features each have a dedicated ICI key on the AC. Key 5 is CFW, key 6 is CFD, and key 7 is CFB
- the activation of CFU, CFD, or CFB occurs. Incoming calls to the AC base station route to NS if the CFU, CFD, or CFB ICI key is in Table ICIDATA and has option NSDIGS.
- activation of CFU, CFD, or CFB occurs. Incoming calls to the AC base station do not forward if you do not enter option NSDIGS for the call forwarded ICI. Calls forwarded to the AC by CFU, CFB, and CFD receive busy treatment. The system treats calls that the system forwards to the AC by 9+ numbers as direct calls. Option LDN NSDIGS is used. The use of CFU, CFD, and CFB ICI keys for 9+ forwarded calls does not occur.
- If an NS route is not present for the LDN, CFU, CFD, or CFB ICI key, the calls do not forward. The CFU and CFB calls receive busy treatment, while CFD calls continue to ring.

Call Forward Busy (continued)

Attendant Camp-on

The assignment of attendant Camp-on and CFB and the attendant extends a call to a remote station. When this condition occurs, Attendant Camp-on takes priority over CFB. If a call is already camped on, the attendant hears the reorder tone. If the attendant originates a call to a busy station, CFB applies. The CFB applies unless the forwarded DN is back to the attendant. Attendant Camp-on does not apply to attendant-originated calls.

Activation/deactivation by the end user

Call Forward Busy does not require activation or deactivation by the end user.

Billing

Call Forward Busy does not affect billing.

Station Message Detail Recording

Call Forward Busy does not affect Station Message Detail Recording.

Datafilling office parameters

Call Forward Busy does not affect office parameters.

Datafill sequence

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

Datafill requirements for Call Forward Busy

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature. This table specifies the options for a single-line MDC station.
FNMAP	Attendant Console Functional Key. This table identifies the features or special functions assigned to each AC key (2 to 43) on specified consoles.
ICIDATA	Incoming Call Identification Data. This table allows an attendant to program Night Service - Flexible and a key and lamp display for each ICI code. The assignment of these codes to a customer group occurs.

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) identifies the assignment of features or special functions to each AC key (2 to 43) on specified consoles. The key and lamp number is a requirement if the customer group to which the AC belongs has a key and lamp. The attendant uses the key and lamp for

Call Forward Busy (continued)

activating, deactivating, and programming CFW for IBN lines with CFU or CFI.

Datafill for Call Forward Busy for table FNMAP appears in the following table. The fields that apply to Call Forward 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
KEY		refer to subfields	Key This field contains subfields CONSCLLI and ACKEY.
	CONSCLLI	alphanumeric code	Console Common Language Location Identifier. This subfield specifies the code assigned to the AC in Table CLLI (Common Language Location Identifier). Enter the alphanumeric code.
	ACKEY	2 to 43	Attendant Console Key and Lamp Number This subfield specifies the number of the key and lamp assigned to this feature. Enter a value from 2 to 43.
RESULT		see subfields	Result This field contains subfields KEYSEL and SPFN.
	KEYSEL	ICICODE	Key Selector This subfield specifies the key selector name. Enter ICICODE.
	SPFN	7	Special Function This subfield specifies the special function code for this feature. Enter 7.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following table.

Call Forward Busy (continued)

MAP example for table FNMAP

KEY		RESULT	
BNRMCCON1	30	ICICODE	7

Datafilling table ICIDATA

An attendant can program Night Service - Flexible and a key and lamp display for each ICI code with Table ICIDATA (Incoming Call Identification Data). The assignment of the key and lamp display to a customer group occurs. The assignment of ICI codes can only occur for customer groups that Table CUSTCONS lists. The maximum number of ICI codes depends on the value set in option ICINUM in Table CUSTCONS.

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

Datafilling table ICIDATA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	ICI Data Key This field contains subfields CUSTGRP and ICICODE.
	CUSTGRP	1 to 16	Customer Group Name This subfield specifies the name of the customer group. Enter the 1-character to 16-character name assigned to the customer group.
	ICICODE	7	Incoming Call Identification Code This subfield specifies the incoming call identification code. Enter 7.
NAME		CFWBUSY	Key and Lamp Display Name This field specifies the name assigned to the ICI code in the specified customer group for the key and lamp display at the AC. Enter CFWBUSY.

Call Forward Busy (continued)**Datafilling table ICIDATA (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
OPTION		EMERG or ATTPRG	Option This field specifies the options assigned to the ICI code. Enter one or more of the following available options: - enter EMERG if the ICI code is an emergency ICI - enter ATTPRG if the attendant can program the NS number assigned to the ICI code Note: If OPTION is ATTPRG, subfields OPTION and DIGITS require datafill.
	OPTION	NSDIGS	Option This subfield specifies the NS option. Enter NSDIGS.
	DIGITS	1- to 18	Digits This subfield specifies the NS number assigned to the ICI code. Enter a 1-digit to 18-digit number.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

KEY	NAME		OPTION
MDCGRP1	7	CFWBUSY	ATTPRG NSDIGS 5551212
MDCGRP2	34	PRECFO	EMERG ATTPRG NSDIGS 5551213 \$

Tools for verifying translations

Call Forward Busy does not use tools for verifying translations.

SERVORD

The SERVORD enters data in IBNFEAT.

Call Forward Busy (continued)

The assignment of option CFB to a line occurs through SERVORD. All calls to a busy station can forward to a station with a definition in the same customer group with option CFB.

SERVORD limits

Call Forward Busy does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to add Call Forward Busy to a current line appear in the following table.

SERVORD prompts for Call Forward Busy

Prompt	Valid input	Explanation
OPTION	CFB	Specifies the option. Enter CFB for Call Forward Busy.
CFBCNTL	F, N, P	Specifies a CFB control. Enter F for fixed assignment for CFB. Enter P for programmed assignment for CFB. The default value, N, specifies normal assignment for CFB.
CFBDN	Up to 24 digits	Specifies the CFW DN for CFB. Enter a value with a maximum of 24 digits. Note: This prompt only appears if N or F is at the CFBCNTL prompt.
Note: The system enters data in table IBNFEAT when the assignment of Call Forward Busy occurs through SERVORD.		

SERVORD example for adding Call Forward Busy

The addition of Call Forward Busy on a current line with the use of the ADO command appears in the following SERVORD example.

Call Forward Busy (end)

SERVORD example for Call Forward Busy in prompt mode

```
SO:  
> ADO  
SONUMBER:    NOW 92 3 27 AM  
>  
DN_OR_LEN:  
> 0 0 0 1  
OPTION:  
> CFB  
CFBCNTL:  
> N  
CFBDN:  
> 6210115  
OPTION:  
> $
```

SERVORD example for Call Forward Busy in no-prompt mode

```
> ADO $ 0 0 0 1 CFB N 6210115 $
```

Call Forward Don't Answer

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

This document contains the datafill information for this functionality. Complete application can require software or hardware.

Description

Call Forward Don't Answer (CFD) applies to calls the system directs to a base station that does not answer in a specified time. The CFD feature allows calls to route to another designated station or to the attendant. The designated station is the remote station. The answer time-out interval is a customer group parameter, if the Call Forwarding Don't Answer Variable Timer (CFDVT) feature is not assigned. The customer group parameter is field CFDATO of option CFDATIM.

The remote station must be in the customer group, or the attendant. The CFD includes all call types. These calls are incoming direct inward dialed (DID), tie trunk, intragroup and all other calls.

The other option associated with CFD is call forward intragroup (CDI). This option does not allow the system to forward intragroup calls. Some applications involve many incoming calls of intragroup origin. For these applications, this option does not allow intragroup calls to flood the remote station. This option can be important if many stations have call forward busy (CFB) or CFD assigned to the attendant or to the same secretary.

Operation

For feature CFD, the operating company uses datafill to assign the directory number (DN). The set always has CFD active or does not have CFD.

Feature CFD has the following three variants that field CFDCNTL controls:

- N (default)

Operating company datafill controls assignment of CFD 1- to 30-digit remote station. The end user has CFD active.

- F (fixed)

Call Forward Don't Answer (continued)

Operating company datafill controls assignment of CFD 1-digit to 30-digit remote station. The end user can dial the access code assigned in table IBNXLA (IBN Translation) to activate or deactivate CFD.

- P (programming)

The end user can dial the access code assigned in table IBNXLA to activate or deactivate CFD. The end user enters the remote station DN each time CFD activates.

The following eight options are present for feature CFD:

- N (default)

If the base station does not answer in the prescribed time, the call forwards to the remote station in the customer group. This option includes all calls. These calls are incoming DID, EPSCS, tie trunk and intragroup calls.

- CDE (Call Forward Don't Answer external deny)

This option does not allow external calls to forward on specified applications. This action occurs when many incoming calls are of external origin. External calls are from outside the customer group. This action does not allow external calls to flood the remote station. Calls only forward to remote stations in the customer group.

- CDI (Call Forward Don't Answer intragroup deny)

This option does not allow the system to forward intragroup calls. Many of the incoming calls are of intragroup origin. When this condition occurs, intragroup calls cannot flood the remote station. The system can only forward calls to remote stations in the customer group.

- CDU (Call Forward Don't Answer unrestricted)

This option allows call forwarding to remote stations outside the group.

- CDECDU (Call Forward Don't Answer external deny unrestricted)

This option allows call forwarding to remote stations outside (unrestricted) the customer group.

- CDICDU (Call Forward Don't Answer intragroup deny unrestricted)

This option allows call forwarding to remote stations outside (unrestricted) the customer group.

- IECFD (internal external Call Forward Don't Answer deny)

Call Forward Don't Answer (continued)

This option is like option N where internal and external calls forward to different remote stations in the customer group. Internal calls originate in the customer group.

- IECFDCDU (internal external Call Forward Don't Answer unrestricted)

This option is like option IECFD. Internal and external calls can forward to different remote stations outside, unrestricted, the customer group.

If CFI or CFU is active, that feature takes order over other CFX feature variants assigned to the base station. The system can forward a CFD call without the unrestricted option to a remote station. The remote station can have call forwarding outside the customer group active. When this condition occurs, the system does not forward the call. The call continues to ring on the base station. The unrestricted option allows the system to forward calls to intragroup lines destinations only. The CFD calls without the unrestricted option must stay in the defined customer group.

Another private branch exchange (PBX) can serve the remote station if the outgoing route is intragroup. When the system forwards the call outside the switching unit, the features that PBX supports can apply to the call.

If the system detects a closed loop, the call continues to ring on C. Examples of closed loops are A to B to C to A or B. The call does not forward to A or B.

If option MULTICFD in table CUSTSTN is present, the number of calls that forward at the same time for feature CFD does not have limits. If option MULTICFD is absent, only one call can forward. If field STIMULT has datafill, this field takes order. When this condition occurs, this field imposes a limit to the number of calls that forward at the same time. Calls that cannot forward because the reaching of the maximum simultaneous limit occurs continue to ring the CFD base station. The calls ring until a party answers the call or the system abandons the call.

The system does not forward calls when the following conditions occur:

- The call is an intragroup originated call and the base station has the CDI option assigned.
- The remote station is the attendant and night service is active.
- The forwarded number is not an intragroup number. The remote station activated call forwarding outside the customer group. The line overflow to directory number (LOD) or line overflow to route (LOR) feature can cause forwarding outside the customer group.

Call Forward Don't Answer (continued)

The system forwards calls if the remote station is intragroup. The system also forwards call when the following conditions occur:

- The called number routes to intragroup tie trunks or other intragroup routes.
- The called number belongs to a hunt group.
- The called number station does not have the denied termination (DTM), denied origination (DOR), suspended (SUS), or plug-up (PLP) option.
- The remote station is idle. The remote station can have CFD or CDI. When this condition occurs, the station rings for the answer time-out interval before the system forwards the call again.
- The remote station is busy, has the call waiting feature, and does not wait for a call. The system forwards the call when the remote station has the CFB feature.

Translations table flow

Descriptions of the CFD translations tables appear in the following list:

- Table IBNXLA (IBN Translation) contains the data for the digit translation of calls. These calls are from an IBN station, an attendant console (AC) or an incoming side of a two-way IBN trunk group. Enter data in subfield feature with CFDP for Call Forwarding Don't Answer Programming. The end user can activate CFD with the access code that appears here.
- Table CUSTSTN (Customer Group Station Option) contains station options assigned to each customer group. The entry of data in table CUSTSTN must occur to assign the station options or option CFDATIM. These options are for each correct station in the customer group for the answer time-out interval. This condition applies if option CFDVT is not assigned. The AC redirects calls that do not answer in the prescribed time.
- The line features assigned to the business sets appear in table KSETFEAT (Business Set and Data Unit Feature). Data units in table KSETLINE and the Meridian digital telephone sets and DUs in table IVDINV appear. Data entry for this table occurs through SERVORD. This data specifies the type of control over activation, deactivation and programming. This data specifies the type of external and internal call types the system forwards. Data entries for the forwarded-to DN occur in this table. Enter data for key assignment for CFD, which is key 1 for code access features. Field CFDCNTL must contain F, fixed, or P, programming, for end user control over CFD activation.
- Table IBNFEAT (IBN Line Feature) lists line features assigned to the IBN lines in table IBNLINES for single-line sets. Data entry for this table

Call Forward Don't Answer (continued)

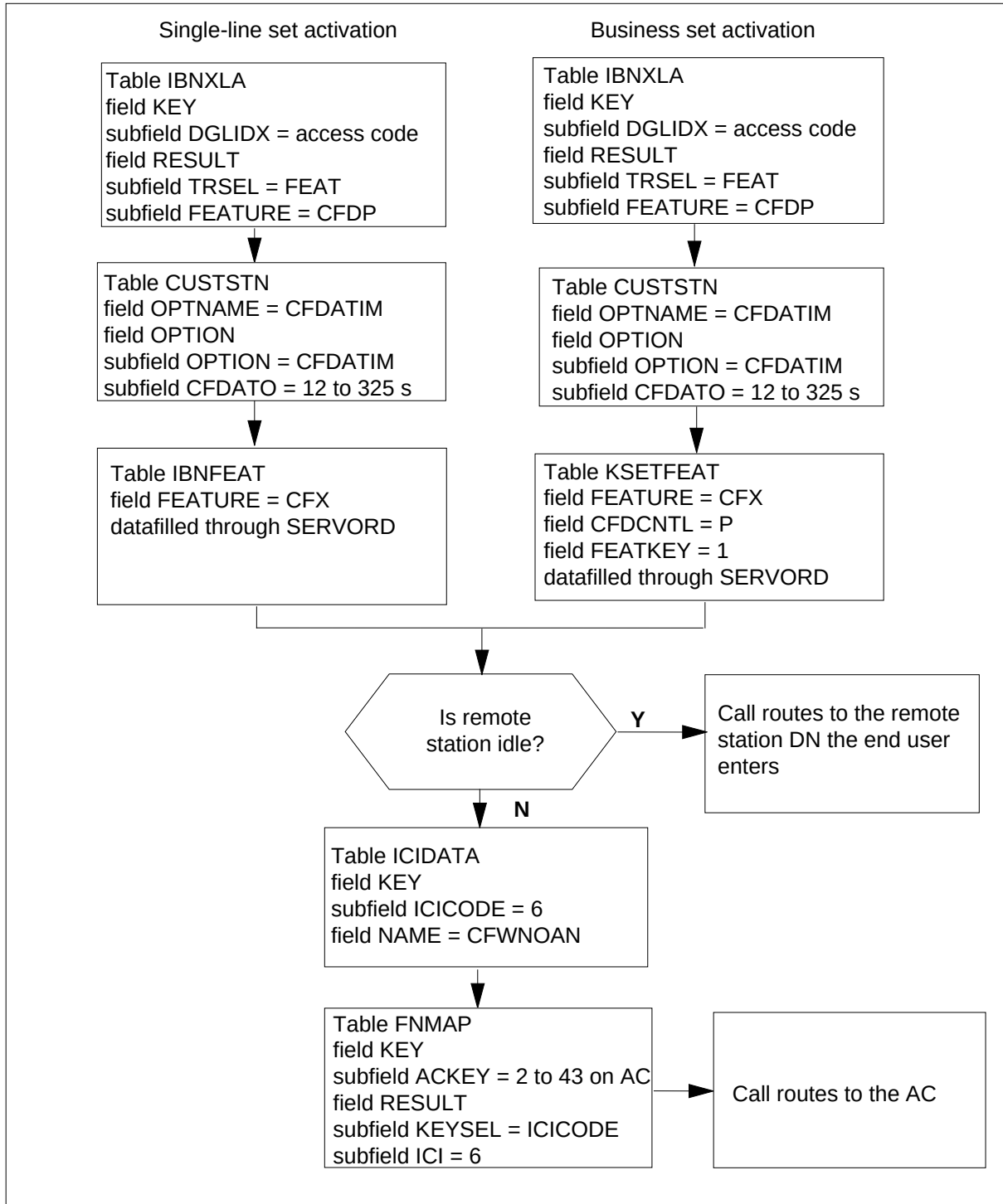
occurs through SERVORD. The assignment of Call Forwarding (CFX) must occur in this table.

- Table ICIDATA (Incoming Call Identification Data) provides flexible night service and the key and lamp display for each ICI number. The entry of data in table ICIDATA must occur to assign a key and lamp display for CFD.
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specified ACs. The entry of data in table FNMAP must occur to assign a dedicated incoming call identification (ICI) key and lamp for CFDA

The CFD translation process appears in the following flowchart.

Call Forward Don't Answer (continued)

Table flow for Call Forward Don't Answer



Call Forward Don't Answer (continued)

Datafill content in the flowchart appears in the following table.

Datafill example for Call Forward Don't Answer

Datafill table	Example data
IBNXLA	FXNET 120 FEAT N N N CFDP
IBNFEAT	HOST 00 0 02 18 0 CFX CFX
CUSTSTN	MDCGRP3 CFDATIM CFDATIM 30
KSETFEAT	01 0 00 24 1 CFX CFX N CFD P CDE N \$
ICIDATA	MDCGRP1 6 CFWNOANS (ATTPRG NSDIGS 5551212) \$
FNMAP	NETCONS 12 ICICODE 26

Limits

The following limits apply to Call Forward Don't Answer:

- The assignment of Call Forward Don't Answer to a line occurs through the Service Order System (SERVORD).
- Changes to the remote station DN can occur only through SERVORD.
- This feature is only available if the switching unit has the separate keylist feature. This unit has this feature if office parameter CFX_SEPARATE_KEYLIST_FEATURE is Y in table OFCENG. The separate keylist feature allows the CFD feature to have a separate keylist.
- The entry of data with the CFX feature divides among the CFUIF, CFB and CFD components. Additional changes to the CFD part occur with the use of the CFD feature, not the CFX feature. Feature CFD can also enter data.
- The remote station DN can be from 1 to 30 digits in length.
- A CFD call does not activate the CFT feature if the call is forwarded again by the CFU or CFI features.

Interactions

The interactions between Call Forward Don't Answer and other functionalities appear in the following paragraphs.

Attendant-extended calls

The CFD applies only to attendant-originated calls. This condition does not apply when the remote station is the attendant. This feature does not apply to attendant-extended calls. Attendant-extended calls are subject to automatic recall.

Call Forward Don't Answer (continued)

Busy lines

The system can call wait a call to a busy station with the call waiting feature. The CFD does not apply to busy lines.

Call Forwarding Busy

If the assignment of the CFD and CFB features to the line occurs, the remote DN can or cannot be the same for both features.

CFU or CFI

The CFU or CFI feature, when active, takes order over CFD and the call forward variants assigned to the base station.

A CFD call can forward to a remote station and the remote station can have call forwarding outside the customer group active. For example, CFU, CBU or CDU. When this condition occurs, the system forwards the call outside. An unrestricted call forwarding option in a forwarding chain allows the call to leave the group.

Class-of-service restrictions

Class-of-service restrictions can apply to CFD. If the remote station cannot receive the type of call to forward, the call rings the base station. The call rings the base station until a party answers the call or the system abandons the call.

Daytime service

The CFD to the attendant applies to daytime service. If CFD forwards to the attendant when night service is active, the attendant receives a busy tone.

Hunt groups

The assignment of CFD to Directory Number Hunt (DNH) groups can occur. The assignment of CFD to Multiline Hunt (MLH) groups or Distributed Line Hunt (DLH) groups cannot occur.

Incoming call identification (ICI) code

Assignment of an ICI code to CFD on the AC is not a condition to forward these calls to the attendant.

Multiple calls

The system can forward one call to a remote and a second call can arrive at the base station. When this condition occurs, the second call does not receive busy treatment. The second call rings for an indefinite period of time.

Call Forward Don't Answer (continued)

Private branch exchange

Another PBX can serve the remote station. The outgoing trunk group must be an intragroup.

Note: In BCS31 and later versions, the Call Forwarding of Call Waiting Calls feature is available. This feature allows the system to forward a call waiting call. The system can forward the call if the end user does not answer the call in a specified time period. The end user must have the CFD feature.

Activation/deactivation by the end user

Call Forward Don't Answer does not require activation or deactivation by the end user.

Billing

Call Forward Don't Answer does not affect billing.

Station Message Detail Recording

Call Forward Don't Answer does not affect Station Message Detail Recording.

Datafilling office parameters

Call Forward Don't Answer does not affect office parameters.

Call Forward Don't Answer (continued)

Datafill sequence

The tables that require datafill to implement Call Forward Don't Answer appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Forward Don't Answer (Sheet 1 of 2)

Table	Purpose of table
IBNXLA	The IBN Translation. This table contains the data for the digit translation of calls from one of the following: - an IBN station - an AC - an incoming side of a two-way IBN trunk group Enter data in subfield feature the CFDP for Call Forwarding Don't Answer Programming. The end user can activate CFD with the access code that appears in this table.
IBNFEAT (note)	IBN Line Feature. This table contains line features for the IBN lines that appear in table IBNLINES for single-line sets. The assignment of the CFX must occur in this table for CFD to operate.
CUSTSTN	Customer Group Station Option. This table contains station options for each customer group. The entry of data in table CUSTSTN must occur to assign the station options or option CFDATIM. The options are for each correct station in the customer group for the answer time-out interval. This condition occurs if option CFDVT is not assigned. The AC redirects calls that do not answer in the prescribed time.
KSETFEAT (note)	Business Set and Data Unit Feature. This table contains the line features for the business sets and DU in table KSETLINE. The features are also for the Meridian digital telephone sets and DUs in table IVDINV. This table specifies the type of control over activation, deactivation and programming. This table specifies the type of external and internal call types the system forwards. Enter the forwarded-to DN in this table. Enter key assignment for CFD. Key assignment key 1 for code access features. Field CFDCNTL must be F or P for end user control over CFD activation.
Note: Data entry for this table occurs through SERVORD. A datafill procedure or example does not appear in this document. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Call Forward Don't Answer (continued)

Datafill requirements for Call Forward Don't Answer (Sheet 2 of 2)

Table	Purpose of table
ICIDATA	Incoming Call Identification Data. This table provides for flexible night service and the key and lamp display for each ICI number. The entry of data in table ICIDATA must occur to assign a key and lamp display for CFDA.
FNMAP	Attendant Console Functional Key. This table contains assigns features to keys 2 through 43 on specified ACs. The entry of data in table FNMAP must occur to assign a dedicated ICI key and lamp for CFD.
Note: Data entry for this table occurs through SERVORD. A datafill procedure or example does not appear in this document. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Datafilling table IBNXLA

Datafill for Call Forward Don't Answer for table IBNXLA appears in the following table. The fields that apply to Call Forward Don't Answer 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	1- to 8-character name	Translator Name. This subfield specifies the name for the translator. Enter the 1-character to 8-character name.
	DGLIDX	1- to 18-digit number	Digilator Index. This subfield specifies the access code. Enter a 1-digit to 18-digit number for 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.
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement.

Call Forward Don't Answer (continued)**Datafilling table IBNXLA (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement.
	FEATURE	CFDC or CFDP	Feature. This subfield specifies the feature assigned to a line. Enter CFDC for Call Forwarding Don't Answer cancellation. Enter CFDP for Call Forwarding Don't Answer programming.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY	RESULT
FXNET 120	FEAT N N N CFDP
FXNET 121	FEAT N N N CFDC

Datafilling table CUSTSTN

Datafill for Call Forward Don't Answer for table CUSTSTN appears in the following table. The fields that apply to Call Forward Don't Answer 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 to 16	Customer Name. This field specifies the customer group name. Enter the 1 to 16 character name for the customer group. This name must already be in Table CUSTHEAD.
OPTNAME		CFDATIM	Option Name. This field specifies the option name. Enter CFDATIM.
OPTION		see subfields	Option. This field contains subfields OPTION and CFDATO.

Call Forward Don't Answer (continued)

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CFDATIM	Option. This subfield specifies an option. Enter the option CFDATIM.
	CFDATO	12 to 325 s	Call Forward Don't Answer Timing. This subfield specifies the call forwarding don't answer timing period. Enter the period in 1 s increments. Correct range is from 12 to 325 s.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
MDCGRP1	CPARK	CPARK 30
MDCGRP2	CXFER	CXFER CTALL N STD
MDCGRP3	CFDATIM	CFDATIM 30
MDCGRP4	CFDATIM	CFDATIM 16
MDCGRP5	CXFERSUP	CXFERSUP ALLIBN CONF ALLPOTS CONF N
MDCGRP6	CXFEAT	CXFEAT Y

Datafilling table ICIDATA

Datafill for Call Forward Don't Answer for table ICIDATA appears in the following table. The fields that apply to Call Forward Don't Answer appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table ICIDATA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	ICIDATA key. This key field contains subfields CUSTGRP and ICICODE.

Call Forward Don't Answer (continued)**Datafilling table ICIDATA (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CUSTGRP	alphanumeric (1 to 16 characters)	Customer group name. Enter the name for the customer group.
	ICICODE	6	Incoming Call Identification Code. This subfield specifies the incoming identification code. Enter 6.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

KEY	NAME	OPTIONS
MDCGRP1 6	CFWNOANS	(ATTPRG NSDIGS 5551212) \$

Datafilling FNMAP

Datafill for Call Forward Don't Answer for table FNMAP appears in the following table. The fields that apply to Call Forward Don't Answer 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
KEY		see subfields	Key. This field contains subfields CONSCLLI and ACKEY.
	CONSCLLI	see subfields	Console Common Language Location Identifier. This subfield contains the code for the AC in table CLLI.
	ACKEY	2 to 43	Attendant Console Key. This subfield contains the number of AC key that for the incoming call identification code. Subfield ICI specifies this code. Enter a value from 2 to 43.

Call Forward Don't Answer (continued)

Datafilling table FNMAP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field contains subfields KEYSEL and ICI.
	KEYSEL	ICICODE	Key Selector. This subfield specifies the key selector. Enter ICICODE.
	ICI	0 to 254	Incoming Call Identification Code. This subfield contains the incoming identification number for the AC key number. Field ACKEY defines this number. Enter a value from 0 to 254.

Datafill example for table FNMAP

Sample datafill for table FNMAP appears in the following example.

MAP example for table FNMAP

KEY		RESULT	
NETCONS	12	ICICODE	26

Tools for verifying translations

Call Forward Don't Answer does not use tools for verifying translation.

SERVORD

SERVORD limits

The following SERVORD limits apply to Call Forward Don't Answer:

- Option CFD is compatible with the line class codes (LCC) IBN, KEYSET LCCs, DATA-PDATA, and MADO-MPDA.
- The assignment of CFD can occur for a maximum of one CFD on each set.
- The assignment of this code can occur to key 1 only because CFD is a code access feature. This key is the primary DN (PDN).

Call Forward Don't Answer (continued)

SERVORD prompts

The SERVORD prompts that add Call Forward Don't Answer to a line appear in the following table.

SERVORD prompts for Call Forward Don't Answer

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	1-69 for business set; 1, 2, 3, 4, or 7 for data unit	Identifies the key on the business set or data unit to which the assignment of an option occurs.
OPTION	CFD	Indicates the name of the option
CFDCNTL	F, N, or P	Call forwarding do not answer control. An F value means fixed assignment. An N value means normal (default). A P value means programmed assignment.
CFDDN	Up to 30 digits	Call forwarding DN for CFD option
KEYLIST	Key number (1-69), list of key numbers, or \$	Appears when the assignment of a subset feature to a multiline set occurs. Specifies key numbers of the DNs to which a feature applies.
Note: The system updates tables IBNFEAT and KSETFEAT when assignment of CFD occurs with SERVORD.		

SERVORD example for adding Call Forward Don't Answer

The following is an example of the CFD option. This example assigns the CFD option to key 1. The CFD associates with the PDN key of the set only. The fixed, normal and programmed assignments for the CFDCNTL prompt appear in the example.

Call Forward Don't Answer (end)

SERVORD example for Call Forward Don't Answer in prompt mode

```

> ADO
SONUMBER:      NOW  92  6 2 PM
>
DN_OR_LEN:
> 0 0 9 2
OPTKEY:
> 1
OPTION:
> CFD
CFDCNTL:
Fixed assignment      Normal assignment      Programmed assignment
> F                  > N                  > P
CFDDN:               CFDDN:               KEYLIST:
> 6210103           > 6210103           > 1
KEYLIST:             KEYLIST:             KEYLIST:
> 1                  > 1                  > $
KEYLIST:             KEYLIST:             OPTKEY:
> $                  > $                  > $
OPTKEY:              OPTKEY:
> $                  > $

```

SERVORD example for Call Forward Don't Answer in no-prompt mode

```

> ADO $ 0 0 9 2 1 CFD F 6210103 1 $ $

```

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.

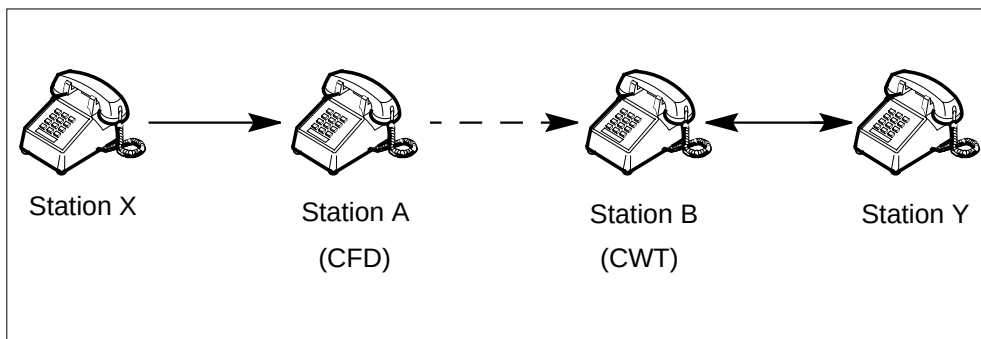
When the same line has options CDE and CDU, the options make sure the system cannot forward intergroup-originated calls. Options CDE and CDU allows the system to forward calls the intergroup originated outside the customer group.

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

Call Forward Don't Answer and Call Waiting Interaction (continued)

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)

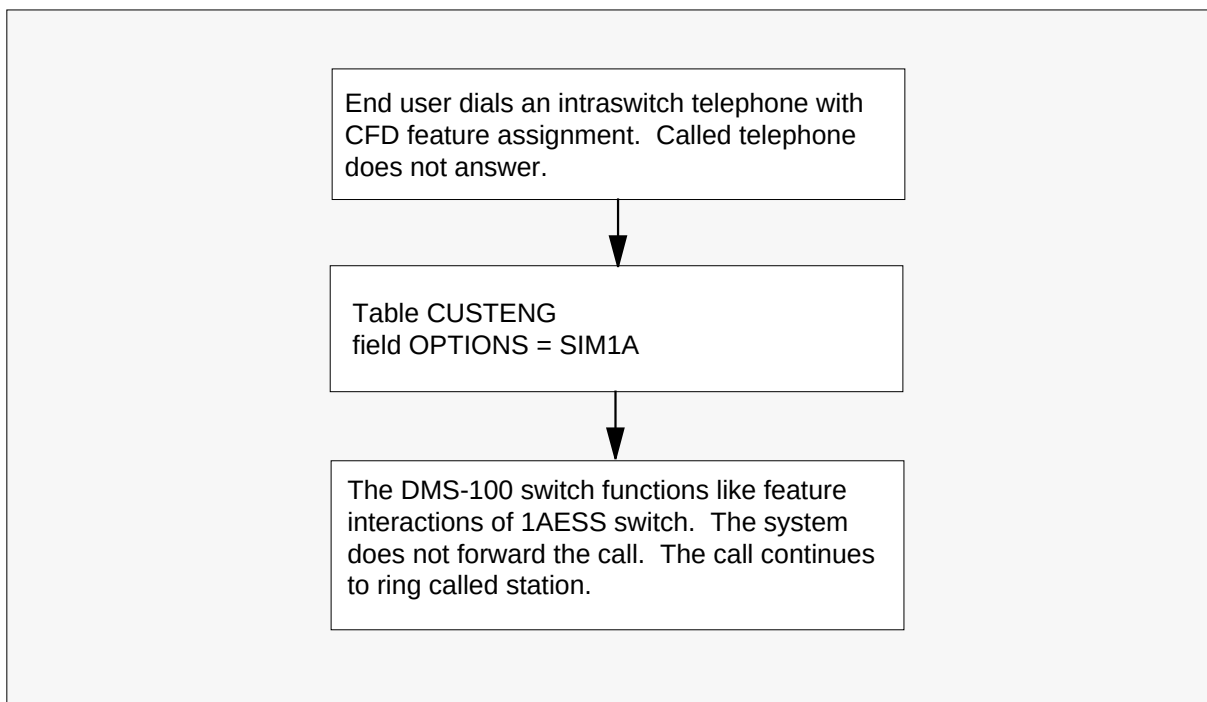
MDC and SS lines in the group with option CFD function like the 1AESS switch.

- 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



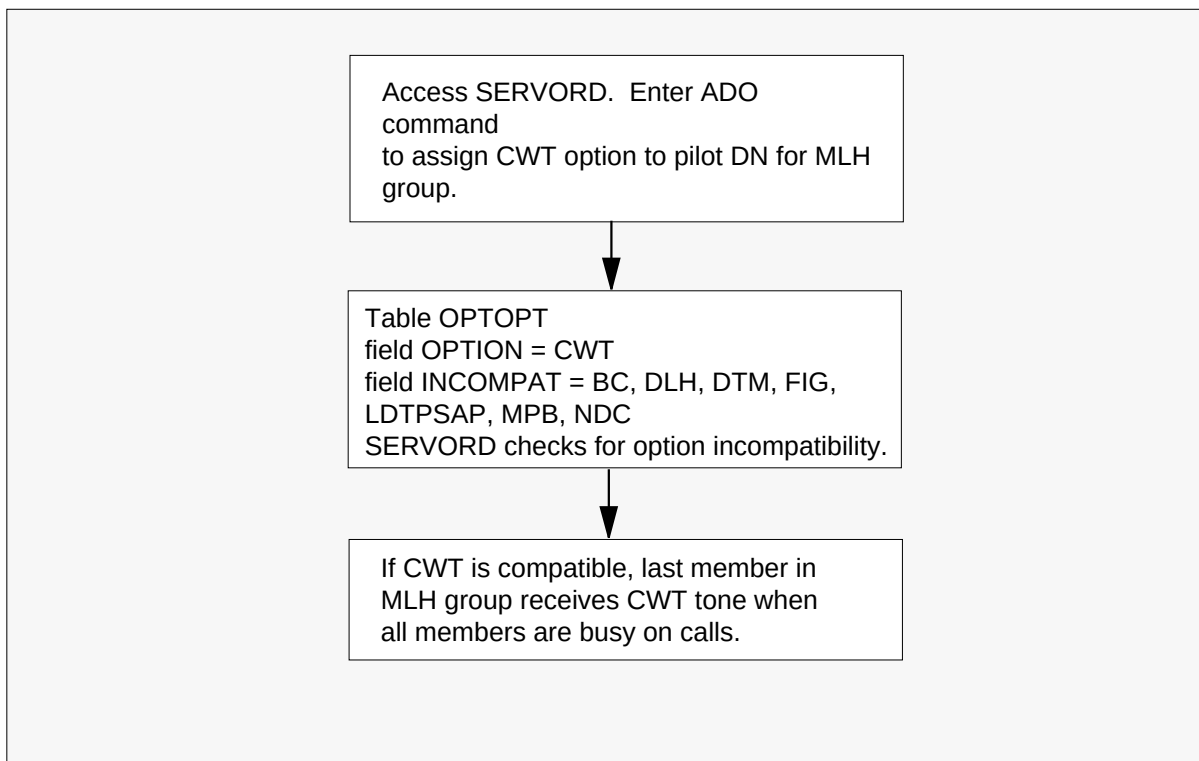
Call Forward Don't Answer and Call Waiting Interaction (continued)

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.

Call Forward Don't Answer and Call Waiting Interaction (continued)

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 <i>Office Parameters Reference Manual</i> 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

Call Forward Don't Answer and Call Waiting Interaction (continued)

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

```
S0:  
> 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

```
S0:  
> 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 Hold

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

NA011 and later versions

Requirements

To operate, Call Hold requires BAS Generic, BAS00003.

Description

A station with Call Hold assigned can hold a call for any length of time. This condition applies if a party does not go on-hook. This feature allows the station with Call Hold to perform other tasks when the system holds a call. Examples of these tasks are speed call programming, call forward activation, or call pickup. To return to the held call, the station with this feature must activate Call Hold again.

The held call connects to a music source. Table CUSTSTN (Customer Group Station Option) identifies the audio source on a customer group. 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 addition of option LMOH to a line with option Call Hold appears in table IBNFEAT (IBN Feature Assignment). The assignment of option LMOH to a line with the option Call Hold defines a music source for the line. The customer group audio source applies for option Call Hold if the assignment of option LMOH is not on the line.

The audio source defaults to the one 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.

Note: The remainder of this feature description refers to the station with the Call Hold feature assigned as the holding station. The station the system puts on hold is the held station.

Call Hold (continued)

Operation

To place a call on hold, the holding party performs the following steps:

- The holding party flashes the switchhook and receives special dial tone. The special dial tone is three short bursts of dial tone followed by a normal dial tone.
- The holding party dials the Call Hold access code. The access code includes an asterisk (*) and a numeric code. The code is from one to seven characters.
- If Call Hold activates, the holding party hears confirmation tone. Confirmation tone is two short bursts of tone followed by a normal dial tone.
- The holding party has 10 s to initiate the next action. The holding party receives an additional 10 s with another flash of the switchhook.
- If Call Hold cannot activate, the holding party hears 3 s of reorder tone. The two stations connect again.
- The held party can go on-hook and the holding party can try to establish the connection again. When this condition occurs, the holding party hears 3 s of reorder tone.

Retrieval of the call the system holds can occur in the following conditions:

- The holding party goes on-hook when the held party is on hold. This condition causes the holding station to ring.
- The holding party performs the activation procedure that appeared before.

Call Hold deactivates when the held party goes on-hook.

The holding station does a flash hook and dials the activation code again. The system connects the holding station to the held party again.

The holding station goes on-hook on a second call that the system places or receives when the first call is on hold. The holding station goes off-hook after the station receives. This action establishes the original connection again. A Call Hold Recall occurs when the held party rings the Call Hold base controller again.

Translations table flow

The following list describes the call hold translations tables:

- Table IBNLINES (IBN Line Assignment) lists line assignments for each 500/2500 set assigned an MDC or Subscriber Services (SS) station

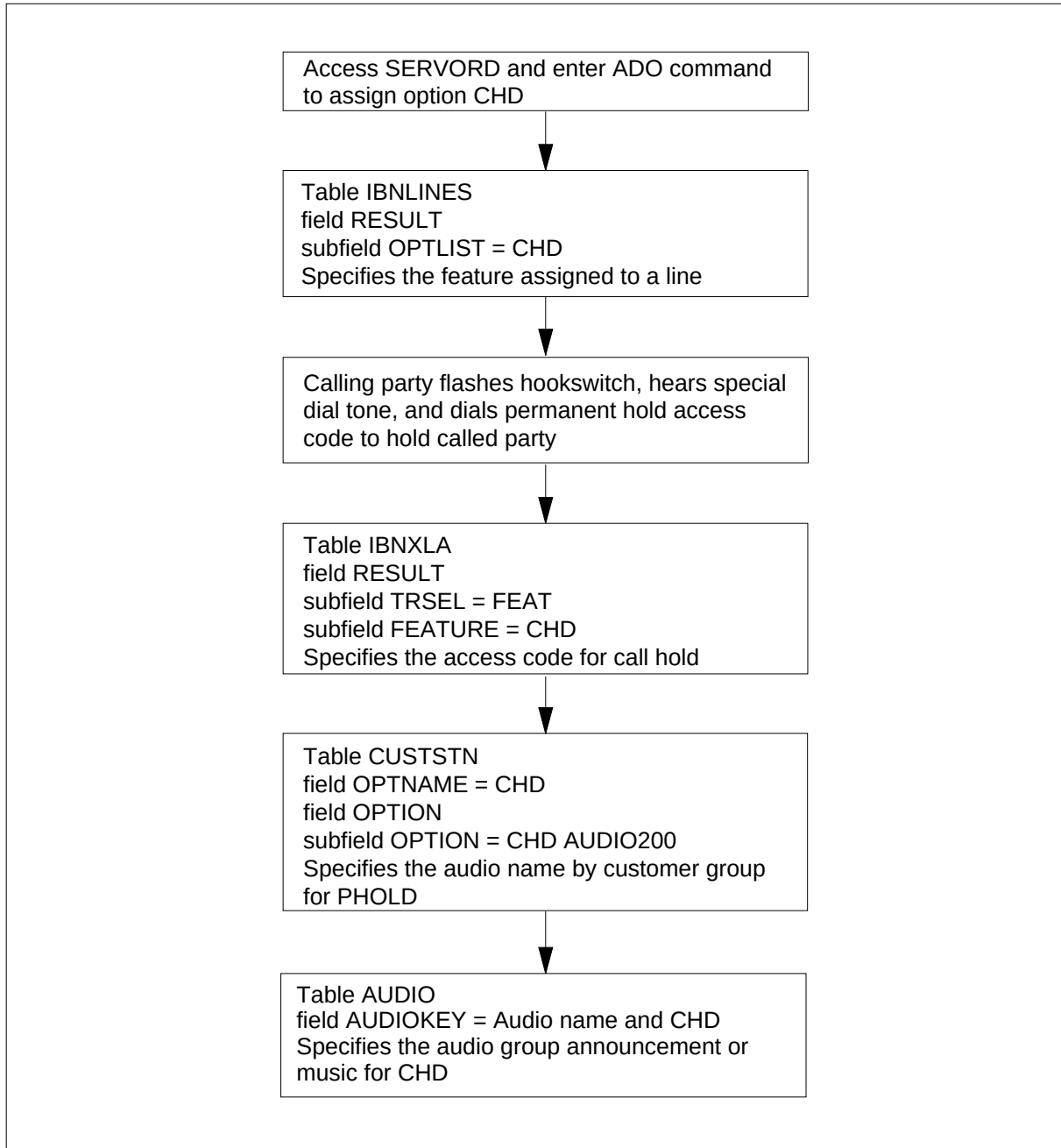
Call Hold (continued)

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 Call Hold.
- 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 Call Hold to the customer group.
- Table AUDIO (Audio Interlude) defines the audio group announcement or application of music for various MDC options.

The Call Hold translations process appears in the following flowchart. The assignment of option CHD to a 500/2500 set appears in the flowchart. The data shows the assignment of an audio announcement or music by customer group.

The Call Hold translation process displays in the flowchart that follows.

Call Hold (continued)**Table flow for Call Hold (Assignment of Call Hold)**

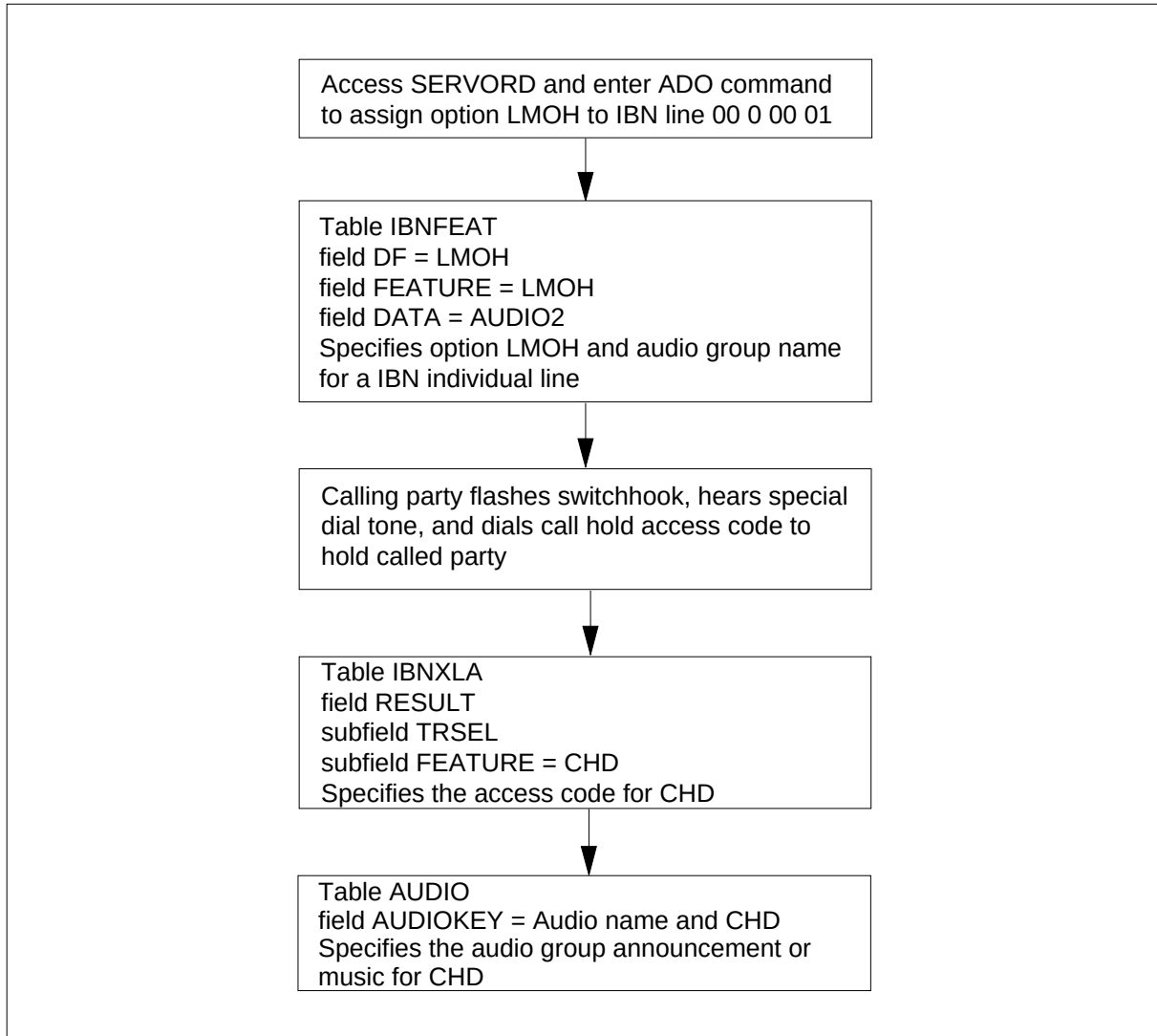
Call Hold (continued)

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

Datafill example for Call Hold (500/2500 sets)

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 10 DT STN IBN 5554667 MDCGRP1 1 919 0 (CHD) \$
IBNXLA	NTIXLA 98 FEAT N N CHD
CUSTSTN	MS1LBR2 CHD CHD AUDIO200
AUDIO	AUDIO200 CHD MUSIC MUSICCLLI 5 \$

The Call Hold 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 call hold.

Call Hold (continued)**Table flow for Call Hold (Assignment of LMOH)**

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

Datafill example for Call Hold (500/2500 sets)

Datafill table	Example data
IBNFEAT	HOST 00 0 00 01 0 LMOH LMOH AUDIO2
IBNXLA	NTIXLA 98 FEAT N N CHD
AUDIO	AUDIO2 CHD MUSIC CWMUSICCLLI 5 \$

Call Hold (continued)

Limitations and restrictions

The following limitations apply to Call Hold:

- Call Hold is available to Integrated Business Networks (IBN) end users with 500/2500 sets. Call Hold is not available to end users with Meridian business sets (MBS).
- Call Hold is compatible with
 - calls between two IBN stations
 - calls between an IBN station and an IBN trunk
 - calls between an IBN station and a plain old telephone service (POTS) station
- Call Hold does not apply to calls that involve interswitch trunks.
- Lines with Call Hold cannot hold attendant consoles and operator trunks.
- Call Hold can put one call on hold at one time.
- Only an IBN line with the feature assigned can activate Call Hold when in the talking state.

Interactions

The interactions between Call Hold and other functionalities appear in the following paragraphs.

A three-way conference/transfer controller cannot cause a transfer when there is greater than one party on hold. If CHD occurs, a CHD controller attempt to retrieve held calls results in feature not allowed (FNAL) treatment.

Activation/deactivation by the end user

The holding party performs the steps to place a call on hold that appear in the following list.

At your telephone

- 1** Flash the hookswitch.

Response:

Receive a special dial tone. Special dial tone is three short bursts of dial tone followed by a normal dial tone.

- 2** Dial the Call Hold access code. The access code includes an asterisk (*) and a numeric code. The code is from one to seven characters.

Response:

If Call Hold activates, the holding party hears confirmation tone. Confirmation tone is two short bursts of tone followed by a normal dial tone.

Call Hold (continued)

The holding party has 10 s to initiate the next action. The holding party receives an additional 10 s with another flash of the hookswitch.

The held party can go on-hook and the holding party can try to establish the connection again. When this condition occurs, the holding party hears 3 s of reorder tone.

- 3** Go on-hook to deactivate Call Hold.

Retrieval of the held call can occur when the following conditions occur:

- The holding party goes on-hook when the held party is on hold. This action causes the holding station to ring.
- The holding party performs the activation procedure that appeared before.

The holding station performs a flash hook and dials the Call Hold feature activation code again. The system connects the holding station to the held party again.

The holding station goes on-hook on a second call that the system places or receives. The holding station goes off-hook after the stations receives ringing. This condition establishes the original connection again. Call Hold Recall occurs when a held party rings the Call Hold base controller again.

Billing

Call Hold does not affect billing.

Station Message Detail Recording

Call Hold does not affect Station Message Detail Recording.

Datafilling office parameters

Call Hold does not affect office parameters.

Call Hold (continued)

Datafill sequence

The tables that require datafill for Call Hold appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Hold

Table	Purpose of table
IBNLINES (Note)	IBN Line Assignments Table. This table contains the line assignments for IBN lines.
IBNFEAT(Note)	IBN Feature Assignment Table. This table lists the features for IBN Lines.
IBNXLA	IBN Translation Table. This table stores data for the digit translation of calls from the following: • an IBN station • an attendant console (AC) • an incoming IBN trunk group • incoming side of a two-way IBN trunk group
AUDIO	Audio Interlude. This table defines the audio group announcement or application of music for various MDC options.
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 for each customer group.
Note: Enter data into this table through SERVORD. This document does not provide a datafill procedure.	

Datafilling table IBNXLA

Enter data into table IBNXLA (IBN Translation) so that the table contains the feature access code for Call Hold.

Call Hold (continued)

Datafill for Call Hold for table IBNXLA appears in this table. The fields that apply to Call Hold 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 character name	Translator Name. This subfield specifies the character name for the translator. Enter the 1 to 8 character name.
	DGLIDX	1 to 18 digit number	Digilator Index. This subfield specifies the access code. Enter a 1 to 18 digit number for 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. Note: 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	CHD	Feature. This subfield specifies the feature assigned to a line. Enter CHD.

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY		RESULT			
NTIXLA	123	FEAT	N	Y	CHD

Call Hold (continued)

Translations verification tools

Call Hold does not use Translations verification tools.

Datafilling table CUSTSTN

You must enter data in table CUSTSTN to assign Call Hold to the customer group.

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

Datafilling table CUSTSTN

Field	Subfield	Entry	Explanation and action
CUSTNAME		1 to 16 characters	Customer Group Name. This field specifies the 1-character to 16- character name assigned to the customer group.
OPTNAME		CHD	Option Name. This field specifies the option name. Enter CHD.
	OPTION	CHD	Option. This subfield specifies the option name. Enter CHD.
	AUDIOGRP	see table AUDIO	Audio Group. This subfield specifies the audio group entered in table AUDIO.

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
MS1LBR2	CHD	CHD AUDIO0200

Call Hold (continued)**Datafilling table AUDIO**

Enter the data in table AUDIO to assign option Call Hold with an announcement or music. Table AUDIO defines multiple music sources across one customer group.

Datafilling table AUDIO

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

Sample datafill for table AUDIO appears in the following example.

MAP example for table AUDIO

AUDIOKEY	ROUTES
AUDIO200 CHD	(MUSIC MUSICCLLI 5)\$
AUDIO2 CHD	(MUSIC CWMUSICCLLI 5)\$

SERVORD

SERVORD enters data in table IBNLINES.

Option CHD allows an end user of a 500/2500 set to hold a call. This condition applies if a party does not go on-hook.

SERVORD limitations and restrictions

Call Hold has no SERVORD limitations and restrictions.

SERVORD prompts

The following table shows the SERVORD prompts for the addition of Call Hold to a line.

SERVORD prompts for Call Hold

Prompt	Valid input	Explanation
OPTION	CHD	The option field specifies the option to assign. Enter CHD.

Call Hold (continued)

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

SERVORD prompts for Call Hold

Prompt	Valid input	Explanation
OPTION	LMOH	Defines the option assignment to the line.
AUDIOGRP	AUDIO1 to 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 adding Call Hold

The addition of Call Hold to a line with the ADO command appears in the following SERVORD example.

Note: The system enters data in table IBNLINES when you assign Call Hold with SERVORD.

SERVORD example for Call Hold in prompt mode

```
>ADO
SONUMBER: MOW 92 5 7 PM
>
DN_OR_LEN:
> 0 1 24 1
OPTION:
> CHD
OPTION:
> $
```

SERVORD example for Call Hold in no-prompt mode

```
>ADO $ 0 1 24 1 CHD $
```

SERVORD example for adding LMOH

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

Call Hold (end)

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 $
```

Call Park

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

NA011 and later versions

Requirements

The Call Park feature has no functional group.

Description

The Call Park feature allows an Integrated Business Network (IBN) station to dial the Call Park access code. This event allows the IBN station to park a call against the directory number (DN) of the call. To unpark the same call, dial the call park retrieve access code and the DN.

The held call connects to a music source. Table CUSTHEAD (Customer Group Head) identifies option Call Park with an audio source for a customer group. 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 addition of option LMOH to a line appears in table IBNFEAT (IBN Feature Assignment). The assignment of option LMOH to a line with the option Call Park defines a music source for the line. The customer group audio source applies for option Call Park if the assignment of option LMOH is not on the line.

The audio source defaults to the audio source in the table CUSTHEAD in the following occurrences:

- 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

The assignment of option Call Park is for each line. The system assigns each customer group a maximum number of calls that can park at the same time. The assignment of option Call Park is on the line to park a call. Any IBN line can retrieve parked calls.

Call Park (continued)

Translations table flow

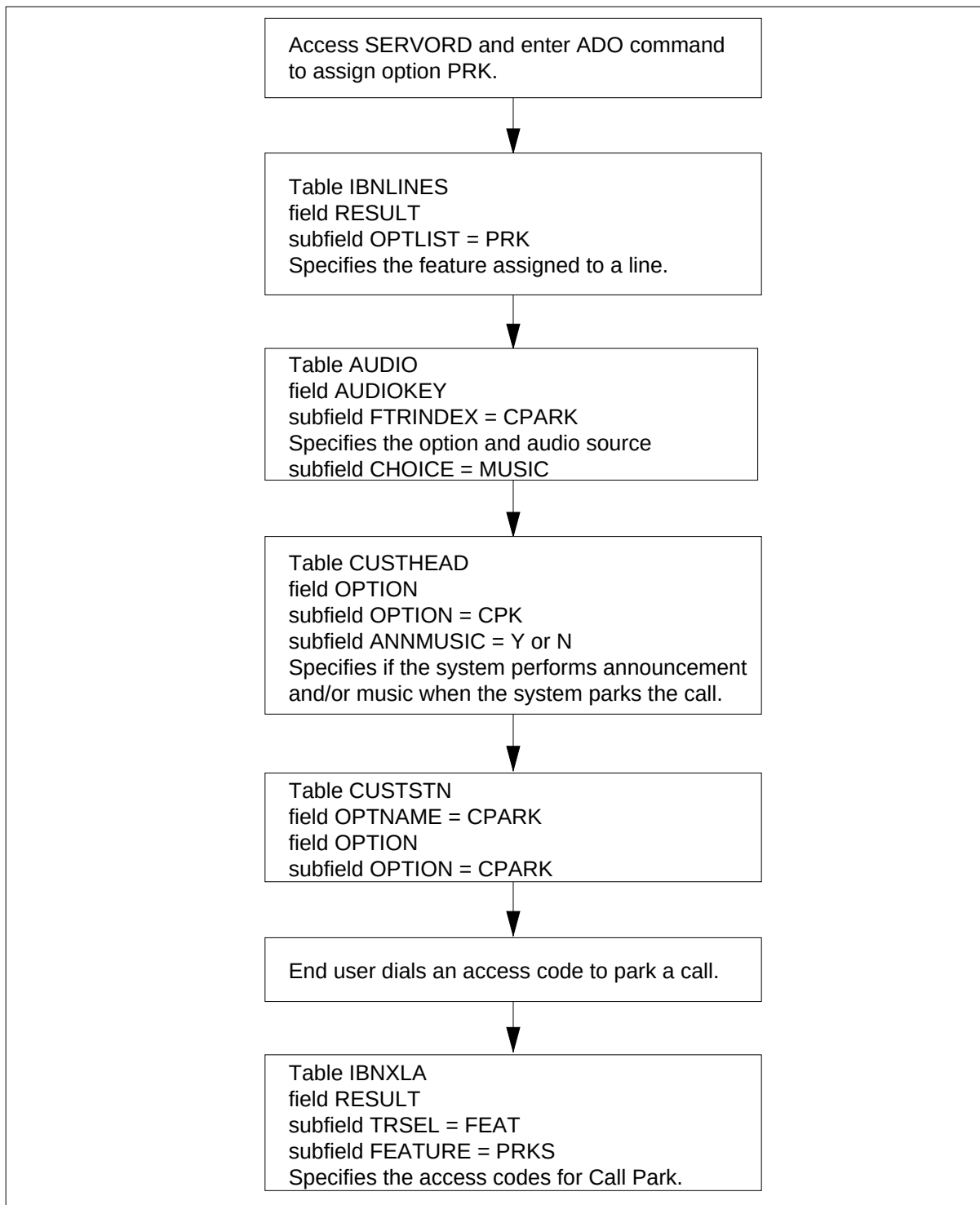
The Call Park translations tables appear in the following list:

- Table AUDIO (Audio Interlude) defines the audio source broadcasts provided for exact IBN features. Enter table AUDIO if the option call park feature provides music or an announcement when the system parks the call. Multiple audio sources for a customer group require multiple entries in table AUDIO.
- Table CUSTHEAD (Customer Group Head) contains information for each of the customer groups. Enter table CUSTHEAD to add the option Call Park to the customer group.
- Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups. Enter table CUSTSTN to allow the system to assign the option call park in table IBNLINES (IBN Line Assignment). Enter table CUSTSTN to establish the Call Park recall time-out.
- Table IBNLINES (IBN Line Assignment) lists line assignments for each 500/2500 set assigned a Meridian Digital Centrex (MDC) or special services (SS) station number. Enter this table when assignment of option Call Park occurs in SERVORD.
- Table IBNFEAT (IBN Feature Assignment) list the feature assignments for each 500/2500 set with a MDC or SS station number.
- Table IBNXLA (IBN Translation) contains IBN translations. Enter table IBNXLA two times. One entry defines the Call Park access code. The other entry defines the Call Park retrieve access code.

The Call Park translation process appears in the first flowchart. The second flowchart shows the option LMOH with Call Park.

Call Park (continued)

Table flow for Call Park



Call Park (continued)

Datafill content used in the flowchart appears in the following table.

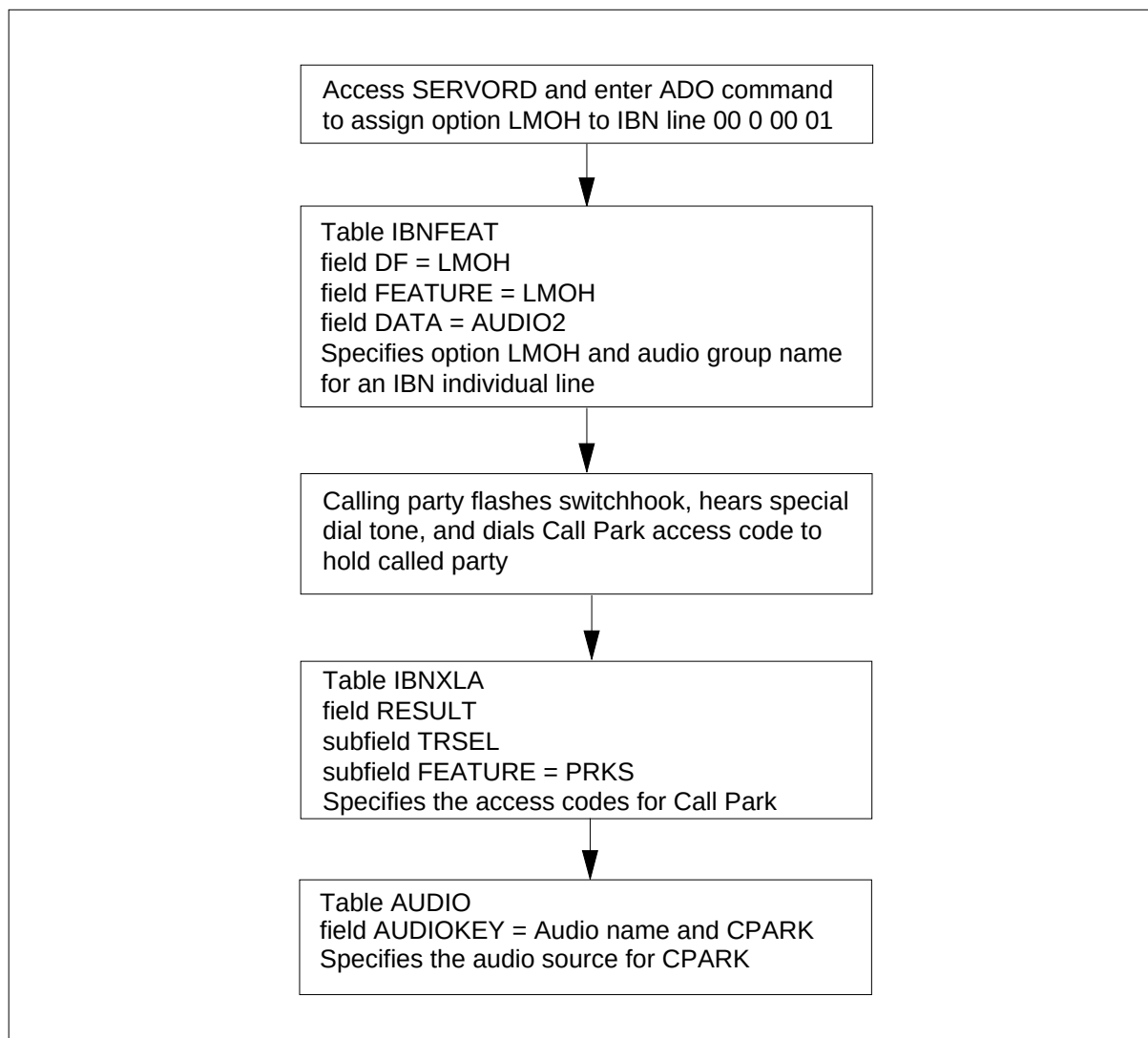
Datafill example for Call Park

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 01 DT STN IBN 5554667 919 (PRK) \$
AUDIO	AUDIO1 CPARK (ANN Y A REGVCA) (MUSIC REGMUSIC120) (ANN Y 2 REGVCA) (SILENCE 0) \$
CUSTHEAD	MS1LBR2 C1LBR2 D1LBR2 NIL (VACTRMT 0) (EXTNCOS 0) (FETXLA F1LBR2) (SUPERCNF) (CPK Y AUDIO1 2) (VFGLA) \$
CUSTSTN	MS1LBR1 CPARK CPARK 30
IBNXLA	MDCGRP1 123 FEAT N Y N PRKS MDCGRP1 43 FEAT N Y N PRKR

The Call Park translations process appears in the flowchart that follows. The data shows the assignment of option LMOH with an audio source for option Call Park (AUDIO2). The lines without option LMOH default to the audio source for the customer group (AUDIO1).

Call Park (continued)

Table flow for Call Park (LMOH)



The datafill content in the flowchart appears in the table that follows.

Datafill example for Call Park (LMOH) (Sheet 1 of 2)

Datafill table	Example data
IBNFEAT	HOST 00 0 00 01 0 LMOH LMOH AUDIO2
IBNXLA	NTIXLA 123 FEAT N N CPK

Call Park (continued)**Datafill example for Call Park (LMOH) (Sheet 2 of 2)**

Datafill table	Example data
AUDIO	AUDIO1 CPARK (ANN Y A REGVCA) (MUSIC REGMUSIC120) (ANN Y 2 REGVCA) (SILENCE 0) \$ AUDIO2 CPARK MUSIC MUSICCLLI 5 \$

Limitations and restrictions

The following limitations and restrictions apply to Call Park:

- For each station with Call Park, the system must assign the three-way calling functionality. This functionality belongs to a customer group that has the customer group option CTALL (call transfer all calls).
- When a station is in the parked state, the station cannot flash the hookswitch to start a three-way call.
- The Call Park feature does not function with an incoming or outgoing operator trunk.

The following limitations and restrictions apply to LMOH:

- LMOH has no functionality if the assignment is not to a line with feature Music on Hold.
- The SERVORD utility accepts the audio group name for LMOH when the audio group does not exist in table AUDIO.

Interactions

The call waiting functionality does not allow call waiting against a station if the conditions that follow apply:

- call park is active
- the end user parks another station, but the end user did not exit

After assignment of option LMOH to a line, the calls on hold connect to the audio source for the line. The calls on hold connect to the audio source for the customer group if LMOH is not on the line.

Activation/deactivation by the end user

This feature requires activation and deactivation by the end user.

Call Park (continued)

Activation

The procedure depends on if the end user calls from a 500/2500 set or from a business set. From a 500/2500 set, the end user flashes and enters the Call Park setup access code.

From a business set, two activation methods are available:

- The end user presses the Call Park key.
- The end user presses the Three-way Call/Call Transfer key and enters the Call Park setup access code.

For one example, party A and party B establish a call. Party A must park party B. Party A presses the Call Park key. The system parks the call against the DN of party A if possible. Party A hears a confirmation tone. If party A uses an EBS with a Call Park key, the system turns on the lamp for that key. Party B receives audible ring or an optional audio announcement. The system turns off the Call Park key and DN key of party A. The system starts the Call Park timer.

If the system cannot park the call against the DN of party A, party A receives 5 s of treatment. The system establishes voice connection between parties A and B.

Retrieval

Retrieval starts at the station of party A. The procedure depends on the type of set in use at that station. If party A uses a 500/2500 set, the system flashes. The system dials the Call Park retrieval code and the DN of the station that the call is on hold against. If party A uses an EBS, party A presses the Call Park key. Party A dials the DN of the station that the call is on hold against.

In both of these conditions, the system establishes voice connection with the parked party B and party A. This event does not occur if party B is on-hook.

Deactivation

Deactivation of Call Park occurs when the parked party B goes on-hook.

Billing

The Call Park feature does not generate billing records or changes.

Station Message Detail Recording

The Call Park feature does not require Station Message Detail Recording.

Datafilling office parameters

The Call Park feature does not generate office parameters.

Call Park (continued)**Datafill sequence**

The tables that require datafill to provide the Call Park feature appear in the table that follows. The tables appear in the correct entry order.

Datafill requirements for Call Park

Table	Function 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. The line assignments appear under the format name of BL.
IBNFEAT(Note)	IBN Line Feature. This table lists the line features for the Integrated Business Network (IBN) lines.
AUDIO	Audio Interlude. This table defines the audio interlude broadcasts provided for IBN features.
CUSTHEAD	Customer Group Head. This table contains information for each of the customer groups.
CUSTSTN	Customer Group Station Option. This table contains station options assigned to each of the customer groups.
IBNXLA	IBN Translation. This table contains IBN translations.
Note: Enter data in this table with SERVORD. This table does not provide datafill procedures.	

Datafilling table AUDIO

Table AUDIO (Audio Interlude) defines the audio interlude broadcasts for IBN features. Data entry of table AUDIO must occur if Call Park provides music or an announcement to option call park.

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.

Call Park (continued)

Datafill for Call Park for table AUDIO appears in the table that follows. The fields that apply to Call Park appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table AUDIO

Field	Subfield	Entry	Description and action
AUDIOKEY		see subfield	Audio Key. This field contains subfields GROUP and FTRINDEX. This feature affects only subfield FTRINDEX.
	FTRINDEX	CPARK	Feature Index. This subfield specifies the feature that requires a broadcast. Enter CPARK.
	CHOICE	ANN	Audio Choice. This subfield specifies the audio choice. Enter ANN for announcement. Note: If you enter ANN for CHOICE, subfields AR, CYCLES, and ANNCLLI require datafill.
	AR	Y or N	Audible Ringing. This subfield specifies if the end user requires audible ringing before the announcement reaches the start of the cycle. Enter Y or N. If the end user requires silence, enter N.
	CYCLES	1 to 30	Announcement Cycles. This subfield specifies the number of announcement cycles required. The correct range is from 1 to 30.
	ANNCLLI	see subfield	Announcement CLLI. This field specifies the common language location identifier (CLLI) of the announcement trunk that must appear in table ANN and table ANNMEMS.

If the system provides music, data entry of subfields CHOICE, MUSICLLI, and TIME must occur as follows.

Datafilling 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	CPARK	Feature Index. This subfield identifies the feature that requires a broadcast. Enter CPARK.

Call Park (continued)**Datafilling 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

Sample datafill for table AUDIO appears in the example that follows. Multiple audio sources for a customer group requires additional entries in table AUDIO. A line in the customer group with the option LMOH uses the AUDIO2 audio source. The AUDIO1 audio source is the default for the lines in the customer group without option LMOH.

MAP example for table AUDIO

AUDIOKEY		ROUTES
AUDIO1	CPARK	
(ANN Y 1 REGVCA)(MUSIC REGMUSIC120)(ANN Y 2 REGVCA)(SILENCE 0) \$		
AUDIO2	CPARK	(MUSIC RRMUSICLLI 30) \$

Datafilling table CUSTHEAD

Table CUSTHEAD (Customer Group Head) contains information for each of the customer groups. Enter table CUSTHEAD to allow the system to assign Call Park to the customer group.

Call Park (continued)

Datafill for Call Park for table CUSTHEAD appears in the table that follows. The fields that apply to Call Park 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
	OPTION	CPK	Option. This subfield identifies options for a customer group. Enter CPK.
	ANNMUSIC	Y or N	Announcement/Music. This subfield identifies if the system provides announcement and/or music to the parked call. Enter Y or N.
	AUDIOGRP	AUDIO01 through AUDIO512	Audio Group. This subfield identifies the audio group. If the previous field ANNMUSIC Y, enter the audio group entered in table AUDIO. This group in option CPARK identifies the announcement/music source. Correct entries are AUDIO01 through AUDIO512.
	CPKMAXNO	0 to 32 767	Maximum Number. This subfield specifies the maximum number of calls that the system can park at the same time for the customer group. The correct range is from 0 to 32 767.

Datafill example for table CUSTHEAD

Sample datafill for table CUSTHEAD appears in the example that follows.

MAP example for table CUSTHEAD

```
CUSTNAME CUSTXLA DGCOLNM IDIGCOL OPTIONS
MS1LBR2 C1LBR2 D1LBR2 NIL (VACTRMT 0) (EXTNCOS 0) (FETXLA
F1LBR2) (SUPERCNF ) (CPK N 2) (VFGLA ) $
```

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains station options assigned to each of the customer groups. Enter table CUSTSTN to allow the system to assign the Call Park feature in table IBNLINES (IBN Line Assignment). Enter table CUSTSTN to allow the system to establish the Call Park recall time-out.

Call Park (continued)

Datafill for Call Park for table CUSTSTN appears in the table that follows. The fields that apply to Call Park appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTSTN

Field	Subfield	Entry	Description and action
CUSTNAME		1 to 16 character name	Customer Name. This field identifies the 1 to 16 character name assigned to the customer group. Data entry of this name must have occurred in Table CUSTHEAD.
OPTNAME		CPARK	Option Name. This field identifies the option name. Enter CPARK.
OPTION		see subfields	Option. This field contains subfields OPTION and CPKRECTO.
	OPTION	CPARK	Option. This subfield identifies the option name. Enter CPARK.
	CPKRECTO	0 to 240	Call Park Recall Timeout. This subfield identifies the call park recall timeout period in 1-second increments. The correct range is from 0 to 240.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the example that follows.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
MS1LBR2	CPARK	CPARK 30

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains IBN translations. Enter table IBNXLA two times. One entry defines the Call Park access code. The other entry defines the Call Park retrieve access code.

Call Park (continued)

Datafill for Call Park for table IBNXLA appears in the table that follows. The fields that apply to Call Park 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	Description and action
KEY		see subfield	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	1- to 8-character name	Translator Name. This subfield identifies the name assigned to the translator. Enter the 1- to 8-character name.
	DGLIDX	1- to 18-digit number	Digilator Index. This subfield identifies the access code. Enter a 1- to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains subfield TRSEL Note: If TRSEL identifies FEAT, subfields ACR, SMDR, and FEATURE require datafill.
	ACR	Y or N	Account Code Entry. This subfield identifies if the system requires an account code. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield identifies if the system requires an SMDR. Enter Y or N.
	FEATURE	PRKS, PRKR	Feature. This subfield identifies the functionality assigned to a line. Enter PRKS or PRKR.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the example that follows.

MAP example for table IBNXLA

KEY		RESULT			
MDCGRP1	123	FEAT	N	Y	N
MDCGRP1	43	FEAT	N	Y	N
				PRKS	
				PRKR	

Translations verification tools

The Call Park feature does not use translations verification tools.

Call Park (continued)

SERVORD

Data entry of table IBNLINES occurs through SERVORD.

This functionality creates line option PRK. This option assigns PRK to lines that have a line class code (LCC) of IBN. The following commands support the PRK option:

- ADO (add option)
- DEO (delete option)
- CHF (change functionality information for the functionality that was present earlier)

SERVORD limitations and restrictions

The Call Park feature has no have SERVORD limitations and restrictions.

SERVORD prompts

The SERVORD prompts used to add Call Park to a current line appear in the table that follows.

SERVORD prompts for Call Park

Prompt	Correct input	Description
DN_OR_LEN	Numeric	Indicates the directory number or line equipment number of the line that the system assigns the feature. Enter the DN or LEN.
OPTKEY	Numeric	Indicates the key number that the system assigns the option. Enter a key number.
OPTION	PRK	Indicates the option that the system assigns. Enter PRK.

Note: The system enters data into table IBNLINES when assignment of Call Park occurs with the use of SERVORD.

The assignment of option LMOH is through SERVORD with the commands NEW and ADO. The command CHF changes the audio source for the option LMOH. The command DEO deletes option LMOH from the line.

Call Park (continued)

The SERVORD prompts that assign LMOH to a line with option Call Park appear in the table that follows.

SERVORD prompts for LMOH

Prompt	Valid input	Explanation
OPTION	LMOH	Indicates the option assignment to the line.
AUDIOGRP	AUDIO1 to AUDIO512	Indicates 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 Call Park

The following example describes how Call Park adds Call Park to a current line with the ADO command.

SERVORD example for Call Park in prompt mode

```
>ADO
SONUMBER:          NOW  93  4 19 AM
>
DN_OR_LEN:
> 0 0 1 21
OPTKEY:
> 5
OPTION:
> PRK
OPTION:
> $
```

SERVORD example for Call Park in no-prompt mode

```
>ADO $ 0 0 1 2 5 PRK $
```

SERVORD example for addition of LMOH

The addition of LMOH to a 500/2500 set with option Call Park is in the SERVORD example.

Call Park (end)

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 $
```

Call Pickup

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS08 and later versions

Requirements

The Call Pickup feature requires BAS Generic, BAS00003.

Description

The Call Pickup (CPU) feature allows a station to answer calls incoming to another station in a same pickup group. The system provides the CPU feature according to each station in a specified Meridian Digital Centrex (MDC) customer group.

Operation

To activate or to pickup a call in the preset pickup group, the end user goes off-hook. The end user listens for dial tone. The end user dials the assigned access code that this feature uses. When the system translates the access code, the end user answers the ringing station. The end user answers the ringing station from the remote or distant station in the group. The ringing station belongs to the preset pickup group.

When an end user dials the CPU access code to answer the incoming call of another station, an immediate connection occurs. This connection occurs between the pickup station and the incoming call. The system does not provide a warning tone or other tone.

To end a call and answer another ringing line, the end user flashes the hookswitch. The end user must press the hookswitch for less than 0.5 s to flash to hookswitch. The end user listens for recall dial tone. The recall dial tone is three short tones followed by a constant tone. The end user dials the access code. An example of an access code is *77. The end user answers the call.

Note: If the end user holds the hookswitch for more than 0.5 s, the system disconnects the end user from the call.

To hold a call and answer another ringing station, the end user flashes the hookswitch. The end user listens for recall dial tone. The end user dials the CPU access code. The end user listens for the confirmation tone. The confirmation tone is two short tones. A dial tone follows the confirmation

Call Pickup (continued)

tone. When the end user receives a confirmation tone, the end user must dial the CPU access code. To return to the held call, the end user hangs up. When the end user places the telephone receiver on the hookswitch, the station rings. The end user answers the call.

To alternate between the held calls, the end user can flash the hookswitch. The end user must press the hookswitch for less than 0.5 s to flash the hookswitch. The end user listens for recall dial tone. The end user dials the CPU access code. The end user talks to the held caller. The end user can repeat the procedure if required.

Note: In BCS31, this limit changes by the three-way call/call pickup interaction feature (AF2100). This feature allows a busy station on a call to activate Call Pickup and conference all three parties together. See” Three-Way Call/Call Pickup Interaction” for additional information.

The CPU access code can be two to seven digits. The first digit cannot be the same as a single digit access code that requires the return of second dial tone. The CPU access code can also be an asterisk and two digits. An example of this code is *YX. The value Y depends on the Speed Calling Long List (BV0458) assignment. The preferred access code method is *YX.

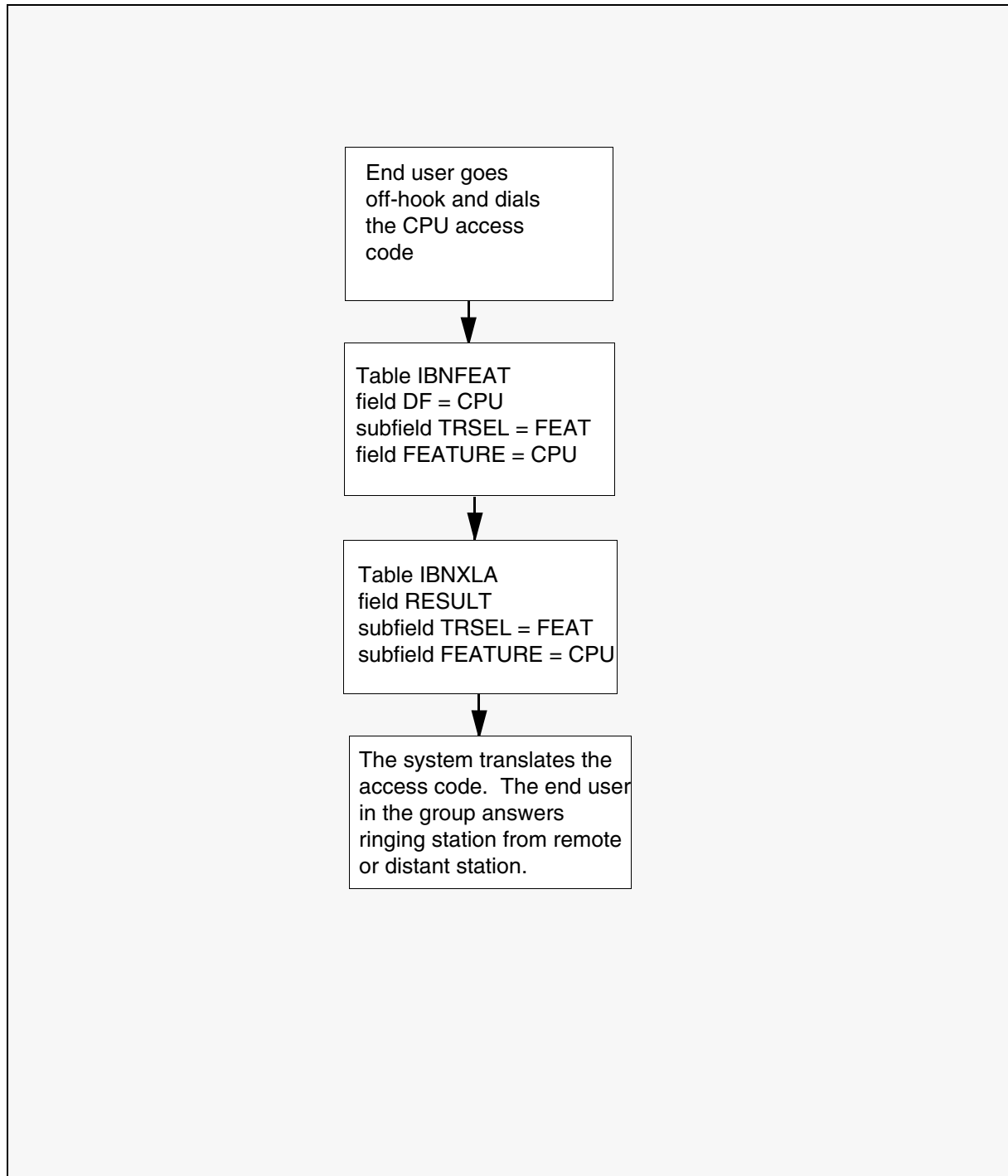
Translations table flow

The Call Pickup translations tables appear in the following list:

- Table IBNFEAT (IBN Line Feature) contains the line features assigned to the MDC lines in table IBNLINES (IBN Line Assignment). This table contains the directory number (DN) and numbering plan area (NPA) of the line. The table contains the group name that the table serves. This table contains any options assigned to the table. Use SERVORD to enter data into this table.
- Table IBNXLA (IBN Translation) contains the data for the digit translation of calls from one of the following:
 - Integrated Business Network (IBN) station
 - attendant console (AC)
 - incoming side of a two-way IBN trunk group

Enter data into table IBNXLA to include the appropriate translations selector for Call Pickup.

The Call Pickup translation process appears in the following flowchart.

Call Pickup (continued)**Translations data flow for Call Pickup**

Call Pickup (continued)

Datafill content used in the flowchart appears in the following table.

Datafill example for Call Pickup

Datafill table	Example data
IBNFEAT	HOST 0 0 1 1 0 CPU CPU 2031
IBNXLA	NTIXLA 123 FEAT N Y N CPU

Limits

The following limits apply to Call Pickup:

- When a station is busy on a call, the station must terminate or place the first call on hold. This event allows the station to pick up an incoming call to a station in the preset CPU group.

Note: The three-way call/call pickup interaction feature allows a busy station to pick up a call. The station does not have to terminate or place the first call on hold .

- The system cannot pick up call waiting calls with CPU.
- The system cannot pick up camp-on calls with CPU.
- The station line limits do not affect the ability of a station to pick up a specified call. The customer group arranges the CPU groups in a specified way. This arrangement occurs so that the stations in the group have the same line attributes. Several incoming calls to a group can occur and a station can dial the CPU access code. When this condition occurs, the linking of DNs in the CPU group determines the order of pickup.

Note: In BCS31 and later versions, the station that rings for the longest period of time determines the call pickup order.

- A station can pick up calls in the same CPU group only.
- The recommended maximum number of members (DNs) in a CPU group is 75. The maximum number of DNs in a CPU group is 100. If a large number of multiple appearance DNs (MADN) in the CPU group are present, decrease the maximum number of members.

Interactions

Call Pickup does not have functionality interactions.

Activation/deactivation by the end user

To activate Call Pickup, use the following procedure.

Call Pickup (continued)

Activation/deactivation of Call Pickup by the end user

At your telephone:

1. To pick up a call in your CPU group, go off-hook. Dial the assigned access code used for CPU.

Response:

The system answers the ringing station in the preset CPU group from the remote or distant station in the group. An immediate connection occurs between the pickup station and the incoming call. The system does not provide a warning tone or other tone.

2. To end a call and answer another ringing line, flash the hookswitch. Press the hookswitch for less than 0.5 s. Listen for recall dial tone. The recall dial tone is three short tones. Listen for a steady tone. Dial the access code. An example of an access code is *77. Answer the call.

Billing

Call Pickup does not affect billing.

Station Message Detail Recording

Call Pickup does not affect Station Message Detail Recording.

Datafilling office parameters

Call Pickup does not affect office parameters.

Call Pickup (continued)

Datafill sequence

The tables that require datafill to provide the Call Pickup feature appear in the following table. The tables appear in correct entry order.

Datafill requirements for Call Pickup

Table	Function of table
IBNFEAT (Note)	IBN Line Feature. Line features assigned to the IBN lines listed in table IBNLINES appear in this table.
IBNXLA	IBN Translation. This table stores data for the digit translation of calls. The calls originate from one of the following: • an IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group
Note: Enter data into this table through SERVORD. This document does not provide a datafill procedure or example. See "SERVORD" for how to use SERVORD to enter data into this table.	

Call Pickup (continued)**Datafilling table IBNXLA**

Datafill for Call Pickup for table IBNXLA appears in the following table. The fields that apply to Call Pickup 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 and action
KEY			Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	One to eight character name	Translator name. This subfield specifies the name assigned to the translator. Enter the one to eight character name.
	DGLIDX	1 to 18 digit number	Digilator index. This subfield specifies the access code. Enter a 1- to 18-digit number assigned as the access code.
RESULT			Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations selector. This subfield specifies the translations selector to use. Enter FEAT. Enter the following refinements.
	ACR	Y or N	Account code entry. This subfield specifies if the system requires an account code. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if the system requires SMDR. Enter Y or N.
	FEATURE	CPU	Feature. This subfield specifies the feature assigned to a line. Enter CPU.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

Call Pickup (continued)

MAP example for table IBNXLA

KEY		RESULT
NTIXLA	123	FEAT N Y N CPU

Tools for verifying translations

Call Pickup does not use tools for verifying translations.

SERVORD**SERVORD limits**

Call Pickup does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to add Call Pickup feature to a line appear in the following table.

SERVORD prompts for Call Pickup

Prompt	Correct input	Description
DN_OR_LEN	Seven digit DN or LEN	Specifies the seven digit DN or LEN of the line to change.
OPTION	CPU	Indicates the name of the option.
CPU_LEN	LEN	Specifies the LEN of the set to have the CPU option.

SERVORD example to add the Call Pickup feature

The following SERVORD example describes how Call Pickup adds to CPU with the ADO command.

Call Pickup (end)

SERVORD example for Call Pickup in prompt mode

```
> ADO
SONUMBER: NOW 93 2 5 AM
>
DN_OR_LEN:
> 203 1
OPTION:
> CPU
CPU_LEN:
> 203 1
OPTION:
> $
```

SERVORD example for Call Pickup in no-prompt mode

```
> ADO 2031 CPU 2031 $
```

History**SN07 (DMS)**

Operation section amended according to Q00879738. A note was added relating to feature BCS31 with three way calling and alternating call held.

Release history section added.

Call Pickup Transparency

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS31 and later versions

Requirements

The Call Pickup Transparency feature requires BAS Generic, BAS00003.

Description

The Call Pickup Transparency feature changes the method in which the Call Pickup (CPU) feature operates. An end user with Call Pickup Transparency feature can activate the CPU feature. When this event occurs, the end user can pick up the station ringing the longest time. Before Call Pickup Transparency, the end user picked up calls according to the ordering of the CPU group.

Operation

The Call Pickup Transparency feature makes sure that the end user picks up the station ringing for the longest period of time. This condition applies when more than one station in a CPU group rings. The system places each incoming call to a CPU group at the end of a CPU queue. When an end user activates CPU, the end user picks up the call nearest to the start of the queue.

The use of time stamps provides this improvement. A time stamp is a snapshot of the current time in the DMS switch. When a call occurs to a line with the CPU feature, the system saves a time stamp. The system saves a time stamp against the line in the call condense block (CCB). When the end user dials the CPU access code, the system checks the CPU group queue. The system starts the check with the member in the queue that follows the dialer of the access code. When the system encounters a ringing member, the system checks the time stamp. The system checks this time stamp to determine if the time stamp is less than the current lowest time stamp. The system checks the complete group and all the time stamps of the ringing members. The system connects the call ringing for the longest period of time to the end user that dialed the access code.

Translations table flow

Call Pickup Transparency does not affect translations table flow.

Call Pickup Transparency (end)

Limits

Call Pickup Transparency does not have limits.

Interactions

Call Pickup Transparency does not have functionality interactions.

Activation/deactivation by the end user

Call Pickup Transparency does not require activation or deactivation by the end user.

Billing

Call Pickup Transparency does not affect billing.

Station Message Detail Recording

Call Pickup Transparency does not affect Station Message Detail Recording.

Datafilling office parameters

Call Pickup Transparency does not affect office parameters.

Datafill sequence

Call Pickup Transparency does not affect datafill.

Tools for verifying translations

Call Pickup Transparency does not use tools for verifying translations.

SERVORD

Call Pickup Transparency does not use SERVORD.

Call Request Call Processing Enhancements

Ordering codes

Operating group ordering code: MDC00001, MDC00007

Functionality ordering code: Does not apply

Release applicability

BCS29 and later versions

Requirements

Call Request Call Processing Enhancements has the following operating requirements:

- BAS Generic, BAS00003
- MDC Standard, MDC00003
- MDC Minimum, MDC00001
- MDC MBS Minimum, MDC00007

Description

Call Request Call Processing Enhancements allows end users to leave messages during a cold restart. The system requires a Meridian business set (MBS) with display. The system maintains deleted messages when a new BCS load begins. The system maintains deleted messages when a cold restart occurs. Call Request Call Processing Enhancements allow stations that belong to end users to receive messages. Call Request Call Processing Enhancements improve the following features:

- 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.

Call Request Call Processing Enhancements allow the MWT features to maintain messages. The MWT features maintain messages left against end user stations during a cold restart or an upgrade of the BCS. The MWT features allow VMX and SMDI to maintain messages during a cold restart only. The feature does not maintain messages during an upgrade of the BCS.

Call Request Call Processing Enhancements (continued)

Operation

The MWT, VMX and SMDI features use feature queuing (FTRQ) blocks to maintain the messages queued against end user stations. Before Call Request Call Processing Enhancements, the system did not maintain these blocks over cold restarts or BCS upgrades. As a result, the system deleted messages. To maintain messages over cold restarts and BCS upgrades, Call Request Call Processing Enhancements creates a set of FTRQ blocks. These FTRQ blocks provide the same functions as the current blocks and provide and maintain additional data. This data permits the FTRQ software to preserve the blocks over cold restarts and BCS upgrades.

When a cold restart occurs, the current FTRQ blocks reinitialize according to the original specification. The new FTRQ blocks requeue on the correct agent. The system recreates the FTRQ structure. The system makes sure damages to the queue are not present after the cold restart.

A BCS upgrade replaces the current BCS software system with a new BCS load. The central control (CC) switch of activity (SWACT) command controls this process. During the SWACT process, the new FTRQ blocks are transferred to the new BCS side from the old BCS side. The blocks queue on the correct agent. During the CC SWACT process, the MWT features are disabled. The system disables the MWT features so that the data is not damaged. The data transfers from the active side to the inactive side.

Translations table flow

Call Request Call Processing Enhancements does not affect translations table flow.

Limits

Call Request Call Processing Enhancements has the following limits:

- Call Request Call Processing Enhancements maintains FTRQ blocks on upgrades from BCS29 and later versions.
- Call Request Call Processing Enhancements does not support retrogrades from a higher BCS to a lower BCS.
- Call Request Call Processing Enhancements allows the MWT, VMX, and SMDI features to maintain messages during a cold restart. The feature does not allow the MWT, VMX and SMDI features to maintain messages during a reload restart.
- The feature maintains messages the MWT, VMX and SMDI features leave during cold restarts. The system maintains only MWT messages during

Call Request Call Processing Enhancements (end)

BCS upgrades. The feature does not disable voice messages, but the system loses the MWT indication.

- The system disables the MWT, VMX, and SMDI features during a BCS upgrade when the SWACT sequence starts and call processing continues.

Interactions

Call Request Call Processing Enhancements does not have functionality interactions.

Activation/deactivation by the end user

Call Request Call Processing Enhancements does not require activation or deactivation by the end user.

Billing

Call Request Call Processing Enhancements does not affect billing.

Station Message Detail Recording

Call Request Call Processing Enhancements does not affect Station-Message Detail Recording.

Datafilling office parameters

Call Request Call Processing Enhancements does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Call Request Call Processing Enhancements appear in the following table. The tables appear in the correct entry order.

Tools for verifying translations

Call Request Call Processing Enhancements does not use translation verification tools.

SERVORD

Call Request Call Processing Enhancements does not use SERVORD.

Call Transfer Enhancement

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, Call Transfer Enhancement requires BAS Generic, BAS00003.

Description

Call Transfer Enhancement is an upgrade to current call transfer (CXR) features. This feature provides two improvements to the feature capabilities. The customer has greater flexibility and options to select the type of CXR for a group and separate stations. The customer also can control CXR to stations with low supervision.

Operation

Before Call Transfer Enhancement, the same type of call forwarding on all stations in the group was a requirement for customers. The specified CXR option was assigned to the customer group. Options were not available.

In the example of a management group, upper management and mid-level management had the same capabilities. Upper management wanted call transfer capabilities for all types of calls. Mid-level management needed the capability to transfer in that level only. The limits of the available call transfer types allowed all members of the management group to have only one option.

The current call transfer types are the following:

- Call Transfer Incoming Calls (CTINC)
The first leg must be intergroup. The second leg must be intragroup.
- Call Transfer Intragroup (CTINTRA)
The first leg can be intergroup or intragroup. The second leg must be intragroup. The default call transfer type at the customer group level is CTINTRA.
- Call Transfer Outgoing Calls (CTOUT)
The end user can transfer calls that are incoming or outgoing. The first leg must be intergroup. The second leg must be intragroup.

Call Transfer Enhancement (continued)

- **Call Transfer All (CTALL)**
The end user can transfer all calls. The legs of the call can be intergroup or intragroup.
- **No Call Transfer (NCT)**
The end user can transfer incoming calls to the attendant when the first leg of the call is intergroup.
- **Attendant Routed Call Forwarding (ATTRCLF)**
The call always routes to the attendant if the call is incoming.
- **CUSTOM**
This type of call transfer allows the customer to customize the type of call transfer for a line. Subfields ORGINTER, ORGINTRA, TRMINTER, and TRMINTRA in Table CUSTSTN describe the first leg of the call.
 - ORGINTER - The first leg of the call is intergroup and the controller is the originator of the call.
 - ORGINTRA - The first leg of the call is intragroup and the controller is the originator of the call.
 - TRMINTER - The first leg of the call is intergroup and the controller is the terminator of the call.
 - TRMINTRA - The first leg of the call is intragroup and the controller is the terminator of the call.

The capabilities and application of each call transfer type appear in the following table.

Call transfer feature capabilities and applications (Sheet 1 of 2)

	NCT	ATTRCLF	CTINC	CTOUT	CTALL	CTINTRA
Incoming	X	X	X	X	X	X
Outgoing		X		X	X	X
First leg Intragroup		X			X	X
First leg Intergroup	X	X	X	X	X	X
Second leg Intragroup				X	X	X

Call Transfer Enhancement (continued)

Call transfer feature capabilities and applications (Sheet 2 of 2)

	NCT	ATTRCLF	CTINC	CTOUT	CTALL	CTINTRA
Second leg Intergroup					X	X
Second leg Attendant	X	X				

Improvements

Customers do not lose the current capabilities. Customers have more flexibility and options to design the correct type of call transfer for operation. Additional types of call transfer allow the customer to override customer group call transfer features.

The Call Transfer Enhancement feature reduces possible low answer and disconnect supervision when the system transfers a call. Two parties that connect in call transfer must have enough supervision to answer and disconnect. Supervision is the electrical signal that travels to the ends of the trunk. The signal indicates when a party answers the call that transfers. The signal indicates when the controller goes back on-hook. Before this feature, calls that transferred remained connected in some occurrences. With the flash process, other calling features like three-way calling (3WC) can activate. The customer now decides how far the call transfer process progresses when datafill is complete.

Datafill for subscriber usage billing

To activate subscriber usage billing, set options TWC and FTRCODE to ON in table AMAOPTS. See the following figure for an example of options TWC and FTRCODE in table AMAOPTS.

Example of options TWC and FTRCODE in table AMAOPTS

OPTION	SCHEDULE
TWC	ON
FTRCODE	ON

Translations table flow

Call Transfer Enhancement does not affect translations table flow.

Call Transfer Enhancement (continued)

Limits

The following limits apply to Call Transfer Enhancement:

- When installation of CXR occurs, a check must occur. A check must make sure that all other calling features are compatible with the type of option selected. The datafill process accomplishes this check. A check occurs when the system applies the flash for CXR. If a feature assigned to the station is not compatible, the system ignores the flash. An example of a feature that is not compatible is no double connect (NDC).
- If CXFER entry is not in Table CUSTSTN for the customer group, lines in the customer group use a default setup. This setup is CTINTRA for call transfer attempts with the three-way calling (3WC) feature.
- An entry of INTRAGROUP in translation routes in Table IBNXLA marks the calls as INTRA or INTER customer group calls. The CXR type in Table CUSTSTN controls how transfers work in the customer group. The transfer depends on if entries mark the call INTRA or INTER customer group.
- The first leg of the CXR process must meet the requirements for the type of transfer that datafill defines. If the type of CXR is CTINC, the system checks that the first leg is INTERGROUP. If the first leg is not INTERGROUP, the system ignores the flash.
- The second leg of the CXR process must meet the requirements for the type of transfer that datafill defines. The controller receives reorder tone if the transfer feature selection is CTINC and the second leg of the call is INTERGROUP. The system connects the original two-party call again. If the stations have the 3WC feature, all parties in the transfer sequence must have the same transfer feature. If all parties do not have the same feature, the system breaks all connections.
- Call Transfer Enhancement provides options CXFER and CXFERSUP. These options are not optional. These options have default values. The end user enters data for the options to change the options from the default values. The default for option CXFER is CTINTRA. The default for option CXFERSUP is CONF. Option CXR requires datafill when an Integrated Business Network (IBN) line requires a different type of call transfer than customer group level defines.
- Parties that connect must have enough supervision for answer and disconnect. The CXR is available only to stations that have a level of supervision that restricts the feature. An examination of the trunk group determines which group of stations causes low supervision. Low supervision can be a problem. When this condition occurs, the customer

Call Transfer Enhancement (continued)

selects a warning tone. The tone returns to the controller when detection of the problem occurs.

- When installation of the feature occurs, and the feature has datafill, trunk supervision types must be exact. If the datafill is not accurate, the feature does not function correctly. The customer must make sure the datafill is accurate.

Interactions

The actions between Call Transfer Enhancement and other functionalities appear in the following paragraphs.

Audio Tone Detection

When activation of Call Transfer Enhancement occurs, the originating leg of the call to the trunk can use audio tone detection answer supervision. When this condition occurs, the call ignores a flash until detection of a voice or an audio tone detector time-out occurs.

SMDR/AMA

Both legs of the call are SMDR/AMA compatible. The system leaves all recording units attached to the call that transferred.

Denied Originator (DOR)

The controller cannot initiate call transfer if the line has the denied originator feature assigned.

Automatic Line (AUL)

The controller cannot be an automatic line.

No Double Connect (NDC)

The system denies call transfer if one of the first two legs or the second leg of the call has the NDC option.

Night Service

A call can transfer to an attendant in the night service state and NCT, ATTRCLF, or CUSTOM call transfer can be operational. When this condition occurs, the system denies the transfer.

Three-Way Calling

All parties in a three-way call can have the same call transfer datafill in option CXR or line operation CXR. This condition must occur for a call to transfer from a three-way connection. If the transfer datafill are different, the system breaks the connections when the controller attempts call transfer.

Call Transfer Enhancement (continued)

Cut Through Dialing

Cut through dialing can be in use for the second leg of a call. The switch can recognize a potential supervision problem. When this condition occurs, the system does not return warning tone to the end user attempting the call transfer. The datafill for the customer group does not affect this process.

Call Park (CPK), Permanent Hold (HLD)

If the line has the CPK or HLD feature assigned, the following events occur. The controller in a call transfer process receives reorder tone and returns to the two-party call. These two features require the use of an access code. This requirement allows the controller to proceed with the call transfer and dial the digits. The next step in the transfer process does not complete.

Alternate Routing

Alternate routing affects Call Transfer Enhancement like routes through a network that the time-of-day routing feature performs. The system checks the second leg of a call for supervision problems. If alternate routing occurs, the system checks the alternate route for supervision problems. If problems occur, the system sends a tone to the controller.

Activation/deactivation by the end user

To activate Call Transfer Enhancement, the end user must be part of a two-party call. The following procedure outlines the activation/deactivation of Call Transfer Enhancement by the end user.

Activation/deactivation of Call Transfer Enhancement by the end user

At the telephone that you have:

- 1 Flash to place the caller on hold.
Response:
A special dial tone is audible.
- 2 Dial the digits of the station from which the call transfers.
Response:
A ringback is audible.
- 3 Go on-hook, wait for the party to which the call transfers to answer, or flash.
Response:
Go on-hook and the call transfers to the new called party.

Billing

Call Transfer Enhancement does not affect billing.

Call Transfer Enhancement (continued)

The Call Transfer Enhancement feature generates billing records for each of the following events when you use subscriber usage billing:

1. User A calls user B
2. User B transfers the call to user C
3. User B goes on-hook

The billing record uses call code 006 and structure code 00510 when user A calls user B.

The billing record for subscriber usage billing uses call code 006 and structure code 00510 when user B transfers the call to user C. Module code 509 appends to structure code 510. Module code 509 indicates the accessed service. Refer to the *Bellcore Format AMA Reference Guide*, 297-1001-830 for more information about call code 006, structure code 00510, and module code 509.

The billing record for subscriber usage billing uses call code 026 and structure code 00076 when user B goes on-hook. Refer to the *Bellcore Format AMA Reference Guide*, 297-1001-830 for more information about call code 026 and structure code 00076.

The following figure is an example of an AMA record generated for call code 006 when user A calls user B.

Call code 006

```
*HEX ID:AA  STRUCTURE CODE:00510C  CALL CODE:006C  SENSOR
TYPE:036C  SENSOR ID:0000000C  REC OFFICE TYPE:036C  REC
OFFICE ID:0000000C  DATE:80216C  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:FFFFFFFFF  ORIGINATING CHARGE
INFO:FFFF  DOMESTIC/INTL INDICATOR:1C  SIG DIGITS NEXT
FIELD:007C  TERM OPEN DIGITS 1:00006340103C  TERM OPEN
DIGITS 2:FFFFFFFFF  CONNECT TIME:2313385C  ELAPSED
TIME:000000232C
```

The following figure is an example of an AMA record generated for call code 006 when user B transfers the call to user C.

Call Transfer Enhancement (continued)

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:80216C  TIMING IND: 00000C
STUDY IND:0000000C  CLD PTY OFF-HK:0C  SERVICE
OBSERVED:0C  OPER ACTION:0C  SERVICE FEATURE:010C  SIG
DIGITS NEXT FIELD:009C  ORIG OPEN DIGITS 1:00036340103C
ORIG OPEN DIGITS 2:FFFFFFFFF  ORIGINATING CHARGE
INFO:FFFF  DOMESTIC/INTL INDICATOR:1C  SIG DIGITS NEXT
FIELD:007C  TERM OPEN DIGITS 1:00006321101C  TERM OPEN
DIGITS 2:FFFFFFFFF  CONNECT TIME:2313575C  ELAPSED
TIME:000000042C  MODULE CODE:509C  ORIGINATING FEATURE
CODE:001C  TERMINATING FEATURE CODE:000C  MODULE
CODE:000C
```

The following figure is an example of an AMA record generated for call code 026 when user B goes on-hook.

Call code 026

```
*HEX ID:AA  STRUCTURE CODE:00076C  CALL CODE:026C  SENSOR
TYPE:036C  SENSOR ID:0000000C  REC OFFICE TYPE:036C  REC
OFFICE ID:0000000C  DATE:80216C  TIMING IND: 00000C
STUDY IND:0000000C  CLD PTY OFF-HK:0C  SERVICE
OBSERVED:0C  OPER ACTION:0C  SERVICE FEATURE:010C  ORIG
NPA:103C  ORIG NUMBER:6340103C  CONNECT TIME:2313481C
ELAPSED TIME:000000074C  TRUNK LEGS USED:0C
```

Station Message Detail Recording

Call Transfer Enhancement does not affect Station Message Detail Recording.

Datafilling office parameters

Call Transfer Enhancement does not affect office parameters.

Call Transfer Enhancement (continued)

Datafill sequence

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

Datafill tables required for Call Transfer Enhancement

Table	Purpose of table
IBNFEAT (Note)	IBN Line Feature table. This table lists line features assigned to the IBN lines that appear in table IBNLINES.
KSETFEAT (Note)	Business Set and Data Unit Feature. This table specifies the line features assigned to business sets and data units.
CUSTSTN	Customer Group Station Option. This table contains a list of station options assigned to the customer groups.
Note: Entries in this table occur through SERVORD. This document does not provide a datafill procedure.	

Datafilling table CUSTSTN

A list of station options assigned to the customer groups appears in table CUSTSTN (Customer Group Station Option). Option CXFERSUP determines the sequence of the call transfer feature when one agent has low supervision. Option CXFER defines the type of call transfer for a separate line.

Datafill for Call Transfer Enhancement for table CUSTSTN appears in the following table. The fields that apply to Call Transfer Enhancement 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 3)

Field	Subfield or refinement	Entry	Explanation and action
OPTNAME		CXFERSUP	Option Name. This field specifies the option name. Enter CXFERSUP.
OPTION		see subfields	Option. This field contains subfields OPTION, CXTKIBN, CXTKPOTS, and CXFERTON.
	OPTION	CXFERSUP	Option. This subfield specifies the option name. Enter CXFERSUP.

Call Transfer Enhancement (continued)

Datafilling table CUSTSTN (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CXTKIBN	call transfer	Call Transfer Trunk IBN. This subfield specifies if all IBN trunks receive the same type of call transfer. If all IBN trunks are to receive the same type of call transfer, subfields IBNTKSEL and ALLTRKS require datafill.
	IBNTKSEL	ALLIBN	All IBN Trunks. This subfield specifies if all IBN trunks are to receive the same type of call transfer. Enter ALLIBN
If transfer type for IBN trunks depends on the trunk group type, field CXTKIBN contains subfields IBNTKSEL, ADSCNDSC, ADSCDSC, ANSDNSC, ANSDSC, and FANSFANS.			
	IBNTKSEL	IBNTRKS	IBN Trunks. This subfield specifies if transfer type for IBN trunks depends on the trunk group type. Enter IBNTRKS
	ADSCNDSC	ALLOW, CONF, or DENY	Call transfer type. Terminator on first leg can be a trunk group type IBNTO or IBNT2 answer disconnect trunk. Terminator on second leg can be a trunk group type IBNTO or IBNT2 no disconnect trunk. When this condition occurs, this subfield specifies the call transfer type. Enter ALLOW, CONF, or DENY.
	ADSCDSC	ALLOW, CONF, or DENY	Call Transfer Type. Terminator on first leg can be a trunk group type IBNTO or IBNT2 answer disconnect trunk. Terminator on second leg can be a trunk group type IBNTO or IBNT2 disconnect only trunk. When this condition occurs, this subfield specifies the call transfer type. Enter ALLOW, CONF, or DENY.
	ANSDNSC	ALLOW, CONF, or DENY	Call Transfer Type. Terminator on first leg can be a trunk group type T0, T2, P2, or PX answered agent and IBNTO. Terminator on second leg can be a trunk group type IBNTO or IBNT2 no disconnect trunk. When this condition occurs, this subfield specifies the call transfer type. Enter ALLOW, CONF, or DENY.

Call Transfer Enhancement (continued)

Datafilling table CUSTSTN (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ANSDSC	ALLOW, CONF, or DENY	Call Transfer Type. Terminator on first leg can be a trunk group type T0, T2, P2, or PX answered agent and IBNTO. Terminator on second leg can be a trunk group type IBNTO or IBNT2 disconnect only trunk. When this condition occurs, this subfield specifies the call transfer type. Enter ALLOW, CONF, or DENY.
	FANSFANS	ALLOW, CONF, or DENY	Call Transfer Type. This subfield specifies the call transfer type that determines the call transfer action when the following condition occurs. Leg 1 of 3WC contains an outgoing false answer trunk and leg 2 does not have answer supervision. Enter ALLOW, CONF, or DENY.
	CXTKPOTS	ALLPOTS or POTSTRKS	Call Transfer POTS. This subfield specifies the sequence of the call transfer when an agent with low supervision remains in the transferred call. Enter ALLPOTS or POTSTRKS.
	CXFERTON	Y or N	Call Transfer Tone. This subfield specifies if a warning tone is available to the controller. This tone indicates that supervision problems can occur if the system transfers the call. Enter Y or N.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
REGIBNGRP	CXFERSUP	CXFERSUP ALLIBN CONF ALLPOTS CONF Y

Sample datafill for Table CUSTSTN to achieve call transfer only in the customer group appears in the following example.

Call Transfer Enhancement (continued)

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION				
MDCGRP	CXFERSUP	CXFERSUP	CUSTOM	NOCXFER	INTRA	
		NOCXFER	INTRA	Y	90	STD

Tools for verifying translations

Call Transfer Enhancement does not use tools for verifying translations.

SERVORD

SERVORD prompts

The SERVORD prompts in use to assign Call Transfer Enhancement to a line appear in the following table.

SERVORD prompts for Call Transfer Enhancement

Prompt	Valid input	Explanation
CXFERTYP	CTALL	Specifies the call transfer type.
CXRRCL	Y or N	Specifies the call transfer recall.
METHOD	PFX, TIM	Specifies if the system expects seven or ten digits. Enter PFX for prefix or TIM for timing.
RCLTIM	12 - 120 s	Specifies the recall timer for transfer recall.

SERVORD example for adding Call Transfer Enhancement

How to add Call Transfer Enhancement to a line with the ADO command appears in the following SERVORD example.

Call Transfer Enhancement (end)

SERVORD example for Call Transfer Enhancement in prompt mode

```
SONUMBER:  NOW 93 2 5 AM  
> ADO  
DN_OR_LEN:  HOST 01 0 01 16  
>  
OPTKEY:  
> 6  
OPTION:  
> CXR  
CXFERTYP:  
> CTALL  
CXRRCL:  
> Y  
RCLTIM:  
> 12  
METHOD:  
> STD  
OPTKEY:  
> $
```

SERVORD example for Call Transfer Enhancement in no-prompt mode

```
>ADO 01 0 01 16 6 CXR CTALL Y 12 STD $
```

Call Waiting

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Call Waiting does not have requirements.

Description

Call Waiting (CWT) allows termination of a call to a busy user that has subscription to call wait. The CWT feature provides a call wait indication tone to the call wait subscriber, and ringback tone to the calling party. When the subscriber receives the call wait indication, the subscriber can ignore or answer the waiting call.

Basic CWT applies to attendant-extended, Direct Inward Dialing (DID), enhanced private switched communication services (EPSCS), and tie trunk calls. The assignment of the feature can occur to plain old telephone service (POTS), Residential Enhanced Services (RES), and Meridian Digital Centrex (MDC) lines for separate lines.

Operation

The CWT tone is 440 Hz at -13 dBm. The system applies the tone for 300 ms when the system call waits a call. The system applies the tone again after 10s. Only the called party hears this tone.

When a called party hears the alerting CWT tone, the called party can perform one of the following actions:

- End the current call and answer the waiting call. To end a current call and answer a waiting call, the called party disconnects from the original conversation or hangs up. Immediately, the telephone of the called party rings. The called party answers and connects to the waiting call.
- Hold the current call and answer the waiting call. To hold a call and answer a waiting call, the called party flashes the hookswitch. To flash the hookswitch, the party presses the hookswitch for less than 0.5 s. The called party answers the waiting call.

Note: The called party disconnects from the call when the called party presses the hookswitch longer than 0.5 s.

Call Waiting (continued)

To return to a held call, the called party flashes the hookswitch or hangs up the telephone and waits for the telephone to ring. The called party answers the held call.

Call Waiting chaining

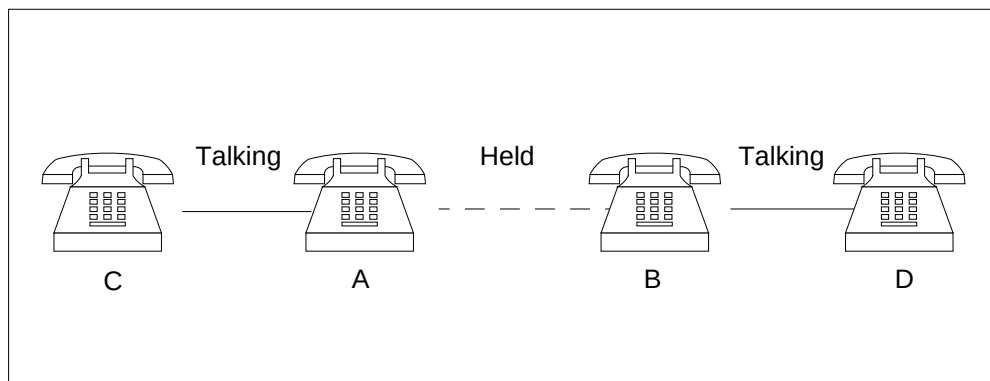
When two parties are talking, the party to which the system offers a second incoming call is the CWT controller. The other party of the established call and the waiting party of the second call are noncontrollers. The current connection between two parties with CWT can be in a stable state. When this condition occurs, both noncontrolling parties can receive CWT notification tone and pick up incoming calls. A stable state is a talking or held state.

Call Waiting can chain CWT calls to noncontrolling CWT parties. Call Waiting subscribers can receive CWT notification when the subscribers engage in CWT calls that are in a held or talking state. Noncontrolling parties can access this capability on the same DMS switch with the CWT controller.

Talking party disconnects

For example, party A and party B are talking and party A (the controller) receives a second incoming call from party C. Party A places party B on hold and picks up party C. Party B also receives a second incoming call, party D. Party B is on hold, so party B picks up party D. The connection between party A, and party B is a double-held connection (see figure 1). Party A is the controller of the A-B-C connection and party B is the controller of the A-B-D connection. A CWT controller can flash to connect to the held connection and another party can hold that connection. When this condition occurs, the CWT controller receives silence.

1Double-held connection



Call Waiting rering to talk connection

When a CWT controller goes on-hook, the held connection rings the controller again. In the previous example, party A, the controller of the A-B-C call,

Call Waiting (continued)

hangs up with party C and does not flash back to B. Party A receives power ringing from the connection with party B. When party A answers, parties A and B are again in a talking state. This condition appears in Figure 2. In figure 2, party B rings party A again while the second caller of B, party D, is on hold.

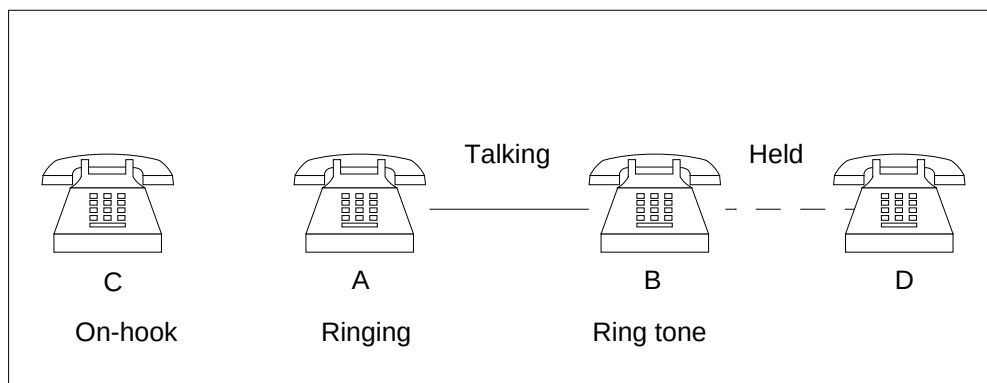
Call Waiting rering to held connection

Parties B and D can be in a talking state when party A answers the rering. When this condition occurs, party A connects to silence. Parties B and D can disconnect when party A continues to talk to party C. When this condition occurs, party B receives a rering to party A and connects to silence.

Call Waiting controller reconnect timing

Party B is the controller of the A-B-D connection, where party D continues to be on hold with party B when party A exits. To exit, party A goes on-hook. If party B flashes back to party D, these parties reconnect to a talking state. If Party B does not flash and stays off-hook, the system connects the parties again after 10 s. Party B can go on-hook before connect again timing expires. When this condition occurs, the held connection with party D rings party B again.

2Rering to talk connection



Translations table flow

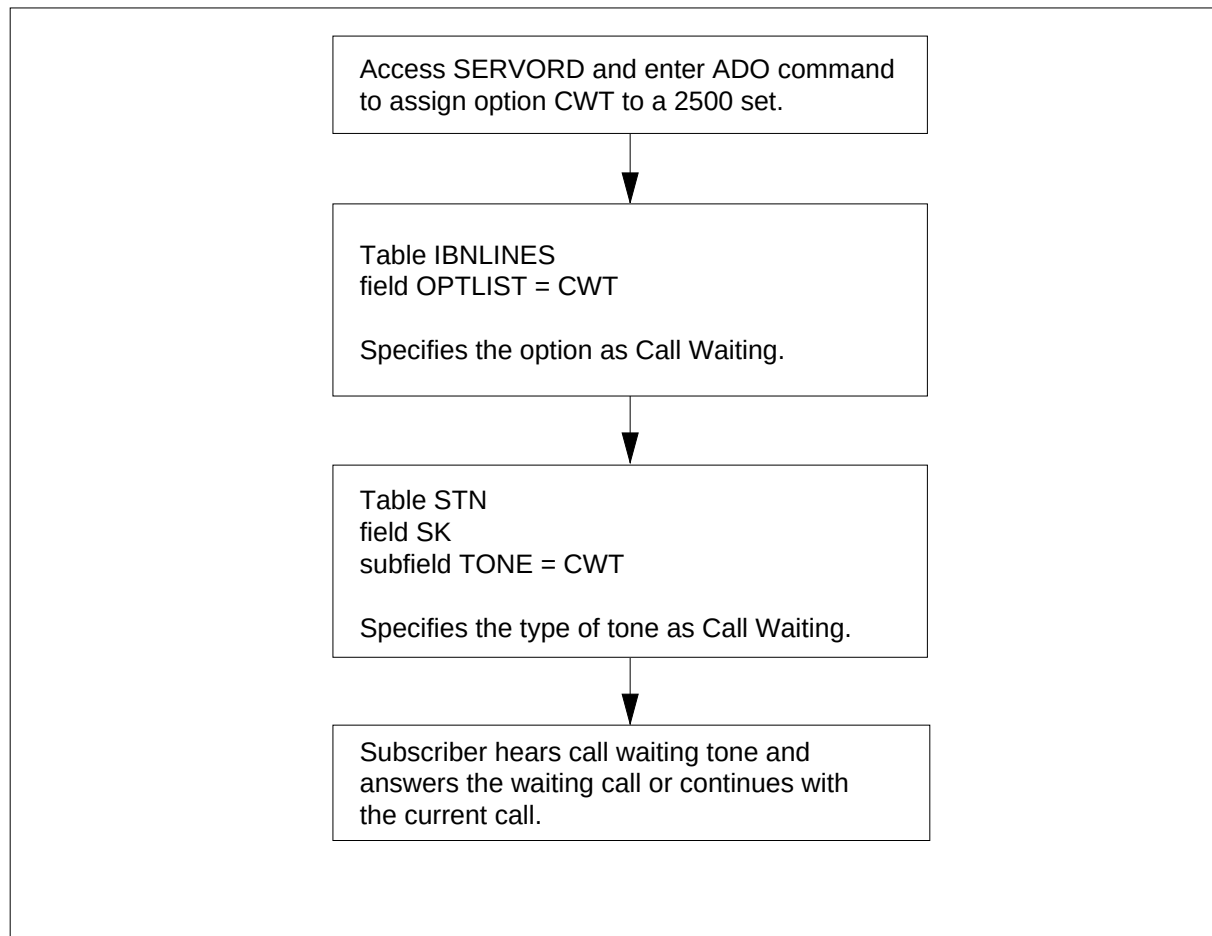
Descriptions of the Call Waiting translations tables appear in the following list:

- Table IBNLINES (IBN Line Assignment) contains line assignments for each 500 or 2500 set for an MDC, RES, or Multiple Appearance Directory Number (MADN) station. Data entries occur in this table when the assignment of the line occurs in the Service Order System (SERVORD).
- Table STN (Special Tone) contains the location and maximum number of connections that can occur to special tones that require trunk cards. Table STN must have datafill to define the special CWT tone in use with Call Waiting

Call Waiting (continued)

The Call Waiting translation process appears in the following flowchart.

Table flow for Call Waiting



Datafill content in use in the flowchart appears in the following table.

Datafill example for Call Waiting

Datafill table	Example data
IBNLINES	HOST 0 0 1 1 01 DT STN IBN 5554667 919 (CWT) \$
STN	CWT 1 MTM 0 18 3X68AB 10 0

Call Waiting (continued)

Limits

The following limits apply to Call Waiting:

- Call Waiting and Attendant Camp-on are separate functions. Assignment of both features cannot occur to the same line.
- Attendant Camp-on is a customer-group parameter. Assignment of Call Waiting occurs for each line.
- Recall call waiting to the attendant applies only to attendant-extended calls. This condition includes attendant intragroup calls.

Interactions

The interactions between Call Waiting and other functionalities appear in the following paragraphs.

Attendant-originated calls

Call Waiting does not apply to calls an attendant originates. If the called station is busy, the attendant hears reorder tone.

Busy station with Call Waiting

The attendant can attempt to extend a call to a station that is busy and already has one call waiting. When this condition occurs, the attendant hears reorder tone.

Busy verification by the attendant

Call Waiting does not apply to busy verification by the attendant.

Call Forward Don't Answer

If the called station is idle and has Call Forward Don't Answer (CFD), the CFD feature applies.

Call Forward Universal or Call Forward Intragroup

The called party can have Call Forward Universal (CFU) or Call Forward Intragroup (CFI) active. When this condition occurs, the system disables CWT when one of the two features is active.

Call Forwarding of Call Waiting Calls

The Call Forwarding of Call Waiting (CFCW) Calls feature applies to CWT calls. The feature allows the system to forward these calls if the subscriber does not answer the call in a specified time period. The subscriber must have the CFD feature.

Call Waiting (continued)

Call Hold

For lines that have Call Hold (CHD) and to CWT, CWT operates in a different method. To receive a CWT call, the called party flashes the hookswitch and listens for recall dial tone. The recall dial tone is three short tones that a steady tone follows. When the called party hears the recall tone, the called party dials the call hold access code. This action places the present caller on hold and answers the waiting call.

To alternate between held calls, the called party:

- flashes the hookswitch
- listens for recall dial tone
- dials the call hold access code
- connects to the held call again

The called party can repeat the procedure.

Call Pickup

The Call Pickup feature cannot be in use to answer CWT calls.

Call Waiting Intragroup

Assignment of Call Waiting Intragroup can occur on separate lines for any CWT line.

Called-line restrictions

Called line restrictions apply to Call Waiting. The system can wait a call only if the system allows the called station to receive that call type.

Deluxe Spontaneous Call Waiting Identification

A Deluxe Spontaneous Call Waiting Identification (DSCWID) subscriber can be a noncontroller of a current CWT call. The DSCWID can have a connection with the CWT controller that is in a held or talking state. When this condition occurs, the subscriber can receive a DSCWID call with the correct DSCWID information delivered to the customer premises equipment (CPE). The system can offer a waiting call to a CWT subscriber that is a noncontroller of a current DSCWID call.

The DSCWID subscriber can use the DSCWID softkey options that the system allows for the line.

Call Waiting (continued)

Night service

Call Waiting applies to night service call types. If the called station is a night station, calls the system places to the station do not have priority over night service calls.

No Double Connect

The assignment of Call Waiting cannot occur to a line that has the No Double Connect (NDC) option.

Spontaneous Call Waiting Identification

A Spontaneous Call Waiting Identification (SCWID) subscriber can be a noncontroller of a current CWT call. The subscriber can have a connection with the CWT controller that is in a held or talking state. When these conditions occur, the subscriber can receive a SCWID call with the correct SCWID information delivered to the CPE. The system can offer a waiting call to a CWT subscriber that is a noncontroller of a current SCWID call.

Three-way Calling

The called station can have CWT and Three-way Calling (3WC). When this condition occurs, the system disables 3WC when a call waits. The system disables 3WC when the calls alternate between other calling or called parties. If a call is not waiting or held, a flash from the busy station causes special dial tone to return. The subscriber can now access 3WC.

The called station can be a controller of a three-way call and can have CWT. When this condition occurs, the system disables CWT for the duration of the three-way call.

Unstable called-station state

The system does not wait calls if the called-station state is not stable. States that are not steady are ringing, dialing, or listening to audible ringback tone, busy tone, or reorder tone. In this condition, the caller hears busy tone.

Activation/deactivation by the end user

Call Waiting does not require activation or deactivation by the end user.

Billing

Call Waiting does not affect billing.

Station Message Detail Recording

Call Waiting does not affect Station Message Detail Recording.

Call Waiting (continued)

Datafilling office parameters

The office parameters that Call Waiting uses appears in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters by Call Waiting

Table name	Parameter name	Explanation and action
OFCVAR	DIST_CWT_TONE	This parameter specifies the on/off durations for special CWT distinctive cadence in 10-ms intervals. The default value is 250 ms on and 100 ms off.

Datafill sequence

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

Datafill requirements for Call Waiting

Table	Purpose of table
OFCVAR	Variable Office Parameter. This table contains data on variable office parameters for the office. See "Datafilling office parameters" for how Call Waiting affects office parameters.
STN	Special Tone. This table contains the location and maximum number of connections that can occur to special tones that require trunk cards.
IBNLINES	IBN Line Assignment table. This table contains the line assignments for each 500 or 2500 set that has an MDC, RES, or MADN station number. Note: Data entries for this table occur through SERVORD. Because of this condition, a datafill procedure or example does not appear in this document. See "SERVORD" for an example of how to use SERVORD to enter data in this table.

Datafilling table STN

The location and maximum number of connections that can occur to special tones that require trunk cards appear in table STN (Special Tone). Table STN must have datafill to define the special tones in use with CWT.

Call Waiting (continued)

Datafill for CWT for table STN appears in the following table. The fields that apply to CWT appear.

Datafilling table STN

Field	Subfield or refinement	Entry	Explanation and action
SK		see subfields	Special key tone. This field contains subfields TONE and MEMBER.
	TONE	CWT	Tone. This subfield specifies the tone. Enter CWT.
	MEMBER	0 to 999	Member number. This subfield specifies the number for the tone trunk circuit. Enter a value from 0 to 999.

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
CWT 1	MTM	0	18	3X68AB	10	0
CWT 2	MTM	0	19	3X68AB	10	0
CWT 3	MTM	0	20	3X68AB	10	0

Tools for verifying translations

Call Waiting does not use tools for verifying translations.

SERVORD

The SERVORD utility adds, deletes, and changes subscriber options. Option CWT allows the system to alert a busy station when an incoming call attempts to reach the DN. The SERVORD utility enters data in table IBNLINES.

SERVORD limits

Call Waiting does not have SERVORD limits.

Call Waiting (continued)

SERVORD prompts for MDC lines

The prompts that SERVORD uses to add Call Waiting to a current Meridian business set (MBS) line appear in the following table.

SERVORD prompts for Call Waiting

Prompt	Correct input	Explanation
OPTKEY	1-69 for MBS; 1-4 or 7 for data unit	The key on an MBS or data unit to which an option assignment occurs
OPTION	CWT	The name of the option to add
CWT	Y, N	Specifies if option CWT is active
RING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the LCD diamond key. Enter Y or N.
PCWT	Y, N	Specifies that the system applies precedence CWT
KEYLIST	1-69 or \$	The key numbers of the DNs to which a feature applies

SERVORD example for adding Call Waiting to an MBS line

How to add Call Waiting to a current MBS line with the ADO command appears in the following SERVORD example.

Call Waiting (continued)

SERVORD example for Call Waiting in prompt mode

```
>ADO
SONUMBER: NOW 92 5 7 PM
>
DN_OR_LEN:
>6210103
OPTKEY:
>4
OPTION:
>CWT
CWT:
>Y
RING:
>Y
PCWT:
>Y
KEYLIST:
>1
KEYLIST:
>$
OPTKEY:
>$
```

SERVORD example for Call Waiting in no-prompt mode

```
>ADO $ 6210103 4 CWT Y Y Y 1 $ $
```

SERVORD example for adding Call Waiting to an MDC 2500 line

How to add Call Waiting to a current MDC 2500 (standard IBN) line with the ADO command appears in the following SERVORD example.

Call Waiting (continued)

SERVORD example for Call Waiting in prompt mode

```
>ADO
SONUMBER: NOW 95 2 9 PM
>
DN_OR_LEN:
>6215010
OPTION:
>CWT
OPTION:
>CWI
OPTION:
>$
```

SERVORD example for Call Waiting in no-prompt mode

```
>ADO $ 6215010 CWT CWI $
```

SERVORD prompts for POTS or RES lines

The prompts that SERVORD uses to add Call Waiting to a POTS or RES line appear in the following table.

SERVORD prompts for Call Waiting

Prompt	Correct input	Explanation
OPTION	CWT	The name of the option to add

SERVORD example for how to add Call Waiting to a POTS or RES line

How to add Call Waiting to a current POTS or RES line with the ADO command appears in the following SERVORD example.

SERVORD example for Call Waiting in prompt mode

```
>ADO
SONUMBER: NOW 95 2 9 PM
>
DN_OR_LEN:
>6215010
OPTION:
>CWT
OPTION:
>$
```

Call Waiting (end)

SERVORD example for Call Waiting in no-prompt mode

>ADO \$ 6215010 CWT \$

Call Waiting for 3-Way Calling

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS23 and later versions

Requirements

To operate, Call Waiting for 3-Way Calling requires BAS Generic, BAS00003.

Description

Currently for plain old telephone service (POTS) and integrated business network (IBN) subscribers, only non-controlling parties in a 3-Way Call (3WC) can have a call waited on them.

This feature allows the subscribers of 3WC and Call Waiting (CWT) to initiate and establish a 3WC and continue to keep call waiting capability. The initiator of 3WC is called the controlling party of the 3WC. This feature is only available for POTS and IBN lines.

Turn on this functionality by setting the office parameter CWT_ON_POTS_IBN_3WC_CONTROLLER to Y in table OFCENG. The default setting of this parameter is N.

Operation

The non-controlling party with an incoming call hears a call waiting notification tone. This party hears the tone once and again 10 s later. The calling party hears audible ringing while the party waits. To access the call, the non-controlling party can use the flash feature or go on-hook.

Translations table flow

The Call Waiting for 3-Way Calling feature does not change translations table flow.

Limitations and restrictions

The following limitations and restrictions apply to Call Waiting and 3-Way Call Interaction:

- The controller must subscribe to 3WC and CWT.
- Only POTS or MDC stations with 500/2500 sets can use Call Waiting for 3-Way Calling.

Call Waiting for 3-Way Calling (continued)

- The 3WC must be in a stable state for the controller to receive a call. A stable state exists when all three parties included in the 3WC are connected to each other.
- This functionality is not in compliance with LSSGR.FSD 01-02-1201 (CWT) TR-TSY-000522 section on call waiting interaction states. The initiator of 3WC cannot receive CWT calls on call waiting tone while in a 3WC mode or while a party is on hold.
- The call waiting party cannot be added to the established 3WC.

Interactions

The following paragraph describes the interactions between Call Waiting and 3-Way Call Interaction and other functionalities.

The interaction between CWT and 3WC has been improved by the feature AF7751. Previously, only the non-controlling parties of a 3WC were allowed to have a call being waited on them. This feature removes this restriction for the controlling party. Now POTS and IBN subscribers of CWT and 3WC keep the capability to receive an additional incoming call.

Activation/deactivation by the end user

The Call Waiting for 3-Way Calling feature does not require end user activation or deactivation.

Billing

The Call Waiting for 3-Way Calling feature does not change billing.

Station Message Detail Recording

The Call Waiting for 3-Way Calling feature does not change Station Message Detail Recording.

Call Waiting for 3-Way Calling (continued)

Datafilling office parameters

The following table shows the office parameters used by Call Waiting for 3-Way Calling. For more information about office parameters, refer to *Office Parameters Reference Manual*.

Office parameters used by Call Waiting for 3-Way Calling

Table name	Parameter name	Explanation and action
OFCENG	CWT_ON_POTS_IBN_3WC_CONTROLLER	This parameter determines if the station initializing a 3-Way Call (3WC) as the controller is allowed call waiting (CWT) on it (to add a third part to an existing call). The office parameter only applies to POTS and IBN lines. If the parameter is set to Y, CWT is allowed for the controlling party as well as for the non-controlling party of a 3WC. If the parameter is set to N, call waiting is allowed only for the non-controlling party of the 3WC. The party which tries to call the controlling party (in this scenario) will receive busy treatment.

Datafill sequence

The tables that require datafill to put into operation Call Waiting for 3-Way Calling appear in the following table. The tables appear in the correct order of entry.

Datafill tables Call Waiting for 3-Way Calling

Table	Purpose of table
STN	Special Tone. This table is a requirement for tones that require trunk cards.
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: Enter data in this table 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 STN

Table STN (Special Tone) contains datafill for tones that require trunk cards. This table contains the location of the connections. This table indicates the maximum number of connections that can apply to the CWT tones.

Call Waiting for 3-Way Calling (continued)

Datafill for Call Waiting for 3-Way Calling for table STN appears in the following table. The field that applies to Call Waiting for 3-Way Calling appears in this table. 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
	TONE	CWT	Tone. This subfield specifies the fixed code assigned to the tone trunk circuit in the CLLI table. For this condition, enter CWT.

Datafill example for table STN

Sample datafill for table STN appears in the following example.

MAP example for table STN

TMTYPE	TMNO	TMCKTNO	CARDCODE	MAXCONN	TRAFSNO
CWT 0					
MTM	7	12	1X00AC	12	0

Tools for verifying translations

The Call Waiting for 3-Way Calling feature does not use translation verification tools.

SERVORD

You can assign line options CWT and CWI to allow the system to wait intra-group calls.

SERVORD limits

The Call Waiting for 3-Way Calling feature does not have SERVORD limits.

Call Waiting for 3-Way Calling (continued)

SERVORD prompts

The SERVORD prompts to assign Call Waiting for 3-Way Calling appear in the following table.

SERVORD prompts for Call Waiting for 3-Way Calling

Prompt	Input	Explanation
OPTKEY	1-69 for MBS 1-4 or 7 for data unit	Indicates the key on an MBS or data unit where you assign an option. Enter 1 to 69 for an MBS, or 1 to 4, or 7 for a data unit.
OPTION	CWT	Indicates the option to assign. Enter CWT.
CWT	Y, N	Indicates if option CWT is active. Enter Y or N.
RING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the LCD diamond key. Enter Y or N.
PCWT	Y, N	This field indicates the application of precedence CWT. Enter Y or N.
KEYLIST	1-69, or \$	Indicates the key numbers of the DNs where a feature applies. Enter 1 to 69 or \$.

The SERVORD prompts to assign Call Waiting for 3-Way Calling to a line for line option CWI that appears in the following table.

SERVORD prompts for Call Waiting for 3-Way Calling

Prompt	Input	Explanation
OPTKEY	1-69 for MBS 1-4 or 7 for data unit	Indicates the key on an MBS or data unit where you assign an option. Enter 1 to 69 for an MBS, or 1 to 4 or 7 for a data unit.
OPTION	CWT	Indicates the option to assign. Enter CWT.

Note: The system enters data in table IBNLINES when you use SERVORD to assign Call Waiting for 3-Way Calling.

The addition of Call Waiting for 3-Way Calling to a current line appears in the following SERVORD example. The addition of Call Waiting for 3-Way Calling occurs with the the ADO command for line option CWT.

Call Waiting for 3-Way Calling (continued)

SERVORD example for Call Waiting for 3-Way Calling in prompt mode

```
>ADO
SONUMBER: NOW 92 5 7 PM
>
DN_OR_LEN:
> 6210103
OPTKEY:
> 4
OPTION:
> CWT
CWT:
> Y
RING:
> Y
PCWT:
> Y
KEYLIST:
> 1
KEYLIST:
> $
OPTKEY:
> $
```

SERVORD example for Call Waiting for 3-Way Calling in no-prompt mode

```
>ADO $ 6210103 4 CWT Y Y Y 1 $ $
```

The addition of Call Waiting for 3-Way Calling to a line appears in the following example. The addition of Call Waiting for 3-Way Calling occurs with the ADO command for line option CWI.

Call Waiting for 3-Way Calling (end)

SERVORD example for Call Waiting for 3-Way Calling in prompt mode

```
>ADO  
SONUMBER: NOW 92 5 7 PM  
>  
DN_OR_LEN:  
> 0 0 8 6  
OPTKEY:  
> 1  
OPTION:  
> CWI  
OPTKEY:  
> $
```

SERVORD example for Call Waiting for 3-Way Calling in no-prompt mode

```
>ADO $ 0 0 8 6 1 CWI $
```

Call Waiting - Originating

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS14 and later versions

Requirements

To operate, Call Waiting - Originating requires BAS Generic, BAS00003.

Description

Call Waiting - Originating allows the calling party to impose call waiting on a busy station in the same customer group. Call Waiting - Originating differs from normal call waiting. With Call Waiting - Originating the calling party can hear music or a recorded announcement in addition to audible ringing.

The calling party can call a busy Integrated Business Network (IBN) line in the same customer group. When this action occurs, the calling party hears one of the following:

- audible ringing
- music
- recorded message

A special tone burst informs the called party of the incoming call. The tone burst repeats every 10 s after the first burst.

The assignment of a call waiting exempt (CWX) feature to a line can exempt a line from interruption. Call waiting or Call Waiting - Originating can interrupt a line.

Operation

To contact the called party, the calling party must perform the following procedure:

- lift the handset from the cradle and receive a dial tone
- dial the extension number of the called party and receive audible ringing, music, or a recorded announcement
- wait for the called party to answer

Call Waiting - Originating (continued)

To access the waiting call, the called party can perform the following procedures:

- End the current call and answer the waiting call. To end a current call and answer a waiting call, the called party disconnects from the original conversation. To perform this action the called party hangs up. The telephone of the called party rings. The called party answers and connects to the waiting call.
- Hold the current call and answer the waiting call.

If the called party has the call hold feature, the called party flashes the hookswitch. The called party dials the call hold access code. This action places the current call of the called party on hold. The called party connects to the calling party.

Note: If the called party holds the hookswitch longer than 0.5 s, the called party disconnects from the call.

If the called party does not have the call hold feature, the called party flashes the hookswitch to put the current call on hold. The called party can answer the calling party that waited.

After set up of the call waiting configuration, the following events occur:

- If the party on hold hangs up, the calling and called parties move to a normal two-party call situation.
- If the calling party hangs up, the called party can connect again to the caller on hold. To perform this action, the calling party must use one of the following procedures:
 - Hang up. The telephone of the called party rings. The called party answers and connects to the caller on hold.
 - Flash the hookswitch. The called party connects to the caller on hold.
 - Not perform any action. The called party connects to the party on hold after a period of disconnect timing expires.

Translations table flow

Call Waiting - Originating does not affect translations table flow.

Call Waiting - Originating (continued)

Limits

The following limits apply to Call Waiting - Originating:

- Call Waiting - Originating only applies to intraoffice intragroup calls for the following reasons:
 - To call an interoffice party, you cannot advise the terminating office to apply call waiting to the terminating station.
 - When calling another customer group (intergroup), the called party does not always recognize the Call Waiting - Originating tone. In this event, the called party does not know what action to perform when the called party hears the tone.
- The system does not apply Call Waiting - Originating on calls that travel over a minimum of one trunk.
- Call Waiting - Originating cannot interrupt a station involved in a call to the emergency service bureau. The caller hears a busy tone. The caller does not have flash privileges when a call has this condition.
- You can assign hunt group members Call Waiting - Originating. Call waiting - originators cannot impose Call Waiting - Originating on hunt group members.
- Call Waiting - Originating is a station feature. You cannot assign this feature to an AC.
- Call waiting - originators cannot impose Call Waiting - Originating on the following:
 - an IBN attendant console
 - a line involved in a call with an AC
- Call Waiting - Originating does not apply to calls that the attendant extends. This condition appears in the following example. An attendant can attempt a call transfer from a line with the Call Waiting - Originating option. The attendant attempts to transfer to a busy line in the same customer group. The system does not apply call waiting to the busy station. If the called station has the call waiting intragroup (CWI) feature, the attendant can extend the call.
- Call waiting - originators can impose Call Waiting - Originating only on a line that is in a talking state. If the line is not in a talking state, the calling party hears a busy tone.
- Call Waiting - Originating can call wait one call at a time only.

Call Waiting - Originating (continued)

Interactions

The following paragraphs explain the interactions between Call Waiting - Originating and other functionalities.

Dial call waiting (CWD)

The Dial call waiting (CWD) and Call Waiting - Originating features are not compatible.

Denied originating (DOR)

The Denied originating (DOR) and Call Waiting - Originating features are not compatible.

Denied originating (DOR)

The Denied originating (DOR) and Call Waiting - Originating features are not compatible.

Call pickup (CPU)

Call pickup (CPU) cannot pick up waiting calls.

Executive busy override (EBO)

The Executive busy override (EBO) and Call Waiting - Originating features are compatible. The use of Call Waiting - Originating precedes EBO unless the called party has the CWX feature. The use of EBO cannot occur on a line that has call waiting or is in a call waiting configuration.

Three-way call, call waiting (3WC), or a call hold configuration

Call Waiting - Originating can impose call waiting only on a station that is in a two-way call. For example, a station with Call Waiting - Originating cannot impose call waiting on a line involved in the following:

- a three-way call
- call waiting (3WC)
- a call hold configuration

Note: The 3WC/CXR to 2500 set call waiting interactions feature in BCS27 changes this restriction. Refer to feature description, 3WC/CXR to 2500 Set Call Waiting, for additional information.

Three-way calling (3WC) or call transfer feature

A called station cannot use the three-way calling (3WC) or call transfer feature while a call waits. A called station cannot use these features while the called party alternates between the two calling parties.

Call Waiting - Originating (continued)

Permanent hold feature

An interruption of the permanent hold feature occurs for stations involved in a call waiting connection.

Busy verification feature

The attendant cannot use the busy verification feature on a station involved in a call waiting connection.

Call forward universal (CFU) or call forward intragroup (CFI)

Call Waiting - Originating cannot interrupt a called line that is busy and activates call forward universal (CFU) or call forward intragroup (CFI).

Note: If the called station activates CFU, the system imposes call waiting on the remote station. This action occurs if the station is busy.

Call forward busy (CFB)

If the called station is busy and has call forward busy (CFB), the system imposes Call Waiting - Originating. This condition occurs if the application of call waiting does not occur on another call. If call waiting occurs on another call, the call forwards. The CFB has priority over Call Waiting - Originating if the station is a business set.

Call forward busy intragroup (CBI)

If the called station is busy and has call forward busy intragroup (CBI), the system imposes Call Waiting - Originating. This action occurs if another call does not have a call waiting application.

Calling line identification with flash (CLF)

Call Waiting - Originating cannot interrupt a station that has the calling line identification with flash (CLF) feature. An exception to this condition occurs if the called station has call hold and CLF is not active.

Call Waiting - Originating cannot interrupt a station in a call that uses CLF. The party that talks to the calling party cannot activate CLF after the called party is in a call waiting configuration.

Note: In the plain old telephone service (POTS) environment another name for CLF is malicious call hold.

Call waiting exempt (CWX)

Call Waiting - Originating cannot interrupt a station that has the CWX feature.

Call Waiting - Originating (continued)

CLF and CWX

The CLF and CWX are only compatible with Call Waiting - Originating when the line has call hold.

No double connect (NDC)

Call Waiting - Originating cannot interrupt a line that has the no double connect (NDC) feature or is in a call that has the NDC feature.

Hold or permanent hold

Call Waiting - Originating cannot interrupt a line that is in the hold state or is holding a party because of a permanent hold.

Call waiting intragroup (CWI)

Call Waiting - Originating cannot interrupt a line that has the CWI feature.

Parked station

Call Waiting - Originating cannot interrupt a parked station.

Night service calls

Call Waiting - Originating can apply to night service calls.

Do not disturb (DND)

Call Waiting - Originating cannot interrupt an IBN line when do not disturb (DND) is active.

Requested suspended service (RSUS) or Plug up (PLP)

Call Waiting - Originating cannot interrupt a line that has the requested suspended service (RSUS) or plug up (PLP) feature. Calls to a line with these conditions route to a treatment that the customer specifies.

Activation/deactivation by the end user

Call Waiting - Originating does not require activation or deactivation by the end user.

Billing

Call Waiting - Originating does not affect billing.

Station Message Detail Recording

Call Waiting - Originating does not affect Station Message Detail Recording.

Datafilling office parameters

Call Waiting - Originating does not affect office parameters.

Call Waiting - Originating (continued)

Datafill sequence

The tables that require datafill to implement Call Waiting - Originating appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Call Waiting - Originating

Table	Purpose of table
CLLI	Common Language Location Identifier table. This table identifies the far end of each of the following: • announcement • tone • trunk group • test trunk • national milliwatt test lines • service circuits
CUSTSTN	Customer Group Station Option Table. The station options for each of the customer groups appear in this table.
STN	Special Tone. Tones that require trunk cards require this table.
IBNLINES	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: This document does not provide a datafill procedure or example because entry of data for this table occurs through SERVORD. See "SERVORD" for an example of how to use SERVORD to enter data in this table.

Datafilling table CLLI

Enter data in table CLLI (Common Language Location Identifier) to define the tone for the call waiting feature.

Datafill for Call Waiting - Originating for table CLLI appears in the following table. The fields that apply to Call Waiting - Originating appear in this table.

Call Waiting - Originating (continued)

Refer to 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		CWT	Common Language Location Identifier This field specifies the common language location identifier. Enter CWT.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

CLLI	ADMUN	TRKGRSIZ	ADMINIF
CWT	124	64	CALL_WAITING_CIRCUIT

Datafilling table CUSTSTN

Enter data in table CUSTSTN (Customer Group Station Option) to assign the call waiting feature to the customer group.

Datafill for Call Waiting - Originating for table CUSTSTN appears in the following table. The fields that apply to Call Waiting - Originating appear in this table. Refer to 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		alphanumeric	Customer Name. This field specifies the 1 to 16 character name for the customer group from Table CUSTHEAD. Enter the customer group name.
OPTNAME		CWO	Option Name. This field specifies the option name. Enter CWO.

Call Waiting - Originating (continued)

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTION		CWO	Option. This field specifies the option name. Enter CWO. Note: If the datafill for OPTION is CWO, subfield ANNMUSIC requires datafill.
	ANNMUSIC	Y or N	Announcement/Music. This subfield specifies if a waiting party receives an announcement or music. Enter Y (yes) or N (no). Note: If ANNMUSIC is Y, subfield AUDIOGRP requires datafill.
	AUDIOGRP		Audio Group. This subfield specifies the audio group in Table AUDIO. This audio group specifies the type of announcement or music.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION
NETWORK	CWO	CWO N

Datafilling table STN

Enter data in table STN (Special Tone) to define the special tones to use with Call Waiting - Originating. Descriptions of the different call waiting tones appear in this table.

Datafill for Call Waiting - Originating for table STN appears in the following table. The fields that apply to Call Waiting - Originating appear in this table.

Call Waiting - Originating (continued)

Refer to 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
CARDCODE	TONE	CWT	Tone. This subfield specifies the tone. Enter CWT.
		alphanumeric	Card Code. This field specifies the product engineering code (PEC) of the card code. Enter 3X68AC.

Datafill example for table STN

Sample datafill for table STN appears in the following example.

MAP example for table STN

SK		TMNO	TMCKTNO	CARDCODE	MAXCONN	TRAFSNO
TMTYPE						
CWT	1					
MTM		0	18	3X68AB	10	0

Tools for verifying translations

Call Waiting - Originating does not use tools for verifying translation.

SERVORD

This feature creates line option CWO. This option assigns CWO to lines that have a line class code (LCC) of RES or IBN. The following commands support the CWO option:

- ADO (add option)
- DEO (delete option)
- CHF (change feature information for preexisting feature)

SERVORD limits

Call Waiting - Originating does not have SERVORD limits.

Call Waiting - Originating (end)

SERVORD prompts

The SERVORD prompts to assign Call Waiting - Originating appear in the following table.

SERVORD prompts for Call Waiting - Originating

Prompt	Valid input	Explanation
DN_OR_LEN	Numeric	Specifies the directory number (DN) or line equipment number (LEN) of the line of the feature. Enter the DN or LEN.
OPTKEY	Numeric	Specifies the key number of the option. Enter a key number.
OPTION	CWO	Specifies the option. Enter CWO.

Note: The system automatically enters data in table IBNLINES when you assign Call Waiting - Originating with SERVORD.

SERVORD example of adding Call Waiting - Originating

The ADO command can add Call Waiting - Originating to a line. This process appears in the following SERVORD example.

SERVORD example for Call Waiting - Originating in prompt mode

```
>ADO
SONUMBER:          NOW  93  4 19 AM
>
DN_OR_LEN:
> 0 0 1 10
OPTKEY:
> 5
OPTION:
> CWO
OPTKEY:
> $
```

SERVORD example for Call Waiting - Originating in no-prompt mode

```
> ADO $ 0 0 1 10 5 CWO $
```

Camp On with Music

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: not applicable

Release applicability

BCS15 and up

Prerequisites

To operate, Camp On with Music requires BAS Generic, BAS00003.

Description

The Camp On with Music feature allows the attendant to extend an incoming call to a busy station. When the busy station becomes idle, it automatically rings and is connected to the camped-on call.

The called party may hear a camp-on tone (440 Hz at -17dBm for 300 ms) indicating that a call is waiting. The calling party hears music while camped-on. The called party may flash the switchhook to connect to the camped-on call. This automatically places the original call on hold. The called party may return to the original call by flashing the switchhook again. If no tone is provided, or if the called party chooses not to interrupt the current call, the busy station rings as soon as it becomes idle.

Operation

When an attendant attempts to extend a call to a busy station, the attendant hears 2 seconds of busy tone and the destination lamp flashes. The attendant then returns to the calling party and reports the busy station. If the calling party wishes to wait, the attendant presses the Release (RLS) or Hold (HOLD)/RLS key and the call is camped-on the busy station.

When the busy station does not become idle within a predetermined time period (12 through 60 seconds), the camped-on call automatically recalls the attendant. The attendant may camp-on the call again if the calling party wants to continue waiting.

Camp On with Music (continued)

Translations table flow

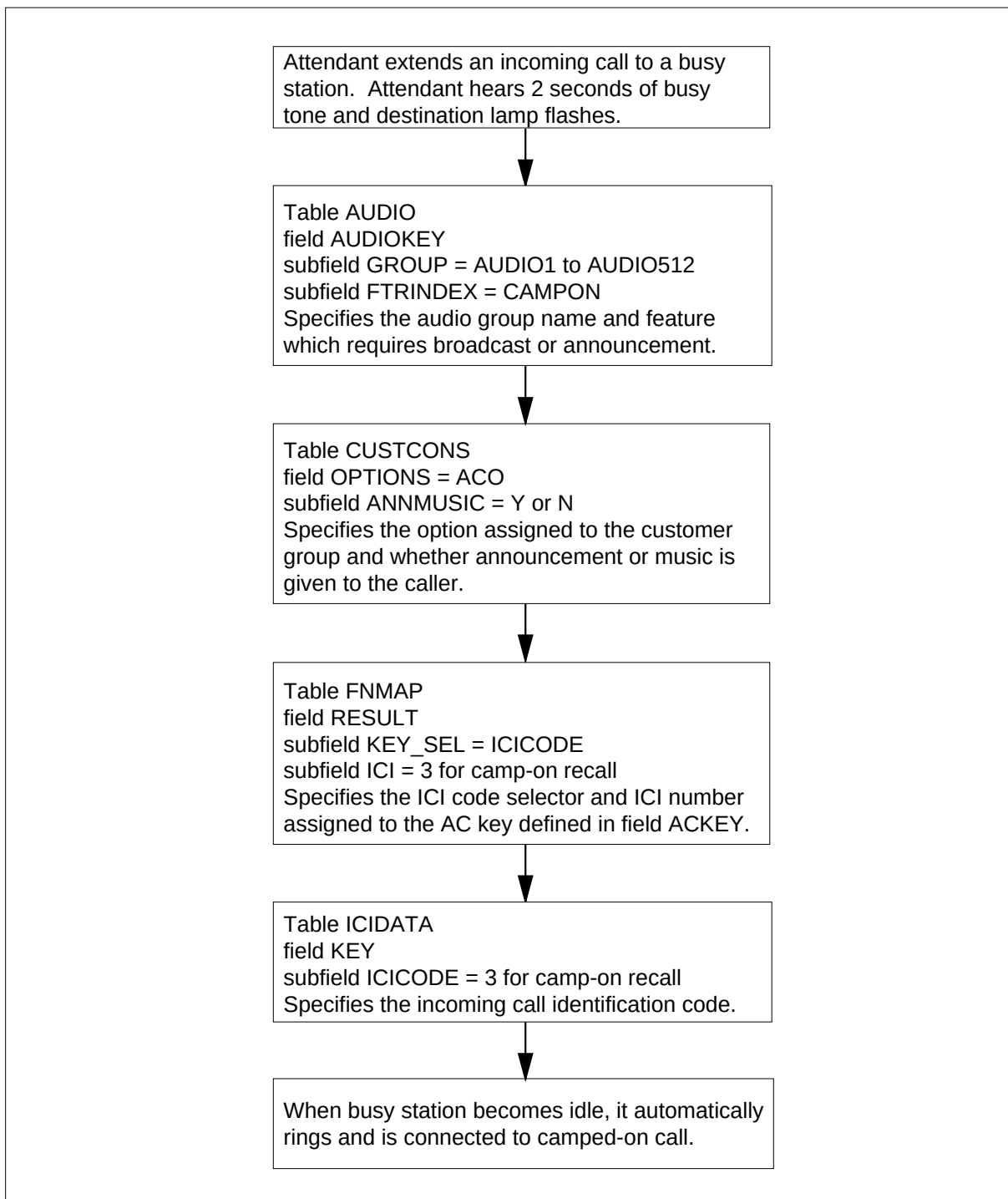
The Camp On with Music translations tables are described in the following list:

- Table AUDIO (Audio Interlude) contains the audio that the called party hears while Camp On with Music is activated.
- Table CUSTCONS (Customer Group Attendant Console Option) lists the attendant console options assigned to each customer group with an attendant console (AC). This table must be datafilled if a new value for the call waiting/no answer recall timer is desired.
- Table FNMAP (Attendant Console Functional Key) assigns features to keys 2 through 43 on specific consoles. Table FNMAP must be datafilled to assign a dedicated incoming call identification (ICI) key and lamp for Camp On with Music
- Table ICIDATA (Incoming Call Identification Data) contains the key and lamp display for each ICI number. Table ICIDATA must be datafilled to assign a key and lamp display for Camp On with Music. If incoming call identification is desired, datafill Table ICIDATA to assign Camp On with Music to ICI code number 3

The Camp On with Music translation process is shown in the flowchart that follows.

Camp On with Music (continued)

Table flow for Camp On with Music



Camp On with Music (continued)

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

Datafill example for Camp On with Music

Datafill table	Example data
AUDIO	AUDIO1 CAMPON (MUSIC CWMUSIC1 4) \$
CUSTCONS	MDCGRP1 (CWNATIM 15) (AC 12 CAMPON 13 N) \$
FNMAP	IBNCON1 2 IICICODE 2
ICIDATA	BNRMC 2 NONANSRC \$

Limitations and restrictions

The following limitations and restrictions apply to Camp On with Music:

- Only one call can be camped-on to a busy station.
- An attendant can have either Camp On with Music or Call Waiting, not both.
- Camp On with Tone is not compatible with stations that have option NDC assigned.
- Only calls from outside the customer group may be camped-on to a busy station in the group.
- If a call is already camped-on the busy line, the attendant hears 2 seconds of reorder tone and the destination lamp lights for 2 seconds, then turns off. This also applies if Camp On with Music is not permitted for the line.
- Camp On with Music does not apply to attendant-originated calls.
- A called station that is in a ringing, dialing, lock-out or held state (any unstable state) is incompatible with Camp On with Music.
- Since the number of connections to a trunk that broadcasts music is limited, some camped-on calls may not be able to connect to music. If the music circuit is unavailable, the calling party hears silence.

Camp On with Music (continued)

Interactions

The following paragraphs describe the interactions between Camp On with Music and other functionalities.

- *Busy Verification* Camp On with Music does not apply to the Busy Verification feature. An attendant cannot enter a connection if the station already has a call camped-on.
- *Call Forwarding Busy (CFB)* If the station has Camp On with Music and CFB and the attendant extends a call to the station, only Camp On with Music applies, not CFB.
- *Call Forwarding Intragroup (CFI)* The Camp On with Music feature is disabled while CFI is active.
- *Call Forwarding Universal (CFU)* The Camp On with Music feature is disabled while CFU is active.
- *Call Pickup (CPU)* Camp On with Music and CPU are incompatible features. Camped-on calls cannot be answered by the CPU feature.
- *Call Waiting (CWT)* A call cannot be camped-on to a station that has the CWT feature assigned.
- *Calling Line Identification with Flash (CLF)* Camp On with Music and CLF are incompatible features.
- *Malicious Call Hold* A call cannot be camped-on to a station that has the malicious call hold feature assigned.
- *Three-Way Calling (3WC)* If a station has Camp On with Music and 3WC, 3WC is disabled while a call is camped-on or alternating between parties.

Activation/deactivation by the end user

When an attendant attempts to extend a call to a busy station, the attendant hears 2 seconds of busy tone and the destination lamp flashes. The attendant then returns to the calling party and reports the busy station. If the calling party wishes to wait, the attendant presses the RLS or HOLD/RLS key and the call is camped-on the busy station.

When the busy station does not become idle within a predetermined time period (12 through 60 seconds), the camped-on call automatically recalls the attendant. The attendant may camp-on the call again if the calling party wants to continue waiting.

Billing

Camp On with Music does not affect billing.

Camp On with Music (continued)

Station Message Detail Recording

Camp On with Music does not affect Station Message Detail Recording.

Datafilling office parameters

Camp On with Music does not affect office parameters.

Datafill sequence

The following table lists the tables that require datafill to implement Camp On with Music. The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Camp On with Music

Table	Purpose of table
AUDIO	Audio Interlude. This table contains fields for defining the audio that the called party hears while Camp On with Music is activated.
CUSTCONS	Customer Group Attendant Console Option. This table contains fields for assigning the Camp On with Music feature to the customer group.
FNMAP	Attendant Console Functional Key. This table contains fields for assigning a dedicated key, lamp, and incoming call identification (ICI) code for the Camp On with Music feature.
ICIDATA	Incoming Call Identification Data. This table contains the key and lamp display for each ICI number.

Datafilling table AUDIO

Table AUDIO (Audio Interlude) contains fields for defining the audio that the called party hears while Camp On with Music is activated.

The following table shows the datafill specific to Camp On with Music for table AUDIO. Only those fields that apply directly to Camp On with Music are

Camp On with Music (continued)

shown. For a description of the other fields, refer to the data schema section of this document.

Datafilling table AUDIO

Field	Subfield or refinement	Entry	Explanation and action
AUDIOKEY		see subfields	Audio Key. This field consists of subfields GROUP and FTRINDEX.
	GROUP	AUDIO1 - 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 which requires broadcast or announcement. Enter CAMPON.

Datafill example for table AUDIO

The following example shows sample datafill for table AUDIO.

MAP display example for table AUDIO

AUDIOKEY		ROUTES			
AUDIO1	CAMPON	(MUSIC	CWMUSIC1	4)	\$

Datafilling table CUSTCONS

Table CUSTCONS (Customer Group Attendant Console Option) contains fields for to assigning the Camp On with Music feature to the customer group.

The following table shows the datafill specific to Camp On with Music for table CUSTCONS. Only those fields that apply directly to Camp On with

Camp On with Music (continued)

Music are shown. For a description of the other fields, refer to the data schema section of this document.

Datafilling table CUSTCONS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ACO	Options. This field specifies the option that is assigned to the customer group. Enter ACO for attendant camp-on.
If OPTIONS is set to ACO, subfield ANNMUSIC requires datafill.			
	ANNMUSIC	Y or N	Announcement or Music. This subfield specifies whether announcement or music is to be given to the caller. Enter Y or N.

Datafill example for table CUSTCONS

The following example shows sample datafill for table CUSTCONS.

MAP display example for table CUSTCONS

CUSTNAME	OPTIONS
MDCGRP1	(ACO 20 CAMPON 10 Y AUDI01) \$

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields for assigning a dedicated key, lamp, and incoming call identification (ICI) code for the Camp On with Music feature.

The following table shows the datafill specific to Camp On with Music for table FNMAP. Only those fields that apply directly to Camp On with Music are

Camp On with Music (continued)

shown. For a description of the other fields, refer to the data schema section of this document.

Datafilling table FNMAP

Field	Subfield or refinement	Entry	Explanation and action
RESULT		see subfields	Result. This field consists of subfields KEY_SEL and ICI.
	KEY_SEL	ICICODE	Key selector. This subfield specifies the incoming call identification (ICI) code selector. Enter ICICODE.
	ICI	3	Incoming call identification code. This subfield specifies the Incoming Identification number assigned to the attendant console (AC) key number defined in field ACKKEY. Enter 3.

Datafill example for table FNMAP

The following example shows sample datafill for table FNMAP.

MAP display example for table FNMAP

KEY	RESULT
ATTCONS 30	ICICODE 3

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains the key and lamp display for each ICI number. If incoming call identification is desired, datafill Table ICIDATA to assign Camp On with Music to ICI code number 3.

The following table shows the datafill specific to Camp On with Music for table ICIDATA. Only those fields that apply directly to Camp On with Music

Camp On with Music (end)

are shown. For a description of the other fields, refer to the data schema section of this document.

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 incoming call identification (ICI) code. Enter 3.
NAME		CMONRC	KLD name. This field specifies the 1- to 7-character alphanumeric name assigned to the specified ICI code in the specified customer group for the key and lamp display at the attendant's console. Enter CMONRC.

Datafill example for table ICIDATA

The following example shows sample datafill for table ICIDATA.

MAP display example for table ICIDATA

KEY		NAME	OPTIONS
BNRMC	3	CMONRC	\$

Translation verification tools

Camp On with Music does not use translation verification tools.

SERVORD

Camp On with Music does not use SERVORD.

CFD from Hunt Group Station

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS25 and later versions

Requirements

To operate, CFD from Hunt Group Station requires BAS Generic, BAS00003.

Description

The current IBN Call Forward Don't Answer (CFD) feature allows an IBN or Subscriber Service (SS) station to redirect a call to a different destination. The IBN or SS redirects a call if the call is not answered in a specified time.

The CFD from Hunt Group Station can provide Call Forward Don't Answer capability to a pilot or to a member of an IBN directory number hunt (DNH) group. The CFD from Hunt Group Station applies to 500/2500 and Meridian business set (MBS) stations.

Operation

A member of a DNH group can be the termination point in one of the following two conditions:

- A caller dials the pilot DN for the DNH hunt group and hunts to the member.
- A caller dials the directory number (DN) of the member.

The call rings on the hunt member until the call is answered or abandoned.

This feature allows you to assign CFD to members of the DNH group. If you assign CFD to a hunt member line, a call presented to the set rings. The call rings for a specified amount of time. The system forwards the call to a different destination. This destination can be another member of a hunt group.

This feature allows you to assign DNH hunt group members to enhance current IBN CFD. The CFD for DNH members functions in a method like CFD for IBN and SS stations because of this enhancement. All capabilities, interactions, restrictions, and options associated with IBN station CFD also apply to DNH CFD.

CFD from Hunt Group Station (continued)

Table OPTOPT

Table OPTOPT does not require new datafill. The system updates external EXT file FTRIBN to remove incompatibilities. These incompatibilities do not apply to DNH in Table OPTOPT (Incompatible Option). Use external EXT file FTRIBN during load build. The incompatibilities appear in the following table.

Note: Table OPTOPT is a read-only table.

OPTOPT

Table	Option	Incompatibilities
OPTOPT	DNH	ACD ACOU CBE CBI CBU CFB CWX DLH DMCT ECM EHLD IECFB LDTPSAP MDN MLAMP MLH MPB MPH MREL NSDN RCHD RSUS SCMP SDN SLVP UCD UCDS WUCR
	CFD	BNN DLH DOR DTM FNT HOT MLH MPH NRS PRH TBO TRMBOPT
	CDI	BNN CDE DLH DTM FNT HOT IECFD MLH PRH TBO TRMBOPT
	CDE	BNN CDI DLH DTM FNT HOT IECFD MLH PRH TBO TRMBOPT

Translations table flow

The CFD from Hunt Group Station does not affect user interface.

Limits

The CFD from Hunt Group Station removes limits in the following conditions:

- to enter data in nonpilot members of a DNH group with the CFD
- to deny forwarding of intragroup calls (CDI)
- to deny forwarding of external calls (CDE) line options

All current limits with CFD and DNH remain the same.

Interactions

All current interactions with CFD and DNH remain the same.

CFD from Hunt Group Station (continued)

Activation/deactivation by the end user

The CFD from Hunt Group Station does not require end user activation or deactivation.

Billing

The CFD from Hunt Group Station does not affect billing.

Station Message Detail Recording

The CFD from Hunt Group Station does not affect Station Message Detail Recording.

Datafilling office parameters

The CFD from Hunt Group Station uses the office parameters that appear in the following table. For additional information about office parameters, refer to *Office Parameters Reference Manual*.

Datafill procedure for CFD_EXT_BLOCKS

The datafill for CFD_EXT_BLOCKS appears in the following procedure.

Office parameters by CFD from Hunt Group Station

Table name	Parameter name	Explanation and action
OFCENG	CFD_EXT_BLOCKS	Specifies the number of Call Forward Busy and Don't Answer extension blocks that MDC and SS stations require. The number that the stations require equals the total number of stations with a minimum of one type of MDC or SS call forwarding times 0.7.

Datafill procedure for CFW_EXT_BLOCKS

The datafill for CFW_EXT_BLOCKS appears in the following procedure.

Office parameters by CFD from Hunt Group Station

Table name	Parameter name	Explanation and action
OFCENG	CFW_EXT_BLOCKS	All switches with the Call Forwarding feature require this parameter.

CFD from Hunt Group Station (continued)

Datafill procedure for IBN_CFW

The datafill for IBN_CFW appears in the following procedure.

Office parameters by CFD from Hunt Group Station

Table name	Parameter name	Explanation and action
OFCOPT	IBN_CFW	Specifies if CFW is available for POTS data lines or all IBN business sets, IBN and POTS data lines in the IBN environment. The value of this option is Y.

Datafill sequence

The tables that require datafill to implement CFD from Hunt Group Station appear in the following table. The tables appear in the correct entry order.

Datafill tables required for CFD from Hunt Group Station

Table	Purpose of table
OFCENG	Office Engineering Table. This table contains data on engineering parameters for the office. Refer to "How to enter office parameters" for how CFD from Hunt Group Station affects office parameters.
OFCOPT	Office Option. This table contains data on engineering options for the office. Refer to <i>How to Enter Office Parameters Reference Manual</i> for how CFD from Hunt Group Station affects office parameters.
CUSTSTN	Customer Group Station Option Table. A switching unit with North American translations and the Meridian Digital Centrex (MDC) requires this table. The feature AG0508 (Residential Enhanced Services) (RES) requires this table. This table contains the station options for each of the customer groups.
IBNFEAT (Note)	IBN Line Feature Table. This table lists line features that are assigned to the IBN lines listed in table IBNLINES.
KSETFEAT (Note)	Business Set and Data-Unit Feature Table. This table contains the line features for the business sets and data units (DU) that appear in table KSETLINE. This table also appears in the Meridian digital telephone sets and DUs that appear in table IVDINV.
Note: Use SERVORD to enter data in this table. A datafill procedure is not available.	

Datafill that activates or uses the CFD from Hunt Group Station feature does not change. This datafill is like the datafill for the call forward don't answer feature.

CFD from Hunt Group Station (continued)

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains station options for each of the customer groups.

Datafill for CFD from Hunt Group Station for table CUSTSTN appears in the following table. The fields that apply to CFD from Hunt Group Station appear in this table. Refer to 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		alphanumeric	Customer Name This field specifies the 1-character to 16-character alphanumeric name for the customer group. You must enter this name before you can use table CUSTHEAD.
OPTNAME		CFDATIM	Option Name This field specifies the name of the option. Enter CFDATIM.
OPTION		see subfields	Option This field contains subfields OPTION and CFDATO.
	OPTION	CFDATIM	Option This subfield specifies the name of the option. Enter CFDATIM.
	CFDATO	12 to 325	Call Forward Don't Answer Timing This subfield specifies the call forwarding don't answer timing period in 1-s increments. Enter a number from 12 to 325.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

CFD from Hunt Group Station (continued)

MAP example for table CUSTSTN

CUSTNAME	OPTNAME		OPTION			
MS1LBR2	CPARK		CPARK	30		
MS1LBR2	CXFER		CXFER	CTALL	N	STD
MS1LBR2	RAGTIM			RAGTIM	8	0
MS1LBR2	CFDATIM			CFDATIM	16	
MX1LBR	CXFERSUP	CXFERSUP	ALLIBN	CONF	ALLPOTS	CONF N
MS1LBR	CXFEAT				CXFEAT	Y

Tools for verifying translations

The CFD from Hunt Group Station does not use translation verification tools.

SERVORD

Assign option CFD to the pilot or member of an IBN directory number hunt (DNH) with the following commands:

- ADD (add line to a hunt group)
- ADO (add option)
- EST (establish a hunt or call pickup group)

SERVORD limits

During SERVORD, the system screens POTS options CFW F and CFBL for codes like 911, 611, 411, 0+, 0-, 010, and 011. The system screens for these codes so you cannot assign these options as correct forward-to directory numbers. The system does not screen MDC options CFF (Call Forwarding Fixed) and CFB (Call Forwarding Busy) for these codes. You can assign these codes as correct forward-to directory numbers.

CFD from Hunt Group Station (continued)

SERVORD prompts

The SERVORD prompts that assign CFD from Hunt Group Station to a line appear in the following table.

SERVORD prompts for CFD from Hunt Group Station

Prompt	Correct input	Explanation
OPTKEY	1-69 for MBS 1-4, 7 for data unit	This field specifies the key on an MBS or data unit to which you must assign the option. Enter a number from 1 to 69 for an MBS, or 1 to 4 or 7 for a data unit.
OPTION	CFD	This field specifies the option that you must assign. Enter CFD.
CFDCNTL	F, N, P	This field specifies Call Forwarding Do Not Answer control. Enter F for fixed assignment for CFD. Enter N for normal (default). Enter P for programmed assignment for CFD.
CFDDN	Up to 24 digits	This field specifies the Call Forwarding DN. Enter a maximum of 24 digits.
KEYLIST	Key number (1-69), list of key numbers, or \$	This field specifies key numbers of the DNS to which a feature applies. The KEYLIST appears when you assign a subset feature to a multi-line set. Enter numbers from 1 to 69, or \$.

Note: The system automatically enters data in table IBNFEAT or table KSETFEAT when you assign CFD from Hunt Group Station. Use SERVORD to assign CFD from Hunt Group Station.

SERVORD example for adding CFD from Hunt Group Station

The addition of CFD from Hunt Group Station to a line with the ADO command appears in the following SERVORD example.

CFD from Hunt Group Station (end)

SERVORD example for CFD from Hunt Group Station in prompt mode

```
>ADO
SONUMBER: NOW 92 6 2 PM
>
DN_OR_LEN:
> 0 0 9 2
OPTKEY:
> 1
OPTION:
> CFD
CFDCNTL:
> F
CFDDN:
> 6210103
KEYLIST:
> 1
KEYLIST:
> $
OPTKEY:
> $
```

SERVORD example for CFD from Hunt Group Station in no-prompt mode

```
> ADO $ 0 0 9 2 1 CFD F 6210103 1 $ $
```

CFD Interaction with Three-Way Calling

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS28 and later versions

Requirements

To operate, the CFD Interaction with Three-Way Calling feature requires BAS Generic, BAS00003.

Description

The CFD Interaction with Three-Way Calling feature allows the second leg of a three-way call (3WC) with Call Forwarding Don't Answer (CFD) to forward. The system forwards the second leg of a 3WC with CFD after the CFD time-out occurs.

The CFD Interaction with Three-Way Calling feature applies to MDC and plain old telephone service (POTS) lines. These lines are the second leg of a three-way call. The CFD Interaction with Three-Way Calling feature applies to the following line class codes (LCC):

- IBN—integrated business network
- PSET—proprietary business set
- DATA—data unit
- PDATA—POTS data unit
- M2008—Meridian M2008 sets
- M2009—Meridian M2009 sets
- M2112—Meridian M2112 sets
- M2018—Meridian M2018 sets
- M2317—Meridian M2317 sets
- M3000—Meridian M3000 sets
- M5009—Meridian M5009 sets
- M5112—Meridian M5112 sets
- M5018—Meridian M5018 sets
- M5209—Meridian M5209 sets

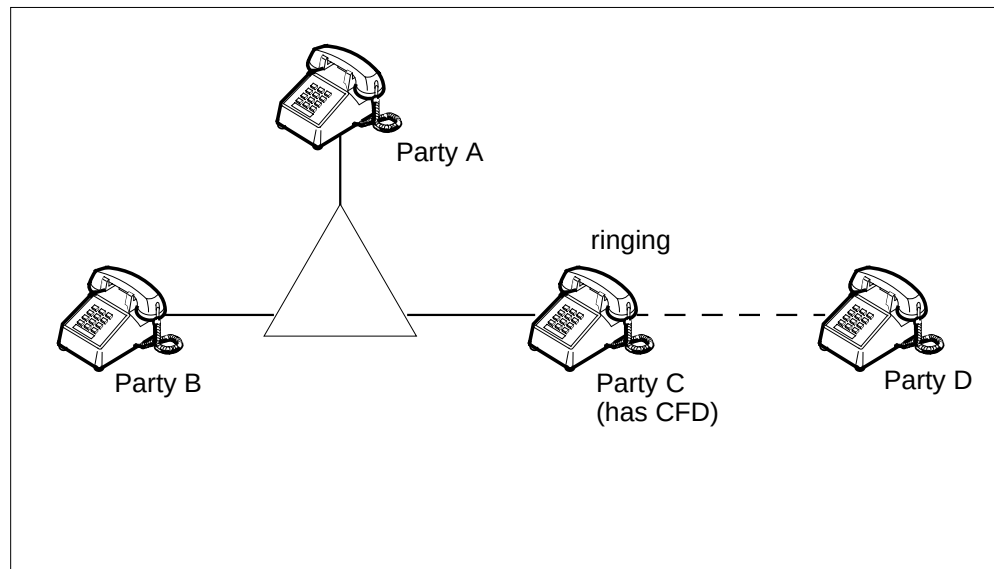
CFD Interaction with Three-Way Calling (continued)

- M5312—Meridian M5312 sets
- M5317—Meridian M5317 sets
- MADO—Meridian asynchronous data option
- 1FR—individual flat rate, residence and business
- 1MR—individual message rate
- PBX—PBX flat rate
- ZMD—zero minus denied
- ZMZPA—zero minus zero plus allowed

Operation

Before this feature, the station continued to ring and the system did not forward the call. This condition was present if the add-on party in three-way call had the CFD feature and the time-out occurred. This feature allows the system to forward the call when the time-out occurs. If one of the CFDs is not satisfied, the base station continues to ring if the called party does not answer.

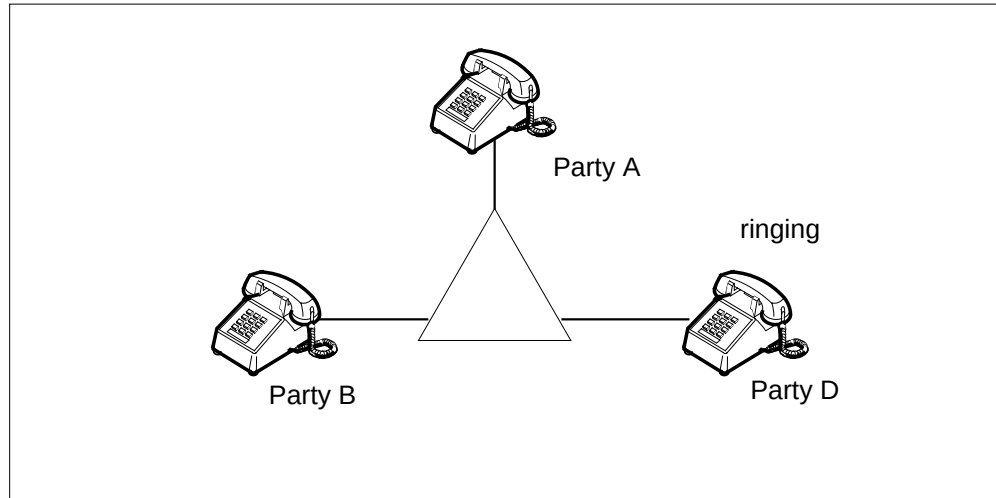
In the following figure station C programs the CFD feature to forward to station D. Station A and B talk and want to establish a three-way call with station C. Station A flashes and dials station C. Station C rings.

Three-party call with CFD

Station C does not answer the call. When the CFD time-out occurs, the system forwards the call to station D and station D rings. This condition appears in the following figure.

CFD Interaction with Three-Way Calling (continued)

Three-party call established



Party D is in a conference with parties A and B. Party D can be a correct CFD terminator.

The following CFD terminators are correct:

- IBN line
- IBN trunk
- Attendant console
- Meridian business set
- UCD group
- ACD group
- Tie trunk
- Hunt group
- POTS line
- POTS trunk
- Announcement
- Tone

The following CFD terminators are not correct:

- Service codes (for example, 911, 411)
- Operators (for example, 555-1212)
- Test lines

CFD Interaction with Three-Way Calling (continued)

- Preset conference
- Meet-me conference
- International direct distance dialing (IDDD)

Translations table flow

The CFD Interaction with Three-Way Calling feature does not affect translations table flow.

Limits

The CFD Interaction with Three-Way Calling feature does not have limits.

Interactions

Descriptions of the actions between the CFD Interaction with Three-Way Calling feature and other functionalities appear in the following paragraphs.

Call Waiting

The second leg of a three-way call can have CFD to a station with call waiting (CWT) and be busy with another call. If this condition is present, the system forwards the call to the busy station. The busy station with Call Waiting hears CWT tone and can answer the conference.

Three-way Calling

The system does not support some features for a three-way call. Most features provide a treatment if the end user attempts to activate the features. The base station can be CFD to a feature that is not compatible with three-way calling. If this condition is present, the system does not forward. The base station continues to ring.

This feature allows CFD to operate when in a three-way call. To allow CFD to operate when in a three-way call changes actions between CFD and three-way call. Other three-way call and CFD interactions are in effect.

Activation/deactivation by the end user

The CFD Interaction with Three-Way Calling feature does not require activation or deactivation by the end user.

Billing

The CFD Interaction with Three-Way Calling feature does not affect billing.

Station Message Detail Recording

The CFD Interaction with Three-Way Calling feature does not affect Station Message Detail Recording.

CFD Interaction with Three-Way Calling (end)

Datafilling office parameters

The CFD Interaction with Three-Way Calling feature does not affect office parameters.

Datafill sequence

The CFD Interaction with Three-Way Calling feature does not affect datafill.

Tools for verifying translations

The CFD Interaction with Three-Way Calling feature does not use translation verification tools.

SERVORD

The CFD Interaction with Three-Way Calling feature does not use SERVORD.

CFGDA for Hunt Groups

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS26 and later versions

Requirements

To operate, CFGDA for Hunt Groups requires BAS Generic, BAS00003.

Description

The CFGDA for Hunt Groups feature enhances hunting for Integrated Business Network (IBN) and Residential Enhanced Services (RES) hunt groups. This feature allows you to assign the call forward don't answer (CFGDA) feature to a hunt group. This feature makes sure the system forwards calls to idle hunt group stations. The system forwards calls if the end user does not answer the station in a specified period of time. The system can forward the call to one of the following destinations:

- the next station in the hunt sequence
- a directory number (DN) outside the hunt group but inside the customer group

This feature increases the probability that an incoming call receives acknowledgment.

In this feature description CFGDA is generic and refers to the following line assignments:

- Plain Old Telephone Service (POTS) lines - CFGDA
- MDC/RES lines - CFGD

Operation

The operation of CFGDA for Hunt Groups appears in the following paragraphs.

Hunting with CFGDA

Before CFDGA, the system allowed you to assign call forward don't answer (CFD) to individual members of a directory number hunt (DNH) group. The system was able to forward calls placed to these members on no answer. Feature AD0906, CFD for Hunt Group Station, provides this ability.

CFGDA for Hunt Groups (continued)

The CFGDA feature allows you to assign call forward don't answer to a complete hunt group. You can assign this feature to the following types of hunt group:

- the (DNH)
- distributed line hunt (DLH)
- multiline hunt (MLH)

CFGDA attributes

Several attributes determine how CFGDA operates. Datafill in Table HUNTGRP (Hunt Group) or the Service Order System (SERVORD) specifies these attributes. The HUNTGRP or SERVORD must specify the following attributes:

- forwarding destination (field INTERNAL)
- types of incoming calls that you can forward (field CFGDATYP)
- time-out value (field SPECTIME).

These attributes appear in the following paragraphs.

Forwarding destination

Field INTERNAL of Table HUNTGRP specifies the forwarding destination. You can set Field INTERNAL to Y or N.

If you set field INTERNAL to Y, the system forwards calls to the next member in the hunt group. The system treats a not answered station like a busy station. If you set field INTERNAL to N, the system forwards calls to a specified DN. For example, you can forward not answered calls to another hunt group or to a normal DN. Field FDN specifies the forward-to DN.

The DN cannot be a member of the same hunt group or the pilot DN of the same hunt group. This looping can exhaust the call forwarding limit affect real-time performance.

If the system cannot forward the call to the forward-to DN, the call continues to ring. The call continues to ring on the current hunt group member. The system can not forward the call if the DN is out-of-service or busy. A call can forward a maximum of five times. After the system forwards a call the fifth time, the station continues to ring until the agent answers the call. The station continues to ring until the caller hangs up.

CFGDA for Hunt Groups (continued)

Types of calls that can be forwarded

The types of incoming calls that you can forward appear in field CFGDATYP of Table HUNTGRP. Three options are available:

- N—No restrictions. You can forward incoming calls.
- CFGDI—Intragroup calls restricted. Intragroup calls are calls from the hunt groups customer group. You can not forward intragroup calls.
- CFGDE—Extragroup calls restricted. Extragroup calls are calls from outside the hunt groups customer group. You can not forward extragroup calls.

Time-out value

The time-out value for call forward group don't answer is in field SPECTIME of Table HUNTGRP. Possible values for field SPECTIME appear in the following list:

- Y—This option allows the end user to enter a special call forward don't answer time-out value. You can enter this value in field TIME. This value can range from 12 s to 325 s.
- N—This option means that the time-out value defaults to the time-out value field CFDATIM in Table CUSTSTN specifies. The time-out value field CFDATIM specifies is for the customer group of the hunt groups pilot DN.

Translations table flow

The CFGDA for Hunt Groups does not affect translations table flow.

Limits

The following limits apply to CFGDA for Hunt Groups:

- You can forward a call a maximum of five times. After you forward a call the fifth time, the station continues to ring. If you set field INTERNAL to N in Table HUNTGRP, the system maintains the maximum. The system maintains the maximum when the forwarded call remains in the DMS switch.
- When you enter data in a hunt group with field INTERNAL set to N, the forward-to DN must be correct. The forward-to DN must not be a member or the pilot DN of the same hunt group. The system administrator must make sure that this condition does not occur. This looping can exhaust the call forwarding limit and decrease real time efficiency.
- You cannot assign this feature to the bridged night number (BNN) type of hunt group.

CFGDA for Hunt Groups (continued)

Interactions

The following paragraphs describe the interactions between CFGDA for Hunt Groups and other functionalities.

Line Overflow Route (LOR) and Line Overflow DN (LOD)

With normal hunt, if each hunt group member is busy, the call overflows to a route or a DN. Call overflow to a route relates to the LOR option. Call overflow to a DN relates to the LOD option. When you apply CFGDA to the group, overflowing occurs when all members are busy or not answered.

Random Make Busy

As with normal hunt, the system does not forward a call to a hunt group member that activates Random Make Busy (RMB). If these conditions occurs the hunt group member that rings continues to ring.

Stop Hunt

As with normal hunt, the system does not forward a to a hunt group member that activates Stop Hunt (SHU). If these conditions occur the hunt group member that rings continues to ring.

Call Forward Don't Answer

You can assign CFD to members of a DNH group (feature AD0906). The system can apply CFD to an individual DNH group member. The system can assign CFGDA to the DNH group. If these conditions occur, the system determines feature order as follows:

- For calls to the pilot DN, CFGDA takes priority over CFD.
- For calls that terminate on a DNH group member because of a direct call to that DN, CFD takes priority over CFGDA. A caller that wants to talk with that specified agent makes the call to that DN.
- For calls that terminate on a hunt group member in the course of hunting, CFGDA takes priority over CFD.

Three-way Calling (3WC)

A conference can occur on the ringback from a hunt group agent with CFGDA. If this event occurs the system forwards the call when the forwarding timer expires.

Activation/deactivation by the end user

The CFGDA for Hunt Groups feature does not require end user activation or deactivation.

CFGDA for Hunt Groups (continued)

Billing

The CFGDA for Hunt Groups does not affect billing.

Station Message Detail Recording

The CFGDA for Hunt Groups does not affect Station Message Detail Recording.

Datafilling office parameters

The CFGDA for Hunt Groups does not affect office parameters.

Datafill sequence

The tables that require datafill to implement CFGDA for Hunt Groups appear in the following table. The tables appear in the correct entry order.

Datafill requirements for CFGDA for Hunt Groups

Table	Purpose of table
HUNTGRP (Note)	Hunt Group. This table contains the data for each hunt group assigned in the switch.
Note: Enter data in this table through SERVORD. This document does not contain a datafill procedure.	

Tools for verifying translations

The CFGDA for Hunt Groups does not use tools for verifying translations.

SERVORD

This feature creates line option CFGD. This option assigns CFGDA to lines with a line class code (LCC) of RES or IBN. For POTS hunt groups, the option is CFGDA. The following commands support the CFGD option:

- ADO (add option)
- DEO (delete option)
- CHF (change feature information for current feature)
- EST (establish a hunt or call pickup group)

SERVORD limits

The CFGDA for Hunt Groups does not have SERVORD limits.

CFGDA for Hunt Groups (continued)

SERVORD prompts

The SERVORD prompts that assign CFGDA for Hunt Groups to lines appear in the following table. The lines must have a line class code of RES or IBN.

SERVORD prompts for CFGDA for Hunt Groups

Prompt	Valid input	Explanation
OPTION	CFGD	Specifies the option to assign. Enter CFGD.
INTERNAL	Y, N	Specifies the forwarding destination. Enter Y to forward calls to the next hunt group member. Enter N to forward calls to a specified DN.
CFGDN	Up to 24 digits	Specifies the forward-to DN. Enter a maximum of 24 digits. Note: This prompt appears if you enter N at the INTERNAL prompt.
SPECTIME	Y, N	Specifies... Enter Y if you enter a time-out value. Enter N if you use the time-out value in Table CUSTSTN.
TIMEOUT	12 to 325	Specifies the time-out value in seconds. Enter a value from 12 to 325. Note: This prompt appears if you enter Y at the SPECTIME prompt.
CFGTYPE	N, CFGDI, CFGDE	Enter N if restrictions do not apply. Forward all incoming calls. Enter CFGDI for restrict intragroup. Do not forward calls from the hunt groups customer group. Enter CFGDE for restrict extragroup. Do not forward calls from outside the hunt groups customer group.

Note: The system enters data in table HUNTGRP when you use SERVORD to assign CFGDA for Hunt Groups.

The CFGD option only applies to SERVORD. In Table HUNTGRP, the option is CFGDA for POTS and MDC hunt groups. The relationship between table

CFGDA for Hunt Groups (continued)

control and SERVORD administration of CFGDA appears in the following table.

control and SERVORD administration of CFGDA

Type of CFGDA administration	POTS	IBN and RES (MDC)
Table control	Table HUNTGRP: CFGDA = Y LINETYPE = POTS	Table HUNTGRP: CFGDA = Y LINETYPE = MDC
SERVORD	EST/ADO/CHF/DEO: OPTION = CFGDA	EST/ADO/CHF/DEO: LCC = IBN, RES OPTION = CFGD

Note 1: Option CFGD applies only to the pilot DN of a hunt group.

Note 2: Apply option CFGD to IBN and RES lines only. You can apply option CFGDA in SERVORD to POTS lines only. The system rejects wrong assignment of an option to a line class code. Assignment of CFGDA to an IBN line class code is an example of an wrong assignment.

The following options are not compatible with option CFGD:

- AUL
- CFGDA
- CNAB
- CNDB
- FGA
- FNT
- HOT
- MAN
- NRS
- ONI
- PLP
- RCHD
- SCMP
- SDN
- SLVP

CFGDA for Hunt Groups (continued)

- TBO
- TRMBOPT

The following options are not compatible with CFGDA:

- AUL
- CFGD
- FNT
- HOT
- MAN
- MPB
- ONI
- RCHD
- SDN
- SLVP
- TBO
- TRMBOPT

SERVORD example for adding CFGDA for Hunt Groups

The use of the ADO command to add CFGDA for Hunt Groups to lines appears in the following SERVORD example. These lines have a line class code of RES or IBN.

CFGDA for Hunt Groups (continued)

SERVORD example for CFGDA for Hunt Groups in prompt mode

```
>  
S0:  
> EST  
SONUMBER:    NOW 88 04 21 AM  
>  
GROUPTYPE:  
> DNH  
PILOT_DN:  
> 7224111  
LCC:  
> IBN  
GROUP:  
> COMKODAK  
SUBGROUP:  
> 0  
NCOS:  
> 0  
SNPA:  
> 613  
LATANAME:  
> nillata  
LTG:  
> 5  
PILOT_LEN:  
> 0 1 5 0  
DN_LEN:  
> 7224112  
LEN:  
> 0 1 5 2  
DN_LEN:  
> 7224113  
LEN:  
> 0 1 5 3  
DN_LEN:  
> $  
OPTION:  
> CFGD
```

CFGDA for Hunt Groups (end)

SERVORD example for CFGDA for Hunt Groups in prompt mode (continued)

```
>  
INTERNAL:  
> N  
CFGDN:  
> 7224000  
SPECTIME:  
> Y  
TIMEOUT:  
> 12  
CFGTYPE:  
> CFGDI  
OPTION:  
> $  
GROUPSIZE:  
> 4
```

SERVORD example for CFGDA for Hunt Groups in no-prompt mode

```
> EST $ DNH 7224111 IBN COMKODAK 0 0 613 5 0 1 5 0 7224112 0 1 5 2  
7224113 0 1 5 3 $ CFGD N 7224000 Y 12 CFGDI $ 4
```

Class of Service Restrictions

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Class of Service Restrictions has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

Class of Service Restrictions combines NT features with the following NT numbers:

- F0389, Class-of-Service Restrictions (Semi-Restricted Service)
- F0388, Class-of-Service Restrictions (Fully Restricted Service)
- F0390, Class-of-Service Restrictions (Unrestricted Service)
- F0787, Class-of-Service Restrictions (Toll Restricted Service)

Class of Service Restrictions provides the ability to allow or deny features on an each station condition. Class of service restrictions apply to 9+ and attendant-type calls that IBN stations originate.

The system handles network access for the four classes of service restriction in the following way:

- The system toll denies or toll diverts toll-restricted stations to the attendant.
- The system allows unrestricted stations to dial to a location.
- The system allows semi-restricted stations access to the exchange network through the attendant.
- The system does not allow fully restricted stations access to the exchange network. Fully restricted stations cannot dial or go through the attendant for access.

Two categories represent fully restricted classes of service:

- *Fully restricted.* The system does not allow fully restricted stations to access the exchange network and the attendant. If the station end user

Class of Service Restrictions (continued)

attempts to access the exchange network or the attendant, intercept treatment results.

- *Attendant restricted.* The system does not allow attendant restricted stations to dial to access the exchange network. Stations that attendants restrict can have some features specified on each station base. These features follow:
 - the ICI category when the station end user dials 0 for attendant access. This category can display attendant or fully restricted on the attendant console display.
 - the treatment when the station end user dials 9 to make an outside call. This treatment can be reorder tone, announcement, or vacant code.
 - the ability of the attendant to override the restrictions of the station. If the flag of the station is set, the attendant can extend the call. If the flag is not set, the attendant cannot extend the call.

Operation

The system activates this feature when entries for this feature occur. Operation is transparent to the end user.

Translations table flow

Class of Service Restrictions does not affect translations table flow.

Limits

Class of Service Restrictions does not have limits.

Interactions

Class of Service Restrictions does not have actions between functions.

Activation/deactivation by the end user

Class of Service Restrictions does not require activation or deactivation by the end user.

Billing

Class of Service Restrictions does not affect billing.

Station Message Detail Recording

Class of Service Restrictions does not affect Station Message Detail Recording.

Class of Service Restrictions (continued)

Datafilling office parameters

Class of Service Restrictions does not affect office parameters.

Datafill sequence

The datafill associated with this feature is for the end user. The datafill depends on the specified limits that the end user imposes on specified stations. These stations are the stations assigned semi-restricted classes of service.

Tables NCOS and IBNXLA are associated with this feature. The datafill differs for each customer group.

The tables that require datafill to implement Class of Service Restrictions appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Class of Service Restrictions

Table	Purpose of table
NCOS	Network Class of Service Table. This table contains network class of service (NCOS) numbers assigned to the following: • attendant consoles (AC) • Integrated Business Network (IBN) stations • Subscriber Services (RES) stations • incoming sides of two-way IBN trunk groups • authorization codes • customer groups
IBNXLA	IBN Translation Table. This table contains the data for the digit translation of calls from on of the following: • an IBN station • an AC • incoming side of a two-way IBN trunk group

Datafilling table NCOS

Table NCOS (Network Class of Service) contains NCOS numbers assigned to the following:

- ACs
- IBN stations
- Subscriber Services (RES) stations
- incoming sides of two-way IBN trunk groups

Class of Service Restrictions (continued)

- authorization codes
- customer groups

Table NCOS must contain entries to define the dialing patterns to allow or deny access to facilities or features.

The datafill for Class of Service Restrictions for table NCOS appears in the following table. The fields that apply to Class of Service Restrictions 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	CRL	NCOS Option. This subfield specifies the NCOS options. Enter CRL.
If NCOSOPTN is CRL, subfields CRL and CRLACT require datafill.			
	CRL	1 to 15	Code Restriction Level. This subfield specifies the code restriction level that applies to the NCOS number. Entries range from 1 to 15.
	CRLACT	ALLOWED or BLOCKED	Code Restriction Action. This subfield specifies the code restriction level for calls that the system allows to complete. Enter ALLOWED or BLOCKED.

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
MDCGRP1	3	REST	0	0	(CRL 1 BLOCKED) \$

Class of Service Restrictions (continued)

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains the data for the digit translation of calls from one of the following:

- an IBN station
- an AC
- incoming side of a two-way IBN trunk group

Datafill for Class of Service Restrictions for table IBNXLA appears in the following table. The fields that apply to Class of Service Restrictions 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 consists of subfield TRSEL.
	TRSEL	NET	Translations Selector. This subfield specifies the translations selector. Enter NET.
If TRSEL is NET, many subfields require datafill. Only subfield CRL is for this feature.			
	CRL	Y or N	Code Restriction Level. This subfield specifies if code restriction level is available. Enter Y if CRL is available. If CRL is not available, enter N.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY	RESULT
MDCG1XLA 9 NET N Y N 1 Y POTS Y N DDD N 36 NONE	

Tools for verifying translations

Class of Service Restrictions does not use tools for verifying translations.

Class of Service Restrictions (end)

SERVORD

Class of Service Restrictions does not use SERVORD.

Code Call Access

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

To operate, Code Call Access requires BAS Generic, BAS00003.

Description

Code Call Access allows stations to gain access to end user-provided code call equipment. Stations must dial an access code and a called party code to gain this access.

The system transfers the called party code to the code-call equipment. The code-call equipment activates an end user-provided visual/audible signaling device to alert the called party.

Stations can dial a code-call pickup code from an IBN station to connect the called party to the calling party. The IBN station can be a IBN station that the same DMS-100 switch serves.

Operation

If the calling party has the Code Call Access feature, the feature operates in the following method:

- The calling party goes off-hook, receives dial tone, and dials the Code Call Access code.
- The DMS switch reserves the code call equipment. The DMS switch returns dial tone to the calling party.
- The calling party dials the called party code and waits off-hook. The calling party hears audible ringback while the calling party waits.
- The system places the calling party in a code call queue. The party remains in this queue until the called party answers or until the calling party abandons the call.
- The code call equipment generates a specified visual/audible signal according to the received called-party digits.
- The called party recognizes the assigned visual/audible code. The called party goes off-hook from any station and hears dial tone. The called party

Code Call Access (continued)

dials the code-call pickup code. This code is the same for all end users assigned to a code call unit. More than one unit can be present.

- A code-call access queue-status check verifies that a correct code call request is in queue. This check verifies that the first queue member connects to the called party.

Translations table flow

Code Call Access does not affect translations table flow.

Limits

The following limits apply to Code Call Access:

- Feature access is for intragroup stations and attendants only through DTMF or DP signaling.
- Access to code call equipment has originating station class of service restrictions.
- The Code Call Access feature does not have known queuing capability. A station end user can dial the code call access code and the equipment is in use. When this condition occurs, the station end user receives busy tone and must dial again later.
- A time-out period applies to the code call access line. A station can dial the access code plus a called party code. When this condition occurs, the code call access line remains seized until the time reaches the time-out period.
- A validity check of called party codes does not occur.

Interactions

A description of the actions between Code Call Access and other functionalities appears in the following paragraph.

Use of the ring again feature can occur if a station end user dials the code call access code. The equipment must be busy.

Activation/deactivation by the end user

Code Call Access does not require activation or deactivation by the end user.

Billing

Code Call Access does not affect billing.

Station Message Detail Recording

Code Call Access does not affect Station Message Detail Recording.

Code Call Access (continued)**Datafilling office parameters**

Code Call Access does not affect office parameters.

Datafill sequence

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

Datafill requirements for Code Call Access

Table	Purpose of table
IBNXLA	IBN Translation Table. This table stores the data for the digit translation of calls. The calls are from an IBN station, attendant console, or incoming side of a two-way IBN trunk group.
CODECALL	Code Calling Table. This table allows stations to access code-call equipment that the operating company provides. Stations must dial an access code and a called party code to gain this access.

Datafilling table IBNXLA

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

The datafill for Code Call Access for table IBNXLA appears in the following table. The fields that apply to Code Call 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	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.

Code Call Access (continued)**Datafilling table IBNXLA (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	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	CDCL	Feature. This subfield specifies the Code Call Access feature. Enter CDCL.

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 CDCL

Datafilling table CODECALL

Table CODECALL (Calling Code) allows stations to access code-call equipment that the operating company provides. Stations must dial an access code and a called party code to gain this access. The system transfers the called party code to the code-call equipment. This equipment activates visual/audible signaling devices that the operating company provides. These signaling devices alert the called party. Stations can dial a code-call pickup code from an IBN station to connect the called party to the calling party. The IBN station must be a station that a DMS-100 switch serves. Table CODECALL must contain entries to define the required parameters associated with the code call feature.

The datafill for Code Call Access for table CODECALL appears in the following table. The fields that apply to Code Call Access appear in this table.

Code Call Access (continued)

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

Datafilling table CODECALL

Field	Subfield or refinement	Entry	Explanation and action
INDEX		1 to 60	Index. This field specifies the index into the table. Enter a value from 1 to 60.
CUSTNAME		1 to 16 characters	Customer Group Name. This field specifies the name for the customer group that has the code call unit assigned. Enter the customer group name with 1 to 16 characters.
ACTCODE		1 to 11 digits	Activate Code. This field specifies the access code that activates the code call unit. Enter the access code with 1 to 11 digits.
PUCODE		1 to 11 digits	Pickup Code. This field specifies the pickup code for the code call unit. Enter the pickup code with 1 to 11 digits.
TIME		numeric	Time. This field specifies the time, in seconds, that the code call unit remains in use after activation. Enter the time, in seconds.
CCDAT		see subfields	Code Calling Data. This field contains subfields CARDTYPE, LEN, and CLLI.
	CARDTYPE	L or T	Card Type. This subfield specifies the line card type. If the code calling equipment interface is a line card, enter L. If the code calling equipment interface is a trunk, enter T.
If an L entry occurs for CARDTYPE, subfield LEN requires datafill.			
	LEN	numeric	Line Equipment Number. This subfield specifies the line equipment number. Enter the line equipment number.
If an L entry occurs for CARDTYPE, subfield CLLI requires datafill.			
	CLLI	CLLI code	Common Language Location Identifier. This subfield specifies the CLLI. Enter the code assigned to the code calling equipment in Table CLLI.

Code Call Access (end)

Datafill example for table CODECALL

Sample datafill for table CODECALL appears in the following example.

MAP example for table CODECALL

TABLE: CODECALL

INDEX	CUSTNAME	ACTCODE	PUCODE	TIME		CCDAT
1	AREGMDCA	131	132	60	L RCU0	00 0 02 16
2	COREREGA	131	132	60	L RCU0	00 0 02 16
3	COREREGA	131	132	60	L HOST	00 0 05 03
4	AREGMDCA	155	156	60	L RCM0	00 0 00 18
5	AREGMDCA	71	72	60	L HOST	00 0 10 05

Tools for verifying translations

Code Call Access does not use tools for verifying translations.

SERVORD

Code Call Access does not use SERVORD.

Code Calling - Line Termination

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS11 and later versions

Requirements

To operate, Code Calling - Line Termination requires BAS Generic, BAS00003.

Description

Code Calling - Line Termination allows the attendant to access code call equipment that the customer provides. The attendant must dial an access code and a called-party code to access this equipment. The system transfers the called-party code to the code call equipment. This equipment activates visual and audible signaling devices to alert the called party. The called party can dial a code call pickup code from any IBN station in the customer group to connect to the calling party.

Operation

The attendant can activate Code Calling - Line Termination. The attendant must press an idle Loop key and enter the code call access code and the called-party code to perform this action. Dial tone does not return to the attendant. The attendant can perform the following actions:

- wait for an answer. When the called party or destination dials the pickup code, the system presents the called party on the destination side of the loop. The system can connect the attendant, the calling party, and the called party in a three-way conference call. This event can occur if the secrecy option is not set.
- release the call. The system can connect the calling and called parties. This event can occur if the called party dials the pickup code before the expiration of the automatic recall timer.
- hold the call

Code Calling - Line Termination (continued)

Translations table flow

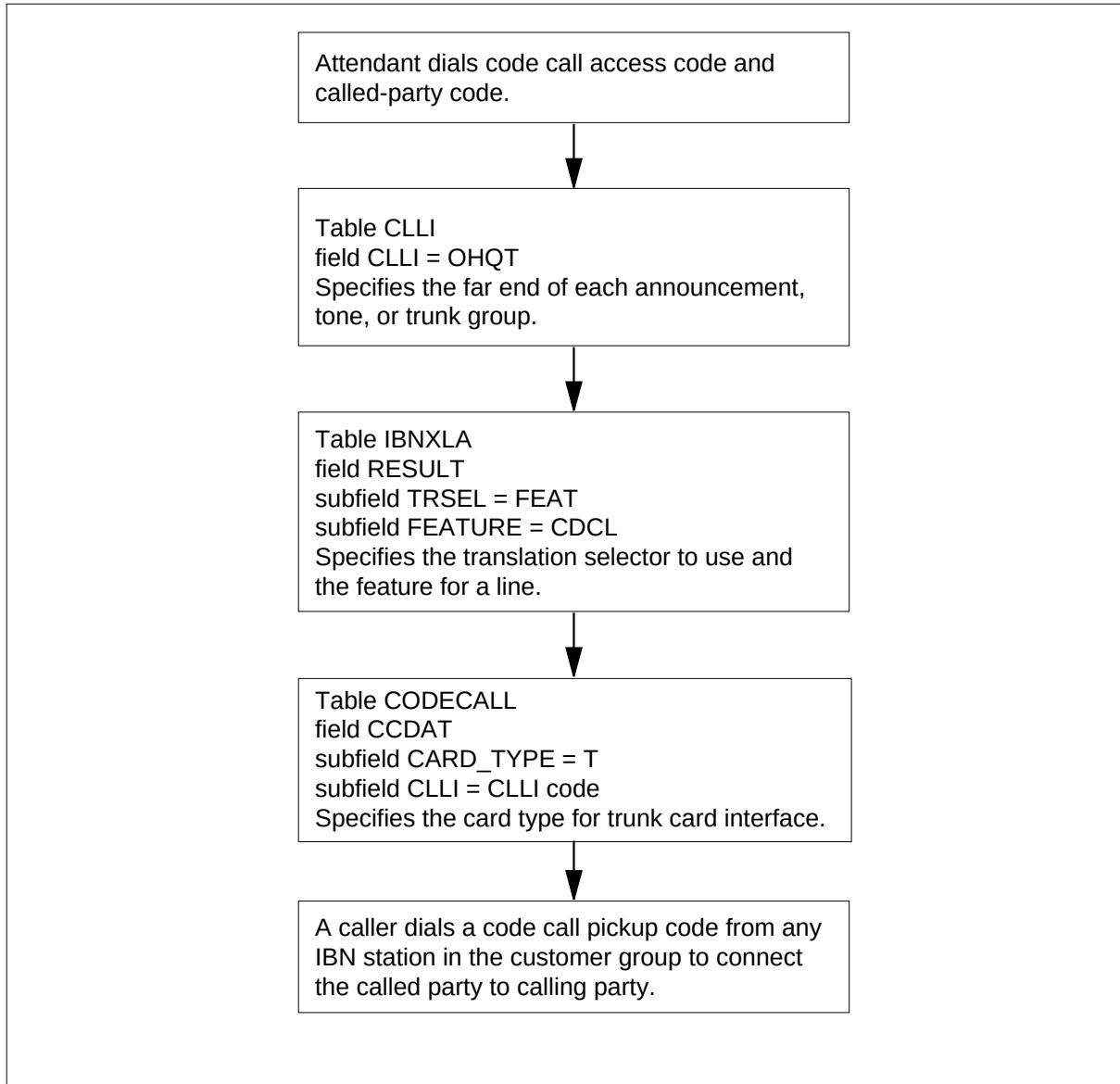
A description of the Code Calling - Line Termination translations tables appears in the following list:

- Table CLLI (Common Language Location Identifier) contains codes that identify each announcement, tone, or trunk group.
- Table IBNXLA Table CODECALL (Code Calling) contains fields to define activation and pickup codes for the code calling equipment.

The Code Calling - Line Termination translation process appears in the following flowchart.

Code Calling - Line Termination (continued)

Table flow for Code Calling - Line Termination



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

Datafill example for Code Calling - Line Termination (Sheet 1 of 2)

Datafill table	Example data
CLLI	OHQT 358 10 OFF_HOOK_QUEUING_TONE

Code Calling - Line Termination (continued)

Datafill example for Code Calling - Line Termination (Sheet 2 of 2)

Datafill table	Example data
IBNXLA	NTIXLA 123 FEAT N Y N CDCL
CODECALL	1 MDCGRP1 112 113 190 T 0 1 1 2 CCALL

Limits

The following limits apply to Code Calling - Line Termination:

- The attendant console (AC) must belong to the same customer group as the code calling equipment the attendant activates and the called station.
- The DMS-100 switch does not perform a validity check of called-party codes.
- Call pickup cannot occur from an attendant position. If a caller dials the pickup code from an attendant position, the system gives reorder treatment.

Interactions

A description of the actions between Code Calling - Line Termination and other functionalities appear in the following paragraph.

If secrecy is set, the attendant, the calling party, and the answering party cannot engage in a three-way conference call.

Activation/deactivation by the end user

Code Calling - Line Termination does not require activation or deactivation by the end user.

Activation/deactivation of Code Calling - Line Termination by the end user

At the telephone

- 1** You can activate Code Calling - Line Termination. To perform this action, press an idle Loop key, enter the code call access code and the called-party code.

Response:

Dial tone does not return to the attendant.

- 2** The attendant can wait for an answer.

Response:

When the called party or destination dials the pickup code, the system presents the called party on the destination side of the loop. The secrecy option is not always set. When this event occurs, the system can connect the attendant, the calling party, and the called party in a three-way conference call.

Code Calling - Line Termination (continued)

- 3 The attendant can release the call.
Response:
The called party can dial the pickup code before the expiration of the automatic recall timer. When this event occurs, the system connects the calling and called parties.
- 4 The attendant can hold the call.
Response:

Billing

Code Calling - Line Termination does not affect billing.

Station Message Detail Recording

Code Calling - Line Termination does not affect Station Message Detail Recording.

Datafilling office parameters

Code Calling - Line Termination does not affect office parameters.

Datafill sequence

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

Datafill requirements for Code Calling - Line Termination

Table	Purpose of table
CLLI	Common Language Location Identifier. This table contains codes that identify each announcement, tone, or trunk group.
IBNXLA	IBN Translation. This table stores the digits of the MDC codes and the options or features of the codes.
CODECALL	Code Calling. This table contains fields to define activation and pickup codes for the code calling equipment.

Datafilling table CLLI

Table CLLI (Common Language Location Identifier) contains codes that identify each announcement, tone, or trunk group.

Datafill for Code Calling - Line Termination for table CLLI appears in the following table. The fields that apply to Code Calling - Line Termination

Code Calling - Line Termination (continued)

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 characters	Common Language Location Identifier. This field specifies 1 to 16 characters to identify the far end of each announcement, tone, or trunk group. Enter OHQT for off-hook queuing 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
OHQT	358	10	OFF_HOOK_QUEUING_TONE

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores the digits of the MDC codes and the options or features of the codes. Table IBNXLA contains the feature access code for Code Calling - Line Termination.

Datafill for Code Calling - Line Termination for table IBNXLA appears in the following table. The fields that apply to Code Calling - Line Termination 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	1 to 8 characters	Translator name. This subfield specifies the name for the translator. Enter the name with one to eight characters.

Code Calling - Line Termination (continued)**Datafilling table IBNXLA (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
RESULT	DGLIDX	numeric, 1 to 18 digit number	Digilator index. This subfield specifies the access code. Enter the number for the access code. This number must have 1 to 18 digits.
		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 set to 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	CDCL	Feature. This subfield specifies the feature assigned to a line. Enter CDCL for code calling.

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 CDCL

Datafilling table CODECALL

Table CODECALL (Code Calling) contains fields to define activation and pickup codes for the code calling equipment.

If the code calling equipment interface is a trunk card, the code call unit must connect to an intragroup DT wink trunk. This wink trunk must be the only member of the trunk group. If the code calling equipment interface is a line card, the line card must be an NT2X18 line card. This line card must have the ground start option and the FRS line.

Datafill for Code Calling - Line Termination for table CODECALL appears in the following table. The fields that apply to Code Calling - Line Termination

Code Calling - Line Termination (continued)

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

Datafilling table CODECALL (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CCDAT		see subfields	Code call data. This field contains CARD_TYPE, LEN, and CLLI.
	CARD_TYPE	L	Card type. This subfield specifies the line card interface. Enter L.
If CARD_TYPE is L, subfields LEN, SITE, FRAME, UNIT, DRAWER or LSG, and CIRCUIT require datafill.			
	LEN	see subfields	Line equipment number. This subfield contains subfields SITE, FRAME, UNIT, DRAWER or LSG, and CIRCUIT.
	SITE	alpha or blank	Site. This subfield specifies the site name for the remote location. Enter an alphabetical name or leave blank.
	FRAME	0 to 99	Line module frame number. This subfield specifies the frame number of the frame on which the assignment of the line card occurs. Enter a value from 0 to 99.
	UNIT	zero to nine	Line module unit number. This subfield specifies the unit number for the following LM unit and line subgroups on which assignment of the line card occurs: • LM • LCM • RCT • RCS • RCU • CLM • ELCM • LCMI Enter a value from zero to nine.

Code Calling - Line Termination (continued)

Datafilling table CODECALL (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CCDAT	DRAWER or LSG	0 to 23	Line drawer or Line subgroup. This subfield specifies numbers. This number can be the number of the line drawer of the LM unit. This number can be one of the following subgroups on which assignment of the line card occurs: • LCM • RCT • RCS • RCU • DLM • ELCM • LCMI Enter a value from 0 to 23.
	CIRCUIT	0 to 31	Line card circuit number. This subfield specifies the line card circuit number of the line drawer or line subgroup, where the assignment of the card occurs. Enter a value from 0 to 31.
		see subfields	Code call data. This field contains CARD_TYPE, LEN, and CLLI.
	CARD_TYPE	T	Card type. This subfield specifies the card type for trunk card interface. Enter T.
	CLLI	alphanumeric	Common language location identifier. This subfield specifies the alphanumeric code for the code calling equipment in the CLLI table. Enter the code.

If CARD_TYPE is T, subfield CLLI requires datafill.

Datafill example for table CODECALL

Sample datafill for table CODECALL appears in the following example.

Code Calling - Line Termination (end)

MAP example for table CODECALL

INDEX	CUSTNAME	ACTCODE	PUCODE	TIME		CCDAT
1	MDCGRP1	112	113	190	T	0 1 1 2 CCALL

Tools for verifying translations

Code Calling - Line Termination does not use tools for verifying translations.

SERVORD

Code Calling - Line Termination does not use SERVORD.

Code Restrictions

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

Code Restrictions does not have requirements.

Description

The Code Restrictions feature denies or allows specified station lines and selected network access trunks to complete outgoing exchange network calls. These calls are to specified office codes or area codes (NXX/NPA). The restricted calls route to the attendant, an announcement, or a tone on an individual end user condition.

Operation

Datafill defines and activates code restrictions. The system activates code restrictions directly after datafill. Operation is transparent to the end user.

Each customer group can have 15 different code restriction levels. Each level is a list of each code to which restrictions apply to a specified group of stations. Each code is 3-digit to 10-digit number. The 15 levels in a customer group are separate. Calls restricted in level 4 are not always restricted in level 2 or 3. The system can restrict a code in more than one level.

The user assigns code restriction levels to each network class of service (NCOS). The user assigns each station and authorization code an NCOS. Through this link, the code restriction levels associate with stations. Table NCOS datafill gives the code restriction level that applies. Table NCOS indicates if the system blocks or allows the codes that associate with that level. Table CODEBLK (Code Blocking) defines levels and the associated codes. The end user can define the codes that a station can dial.

Field CRL in Table IBNXLA (IBN Translation) must be at Y for code blocking to occur. When field CRL is at Y in Table IBNXLA, the restrictions in Tables CODEBLK and NCOS work. If field CRL is at N, the system does not check the code restriction level in Table NCOS. If field CRL is at N, the system does not assess table CODEBLK. Field CRL is available for datafill when field TRSEL is at NET.

Code Restrictions (continued)

Translations table flow

Code Restrictions does not affect translations table flow.

Limits

The following limits apply to Code Restrictions:

- The Code Restriction feature can handle a maximum of 2000 entries for one DMS-100 IBN customer group. Each entry contains the following:
 - the correct customer group name
 - the code or digits to restrict
 - the number of the code restriction level for the customer group. The entries apply to this number.
- Local central office access, normally 9+, do not apply to code restrictions.
- Access to the following do not apply to code restrictions:
 - common control switching arrangement (CCSA)
 - enhanced private switch communication service (EPSCS)
 - trunk-to-trunk restrictions
- Code restrictions do not apply to stations that the user assigns the toll denied or toll diversion options.
- This feature does not apply if the system uses the cut-through dialing feature on a trunk group.
- Code restrictions apply to the following:
 - direct outward dial (DOD)
 - electronic switched network (ESN)
 - equal access DOD
 - equal access OUTWATS
 - private network call types

Interactions

Code Restrictions does not have functionality interactions.

Activation/deactivation by the end user

Code Restrictions does not require activation or deactivation by the end user.

Billing

Code Restrictions does not affect billing.

Code Restrictions (continued)

Station Message Detail Recording

Code Restrictions does not affect Station Message Detail Recording.

Datafilling office parameters

Code Restrictions does not affect office parameters.

Datafill sequence

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

Datafill requirements for Code Restrictions

Table	Purpose of table
NCOS	Network Class of Service Table. This table describes the class of service assigned to the following: • attendant consoles • integrated business network (IBN) stations • incoming or two-way IBN trunk groups • authorized codes • customer groups
CODEBLK	Code Blocking Table. This table restricts outgoing calls to specified directory numbers (DNs).
IBNXLA	IBN Translation Table. This table contains the access code data for the digit translations of calls from the following: • an IBN station • an attendant console • an incoming trunk group • an incoming side of a two-way Meridian Digital Centrex (MDC) trunk group

Note: If access code restriction applies to an IBN station, option CRL of the stations NCOS number defines the code restriction level. Table CODEBLK defines the codes with applied restrictions.

Datafilling table NCOS

Table NCOS describes the class of service assigned to the following:

- attendant consoles
- IBN stations

Code Restrictions (continued)

- incoming or two-way IBN trunk groups
- authorized codes
- customer groups

You must enter data in table NCOS to assign the code restrictions option to the desired NCOS.

Datafill for Code Restrictions for table NCOS appears in the following table. The fields that apply to Code Restrictions appear in this table. Refer to the data design section of this document for a description of the other fields.

Datafilling table NCOS

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfields	Options. This field contains several subfields. Subfields NCOSOPTN and NETNAME apply to this feature.
	NCOSOPTN	CRL	Network Class of Service Options. This subfield specifies the options that associate with the NCOS number. Enter CRL.
If NCOSOPTN is CRL, subfields CRL and CRLACT require datafill.			
	CRL	0 to 15	Code Restriction Level. This subfield specifies the code restriction level that applies to the NCOS number. Enter a value from 0 to 15.
	CRLACT	ALLOWED or BLOCKED	Code Restriction Level Action. This subfield defines if codes in Table CODEBLK with specified code restrictions can complete. Enter ALLOWED or BLOCKED.

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
MDCGRP1	0	MDCCRL	0	0	(CRL 1 ALLOWED) \$

Code Restrictions (continued)**Datafilling table CODEBLK**

Table CODEBLK (Code Blocking) restricts outgoing calls to specified DN's. You must enter data in table CODEBLK to identify the restricted and not restricted call types.

Datafill for Code Restrictions for table CODEBLK appears in the following table. The fields that apply to Code Restrictions appear in this table. Refer to the data design section of this document for a description of the other fields.

Datafilling table CODEBLK

Field	Subfield or refinement	Entry	Explanation and action
CRLKEY		see subfields	Code Restriction Level Key. This field contains subfields CUSTOMER and NUMBER.
	CUSTOMER	alphanumeric	Customer This subfield specifies the name assigned to the customer group with code restriction. Enter the 1-character to 16-character name assigned to the customer group.
	NUMBER	3-digit to 18-digit number	Number. This subfield specifies the 3-digit to 18-digit number that receives the code restriction.
CRLDATA		1 to 15	Code Restriction Log Data. This field contains the code restriction level that applies to the number that field NUMBER defines. Enter a value from 1 to 15.

Datafill example for table CODEBLK

Sample datafill for table CODEBLK appears in the following example.

MAP example for table CODEBLK

CRLKEY	CRLDATA
MDCGRP1	5551234
	1

Code Restrictions (continued)

Datafilling table IBNXLA

Table IBNXLA contains the access code data for the digit translations of calls from the following:

- an IBN station
- an attendant console
- an incoming trunk group
- an incoming side of a two-way MDC trunk group

Datafill for Code Restrictions for table IBNXLA appears in the following table. The fields that apply to Code Restrictions appear in this table. Refer to the data design 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 1-character to 8-character name assigned to the translator.
	DGLIDX	1 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 for CRL.
RESULT		see subfields	Result. This field contains subfields TRSEL and CRL.
	TRSEL	NET	Translation Selector. This subfield specifies the translation selector. Enter NET.
	CRL	Y	Code Restriction Level. This subfield specifies if code restrictions apply. Enter Y.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

Code Restrictions (end)

MAP example for table IBNXLA

KEY										RESULT			
MDC	CRL	65	NET	N	N	N	2	N	RES	Y	Y	GEN	LATTR
0													

Tools for verifying translations

Code Restrictions does not use tools for verifying translations.

SERVORD

Code Restrictions does not use SERVORD.

Conference Join

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: MDC00064

Release applicability

NA011 and up.

Prerequisites

Conference Join feature, which includes the JOIN option, requires the integrated voice data (IVD) or Meridian business set (MBS) station conference (CNF) key or the three-way conference (3WC) key. The CNF or 3WC key can be assigned to any non-DN key, but the JOIN option must be assigned to key number 1.

Extended multi-processor system-based peripheral module (XPM) Call Join activity (AX0941) implements the required XPM changes. AX0941 must be installed prior to installing Conference Join.

Description

With Conference Join, an MBS/IVD user can add a previously held party to an active call. The JOIN option requires an MBS CNF or a 3WC key with the JOIN option assigned.. The held party does not have to be dropped and redialed.

The JOIN option extends the MBS CNF key and 3WC key functionality without modifying the fundamental CNF or 3WC operation.

The JOIN option applies only to the MBS CNF and the 3WC conference.

The JOIN option does not affect the Preset Conference, Meet-me Conference, or any other type of conference calling.

Conference Join allows MBS/IVD users to add a previously held party to a conference call with the CNF or 3WC key. The held party can only be on one of the following call appearances:

- Directory Number (DN)
- Intercom/group Intercom key
- Call Waiting key
- Automatic Call Distribution Incalls key

Conference Join (continued)

- Uniform Call Distribution key
- Multiple Appearance Directory Number (MADN) key

Operation

The current functionality of the station controlled conference and three-way conference remain unchanged, and the MBS display is unchanged.

CNF operates differently than 3WC. What follows is a summary of the differences:

- CNF
 - The number of conferees that can be joined is limited to the conference port provisioned by the CNF feature.
 - A call in the ringing state cannot be added.
 - A conference call cannot be joined on an existing conference.
 - There is no method provided to drop a conferee.
- 3WC
 - The number of conferees that can be joined is limited to three.
 - A call in the ringing state can be added.
 - 3WC chaining is allowed.
 - After a party is added to a 3WC, the user can drop the party by pressing the release key (Rls).

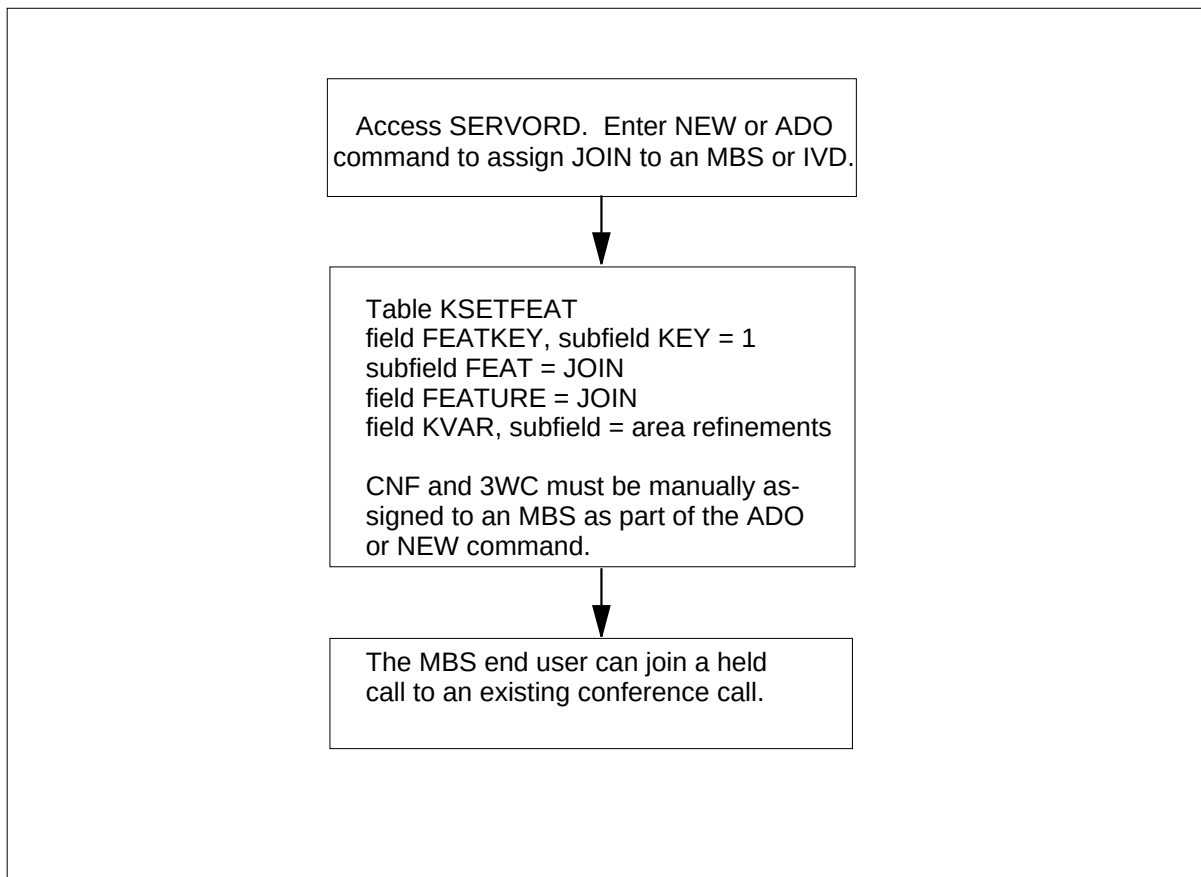
Translations table flow

The Conference Join translations table is described in Table KSETFEAT.

The Conference Join translations process is shown in the flowchart that follows.

Conference Join (continued)

Table flow for Conference Join



Limitations and restrictions

The following restrictions are specific to the JOIN option.

The Conference Join operation is not allowed for a:

- held call from an attendant console
- call not answered on a call waiting key
- held call to be joined is a terminating leg of another 3WC
- held call on a MADN bridged call
- conference controller on a MADN bridged call
- held call to be joined that is part of another conference

Conference Join (continued)

When the JOIN option is denied due to error conditions, the conference controller receives NACK treatment. The error conditions are as follows:

- A held call is on the call appearance, but the call cannot be joined. Examples are the call is part of another conference, 3WC, or the call is extended from an attendant console.
- If the call has not been answered from the call appearance

The difference between CNF and 3WC are kept on the JOIN option where it is appropriate. For example, the number of ports allowed for a conference is limited by the conference type that initiated the Conference Join.

Interactions

The following describe the interactions between Conference Join and other functionalities.

In addition to the interactions for the previously installed conference features, the following feature interactions apply to Conference Join:

- Attendant console
If the held call to be joined is extended from an attendant console, then JOIN option is not permitted. The controller receives NACK treatment.
- Call waiting.
Only an answered call on a call waiting key can be joined
- Flexible station controlled conference, Meet-me conference, Preset conference
If the held call to be joined is part of another conference, then Conference Join is not permitted. The controller receives NACK treatment.
- 3WC
If the held call to be joined is a terminating leg of another 3WC, Conference Join is not permitted. The controller receives NACK treatment.
- Multiple appearance directory number (MADN)
The existing feature interactions with MBS conference and 3WC also apply to Conference Join. Conference Join is not permitted if the conference controller is on a MADN bridged call. If the held call is part of a MADN bridged call, the held call cannot be joined.

Activation/deactivation by the end user

Conference Join does not require activation or deactivation by the end user.

Conference Join (continued)

The Conference Join operation

For example, assume that your set has a

- primary directory number (PDN) key/lamp
- secondary directory number (SDN) key/lamp
- CNF or 3WC key/lamp

CNF operation with Conference Join

The conference controller performs a Station controlled conference operation as follows:

The controller using the CNF key

- Establishes an active call on the PDN.
- A call on the JOIN call appearance is on hold. The SDN lamp flashes.
- Presses the CNF key and receives special dial tone. The CNF lamp comes on, and the PDN lamp flashes.
- Presses the flashing SDN key causes a private consult mode with the SDN. The dial tone is turned off. The CNF lamp remains on. The controller can talk privately to the added party. The SDN lamp is turned off.

After the private consult leg of the conference is correctly established with the Conference Join operation, the MBS 30-port Conference feature handles additional interaction for the remainder of the call.

- To add the party to the conference, press the CNF key again. The CNF lamp is turned off. The PDN lamp comes on. A conference tone is used to alert the conferees that a party is joining or leaving (going on-hook) the conference. To add more members to the conference, the controller can repeat the above steps.
- When the controller is talking to the party, the controller can return to the conference by pressing the PDN key. The party is placed on hold. The CNF lamp flashes, and the PDN lamp stops flashing. The controller can return and leave the party on hold when necessary.
- The presses CNF again to Join the PDN to the SDN.

Three-Way Conference operation with Conference Join

The conference controller performs a normal 3WC operation as follows:

The controller using the 3WC key,

- Establishes an active call on the PDN.
- Places a call on the JOIN call appearance on hold. The SDN lamp flashes.

Conference Join (continued)

- Presses the 3WC key, and receives special dial tone. The 3WC lamp comes on, and the PDN lamp flashes.
- Presses the flashing SDN key to add the held call to the second leg of the three-way conference. The dial tone stops. The 3WC lamp remains on but stops flashing. The controller can talk privately to the added party. The SDN lamp is turned off. The display is updated.

After the private consult leg of the 3WC is correctly established with the Join operation, the MBS 3WC feature handles additional interactions for the remainder of the call.

- To add the party to the conference, press the 3WC key again to Join the two parties. The 3WC lamp is turned off. The PDN lamp stops flashing. A conference tone alerts the conferees that a party is joining or leaving (going on-hook) the conference.
- When the controller is talking to the party (on the 3WC key), the controller can return to the conference by pressing the PDN key. The party is placed on hold. The 3WC lamp flashes, and the PDN lamp stops flashing. The controller can return to the conference and leave the party on hold when necessary.

Billing

Conference Join does not change billing.

Station Message Detail Recording

Conference Join does not change Station Message Detail Recording.

Datafilling office parameters

Conference Join does not change office parameters.

Conference Join (continued)

Datafill sequence

The following table lists the tables that require datafill to implement Conference Join. The tables are listed in the order in which they are to be datafilled.

Datafill tables required for Conference Join

Table	Purpose of table
KSETFEAT	Business Set and Data Unit Feature. Table KSETFEAT lists the line features that are assigned to the business sets and data units (DU) listed in table KSETLINE. This table also lists the line features assigned to the Meridian digital telephone sets and DUs listed in table IVDINV. Note: Data is entered in this table through SERVORD. Data entry procedures or examples are not available. See "SERVORD" for an example of the use of SERVORD to enter data in this table.

Translation verification tools

Conference Join does not use translation verification tools.

SERVORD

Assign the JOIN option using the Service Order System (SERVORD) commands such as ADO (add option), DEO (delete option), and NEW.

SERVORD limitations and restrictions

Conference Join has no SERVORD limitations or restrictions.

Conference Join (continued)

SERVORD prompts

The following table shows the SERVORD prompts used to add or delete Conference Join to or from a MBS or IVD set.

SERVORD input prompts for the JOIN option

Prompt	Valid input	Explanation
DN_OR_LEN	7 to 10 digits entered with no hyphens or spaces. Refer to LEN_OR_LTID in this table.	Enter the directory number (DN) or the line equipment number (LEN) of the line. For an MDN line or MLH/DLH members, if the user specifies the DN, then the system prompts the user for the LEN. If the user enters the LEN, then the system does not prompt the user for the DN.
OPTION	JOIN	Option(s) to establish, modify, or delete a service. The user can specify a maximum of 20 options for any single ADD, ADO, or NEW command.
OPTKEY	1	Key associated with the option. Used with the ADO, DEO, or NEW commands.

SERVORD example for adding Conference Join

The following SERVORD example shows how Conference Join is added to the MBS or IVD set using the SERVORD NEW command.

Conference Join (end)

SERVORD example for the JOIN option in prompt mode

```
> NEW
SONUMBER: NOW 3 3 14 PM
>
DN:
> 2462001
LCC_ACC:
> M5209
GROUP:
> BNR
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 919
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
>
LEN_OR_LTID:
> 0 0 6 10
OPTKEY:
> 1
OPTION:
> JOIN
OPTKEY:
> 3
OPTION:
> 3WC
OPTKEY:
> $
```

If the set does not have either CNF or 3WC assigned, the following message appears:

```
'JOIN MUST BE ASSIGNED ALONG WITH CNF OR 3WC OPTION'
```

CPU Datafill Enhancements

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS18 and later versions

Requirements

To operate, CPU Datafill Enhancements requires BAS Generic, BAS00003.

Description

Before the application of CPU Datafill Enhancements, establishment, addition, and deletion of lines as members of the call pickup (CPU) group was difficult. With the addition of CPU Datafill Enhancements, you can make many line changes with one command and several prompts.

Before, to establish several new lines as members of a CPU group, the end user had to access the Service Order System (SERVORD) for each line. When the end user added present lines as members of a CPU group, the end user had to add each line separately. The same procedure applied when the end user deleted lines as a member of a CPU group.

Now the end user can establish, add, and delete a maximum of 20 lines with the improvements made to SERVORD. The end user can select one command for each function. Each command has a continuous repeat of the prompt that is correct for that command. As the prompt repeats, the end user enters correct information. The end user does not need to call up a new command before the end user takes action on each line.

Operation

The end user can work with multiple lines in the specified command, CPU Datafill Enhancements. This condition accomplishes two purposes. The number of SERVORD commands does not increase. The control of the CPU groups is associated with the commands for hunt groups. The three SERVORD commands that this feature affects are EST, ADD and DEL. The EST command is to establish a hunt or CPU group. The ADD command is to add a line to a hunt group. The DEL command is to delete a line from a hunt group. When the group type is CPU, the prompts that appear on the screen are the changes.

CPU Datafill Enhancements (continued)

User interface

The CPU Datafill Enhancements affects three SERVORD commands from the command interpreter (CI) level of the MAP. These commands are EST, ADD and DEL. Five new prompts appear if CPU is selected as the group type. Each prompt does not display for each command.

See SERVORD in this feature description for a complete explanation of the impact of this feature on the SERVORD process.

Translations table flow

The CPU Datafill Enhancements does not affect translations table flow.

Limits

The following limits, apply to CPU Datafill Enhancements:

- The maximum number of stations that can change through the EST, ADD or DEL command is 20.
- The recommended size of the CPU group is 20 to 30 members. A restriction on the size is not present.
- To establish a CPU group or add line equipment numbers (LEN) to a present CPU group, each LEN must be assigned before. Each LEN must be in working order. The LENs cannot be part of another CPU group.
- When you add LENs to a present group, the LINKLEN must belong to the present group.
- With a Meridian business set (MBS), the system can establish or add the CPU to a blank key or to key 1 for code access.
- The system can assign only one CPU key to an MBS.

Interactions

The interaction between CPU Datafill Enhancements and other functionalities appear in the following paragraph.

Customer transparency

The customer transparency feature allows a CPU group to contain agents from several customer groups.

Activation/deactivation by the end user

The CPU Datafill Enhancements does not require activation or deactivation by the end user.

CPU Datafill Enhancements (continued)

Billing

The CPU Datafill Enhancements does not affect billing.

Station Message Detail Recording

The CPU Datafill Enhancements does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

The CPU Datafill Enhancements does not affect office parameters.

Datafill sequence

The CPU Datafill Enhancements does not affect datafill.

Tools for verifying translations

The CPU Datafill Enhancements does not use tools for verifying translations.

SERVORD

One prompt in the hunt group control command changes. The HUNTTYPE changes to GROUPTYPE. The correct option is CPU. When the system selects the CPU, the CPU GROUPTYPE prompts appear. These prompts are:

- GROUPTYPE
- LINKLEN
- CPULEN
- KEY
- KEYLIST

The EST command allows the end user to establish a new CPU group by the use of present lines. The ADD command allows the end user to add present lines to the CPU group. The DEL command allows the end user to delete lines from a CPU group.

SERVORD limits

The CPU Datafill Enhancements does not have SERVORD limits.

CPU Datafill Enhancements (continued)

SERVORD prompts

The SERVORD prompts in use to establish a new CPU group appear in the following table. The SERVORD prompts in use to add or delete lines to a CPU group appear in the following table:

SERVORD prompts for CPU Datafill Enhancements

Prompt	Correct input	Explanation
GROUPTY PE	CPU	Enter CPU.
CPULEN	LEN	Enter the LEN of the set that will have CPU.
KEY	Key number	Enter the key number to which the CPU feature is assigned. If you select key 1, the feature is assigned as a code accessed feature.
KEYLIST	\$, key numbers	The CPU can associate with each directory number (DN) and group intercom (GIC) key or a subset. If each DN and GIC key has CPU, enter the dollar sign (\$). If the system requires a subset, enter the key numbers, separate these numbers by blanks and end the entry with \$.

SERVORD example for implementing CPU Datafill Enhancements

A new CPU Datafill Enhancements group adds to present lines through the use of the EST command. This condition appears in the following SERVORD example:

CPU Datafill Enhancements (continued)

SERVORD example for CPU Datafill Enhancements with the EST command in prompt mode

```
S0:  
> EST  
SONUMBER: NOW 93 2 1 AM  
>  
GROUPTYPE  
> CPU  
CPULEN:  
> 0 1 1 48  
KEY:  
> 5  
KEYLIST:  
> $  
CPULEN:  
> $
```

SERVORD example for CPU Datafill Enhancements with the EST command in no-prompt mode

```
> EST $ CPU 2 1 1 2 2 0 8 1 5 $ $
```

Note: If the CPU is established on a member where datafill is not present in the LEN, the following message appears: **LEN <len> is not datafilled.** Other warning messages appear if you make errors when you use the EST command.

How CPU Datafill Enhancements add to present lines with the ADD command appears in the following SERVORD example:

CPU Datafill Enhancements (continued)

SERVORD example for CPU Datafill Enhancements with the ADD command in prompt mode

```
S0:  
>ADD  
SONUMBER: NOW 87 4 21 AM  
>  
GROUPTYPE:  
> CPU  
LINKLEN:  
> 1 0 0 10  
KEY:  
> 5  
CPULEN:  
> 1 01 16  
KEY:  
> 5  
KEYLIST:  
> $  
CPULEN:  
> $
```

SERVORD example for CPU Datafill Enhancements with the ADD command in no-prompt mode

```
> ADD $ CPU 1 0 0 10 5 1 0 1 16 5 $
```

Note: If the LINKLEN does not contain data, the following message appears: LINKLEN <len> is not datafilled. If the LINKLEN does not belong to a present CPU group, the following message appears: LINKLEN <len> is not a CPU group member.

How you delete lines from a CPU Datafill Enhancements group with the DEL command appears in the following SERVORD example:

CPU Datafill Enhancements (end)

SERVORD example for CPU Datafill Enhancements with the DEL command in prompt mode

```
S0:  
> DEL  
SONUMBER: NOW 88 4 12 AM  
>  
GROUPTYPE:  
> CPU  
CPULEN:  
> 0 1 1 48  
KEY:  
> 5  
CPULEN:  
> $
```

SERVORD example for CPU Datafill Enhancements with the DEL command in no-prompt mode

```
> DEL $ CPU 0 1 14 8 5 $
```

Note: If a CPULEN does not contain data, the following message appears: LEN <len> is not datafilled. If the end user attempts to delete CPU from a set that does not have the feature, the following message appears: LEN <len> does not have the CPU feature.

Customer Group Transparency-Canada only

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS18 and later versions

Requirements

To operate, Customer Group Transparency-Canada only has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

This feature allows transparency between customer groups. Many Integrated Business Networks (IBN) features can be assigned on a customer use condition. In several occurrences, customer groups partitioning can occur with one large centrex user. Features must be transparent from one customer group to another.

Operation

The operation of the Customer Group Transparency feature is transparent to the end user. The operation occurs through datafill. The end user does not have to perform steps to activate the feature.

When a call originates, the system considers the call to be an intragroup call if the originator is an IBN agent. The system considers the call to be an intergroup call for plain old telephone service (POTS) agents. An intragroup call remains an intragroup call if the intragroup field of the translation selector is at Y (yes). The call becomes intergroup if the intragroup field is at N (no). If a call starts as an intergroup call, the call remains intergroup. The intragroup field of the translation selector cannot change the call to an intragroup call. The only way for an intergroup call to become an intragroup call is for the call to route. The call must route through an intragroup virtual facility group (VFG) or an intragroup direct inward system access (DISA).

Translations table flow

Customer Group Transparency does not affect translations table flow.

Customer Group Transparency-Canada only (continued)

Limits

Customer Group Transparency-Canada only does not have limits.

Interactions

Customer Group Transparency-Canada only does not have functionality interactions.

Activation/deactivation by the end user

Customer Group Transparency-Canada only does not require activation or deactivation by the end user.

Billing

Customer Group Transparency-Canada only does not affect billing.

Station Message Detail Recording

Customer Group Transparency-Canada only does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

Customer Group Transparency-Canada only does not affect office parameters.

Datafill sequence

The tables that require datafill to install Customer Group Transparency-Canada only appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Customer Group Transparency-Canada only

Table	Purpose of table
CUSTFAM	Customer Group Family table. This table contains the family names that are assigned to groups of customer groups. This table specifies if the family is private or public.
CUSTENG	Customer Group Engineering table. This table lists the values for the engineering parameters and options for each of the customer groups.

Datafilling table CUSTFAM

Table Customer Group Family (CUSTFAM) contains the family names that are assigned to groups of customer groups. This table specifies if the family is private or public.

Customer Group Transparency-Canada only (continued)

The datafill for Customer Group Transparency-Canada only for table CUSTFAM appears in the following table. Only the fields that apply to Customer Group Transparency-Canada only appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table CUSTFAM

Field	Subfield or refinement	Entry	Explanation and action
FAMNAME		alphanumeric	Indicates Family Name. This field indicates the 1- to 16-character customer group family name. Enter the family name.
FAMTYPE		PRIVATE or PUBLIC	Indicates Family Type. This field indicates the type of customer group family. Enter PRIVATE or PUBLIC.

Datafill example for table CUSTFAM

Sample datafill for table CUSTFAM appears in the following example:

MAP example for table CUSTFAM

FAMNAME	FAMTYPE
AREG	PRIVATE

Datafilling table CUSTENG

Table Customer Group Engineering (CUSTENG) contains the values for the engineering parameters and options for each of the customer groups.

The datafill for Customer Group Transparency-Canada only for table CUSTENG appears in the following table. Only the fields that apply to

Customer Group Transparency-Canada only (continued)

Customer Group Transparency-Canada only appear in this table. See the data schema of this document for a description of the other fields.

Datafilling table CUSTENG

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		alphanumeric	Indicates Customer Name. This field indicates the 1- to 16-character customer group name. Enter the customer group name.
NCOS		1 to 512	Indicates number of Network Class of Service (NCOS) Numbers. This field indicates the highest numbered NCOS that can be assigned to the customer group during the engineering interval + 1. Each NCOS requires 14 words of memory. Enter a value from 1 to 512.
NOIBNTMT		0 to 63	Indicates number of IBN Treatments. This field indicates the number of treatments required for this customer group. Enter a value from 0 to 63.
CONSOLES		Y or N	Indicates Attendant Consoles. This field indicates if the customer group can have attendant consoles. Enter Y or N.
DOMAIN		see subfields	Indicates domain. This field contains subfields CUSTTYPE and FAMILY.
	CUSTTYPE	FAMILY, PRIVATE, or PUBLIC	Indicates Customer Group Type. This subfield indicates the customer group type. Enter FAMILY, PRIVATE, or PUBLIC.
	FAMILY	see explanation	Indicates family. This subfield indicates the name of the family of the customer group. The family name must be assigned in Table CUSTFAM. If field CUSTTYPE is PRIVATE or PUBLIC, leave this subfield blank.
GROUPID		0 to 4095	Indicates Customer Group Identification Number. This field indicates the number to be assigned to this IBN customer group. The default is 0. Enter a value from 0 to 4095.
OPTIONS		character	Indicates options. This field indicates the options and associated subfields that are assigned to the customer group.

Customer Group Transparency-Canada only (end)

Datafill example for table CUSTENG

Sample datafill for table CUSTENG appears in the following example:

MAP example for table CUSTENG

CUSTNAME	NCOS	NOIBNTMT	CONSOLES	DOMAIN	GROUPID	OPTIONS
PRADefault	30	1	Y	PRIVATE	0	\$

Tools for verifying translations

Customer Group Transparency-Canada only does not use tools for verifying translations.

SERVORD

Customer Group Transparency-Canada only does not use SERVORD.

Denied Incoming

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Denied Incoming requires BAS Generic, BAS00003.

Description

Denied Incoming (DIN) prevents selected lines, from receiving incoming calls that originate outside the customer group of the line. The incoming calls that this functionality denies include calls incoming through trunks. This functionality does not deny calls incoming through trunk groups that are intragroup only. The attendant cannot complete incoming calls that originate outside the customer group to the station unless a terminating restriction code (TRC) modifies option DIN.

Operation

Denied Incoming provides two treatments for terminating Direct Inward Dialing (DID) calls. The two treatments are a blank directory number (BLDN) and an attendant console (AC). When a Meridian business set (MBS) has option DIN. Only intragroup calls and trunk groups with a TRC that matches the MBS TRC can terminate on the MBS. 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.

To assign values for TRC and ALTTRC enter data in table IBNFEAT (IBN Line Feature) or table KSETFEAT (Business Set and Data Unit Feature). Enter the data through the Service Order System (SERVORD). The TRC values for incoming IBN trunk groups (IBNTI) and two-way IBN trunk groups (IBNT2) are in table TRKGRP (Trunk Group).

You must specify the TRC value for the trunk group or VFG if the customer group has:

- an IBNTI or IBNT2 trunk group in table TRKGRP
- a virtual facility group (VFG) in table VIRTGRPS (Virtual Facility Groups)

Denied Incoming (continued)

All incoming trunk groups and VFGs that have a TRC that matches the TRC assigned of the line can terminate the line. The ALTTRC is in use when an incoming call routes through the attendant. The system automatically assigns TRC 0 to all plain old telephone service (POTS) lines and trunks.

When a call comes in to a station assigned option DIN, the system compares the values of the TRCs and ALTTRCs. The results of this comparison determines which of the following conditions occurs:

- If the TRCs match, the call routes to a line in the customer group.
- If the TRCs do not match but the ALTTRCs do match and an AC is present, calls terminate to the console. If an AC is not present, the system sends calls to BLDN treatment.

The result of a call varies according to the TRC and ALTTRC values of a line with option DIN. The following table describes how the values for the TRC and ALTTRC of the terminating station determine the treatment that a call receives.

Note: The TRC and ALTTRC values must be a one- to eight-digit number. The number must use digits 0 to 7.

TRC and ALTTRC values of a line with option DIN (Sheet 1 of 2)

TRC value	TRC of trunk = TRC of station	ALTTRC value	TRC of trunk = ALTTRC of station	Treatment
1-8 digits	N	1-8 digits	N	The call receives BLDN treatment.
1-8 digits	Y	1-8 digits	N	The call terminates to a line in the customer group.
1-8 digits	N	1-8 digits	Y	The call terminates to the customer group AC. If the customer group does not have an AC, the call receives BLDN treatment.
1-8 digits	Y	1-8 digits	Y	The call terminates to a line in the customer group.
\$	N	\$	N	The call receives BLDN treatment.

Denied Incoming (continued)**TRC and ALTRC values of a line with option DIN (Sheet 2 of 2)**

TRC value	TRC of trunk = TRC of station	ALTRC value	TRC of trunk = ALTRC of station	Treatment
\$	N	1-8 digits	N	The call receives BLDN treatment.
\$	N	1-8 digits	Y	The call terminates to the customer group AC.

The possible values for the TRC and ALTRC of the terminating station with the default TRC value assigned to a POTS call appear in the following table.

Note: The TRC and ALTRC values must be a one- to eight-digit number. The number must use digits 0 to 7.

TRC and ALTRC values of a line with option DIN with the default TRC assigned to POTS (Sheet 1 of 2)

Default POTS TRC value	Station TRC value	POTS TRC = TRC of station	Station ALTRC value	POTS TRC = ALTRC of station	Treatment
0	1-8 digits	N	1-8 digits	N	The call receives BLDN treatment.
0	0	Y	1-8 digits	N	The call terminates to a line in the customer group.
0	1-8 digits	N	0	Y	The call terminates to the customer group AC. If the customer group does not have an AC, call receives BLDN treatment.
0	0	Y	0	Y	The call terminates to a line in the customer group.
0	\$	N	\$	N	The call receives BLDN treatment.

Denied Incoming (continued)

TRC and ALTTRC values of a line with option DIN with the default TRC assigned to POTS (Sheet 2 of 2)

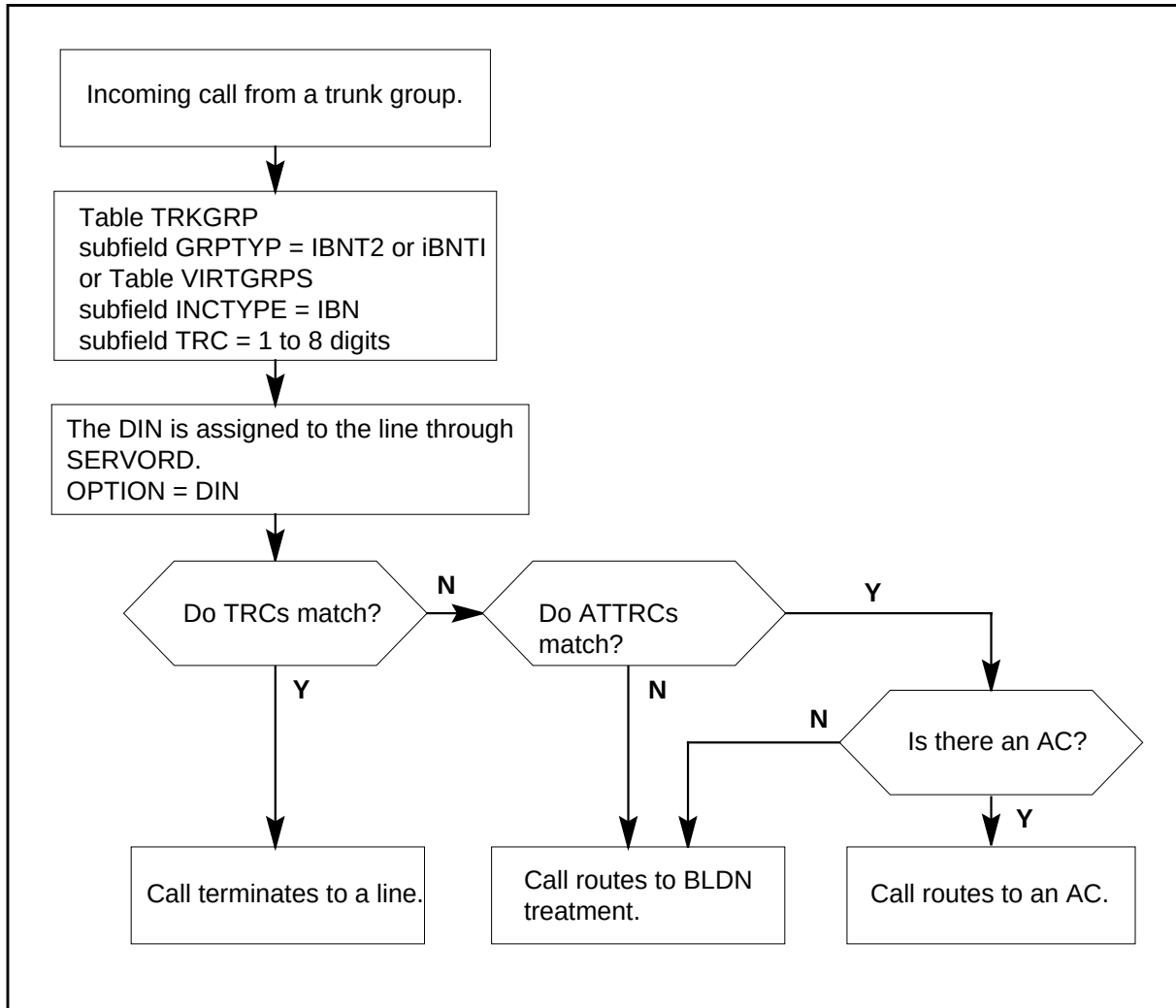
Default POTS TRC value	Station TRC value	POTS TRC = TRC of station	Station ALTTRC value	POTS TRC = ALTTRC of station	Treatment
0	\$	N	1-8 digits	N	The call receives BLDN treatment.
0	\$	N	0	Y	The call terminates to the customer group AC.

Translations table flow

The Denied Incoming translations process appears in the following flowchart. The flowchart and data describe how Denied Incoming routes a call when a line has the DIN option.

A description of the Denied Incoming translations tables appears in the following list:

- Table TRKGRP (Trunk Group) contains some of the data that the customer defines. This data associates with each trunk group in the switching unit.
- Table VIRTGRPS (Virtual Facility Groups) contains data that Tables VIRTGRPS, VFGDATA (Virtual Facility Group Data), and VFGENG (Virtual Facility Group Engineering) provide. Table VIRTGRPS provides a mechanism to eliminate loop-around trunks.

Denied Incoming (continued)**Table flow for Denied Incoming**

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

Datafill example for Denied Incoming

Datafill table	Example data
TRKGRP	FGDTI IBNTI 0 ELO NCRT MDCGRP1 1 13 7224111 ANSDISC 0 N N N N N N Y 0 0 N N N N Y FGD Y Y \$ \$
VIRTGRPS	VFG1 SIZE 2 IBN 5551212 MDC1 0 7 5 N Y Y (VFGAMA TDMTT) \$
IBNFEAT	HOST 00 0 06 15 DIN DIN 5551212 5551213
KSETFEAT	HOST 00 0 06 15 1 DIN DIN 5551212 5551213 N

Denied Incoming (continued)

Limits

The following limits apply to Denied Incoming:

- Bridged Night Number (BNN)
- Denied Termination (DTM)
- Hotel Motel Diversion (HOT)
- Private Business Line (PBL)
- Distinctive Ring/Call Wait (DRCW)
- Selective Call Acceptance (SCA)
- Selective Call Forward (SCF)
- Line Appearance on a Digital Trunk Public Safety Answering Point (LDTPSAP)
- Line Ended Public Safety Answering Point (LINEPSAP)
- Selective Call Rejection (SCRJ)

Interactions

Denied Incoming does not have functionality interactions.

Activation/deactivation by the end user

Denied Incoming does not require activation or deactivation by the end user.

Billing

Denied Incoming does not affect billing.

Station Message Detail Recording

Denied Incoming does not affect station message detail recording.

Datafilling office parameters

Denied Incoming does not affect office parameters.

Denied Incoming (continued)

Datafill sequence

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

Datafill requirements for Denied Incoming

Table	Purpose of table
TRKGRP	Trunk Group Table. This table contains information about trunk groups.
VIRTGRPS	Virtual Facility Group Table. This table provides a mechanism to eliminate loop-around trunks.
IBNFEAT (See note)	IBN Line Feature Table. This table lists line features for the IBN lines that appear in table IBNLINES.
KSETFEAT (See note)	Business Set and Data-Unit Feature Table. Table KSETFEAT lists the line features for the business sets and data units (DU) that appear in table KSETLINE. Table KSETFEAT lists the Meridian digital telephone sets and DUs that appear in table IVDINV.
Note: Enter data in this table through SERVORD. This document does not provide a datafill example. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Datafilling table TRKGRP

Table TRKGRP (Trunk Group) defines the attributes associated with each trunk group in the switching unit. Each trunk group entry in Table TRKGRP contains a different common language location identifier (CLLI) for the trunk group. Each trunk group entry contains other fields that the trunk group type determines. For Denied Incoming, data for two-way IBN trunk groups (IBNT2) and IBN incoming trunk groups (IBNTI) is entered in Table TRKGRP.

Denied Incoming (continued)

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

Datafilling table TRKGRP

Field	Subfield or refinement	Entry	Explanation and action
GRPINFO		see subfields	Group Information. This field contains many subfields. Only subfields GRPTYP and TRC apply to this feature.
	GRPTYP	IBNTI or IBNT2	Trunk Group Type. This subfield specifies the trunk group type. Enter IBNTI for IBN incoming trunk groups. Enter IBNT2 for IBN two-way trunk groups.
	TRC	digital or \$	Terminating Restriction Code. This subfield specifies the terminating restriction code for the incoming side of the trunk group. Enter a one- to eight-digit number. Use the digits zero to seven. Enter \$ if TRCs are not a requirement.

Datafill example for table TRKGRP

Sample datafill for table TRKGRP appears in the following example.

MAP example for table TRKGRP

GRPKEY										GRPINFO									
FGDTI	IBNTI	0	ELO	NCRT	MDCGRP1	1	13	7224111	ANSDISC	0									
N	N	N	N	N	N	Y	0	0	N	N	N	N	Y	FGD	Y	Y	\$	\$	

Datafilling table VIRTGRPS

Table VIRTGRPS (Virtual Facility Groups) contains data that tables VIRTGRPS, VFGDATA, and VFGENG provide. Table VIRTGRPS provides a mechanism to eliminate loop-around trunks. Subfield TRC must have an entry to assign a terminating restriction code that defines which line the trunk terminates.

Denied Incoming (continued)

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

Datafilling table VIRTGRPS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		alphanumeric	Key This field defines the name of the VFG. Enter a one- to six-character alphanumeric name. If the name is in another VFG table, leave this field blank.
DATA		see subfields	Data This field contains the subfields VFGTYPE and INCTYPE.
	VFGTYPE	SIZE, USES	Virtual Facility Group Type. This subfield specifies the virtual facility group type. If subfield VFGTYPE is the first entry for VFG, enter SIZE. If subfield VFGTYPE is not the first entry for VFG, enter USES.
	If VFGTYPE is SIZE, subfield SIZE requires datafill.		
	SIZE	0 to 2048	Size This subfield specifies the number of simultaneous accesses for the VFG. Enter a number from 0 to 2048.
	If VFGTYPE is USES, subfield USESGRP requires datafill.		
	USESGRP	Virtual Facility Group Name	Virtual Facility Group Name This subfield specifies the method to allow virtual two-way trunks and to associate more than one set of screening data with the same set of virtual circuits. Enter the name of another VFG that contains the previous virtual facilities.
	INCTYPE	IBN	Incoming Type This subfield specifies the incoming type. Enter IBN.
	If INCTYPE is IBN, subfields BILLNUM, CUSTNAME, SUBGRP, TRC, NCOS, INTRAGRP, SMDR, and CDR require datafill.		
	BILLNUM	digital or N	Billing Number This subfield specifies the billing number. Enter a vector up to 11 digits. Enter N if the system charges the call to the billing number of the originator for the next leg of the call.

Denied Incoming (continued)

Datafilling table VIRTGRPS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CUSTNAME	alphanumeric	Customer Group Name. This subfield specifies the customer group name. Enter a name from 1- to 16-alphanumeric characters.
	SUBGRP	0 to 7	Subgroup. This subfield specifies the subgroup number. Enter a number from 0 to 7.
	TRC	0 to 7 or \$	Terminating Restriction Code. This subfield determines if the VFG can terminate on a specified line. Enter a number from zero to seven. Enter \$ if a value is not a requirement.
	NCOS	0 to 511	Network Class of Service. This subfield specifies the network class of service number. Enter a number from 0 to 511.
	INTRAGRP	Y or N	Intragroup. This subfield specifies if the call is intragroup. Enter Y or N.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if the system generates SMDR records. Enter Y or N.
	CDR	Y or N	Call Detail Recording. This subfield specifies if the production of CDR records is unconditional. Enter Y or N.

Datafill example for table VIRTGRPS

Sample datafill for table VIRTGRPS appears in the following example.

MAP example for table VIRTGRPS

KEY	DATA	OPTIONS
VFG1	SIZE 2	IBN 5551212 MDC1 0 7 5 N Y Y (VFGAMA TDMTT)

Tools for verifying translations

Denied Incoming does not use translation verification tools.

Denied Incoming (continued)

SERVORD

The SERVORD adds option DIN to the lines. The SERVORD cannot assign option DIN with suboption DINE to a complete set. The SERVORD must assign option DIN with suboption DINE to each DN in the set. Suboption DINE allows unrestricted stations to transfer incoming calls from outside the customer group to restricted stations in the customer group.

Table IBNFEAT

The software features for each IBN station number, AC, and multiple appearance directory number (MADN) that the switch supports appear in table IBNFEAT (IBN Line Feature).

Table KSETFEAT

The line features for business sets and data units appear in table KSETFEAT (Business Set and Data Unit Feature).

SERVORD limits

Denied Incoming does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts required to assign Denied Incoming to a line appear in the following table.

SERVORD prompts for Denied Incoming

Prompt	Valid input	Explanation
OPTION	DIN	Specifies the option to add to the line. Enter DIN.
TRC	1 to 8 digits	Specifies the terminating restriction code. Enter a one to eight digit number. Use the digits 0 to 7 in a continuous numeric sequence.
ALTTRC	1 to 8 digits	Specifies the terminating restriction code. Enter a one to eight digit number. Use the digits 0 to 7 in a continuous numeric sequence.
NINOPT	N, DINE	Specifies if a transferred call in the same customer group must terminate to the DN. Enter DINE or N.

SERVORD example to implement Denied Incoming

The ADO command allows the addition of Denied Incoming to a line. This process appears in the following SERVORD example.

Denied Incoming (end)

SERVORD example for Denied Incoming in prompt mode

```
SO:  
>ADO  
SONUMBER:      NOW  90  1  2 AM  
>  
DN_OR_LEN:  
> HOST 00 0 06 15  
OPTKEY:  
> 1  
OPTION:  
> DIN  
TRC:  
> 7  
ALTTRC:  
> 123456  
DINOPT:  
> DINE  
OPTKEY:  
> $
```

SERVORD example for Denied Incoming in no-prompt mode

```
> ADO $ HOST 00 0 06 15 1 DIN 7 123456 DINE $
```

Dial - Call Waiting

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions

Requirements

To operate, Dial - Call Waiting (CWD) requires BAS Generic, BAS00003.

Description

The CWD allows the calling party to impose call waiting on a called station. To impose call waiting, the calling party dials a feature activation code and the extension number of the called party. The CWD is different from the Call Waiting Originating (CWO) feature. The difference is that an end user with CWD must dial an access code and the extension number of the called station to activate call waiting.

When the calling party calls a busy MDC line in the same customer group, the caller hears ringing, music, or a recorded announcement. A special tone burst informs the called party of the incoming. The tone burst repeats every 10 s after the first burst.

The assignment of the Call Waiting Exempt (CWX) feature to a line exempts the line from CWD or CWO interruption.

Operation

A calling party on an Integrated Business Network (IBN) line with the CWD feature can activate call waiting on a busy IBN line. This line can be in the same customer group as the calling party. The same switch can serve the busy line and calling party line.

If a called station is busy, the calling party activates CWD through the following procedure:

- 1 The calling party attempts to call a station and hears a busy tone.
- 2 The calling party hangs up. The calling party goes off-hook again.
- 3 The calling party dials the CWD feature activation code. The calling party receives a special tone.

Dial - Call Waiting (continued)

- 4 The calling party dials the station directory number (DN) of the called party. If the station of the called party continues to be busy, the system imposes call waiting on the station. If the station is not busy any longer, the call continues as a normal call.
- 5 If the station of the calling party is busy, the calling party hears ringing, music, or a recorded announcement instead of the busy tone. The called party receives a special tone that indicates that a call is waiting.

The called party accesses the waiting call through one of two methods:

- The called party can go on-hook. If this condition occurs, the station rings. When answered, the station connects to the waiting call through the Waiting Hold feature.
- The second method depends on if the called party has the Call Hold feature.
 - If the called party has the call hold feature, the called party flashes the switchhook. The called party receives a special dial tone. The called party dials the Call Hold feature activation code. This process places the current call on hold. This process connects the called party to the calling party. If the switchhook holds for longer than 0.5 s, the called party disconnects from the call. Subsequent switchhook flashes that special dial tone and the Call Hold feature-activation code follow allow the called party to alternate between the two parties. In this call configuration, the following plans are possible:
 - If the party that is on hold goes on-hook, the called party and talking party return to a two-party call situation.
 - If the party that talks to the called party goes on-hook, the called party connects to the held party. This condition occurs only if the controller goes on-hook. The station of the called party rings. When answered, the station connects to the party held earlier.
 - If the called party goes on-hook when a call is on hold, the station of the called party rings. When answered, the station connects to the party held earlier.
 - If the called party does not have the call hold feature, the called party flashes the switchhook to put the current call on hold. The called party answers the waiting party.

Subsequent switchhook flashes allow the subscriber to alternate between calls.

Dial - Call Waiting (continued)

If the party that talks to the called party goes on-hook while a call is waiting, the called party can:

- Go on-hook. The station rings. When answered, the station connects to the waiting party.
- Flash the switchhook to access the waiting call.
- Do nothing. After disconnect timing expires, the called party connects to the waiting party.

The CWX line option can exempt the called station from the CWD and the CWO features.



CAUTION

SERVORD datafill necessary

Use the Service Order System to enter all additions, deletions, and changes to IBN lines. Refer to the SERVORD Reference Manual for information.

Translations table flow

The CWD does not affect translations table flow.

Limits

The following limits apply to CWD:

- The CWD is only for intraoffice intragroup calls for the following reasons:
 - When an interoffice party receives a call, you cannot advise the terminating office to apply call waiting to the terminating station.
 - When calling another customer group (intergroup), the called party can be unfamiliar with the CWD tone. If this condition occurs, the course of action for the called party is not clear.
- The CWD cannot interrupt calls that travel over a minimum of one trunk.
- The CWD cannot interrupt a station that is in a call to the emergency service bureau. The caller hears a busy tone. The caller cannot have flash privileges when a call falls in this condition.
- The CWD cannot be assigned to or imposed on any lines in a hunt group.
- The CWD cannot be imposed on an MDC attendant console or a line that is in a call with an attendant console.
- The CWD is a station feature. The assignment of CWD to an attendant console cannot occur.

Dial - Call Waiting (continued)

- The CWD does not apply to attendant extended calls. For example, an attendant can attempt to transfer a call from a line with CSD to a busy line in the same customer group. If this condition occurs, the system does not impose call waiting on the busy station. If the called station has call waiting intragroup (CWI), the attendant can extend the call.
- The CWD cannot interrupt a line that is not in a talking state. An example of a line that is not in a talking state is a line in a dialing state. The caller hears a busy tone.
- The CWD can only be on one call at a time.
- The CWD must be assigned to a key on an electronic business set (EBS) phone to have the ability to receive the call waiting.

Interactions

A description of the interactions between CWD and other functionalities appears in the following paragraphs.

Note: The 3WC/CXR to 2500 set call waiting interactions feature in BCS27 change these interactions. Refer to the feature description, "3WC/CXR to 2500 Set Call Waiting Interactions" for additional information.

Executive Busy Override (EBO)

Executive busy override (EBO) and CWD are compatible options. The use of the CWD option occurs before EBO unless the called party has CWX. You cannot start EBO on a line with call waiting or a line in a call waiting configuration.

Call Waiting Originating (CWO)

The CWD and CWO options are not compatible.

Denied Originating (DOR)

The CWD and Denied Originating (DOR) options are not compatible.

Call Pickup (CPU)

Call pickup (CPU) cannot pick up call waited calls.

Three-Way Calling (3WC) or Call Transfer (CFX)

The called station cannot use 3WC or call transfer (CFX) when a call waits. The called station cannot use 3WC or CFX when the called station alternates between the two calling parties.

Dial - Call Waiting (continued)

Permanent Hold

Permanent Hold is suspended for stations with a call waiting connection.

Busy Verification

The attendant cannot use the Busy Verification feature on a station that a call waiting connection like CWD involves.

Call Forward Universal (CFU) or Call Forward Intragroup (CFI)

The CWD cannot interrupt a called line that is busy and contains activated Call Forward Universal (CFU) or Call Forward Intragroup (CFI).

Note: If the called station activated CFU, the system imposes call waiting on the remote station if the remote station is busy.

Call Forward Busy (CFB)

If the called station is busy and contains Call Forward Busy, the system imposes CWD. This process occurs if another call is not call waited. If another call is already call waited, the system forwards the call. The CFB takes priority over CWD if the called station is a business set.

Call Forward Busy Intragroup (CBI)

If the called station is busy and contains Call Forward Busy Intragroup (CBI), the system imposes CWO. This process occurs if another call is not call waited.

Calling Line Identification with Flash (CLF)

The CWD can interrupt a station with the Calling Line Identification with Flash (CLF) option if the called station has Call Hold. For this action to occur, the CLF option must not be activated.

The CWD cannot interrupt a station in a call with another party that uses CLF. The party that first talks to the called party cannot activate CLF after the called party is in a call waiting configuration.

Note: The CLF is a Malicious Call Hold in the POTS environment.

Call Waiting Exempt (CWX)

The CWX is compatible when the line has call hold.

The system does not impose CWD on a called station that has CWX.

Dial - Call Waiting (continued)

No Double Connect (NDC)

The CWD cannot interrupt a line that has the No Double Connect (NDC) option. The CWD cannot interrupt a line that is in a call that has the NDC option.

Hold state or permanent hold

The CWD cannot interrupt a line that is in the hold state or holds a party because of permanent hold.

Call Waiting Intragroup (CWI)

The CWD cannot interrupt a line that has Call Waiting Intragroup (CWI).

Parked station

The CWD cannot interrupt a parked station or a station that primed another station for parking and has not exited.

Night service calls

The CWO can apply to night service calls.

Do Not Disturb (DND)

The CWD cannot interrupt an MDC line when Do Not Disturb (DND) is active.

Requested Suspended Service (RSUS) or Plug Up (PLP)

The CWD cannot interrupt a line with the requested suspended service (RSUS) or Plug Up (PLP) option. The system routes calls to a line under conditions to a treatment that the customer specifies.

Activation/deactivation by the calling party (end user)

At your telephone

- 1** If you reach a busy station, hang up to disconnect.
 - Response:
 - None.
- 2** Lift the handset.
 - Response:
 - Receive a dial tone.
- 3** Dial the feature activation code.
 - Response:
 - Receive a special tone.

Dial - Call Waiting (continued)

- 4 Dial the extension number of the called party
 - Response:
 - Receive ringing, music, or a recorded announcement.
- 5 Response:
- 6 Wait for the called party to answer.
 - The called party accesses the waiting call.

Note: See "Operation" in this feature description for additional information on how to operate this feature.

Billing

The CWD does not affect billing.

Station Message Detail Recording

The CWD does not affect Station Message Detail Recording (SMDR).

Datafilling office parameters

The CWD does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Dial - Call Waiting appear in the following table. The tables appear in the correct entry order.

Datafill requirements for CWD

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. This table lists the station options for each of the customer groups.
STN	Special Tone. Tones that require trunk cards require this table.
IBNLINES (See note)	IBN Line Assignments table. 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 BL.
IBNXLA	IBN Translation table. This table stores data for the digit translation of calls from an IBN station, attendant console, incoming IBN trunk group, or incoming side of a two-way IBN trunk group.
Note: The entry of data in this table occurs through SERVORD. This document does not provide a datafill procedure or example. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Dial - Call Waiting (continued)

Datafilling table CUSTSTN

Datafill for table CUSTSTN (Customer Group Station Option) must include the CWD station option for the customer group.

Datafill for CWD for table CUSTSTN appears in the following table. The fields that apply to CWD 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		alphanumeric	Customer name. This field specifies the 1- to 16-character name for the customer group. Alphanumeric (correct entry from table CUSTHEAD)
OPTNAME		CWD	Option name. This field specifies the option name. Enter CWD.
OPTION		CWD	Option. This subfield specifies the option name. Enter CWD.
			Note: If CWD is the entry for OPTION, subfield ANNMUSIC requires datafill.
	ANNMUSIC	Y or N	Announcement/music. This subfield specifies if the waiting party must receive announcement/music. Enter Y or N.
			Note: If ANNMUSIC is Y, subfield AUDIOGRP requires datafill.
	AUDIOGRP	character	Audio group. This subfield specifies the audio group in table AUDIO. The option CWD of the audio group defines the announcement/music to apply.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

Dial - Call Waiting (continued)**MAP example for table CUSTSTN**

CUSTNAME	OPTNAME	OPTION
NETWORK	CWD	CWD N

Datafilling table STN

Enter data in table STN (Special Tone) to define the special tones for CWD. The descriptions of the Distinctive Call Waiting tones appear in this table.

Datafill for CWD for table STN appears in the following table. The fields that apply to CWD appear in this table. 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
	TONE	CWT	Tone This subfield specifies the tone. Enter CWT.
CARDCODE		alphanumeric	Card code This field specifies the PEC for the card code. Enter 3X68AA.

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
CWT	8 MTM	11	15	3X68AB	10	0

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) must contain the feature access code for CWD.

Dial - Call Waiting (continued)

Datafill for CWD for table IBNXLA appears in the following table. The fields that apply to CWD 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 subfield	Key. This field contains the subfields XLANAME and DGLIDX.
	XLANAME	character	Translator name. This subfield specifies the name for the translator. Enter the one to eight character name.
	DGLIDX	numeric	Digilator index. This subfield specifies the access code. Enter a 1- to 18-digit number assigned as the access code.
RESULT		see subfield	Result. This field contains the subfield TRSEL.
	TRSEL	FTR	Translations selector. This subfield specifies the translations selector. Enter FTR. Note: If TRSEL is set to FTR, subfields NO_ACCODE_DIGITS and FTR_TYPE require datafill.
	NO_ACCODE_DIGITS	0-7	Number of account code digits. This subfield specifies the number of account code digits. Enter a number from 0 to 7.
	FTR_TYPE	CWD	Feature type. This subfield specifies the feature for a line. Enter CWD.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY		RESULT
NTIXLA	123	FTR 7 CWD

Dial - Call Waiting (continued)

Tools for verifying translations

The CWD does not use tools for verifying translations.

SERVORD

This feature creates line option CWD. This option assigns CWD to lines that have a line class code (LCC) of RES or MDC.

The following commands support the CWD option:

- add option (ADO)
- delete option (DEO)
- change feature (CHF) information for current feature

SERVORD limits

The CWD does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that assign CWD to lines that have a LCC of RES or MDC appear in the following table.

SERVORD prompts for Dial - Call Waiting

Prompt	Valid input	Explanation
DN_OR_LEN	Numeric	Specifies the directory number (DN) or line equipment number (LEN) of the line where the feature is assigned. Enter the DN or LEN.
OPTKEY	Numeric	Specifies the key number where the option is assigned. Enter a key number.
OPTION	CWD	Specifies the necessary option. Enter CWD.

SERVORD example of how to add CWD

The ADO command adds CWD to a Meridian business set on key 5. This process appears in the following SERVORD example.

Dial - Call Waiting (end)

SERVORD example for Dial - Call Waiting in prompt mode

```
>ADO  
SONUMBER:          NOW  93  4 19 AM  
>  
DN_OR_LEN:  
> 0 0 1 1 0  
OPTKEY:  
> 5  
OPTION:  
> CWD  
OPTKEY:  
> $
```

SERVORD example for Dial - Call Waiting in no-prompt mode

```
> ADO $ 0 0 1 10 5 CWD $
```

Dictation Access and Control (DTMF Only)

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

To operate, Dictation Access and Control (DTMF Only) has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Dictation Access and Control (DTMF Only) feature provides station access to the dictation-recording equipment of the end user. To gain access, the end user dials an access code like 1XX. The Dictation Access and Control (DTMF Only) feature provides control functions. These functions include playback and correction. To provide control functions, the feature transmits dual-tone multifrequency (DTMF) tones to the dictation-recording equipment over the voice path. The end user presses digit keys to generate DTMF tones.

The dictation equipment connects to the DMS-100 switch through a line with option RMB. This feature requires a Dictation Recording Access 2X18 line card.

Operation

Dictation lines form a hunt group with 1 to 256 members. The hunt group can include a dictation clerk as the last DN.

To assign an access code to the pilot directory number (DN) of the hunt group of the dictation system, enter data in a standard pretranslator table. The pretranslator converts the access code to the pilot DN of the hunt group. The customer group table of the dictation system has a pretranslator subtable name for use during pretranslation of calls made from a station in the group. Call processing is the same for an MDC station-to-station call.

The lines for dictation-recording equipment are assigned the FRS and RMB options.

Dictation Access and Control (DTMF Only) (continued)

When the line has the RMB option, the system checks the scan point associated with the equipment before termination. The hunt continues if the line is busy because of the RMB key.

Initial access to dictation-recording

To initially access dictation-recording equipment, the end user dials a DN or an access code specific to the end user. Access to the equipment can be from DTMF sets, and DP and DTMF station sets for voice-only dictation machines.

Equipment control contains functions like start/stop, correction, playback, and end-of-dictation. The number of control functions and the method of control differ by the type of dictation-recording equipment.

Dictation-recording equipment that uses voice-only control only have start/stop functions. The detection of voice energy on the transmission path starts recording. If voice energy is not on the transmission path, recording stops.

The DTMF control requires the station end user to enter control codes on the keypad on the set. The equipment type determines the control codes. The control codes are normally one digit. The most common control codes appear in the following table.

Control codes

Function	DTMF control codes
Start/stop	1
Correction	2
Playback	3
End-of-dictation	4

For DTMF control, the DMS-100 switch is transparent. The switch is transparent because the frequency pair of the control code transmits to the dictation-recording equipment. This transmission occurs over the established voice connection from the DTMF station set.

Note: Access to the dictation clerk by dialing 0 is not available.

Control of dictation-recording after initial access

This section describes how to control the dictation equipment after initial access. This section describes the stop recording, playback, and

Dictation Access and Control (DTMF Only) (continued)

end-of-dictation functions. For this description, the dictation machine is in the record mode.

Voice control

For voice-controlled machines, recording stops when the end user stops speaking. These machines do not have playback or end-of-dictation functions. When the end user goes on-hook, the DMS-100 switch releases the dictation access trunk. The switch ends the network connection.

DTMF control

The DMS-100 switch is transparent to all control digit input. The switching system releases the access line to dictation recording and ends the network connection. This process occurs after the detection of an on-hook signal from the originating station.

Attendant access to dictation recording

Attendants can only access dictation-recording equipment to provide access to specified stations. Attendants cannot control dictation-recording equipment.

Business set access to dictation recording

Business set access to dictation-recording is possible. Business sets control the dictation machine in the same way as 500/2500 sets.

Translations table flow

Dictation Access and Control (DTMF Only) does not affect translations table flow.

Limits

The following limits apply to Dictation Access and Control (DTMF Only):

- Equipment control from DP stations is not available.
- Queuing capability
Queuing capability is not available for dictation-recording access. When a station end user dials the access code for dictation-recording and receives a busy tone, the end user continues redialing. The end user redials until the equipment is idle.
- If the Ring Again feature is available, the feature can gain access to dictation recording.
- Class-of-service
Class-of-service restriction of a station determines access to dictation-recording equipment.
- Intragroup stations and attendants
Feature access is only for intragroup stations and attendants. Attendants

Dictation Access and Control (DTMF Only) (continued)

do not normally use this feature. Attendants can provide access to some restricted stations.

Interactions

Dictation Access and Control (DTMF Only) does not have functionality interactions.

Activation/deactivation by the end user

To access the dictation-recording equipment, the station end user goes off-hook and receives a dial tone. The end user dials the dictation-recording access code. The access code to dictation-recording can be 1XX or the extension.

To activate the Dictation Access and Control (DTMF Only) feature at the station level, the station end user dials the dictation-recording access code. The system activates when the network accesses a dictation-recording line. The network connects the calling station and the dictation-recording access line. The dictation-recording device returns a connection tone. When the station end user receives the connection tone, the end user presses the control digit 1 and starts to speak. The connection tone continues until the end user at the station enters the control digit on the keypad.

To deactivate the Dictation Access and Control (DTMF Only) feature at the system level, remove the dictation-recording DN. To deactivate the Dictation Access and Control (DTMF Only) at the station level, change the restriction in line group access.

For voice-controlled machines, the recording stops when the station end user stops speaking. Voice-controlled machines do not have playback or end-of-dictation functions. The DMS-100 switch releases the dictation access trunk and ends the network connection. This condition occurs when the station end user goes on-hook. For DTMF control, the DMS-100 switch releases the dictation-recording access line and drops the network connection. This condition occurs when the DMS-100 switch receives an on-hook signal from the calling station.

Billing

Dictation Access and Control (DTMF Only) does not affect billing.

Station Message Detail Recording

Dictation Access and Control (DTMF Only) does not affect Station Message Detail Recording.

Dictation Access and Control (DTMF Only) (continued)

Datafilling office parameters

Dictation Access and Control (DTMF Only) does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Dictation Access and Control (DTMF Only) appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Dictation Access and Control (DTMF Only)

Table	Purpose of 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 the digit translation of calls from an incoming IBN trunk group, or incoming side of a two-way IBN trunk group.

Datafilling table IBNXLA

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

Table IBNXLA stores the data in blocks for the digit translation of calls from an IBN station and an attendant console. This table stores the data in blocks for digit translation of calls from an incoming two-way IBN trunk group or incoming side two-way IBN trunk group. The names of these blocks of data are customer, feature, and octothorpe translators. These blocks are in table IBNXLA. The customer translator translates all access codes with a numeric leading digit.

Translation uses this data when:

- pretranslation of digits is not a requirement
- pretranslation of digits is a requirement and the preliminary translator transfers the call to the customer translator for additional digit translation.

Datafill for Dictation Access and Control (DTMF Only) for table IBNXLA appear in the following table. The fields that apply to Dictation Access and

Dictation Access and Control (DTMF Only) (continued)

Control (DTMF Only) 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 the subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	Translator Name. This subfield specifies the one- to eight-character alphanumeric name of the translator. Enter the translator name.
	DGLIDX	numeric	Digilator Index. This subfield specifies the access code. Enter the 1- to 18-digit number access code.
RESULT		see subfields	Result. This field contains the subfields TRSEL, SMDR, INTRAGROUP, SNPA, NNX, DIGINEXT, and FILLDIGS..
	TRSEL	EXTN	Translation Selector. This subfield specifies the translation selector EXTN. Enter EXTN.
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if all calls from a customer group station or attendant console to any station in the block of station numbers are recorded. Enter Y or N.
	INTRAGROUP	Y or N	Intragroup. This subfield specifies if the call is intragroup. Enter Y or N.
	SNPA	numeric	Serving Numbering Plan Area. This subfield specifies the three-digit destination NPA. Enter the serving NPA.
	NNX	numeric	Central Office Code. This subfield specifies the three-digit destination NNX code. Enter the central office code.
	DIGINEXT	1 to 7	Digits in Extension This subfield specifies the number of digits in the extension number. Enter a value from 1 to 7.
	FILLDIGS	numeric	Fill Digits This subfield specifies a vector to a maximum of three digits. Enter the fill digits.

Dictation Access and Control (DTMF Only) (end)

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY	RESULT
CXN2 43	EXTN Y N Y 903 753 2 12

Tools for verifying translations

Dictation Access and Control (DTMF Only) does not use tools for verifying translations.

SERVORD

Dictation Access and Control (DTMF Only) does not use SERVORD.

Direct Outward Dialing (DOD)

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS08 and later versions

Requirements

To operate, Direct Outward Dialing (DOD) has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Direct Outward Dialing (DOD) feature allows a station end user to place external calls to the exchange network without attendant help. To perform this action, the end user dials the DOD feature access code. The end user receives the second dial tone and dials the external number. The DOD feature access code is normally the digit 9. An external number is a directory number (DN) that is outside the customer group. The end user cannot reach this number when the end user dials the extension number.

Operation

This feature allows the end user to dial an excess code and place external calls to the exchange network without attendant help.

Table IBNXLA contains a separate entry for 911 service. The entry for 911 routes 911 calls as the customer group requires. For example, a Net Gen selector can route a 911 call to the public dial plan. A Net Gen selector can route a 911 call to a specified route that uses the route selector in table IBNXLA. The additional entry for 911 service does not affect the provision of a second dial tone for 9+ calls to the public dial plan. The additional entry for 9+ calls does not delay the processing of 911 calls. A second dial tone can be a requirement after you dial 9 to access the public dial plan. When this event occurs, after dialing the 9 for 911 a second dial tone is available. In addition, the field for the second dial tone in the tuple you enter for 911 must be Y.

Translations table flow

Direct Outward Dialing (DOD) does not affect translations table flow.

Direct Outward Dialing (DOD) (continued)

Limits

The system does not support PBX AIOD. The DMS switch does not transmit a calling number to the class 5 office with PBX protocol. The class 5 office bills all DOD calls that the system can charge to the listed directory number (LDN).

Interactions

The following features interact with Direct Outward Dialing (DOD):

- call forward
- call transfer
- speed calling—individual
- speed calling—group
- three-way conference/transfer

Activation/deactivation by the end user

The activation of Direct Outward Dialing (DOD) appears in the following procedure.

Activation of Direct Outward Dialing (DOD) by the end user

At your telephone

- 1** Go off hook
Response:
End user hears dial tone.
- 2** Dial DOD access code.
Response:
End user hears dial tone.
- 3** Dial directory number of called station.
Response:
End user hears audible ringback.

Billing

Direct Outward Dialing (DOD) does not affect billing.

Station Message Detail Recording

Direct Outward Dialing (DOD) does not affect Station Message Detail Recording.

Direct Outward Dialing (DOD) (continued)

Datafilling office parameters

Direct Outward Dialing (DOD) does not affect office parameters.

Datafill sequence

Datafill for Direct Outward Dialing (DOD) appears in the following table. The tables appear in the correct entry order.

Datafill requirement for Direct Outward Dialing (DOD)

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

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) contains the data for the digit translations of calls from the following:

- an IBN station
- an AC
- incoming trunk group
- incoming side of a two-way MDC trunk group

Enter data in table IBNXLA to define the route for the DOD network.

The datafill for Direct Outward Dialing (DOD) for table IBNXLA appears in the following table. The fields that apply to Direct Outward Dialing (DOD)

Direct Outward Dialing (DOD) (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 or refinement	Entry	Explanation and action
KEY		see subfields	Key. This field has subfields XLANAME and DGLIDX.
	XLANAME	alphanumeric	Translator Name. This subfield specifies the one to eight character name assigned to the translator.
	DGLIDX	numeric	Digilator Index. This subfield specifies the access code. Enter the 1 to 18 digit number assigned as the access code for DOD.
RESULT		see subfield	Result. This field has subfield TRSEL.
	TRSEL	NET	Translation Selector. This subfield specifies the translation selector. Enter NET. Note: When you set TRSEL to NET, subfield NETTYPE requires datafill.
	NETTYPE	DOD	Network Type. This subfield specifies the type of network. Enter DOD.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

A second example of datafill with the outward dial (9+) code for customer group CNX2 appears in the following example. This code for group CNX2 is for centrex dial plans that use 9+ as access to the public dial plan. This code for group CNX2 allows these plans to dial 911 and 9+911 for emergency access. Set the number of access code digits to 0 for the 911 entry.

Direct Outward Dialing (DOD) (end)

MAP example for table IBNXLA

KEY												RESULT		
MDCDOD	9	NET	N	N	N	1	N	RES	Y	Y	DOD	N	0	
NONE														

KEY												RESULT		
CXN2	911													
NET	N	N	N	0	Y	POTS	Y	N	DOD	(LAT	TR 136)	(EA	CARR1	Y 0) \$ \$

Tools for verifying translations

Direct Outward Dialing (DOD) does not use tools for verifying translations.

SERVORD

Direct Outward Dialing (DOD) does not use SERVORD.

Directed Call Park

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS18 and later versions

Requirements

Directed Call Park does not have requirements.

Description

Directed Call Park allows MDC 500/2500 sets or Meridian business sets (MBS) to park or hold calls against any acceptable directory number (DN). Any station can retrieve the call later. Directed Call Park allows the sets to park a maximum of 100 calls at the same time.

Directed Call Park provides a security code option. Directed Call Park allows the end user to assign a security code. Station end users must have the correct security code to retrieve the parked call.

Directed Call Park contains call park and call retrieve. Call park allows the end user to park one call against a DN. Call retrieve allows the end user to request call retrieval and enter the DN against which the end user parked the call. The retrieval ability is the same as call park except for calls flagged as security calls.

Operation

The end user that received the call requests Directed Call Park. The placement of the call in park occurs. The end user that established the parking, can exit the call. The end user dials the DN against which the system parked the call. When this event occurs, the call goes to a parked state.

When the call is in the parked state, the caller hears an audio announcement. The audio announcement can be music or a message. If the end user did not select an audio announcement, the caller hears silence. When the call is in the parked state, the recall timer starts. If the timer expires, a recall of the end user occurs. The time can be set between 12 s and 240 s. Cancellation of the time-out occurs when the end user removes the call from park or when a recall occurs. If a time-out occurs and the line of the end user is busy, the timer restarts.

Directed Call Park (continued)

The following events can occur when a call is in the parked state:

- The parked station exits and the call disconnects.
- The parking station answers the recall. The system removes the call from the parked state. The system reestablishes a normal two-port call.
- The retrieval of the call occurs through one of the methods that appear in the retrieval section in “Activation/deactivation by the end user”
- Another station answers the recall through call pickup. Normal calling activity continues.

Translations table flow

Directed Call Park does not affect translations table flow.

Limits

Directed Call Park has three system restrictions. One restriction applies to call park retrieval. Another restriction applies to parked parties. Several calling options place restrictions on Directed Call Park. The following limits apply:

- When an end user attempts to park more than one call on a specified DN, the system denies the park attempt. The system denies the park attempt because each DN can have only one parked call. The system imposes this restriction.
- In each customer group, the customer can impose specified limits. The customer can limit the number of calls parked at the same time against DNs that belong to that customer group. The system denies additional attempts to park calls against these DNs after the DNs are full. The system imposes this restriction.
- The system can deny call park attempts under the following conditions:
 - Directed Call Park software is not available
 - the involvement of the called-party with calls that are not compatible occurs

Note: See the “Interactions” section in this feature description to determine which calls are not compatible with this functionality.

Interactions

Directed Call Park interacts with 13 station functionalities and two attendant console functionalities. Each station must have specified options to have Directed Call Park stored on 500/2500 sets or specified MBSs. These MBSs

Directed Call Park (continued)

do not have dedicated DCPK keys. One of the following conditions must apply to each station before Directed Call Park can apply to these sets:

- the station has the Three-Way Calling option
- the station is part of a group with group option Call Transfer All Calls

Call park retrieval operates on any set and does not interact with other functionalities.

A description of the actions between Directed Call Park and other functionalities appears in the following paragraphs.

Attendant Busy Verification

The system sends reorder treatment to the attendant. The attendant attempts to check if a line involved in a call park is busy.

Attendant Camp-on

The subscriber can activate Attendant Camp-on on a parked call. The caller hears a call waiting tone on the set when Attendant Camp-on is active.

Call Forwarding

Call Forwarding (CFW) does not apply to calls recalled from Directed Call Park. The previous activation of CFW does not affect this restriction.

Call Pickup

A station that is not the recalled station can use Call Pickup (CPU) to access a parked call. After a station user answers the call, the system automatically removes the call from parked state. A security code is not a requirement.

Call Waiting

The use of Call Waiting (CWT) to MBS calls when Directed Call Park is in the parked state can occur. The user can park the calls in CWT. The recall is the primary DN.

With an MDC set, if the station DN already received a parked call, the CWT option does not apply.

Calling Line Identify with Flash, Malicious Call Hold

The activation of Calling Line Identify with Flash (CLF) and Malicious Call Hold (MCH) cannot occur for a parked call. The originator of the call cannot activate Directed Call Park if the terminator has CLF or MCH in an active state.

Directed Call Park (continued)

Do Not Disturb, Make Set Busy

Do Not Disturb (DND) and Make Set Busy (MSB) do not block the recall of parked calls to the called station. The user can activate the MSB option on an MBS set. The user can activate this option, if the user parked the call against the station DN.

Executive Busy Override

An attempt to activate Executive Busy Override (EBO) by an incoming call cannot occur for calls in the parked state of Directed Call Park. The incoming call that attempts to activate EBO receives the reorder tone.

Multiple Appearance Directory Number

Multiple Appearance Directory Number (MADN) group members with single call arrangement (SCA) or multiple call arrangement (MCA) can access Directed Call Park. The user can only park one call for each MADN group because all members of a MADN group share DNs. With the MADN option, the station that activated Directed Call Park can recall the call. If the station is MADN with SCA, the recall only occurs if the group is idle. When an SCA member recalls a call, a lamp indicates that the group is busy.

Privacy Release

The deactivation of Privacy Release occurs when calls are in the parked state.

Private Business Lines

The Directed Call Park functionality does not apply to private business lines (PBL). If the user presses the DCPK key when a PBL station is active, the system ignores the request.

Ring Again

Directed Call Park does not affect other parties that request Ring Again (RAG) on a parked party or parking party. When the user releases the call from Directed Call Park, the RAG functionality continues to operate.

Speed Calling, Automatic Dialing

The use of Speed Calling and Automatic Dialing to specify the digits against which a user parked the call can occur. These functionalities apply when the user retrieves a Directed Call Park call. The user cannot enter security codes with these functionalities.

Straight Intercom

The deactivation of Directed Call Park occurs for straight intercom calls because intercom lines do not have a DN. Directed Call Park requires a DN.

Directed Call Park (continued)

Three-Way Calling, Call Transfer

The called party and the caller cannot activate Three-Way Calling (3WC) and Call Transfer (CXR) under the following conditions:

- Directed Call Park is active on an MBS
- the call is in the parked state

The system ignores attempts to activate 3WC and CXR.

The called party or the caller can attempt to activate 3WC or CXR after the activation of Directed Call Park on an MDC set. The system cancels Directed Call Park and allows the activation of the requested functionality.

When the user parks a call, the system ignores attempts to activate 3WC. The system disables Directed Call Park when 3WC is in effect. The end user presses the DCPK key and dials the DN against which the user parked the call. The user also dials the security code. When the user performs these actions, the user can retrieve a parked call on the second leg of a 3WC call.

Activation/deactivation by the end user**Activation**

The end user activates or deactivates Directed Call Park. The end user can activate Directed Call Park under the following conditions:

- the end user is on an established connection
- the end user uses a 500/2500 set or an MBS
- Directed Call Park is available on that line

The type of set that the end user uses determines the activation procedure. From a 500/2500 set, the end user flashes and enters the following items:

- the Directed Call Park access code
- the DN of the station at which the called-party parks the call

From an MBS, two activation methods are available:

- The end user presses the Directed Call Park key. The end user enters the DN of the station at which the called-party parks the call.
- The user presses the Three-way Call/Call Transfer key and enters the following items:
 - the Directed Call Park access code
 - the DN of the station at which the called-party parks the call

Directed Call Park (continued)

Parties A and B can have an established call and party A wants to park party B. When this event occurs, party A can press the Directed Call Park key. The system attempts to park the call against the DN that party A supplies. Party A hears a confirmation tone. If party A uses an MBS with a Directed Call Park key, the lamp for this key lights for a short time. Party B receives audible ringing or an optional audio announcement. The Directed Call Park key and DN key of party A are turned off. The Directed Call Park timer starts.

If the user cannot park the call against the dialed DN, party A receives 5 s of treatment. The system reestablishes voice connection between parties A and B.

Retrieval

Retrieval originates at the station of party A. The type of set in use at that station determines the procedure. The following are the types of procedures:

- Party A uses a 500/2500 set to flash and enter the following items:
 - the Directed Call Park retrieval code
 - the DN of the station against which party A parks the call
- Party A uses an MBS to press the Directed Call Park key. Party A enters the DN of the station against which the party wants to park the call.

In both procedures, the system can reestablish the voice connection between parties A and B. The system can reestablish the voice connection if party B remained off-hook.

Retrieval can occur when the call park timer expires and the recall of party A occurs. If party A answers the recall, the system reestablishes the voice connection with party B. If party A does not answer the recall, the station continues to ring until one of the following events occurs:

- an answer to the call occurs
- the Call Pickup (CPU) functionality intercepts the call when CPU is active on the line
- party B goes on-hook

The station of party A can be busy when the time-out and call back occurs. When this condition occurs, the system resets the call park timer to the original delay. Party B remains in a parked state. This call back, busy, reset-timer cycle repeats until one of the following events occurs:

- the parked party goes on-hook
- the time-out occurs when the station of party A is idle

Directed Call Park (continued)

Deactivation

Deactivation of Directed Call Park occurs when the parked party goes on-hook.

Billing

Directed Call Park does not affect billing.

Station Message Detail Recording

Directed Call Park does not affect Station Message Detail Recording.

Datafilling office parameters

Directed Call Park does not affect office parameters.

Directed Call Park (continued)

Datafill sequence

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

Datafill requirements for Directed Call Park

Table	Purpose of table
IBNLINES (Note)	IBN Line Assignments. This table contains line assignments for specified 500/2500 sets. The assignment of these 500/2500 sets to an Integrated Business Network (IBN), Residential Enhanced Services (RES), and Multiple Appearance Directory Number (MADN) station number occurs. This table also contains line assignments for IBN attendant consoles. This table has the assignment of Directed Call Park for MDC sets.
IBNFEAT (Note)	IBN Line Feature. The line functionalities of the IBN lines in table IBNLINES appear in this table.
KSETFEAT (Note)	Business Set and Data-Unit Feature. The line functionalities assigned to the business sets and data units (DU) in table KSETLINE appear in this table. The line functionalities for the Meridian digital telephone sets and DUs in table IVDINV appear in this table. This table has the Directed Call Park for MBSs assigned.
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: You must enter data for this table through SERVORD. A datafill procedure or example is not available for these tables. See "SERVORD" for an example of how to use SERVORD to enter data in this table.	

Directed Call Park (continued)**Datafilling table IBNXLA**

The following procedure identifies the datafill for table IBNXLA. You can use an access code for 500/2500 sets to activate Directed Call Park store. Use modified datafill in this table to activate Directed Call Park for MBSs.

The datafill for Directed Call Park for table IBNXLA appears in this table. The fields that apply to Directed Call Park 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	1-character to 8-characters	Translator Name. This subfield specifies the name of the translator. Enter the one- to eight-character name.
	DGLIDX	1-digit to 18-digits	Digilator Index. This subfield specifies the access code. Enter a 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 subfield TRSEL contains 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.

Directed Call Park (continued)

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	DPRKS	Feature. This subfield specifies the functionality assigned to a line. Enter DPRKS.

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 DPRKS

Tools for verifying translations

Directed Call Park does not use translation verification tools.

SERVORD

A change of the Service Order System (SERVORD) occurs to provide the following for MDC sets and MBSs:

- the Security Code
- Directed Call Park functionality

The assignment of Directed Call Park occurs in table IBNLINES for MDC sets and table KSETFEAT for MBSs.

After the assignment of a security code to a station DN occurs, the system prompts the end user to provide additional information. This information includes the functionality code that requires a security code. This list can include a maximum of ten functionalities. See the "Security Codes for Station Features" description in this document for additional information on security codes.

Directed Call Park (continued)

SERVORD limits

Directed Call Park does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts used to implement Directed Call Park appear in the following table.

SERVORD prompts for Directed Call Park

Prompt	Correct input	Explanation
OPTION	DCPK	Specifies the option to add
Note: The assignment of Directed Call Park occurs with SERVORD . The system enters data in tables IBNLINES, IBNFEAT, and KSETFEAT.		

SERVORD example to add Directed Call Park

The add option (ADO) command adds Directed Call Park with a security code to a current line. The procedure appears in the following example.

Directed Call Park (end)

SERVORD example to add Directed Call Park in prompt mode

```
S0:  
> ADO  
SONUMBER: NOW 85 7 20 AM  
>  
DN_OR_LEN:  
> 6210001  
OPTKEY:  
> 5  
OPTION:  
> DCPK  
OPTKEY:  
> $
```

SERVORD example to add Directed Call Park in no-prompt mode

```
> ADO $ 6210001 5 DCPK $
```

Directed Call Pickup - Barge In

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions

Requirements

Directed Call Pickup - Barge In requires BAS Generic, BAS00003, to operate.

Description

Directed Call Pickup - Barge In (DCBI) allows an IBN station to answer a ringing line in the same customer group. The called station can answer the call before the instigating party completes the call pickup sequence. When this event occurs, the instigating party can interrupt an answered call and connect to a three-way call.

Both parties of the current call can receive an optional warning tone before the barging-in of the activating station occurs. The application of this tone is a customer group option. The DCBI tone contains 440 Hz at -13dbm.

A called station with directed call pickup barge-in exempt (DCBX) can block any attempts by another station with DCBI to barge-in. The caller hears a reorder tone.

A called station with directed call pickup exempt (DCPX) can block any attempts by another station to barge-in or answer the call. The caller hears reorder tone.

Directed Call Pickup - Barge In is available to the MDC end user with a DP/DTMF set or a Meridian business set.

Operation

A station with Directed Call Pickup - Barge In can answer a ringing station in the same customer group. This station must perform the following steps:

- Go off-hook
- Dial the feature code assigned for directed call pickup (DCPU). The DCBI station receives special dial tone.
- Dial the extension number of the ringing station. If the pickup is successful, the activating station and the calling party move to a two-way

Directed Call Pickup - Barge In (continued)

call configuration. If the called party answers the call and the activating station already initiated call pickup, the application of call barge-in occurs. The call moves to a three-way call configuration. If another station answers the call, the activating station receives a reorder tone.

Translations table flow

Directed Call Pickup - Barge In does not affect translations table flow.

Limits

The following limits apply to Directed Call Pickup - Barge In:

- Directed Call Pickup - Barge In is a station feature only.
- The DCBI functionality cannot barge-in on a call that activated any of the special calling features. An example of this type of call is a call to a station that has call forward activated.
- The DCBI functionality cannot barge-in on calls that require chaining of three-port conference circuits or a six-port conference circuit
- The DCBI functionality cannot barge-in when a warning tone circuit is not available or network blocking occurs.

Interactions

Descriptions of the actions between Directed Call Pickup - Barge In and other functionalities appear in the following paragraphs.

Call hold

The DCBI functionality cannot barge-in on a call that call hold has on hold.

Three-way calling

The use of three-way calling cannot activate DCBI.

The DCBI functionality cannot barge-in on a three-way call.

Ring again (RAG)

A station with DCBI cannot answer a ring again (RAG) call.

Call back queuing (CBQ)

A station with DCBI cannot answer a call back queuing (CBQ) recall.

No double connect (NDC)

The DCBI functionality cannot barge-in on a line that does not have double connect (NDC).

Directed Call Pickup - Barge In (continued)

Call pickup (CPU)

Call pickup (CPU) and Directed Call Pickup - Barge In do not depend on each other. The activating station does not require CPU to activate DCBI. Each feature has activation codes that belong to that feature.

Hunt group

The DCBI functionality cannot barge-in on a call that is a member of a hunt group.

Call waiting (CWT) or Call waiting intragroup (CWI)

The DCBI functionality cannot barge-in on a call that call waiting (CWT) or call waiting intragroup (CWI) forwards. The called station receives a temporary ring splash. The calling party receives a reorder tone.

Malicious call hold (MCH)

The DCBI functionality cannot barge-in on a call in a malicious call hold (MCH) configuration.

Emergency service line (ESL)

The DCBI functionality cannot barge-in on a call associated with an emergency service line (ESL).

Emergency service bureau (ESB)

The DCBI functionality cannot barge-in on a call associated with the emergency service bureau (ESB).

Attendant console

The DCBI functionality cannot barge-in on a call associated with an attendant console or a call in an attendant console queue.

Do not disturb (DND)

The DCBI functionality cannot barge-in on a station that answered an incoming call with do not disturb (DND) activated.

Multiple appearance directory number (MADN)

The DCBI functionality cannot barge-in on a call that terminates on a multiple appearance directory number (MADN) group member.

Speed calling or group intercom

You can use the speed calling or group intercom features to dial the extension of the ringing station.

DISA

The DCBI and DISA functionalities are not compatible.

Directed Call Pickup - Barge In (continued)

Uniform call distribution (UCD)

The DCBI functionality cannot interact with a call queued in a uniform call distribution (UCD) queue.

The DCBI functionality cannot answer an incoming call that rings a UCD station.

The DCBI functionality cannot barge-in on a station that has UCD.

Blocking DCBI

You must assign DCBX, DCPX, or NDC to code calling access lines that want to block DCBI.

You must assign DCBX, DCPX, or NDC to loudspeaker paging access lines that want to block DCBI.

You must assign DCBX, DCPX, or NDC to radio paging access lines that want to block DCBI.

You must assign DCBX, DCPX, or NDC to dictation recording access lines that want to block DCBI.

Call forward busy (CFB)

The DCBI functionality can interrupt a call that is in a call forward busy (CFB) configuration.

Single line queue (SLQ)

The DCBI functionality cannot interact with a call queued in a single line queue (SLQ).

The DCBI functionality cannot answer an incoming call that rings a phone with the SLQ feature active.

Activation/deactivation by the end user

Directed Call Pickup - Barge In does not require activation or deactivation by the end user.

Billing

Directed Call Pickup - Barge In does not affect billing.

Station Message Detail Recording

Directed Call Pickup - Barge In does not affect Station Message Detail Recording.

Directed Call Pickup - Barge In (continued)

Datafilling office parameters

Directed Call Pickup - Barge In does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Directed Call Pickup - Barge In appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Directed Call Pickup - Barge In

Table	Purpose of table
CLLI	Common Language Location Identifier Table. This table identifies the far end of each announcement, tone, trunk group, test trunk, national milliwatt test lines, and service circuit.
CUSTSTN	Customer Group Station Option Table. This table assigns Directed Call Pickup - Barge In to the customer group.
STN	Special Tone Table. This table defines the special tones used with DCBI.
IBNXLA	IBN Translation Table. This table stores data for the digit translation of specified calls from one of the following: • an IBN station • attendant console • incoming IBN trunk group • incoming side of a two-way IBN trunk group
IBNLINES	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: You must use SERVORD to enter data in this table. Datafill procedures and example are not available. See "SERVORD" for an example of how to use SERVORD to enter data in these tables.

Datafilling table CLLI

You must enter data in table CLLI to define the fixed CLLI. Directed Call Pickup - Barge In uses the fixed CLLI. You must enter data in this table to make sure that the size of circuits for this tone is correct.

Datafill for Directed Call Pickup - Barge In for table CLLI appears in the following table. The fields that apply to Directed Call Pickup - Barge In appear

Directed Call Pickup - Barge In (continued)

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		EBOT	Common Language Location Identifier. This field specifies the common language location identifier name. Enter EBOT.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

MAP example for table CLLI

```
TABLE: CLLI
      CLLI  ADMIN TRKGRSIZ                ADMINIF
-----
      EBOT   129   64   EXECUTIVE_BUSY_OVERRIDE_CIRCUITS
```

Datafilling table CUSTSTN

You must enter data in table CUSTSTN to assign Directed Call Pickup - Barge In to the customer group.

The datafill for Directed Call Pickup - Barge In for table CUSTSTN appears in the following table. The fields that apply to Directed Call Pickup - Barge In 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 to 16 characters	Customer Name. This field specifies the 1 to 16 character name of the customer group. The entry is alphanumeric. Correct entries are from table CUSTHEAD.
OPTNAME		DCBITONE	Option Name. This field specifies the option name. Enter DCBITONE.
OPTION		see subfields	Option. This field contains subfields OPTION and DCBITONE.

Directed Call Pickup - Barge In (continued)**Datafilling table CUSTSTN (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DCBITONE	Option. This field specifies the option name. Enter DCBITONE.
	DCBITONE	Y or N	Directed Call Pickup Barge-in Tone. This field specifies if warning tone is a requirement. Enter Y if a warning tone is a requirement. If a warning tone is not a requirement, enter N.

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
NETWORK	DCBITONE		DCBITONE Y

Datafilling table STN

You must enter data in table STN to define the special tones used with DCBI.

The datafill for Directed Call Pickup - Barge In for table STN appears in the following table. The fields that apply to Directed Call Pickup - Barge In appear in this table. See the data schema section of this document for description of the other fields.

Datafilling table STN

Field	Subfield or refinement	Entry	Explanation and action
	TONE	EBOT	Tone. This subfield specifies the tone. Enter EBOT.
CARDCODE		3X68AC	Card Code. This field specifies the PEC of the card code. Enter 3X68AC.

Datafill example for table STN

Sample datafill for table STN appears in the following example.

Directed Call Pickup - Barge In (continued)

MAP example for table STN

TABLE : STN						
SK	TMTYPE	TMNO	TMCKTNO	CARDCODE	MAXCONN	TRAFSNO
EBOT 1						
	MTM	5	14	3X68AC	10	0
EBOT 2						
	MTM	5	15	3X68AC	10	0
DISTCWT 1						
	MTM	5	15	3X68AC	10	0

Datafilling table IBNXLA

You must enter the feature access code in table IBNXLA for Directed Call Pickup - Barge In.

Datafill for Directed Call Pickup - Barge In for table IBNXLA appears in the following table. The fields that apply to Directed Call Pickup - Barge In appear in this table. See the data schema section of this document for a description of the other fields.

How to enter data for 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	1 to 8 characters	Translator Name. This subfield specifies the name of the translator. Enter the one- to eight-character name.
	DGLIDX	1 to 18 digits	Digilator Index. This subfield specifies the access code. Enter a 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 subfield TRSEL contains entry 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.

Directed Call Pickup - Barge In (continued)

How to enter data for table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	DCP	Feature. This subfield specifies the feature assigned to a line. Enter DCP.

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 DCP

Tools for verifying translations

Directed Call Pickup - Barge In does not use tools for verifying translations.

SERVORD

This feature creates line option DCBI. This option assigns DCBI to lines that have a line class code (LCC) of RES or IBN. The following commands support the DCBI option:

- ADO (add option)
- DEO (delete option)
- CHF (change feature information for a feature that is present)

SERVORD limits

Directed Call Pickup - Barge In does not have SERVORD limits.

Directed Call Pickup - Barge In (end)

SERVORD prompts

The SERVORD prompts can assign Directed Call Pickup - Barge In to lines that have a LCC of RES or IBN. These SERVORD prompts appear in the following table.

SERVORD prompts for Directed Call Pickup - Barge In

Prompt	Correct input	Explanation
DN_OR-LEN	Numeric	Specifies the directory number or line equipment number of the line to which the assignment of the feature must occur. Enter the DN or LEN.
OPTKEY	Numeric	Specifies the key number to which you assign the option. Enter a key number.
OPTION	PRK	Specifies the option to assign. Enter DCBI.
Note: The system enters data for table IBNLINES when you use SERVORD to assign Directed Call Pickup - Barge In.		

SERVORD example to implement Directed Call Pickup - Barge In

You can use the ADO command to add Directed Call Pickup - Barge In to a Meridian business set on key number. This procedure appears in the following SERVORD example.

SERVORD example for Directed Call Pickup - Barge In in prompt mode

```
>ADO
SONUMBER:          NOW  93  4 19 AM
>
DN_OR_LEN:
> 0 0 1 1 0
OPTKEY:
> 5
OPTION:
> DCBI
OPTKEY:
> $
```

SERVORD example for Directed Call Pickup - Barge In in no-prompt mode

```
> ADO $ 0 0 1 10 5 DCBI $
```

Directed Call Pickup - Non Barge In

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS14 and later versions

Requirements

Directed Call Pickup - Non Barge In requires BAS Generic, BAS00003 to operate.

Description

Directed Call Pickup - Non Barge In (DCPU) allows an IBN station to use directed call pickup to answer a ringing line in the same customer group. The DCPU does not allow the station to barge-in on a line when DCPU answers a call.

The assignment of Directed call pickup exempt (DCPX) to a station to remove the station from specified call pickup attempts can occur. These call pickups occur through DCPU or directed call pickup barge-in.

Directed Call Pickup - Non Barge In is available to an MDC end user with a 500/2500 set or Meridian business set (MBS).

Operation

Directed Call Pickup - Non Barge In does not affect operation.

Translations table flow

Directed Call Pickup - Non Barge In does not affect translations table flow.

Limits

The following limits apply to Directed Call Pickup - Non Barge In:

- Directed Call Pickup - Non Barge In is a station feature only.
- Directed Call Pickup - Non Barge In cannot answer a call when the following conditions are present:
 - the called station answered the call and is in a talking state
 - the called station is idle or another station answered the call
 - DCPX is a feature assigned to the called station

Directed Call Pickup - Non Barge In (continued)

Interactions

Descriptions of the actions between Directed Call Pickup - Non Barge In and other functionalities appear in the following paragraphs.

Call hold

The DCPU functionality cannot answer a call that the call hold feature has on hold.

Three-way calling

The three-way calling feature cannot activate DCPU.

The DCPU functionality cannot answer a call involved in a three-way call.

Ring again (RAG)

A station with DCPU cannot answer a ring again (RAG) call.

Call back queuing (CBQ)

A station with DCPU cannot answer a call back queuing (CBQ) recall.

The system does not check to determine if the station that initiates DCPU can answer the ringing station. The station assigned the DCPU can access calls that the system normally does not present to the station. This station can access these calls because restrictions are not present.

Call pickup (CPU)

Call pickup (CPU) and Directed Call Pickup - Non Barge In do not depend on each other. The activating station does not require the CPU option to activate DCPU. Each feature has activation codes for the feature. Both features can answer the call.

Hunt group

The DCPU functionality cannot answer a call that is a member of a hunt group.

Malicious call hold (MCH)

The DCPU functionality cannot answer a call in a malicious call hold (MCH) configuration.

Emergency service line (ESL)

The DCPU functionality cannot answer a call associated with an emergency service line (ESL).

Directed Call Pickup - Non Barge In (continued)

Emergency service bureau (ESB)

The DCPU functionality cannot answer a call associated with the emergency service bureau (ESB).

Attendant console

The DCPU functionality cannot answer a call involved with an attendant console or a call that is in an attendant console queue.

Do not disturb (DND)

The DCPU functionality cannot answer a call to a station that answered an incoming call and has do not disturb (DND) activated. All incoming calls route to an attendant treatment.

Speed calling or Group intercom

The use of the speed calling or group intercom feature to dial the extension of the ringing station can occur.

DCPU

The DCPU and DISA are not compatible.

Uniform call distribution (UCD)

The DCPU functionality cannot interact with a call queued in a uniform call distribution (UCD) queue.

The DCPU functionality cannot answer an incoming call ringing a UCD station.

The DCPU functionality cannot barge in on a station that has UCD.

The following feature interaction information for DCPU and UCD applies for Automatic Call Distribution (ACD):

- DCPU cannot interact with a call queued in a UCD queue
- DCPU cannot answer an incoming call ringing a UCD station
- DCPU cannot barge-in on a station that has UCD

Blocking DCPU

The assignment of the DCPX option to code calling access lines that want to block directed call pickup must occur.

The assignment of the DCPX to loudspeaker paging access lines that want to block directed call pickup must occur.

Directed Call Pickup - Non Barge In (continued)

The assignment of DCPX to radio paging access lines that want to block the directed call pickup must occur.

The assignment of the DCPX to dictation recording access lines that want to block directed call pickup must occur.

Call forward universal or Call forward intragroup

The call forward universal or call forward intragroup feature can forward a call. The DCPU functionality cannot answer one of these forwarded calls. The system applies a temporary ring splash to the called station.

Call forward busy (CFB)

The DCPU functionality can answer a call to a station that has call forward busy (CFB).

Single line queue (SLQ)

The DCPU functionality cannot interact with a call queued in a single line queue (SLQ).

The DCPU functionality cannot answer an incoming call that rings a phone with the SLQ feature active.

Activation/deactivation by the end user

Activation/deactivation of Directed Call Pickup - Non Barge In by the end user

To answer a call with the use of DCPU, the station end user completes the following procedure.

At your telephone

- 1** Go off-hook and listen for dial tone.
 - Response:
 - Receive dial tone.
- 2** Dial the feature code assigned to DCPU.
 - Response:
- 3** Dial the extension number of the ringing station.
 - Response:
 - Receive special dial tone (SPDT)
- 4** Dial the extension number of the ringing station.
 - Response:
 - Connect to the calling party

Directed Call Pickup - Non Barge In (continued)

Billing

Directed Call Pickup - Non Barge In does not affect billing.

Station Message Detail Recording

Directed Call Pickup - Non Barge In does not affect Station Message Detail Recording.

Datafilling office parameters

Directed Call Pickup - Non Barge In does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Directed Call Pickup - Non Barge In appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Directed Call Pickup - Non Barge In

Table	Purpose of table
IBNLINES (Note)	IBN Line Assignments table. This table contains specified line assignments. These line assignments are for data channel links for the Bulk Calling Line Identification (BCLI) feature. The BCLI feature is under the format name of BL.
IBNXLA	IBN Translation. This table specifies the digit translation of calls that the MDC station end user dials.
Note: You must use SERVORD to enter data for this table. Datafill procedures are not available.	

Datafilling table IBNXLA

You must enter the access code for DCPU in table IBNXLA.

Datafill for Directed Call Pickup - Non Barge In for table IBNXLA appears in the following table. The fields that apply to Directed Call Pickup - Non Barge In 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	1-character to 8-character name	Translator Name. This subfield specifies the name of the translator. Enter the one1- to eight-character name.

Directed Call Pickup - Non Barge In (continued)

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RESULT	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.
		see subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector to use. Enter FEAT. Note: If subfield TRSEL contains entry FEAT, subfields ACR, SMDR, VCDR, 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 RecordingThis subfield specifies if SMDR is a requirement. Enter Y or N.
	VCDR	Y or N	Variable Call Detail Recording. This subfield specifies if VCDR is a requirement. Enter Y or N.
	FEATURE	DCP	Feature. This subfield specifies the feature assigned to a line. Enter DCP.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

TABLE: IBNXLA		RESULT			
KEY					
NTIXLA	123	FEAT	N	Y	N DCP

Tools for verifying translations

Directed Call Pickup - Non Barge In does not use tools for verifying translations.

Directed Call Pickup - Non Barge In (continued)

SERVORD

The SERVORD enters data in table IBNLINES.

Option DCPU allows a station to answer a ringing line in the same customer group before the called party answers the line.

Option DCPX allows a station to block attempts by other stations. These other stations have option DCBI or option DCPU assigned to barge-in or to answer a call ringing on this station.

SERVORD limits

Directed Call Pickup - Non Barge In does not have SERVORD limits.

SERVORD prompts

The SERVORD prompts that assign Directed Call Pickup - Non Barge In to a line appear in the following table.

SERVORD prompts for Directed Call Pickup - Non Barge In

Prompt	Correct input	Explanation
OPTION	DCPU, DCPX	This field specifies the option to assign. Enter DCPU or DCPX.
Note: When SERVORD assigns Directed Call Pickup - Non Barge In, the system enters data in table IBNLINES.		

SERVORD example to implement Directed Call Pickup - Non Barge In

The use of the ADO command adds Directed Call Pickup - Non Barge In to a current line.

SERVORD example for Directed Call Pickup - Non Barge In in prompt mode

```
>ADO
SONUMBER: NOW 92 4 13 AM
>
DN_OR_LEN:
> 0 1 1 8 9
OPTION:
> DCPU
OPTION:
> $
```


Directed Call Pickup - Non Barge In (end)

SERVORD example for Directed Call Pickup - Non Barge In in no-prompt mode

> ADO \$ 0 1 18 9 DCPU \$

Distinctive and Ring Again Ringing

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS16 and later versions

Requirements

To operate, Distinctive and Ring Again Ringing has the following requirements:

- BAS Generic, BAS00003
- MDC Minimum, MDC00001

Description

The Distinctive and Ring Again Ringing feature identifies specified call types. This feature applies a distinctive ringing cadence to calls that terminate on IBN stations in the customer group. Distinctive ringing produces a different ringing cadence for intragroup and direct inward dial calls.

Note: A normal ringing cadence is 2 s on and 4 s off. The distinctive ringing cadence is 1.5 s on, 0.5 s off, 0.5 s on, and 3.5 s off.

Operation

The feature does not require activation by the customer. This feature activates through datafill. Operation of the feature is transparent to the user.

Translations table flow

Distinctive and Ring Again Ringing does not affect translations table flow.

Interactions

Distinctive and Ring Again Ringing does not have functionality interactions.

The interactions between Distinctive and Ring Again Ringing and other functionalities appear in the following paragraphs.

Activation/deactivation by the end user

Distinctive and Ring Again Ringing does not require activation or deactivation by the end user.

Distinctive and Ring Again Ringing (continued)

Billing

Distinctive and Ring Again Ringing does not affect billing.

Station Message Detail Recording

Distinctive and Ring Again Ringing does not affect Station Message Detail Recording.

Datafilling office parameters

Distinctive and Ring Again Ringing does not affect office parameters.

The office parameters Distinctive and Ring Again Ringing uses appear in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters used by Distinctive and Ring Again Ringing

Table name	Parameter name	Explanation and action
OFCOPT	DSR_OFFICE	Specifies if the switching unit has the distinctive ringing feature. Enter Y or N. The default value is N.

Datafill sequence

The tables that require datafill to implement Distinctive and Ring Again Ringing appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Distinctive and Ring Again Ringing

Table	Purpose of table
LCMINV	
LMRNG	

Datafilling table LCMINV

Enter data into table LCMINV (Line Concentrating Module Inventory) to assign the data to the required line concentrating modules (LCM). The datafill you enter allows Distinctive and Ring Again Ringing.

Datafill for Distinctive and Ring Again Ringing for table LCMINV appears in the following table. The fields that apply to Distinctive and Ring Again

Distinctive and Ring Again Ringing (continued)

Ringings 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 LCMINV

Field	Subfield or refinement	Entry	Explanation and action
EQPEC			Equipment Product Engineering Code. This field specifies the equipment product engineering code (PEC). Enter 6X04AA for LCM.
LCMTYPE			LCM Type This field specifies the LCM type. Enter LCM.
	RINGDATA		Ring Data This subfield contains subfield RGEQUIP.
	RGEQUIP		Ringings Generator Equipped This subfield specifies if the ringings generator is available. Enter Y or N.
	RNGTYPE		Ring Type This subfield specifies the type of ringings assigned to the line concentrating module. Enter C30 for coded 30 Hz.
Note: Subfield RINGDATA requires datafill if LCMTYPE is LCM. Subfield RNGTYPE requires datafill if RGEQUIP is Y.			

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 02 0    LCE    4    1    N    0 6X04AA XLCM35U LGC
      0    Y   84 256K 256K
                      LCM Y      C30  HLCM      ( 2)

( 3) ( 6) ( 7) $

```

Distinctive and Ring Again Ringing (continued)

Datafilling table LMRNG

Table LMRNG (Line Module Ring Code) specifies the type of ringing assigned to each line module (LM) or remote line module (RLM). The LM or RLM support the following types of ringing:

- coded based on cyclic variation of 20 Hz
- coded based on cyclic variation of 30 Hz
- coded special ringing based on cyclic variation of 20 Hz
- frequency
- superimposed

Enter data into table LMRNG to assign the data to the required LM. The datafill you enter allows Distinctive and Ring Again Ringing.

Datafill for Distinctive and Ring Again Ringing for table LMRNG appears in the following table. The fields that apply to Distinctive and Ring Again Ringing appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table LMRNG

Field	Subfield or refinement	Entry	Explanation and action
RNGDATA			Ring Data This field contains several subfields. Only Subfield RINGTYP applies to this feature.
	RNGTYPE		Ring Type This subfield specifies the type of ringing assigned to the line module. Enter C30 for coded ringing from a base of a cyclic variation of 30 Hz.

Datafill example for table LMRNG

Sample datafill for table LMRNG appears in the following example.

Distinctive and Ring Again Ringing (end)

MAP example for table LMRNG

TABLE: LMRNG				
FRAMENO CNPRESV			RNGDATA	EXPRETRP
HOST	00	52V	C30	N

Tools for verifying translations

Distinctive and Ring Again Ringing does not use tools for verifying translations.

SERVORD

Distinctive and Ring Again Ringing does not affect SERVORD.

Distinctive Call Waiting Tones

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS15 and later versions

Requirements

To operate, Distinctive Call Waiting Tones requires BAS Generic, BAS00003

Description

Distinctive Call Waiting Tones allows a called station to determine if an incoming waiting call is external or internal. A called station can determine if the call is external or internal to the customer group of the called party. The Distinctive Call Waiting Tones provides different tone cadences for external and internal calls.

Operation

Distinctive Call Waiting Tones applies to the different forms of call waiting available on the DMS-100 switch. A called station can determine if an incoming waiting call is external or internal to the customer group. The station determines status of the call with the different tone cadences for the two conditions. The following are the different tones and tone applications:

- When the waiting party is external to the customer group of the busy station, the system applies a tones cadence. The tones cadence includes two bursts. Silence separates the two bursts. The lengths of the two bursts and the silence between the bursts is an office parameter. The parameter applies when the Distinctive Call Waiting Tones feature applies to the customer group of the controller.
- When the waiting call is internal to the customer group, the tone the system applies is a single burst. The length of the burst is an office parameter.

Distinctive Call Waiting Tones is an option for each customer group. Application of Distinctive Call Waiting Tones does not always occur to the customer group of the controller. When this condition occurs, the single burst office parameter determines the length of call waiting tone.

Translations table flow

Distinctive Call Waiting Tones does not affect translations table flow.

Distinctive Call Waiting Tones (continued)

Limits

Distinctive Call Waiting Tones does not apply to DMS proprietary business sets. The system applies the call waiting tone in a different method than with the 500/2500 sets. With business sets, the system gives the tone through a speaker on the set. The system does not give the tone through the handset. Assign features to the called station. Parties in the customer group of the called station can be call waited.

Interactions

Distinctive Call Waiting Tones does not have functionality interactions.

Activation/deactivation by the end user

Distinctive Call Waiting Tones does not require activation or deactivation by the end user.

Billing

Distinctive Call Waiting Tones does not affect billing.

Station Message Detail Recording

Distinctive Call Waiting Tones does not affect Station Message Detail Recording.

Datafilling office parameters

Distinctive Call Waiting Tones does not affect office parameters.

Distinctive Call Waiting Tones (continued)

Datafill sequence

The tables that require datafill to implement Distinctive Call Waiting Tones appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Distinctive Call Waiting Tones

Table	Purpose of table
CLLI	Common Language Location Identifier. This table identifies the far end of each of the following: • announcement • tone • trunk group • test trunk • national milliwatt test lines • service circuit
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.
STN	Special Tone Table. Tones that require trunk cards require this table.

Datafilling table CLLI

Datafill for Distinctive Call Waiting Tones for table CLLI appears in the following table. The fields that apply to Distinctive Call Waiting Tones 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		DISTCWT	Common Language Location Identifier This field specifies the common language location identifier name. Enter DISTCWT.

Datafill example for table CLLI

Sample datafill for table CLLI appears in the following example.

Distinctive Call Waiting Tones (continued)

MAP display example for table CLLI

TABLE: CLLI			
CLLI	ADNUM	TRKGRSIZ	ADMININF
DISTCWT	196	32	DISTINCTIVE_CALL_WAITING_TONE

Datafilling table CUSTSN

Datafill for Distinctive Call Waiting Tones for table CUSTSN appears in the following table. The fields that apply to Distinctive Call Waiting Tones 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		alphanumeric (1 to 16 characters)	<i>Customer group name</i> Enter the customer group name.
OPTNAME		DISTCWTN	<i>Option name</i> Enter the name of the option, DISTCWTN.
	OPTION	see subfield	<i>Option</i> This field consists of subfield OPTION.
	OPTION	DISTCWTN	<i>Option</i> Enter the name of the option, DISTCWTN.

Datafill example for table CUSTSTN

Sample datafill for table Distinctive Call Waiting Tones. appears in the following example.

Distinctive Call Waiting Tones (continued)

MAP display example for table Distinctive Call Waiting Tones

CUSTNAME	OPTNAME	OPTION
LONDESN	DISTCWTN	DISTCWTN

Datafilling table STN

Datafill for Distinctive Call Waiting Tones for table STN appears in the following table. The fields that apply to Distinctive Call Waiting Tones appear in this table. 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
	TONE	DISTCWTN	Tone. This subfield specifies the tone. Enter DISTCWTN.
TMTYPE		MTM	Trunk Module Type. This field specifies the trunk module type. Enter MTM.
CARDCODE		3X68AC	Card Code. This field specifies the PEC of the card code. Enter 3X68AC.

Datafill example for table STN

Sample datafill for table STN appears in the following example.

MAP example for table STN

TABLE: STN							
SK	TMTYPE	TMNO	TMCKTNO	CARDCODE	MAXCONN	TRAFSNO	
DISTCWT	1						
	MTM	8	15	3X68AC	10	0	

Distinctive Call Waiting Tones (end)

Tools for verifying translations

Distinctive Call Waiting Tones does not use tools for verifying translations.

SERVORD

Distinctive Call Waiting Tones does not use SERVORD.

Operational measurements

Distinctive Call Waiting Tones does not affect operational measurements.

Log reports

Distinctive Call Waiting Tones does not affect log reports.

Distinctive Ringing

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS09 and later versions

Requirements

To operate, Distinctive Ringing requires BAS Generic, BAS00003.

Description

The Distinctive Ringing feature identifies specified call types. This feature applies a distinctive ringing cadence to calls that terminate on Meridian Digital Centrex (MDC) stations in the customer group. The operating company specifies the call types that generate distinctive ringing cadences. The following are the call types that can receive distinctive ringing:

- intragroup calls:
 - calls from MDC stations in the customer group
 - calls that originate from attendants in the customer group
- intergroup calls:
 - calls from stations out of the customer group
 - calls that originate from attendants out of the customer group
 - calls that extend from attendants in or out of the customer group
- MDC trunks the customer group owns:
 - The MDC trunks the customer group owns are not subject to distinctive ringing.
 - All MDC trunks the customer group owns are subject to distinctive ringing.
 - Selected MDC trunks the customer group owns are subject to distinctive ringing.
- all other call conditions, including MDC trunks other customer groups own, plain old telephone service (POTS) lines, and POTS trunks

Distinctive Ringing (continued)

Operation

Background

In BCS20 and later versions, feature AD0011, Generalized Distinctive Ringing enhances the Distinctive Ringing feature. Refer to “Generalized Distinctive Ringing” for more information. In BCS30 and later versions, feature AF2303, Distinctive Ringing Enhancements enhances Distinctive Ringing. Refer to “Distinctive Ringing Enhancements” for more information.

Distinctive Ringing operates according to ringing codes produced by cyclic differences of 20 Hz. A call can terminate on an MDC station to which the Distinctive Ringing feature applies. When this condition occurs, the system checks call type against the list of call types the operating company specifies. This check determines if the system must apply distinctive ringing. If the operating company does not specify the call type for distinctive ringing, the end user hears the normal ringing cadence. This cadence is 2.0 s on, 4.0 s off. This cadence repeats. If the operating company specifies call type for distinctive ringing, the end user hears a distinctive ringing cadence. This cadence is 1.5 s on, 0.5 s off, 0.5 s on, 3.5 s off. This cadence repeats.

Note 1: The ringing cadence the ring again and call-back queuing features use is different from distinctive ringing. The cadence is part of the queuing package. The cadence is not optional. The cadence is 1.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 0.5 s on, 2.5 s off. The system repeats this pattern.

Note 2: Distinctive Ringing does not affect the audible ringback the calling party hears.

Operation of Distinctive Ringing is transparent to the end user. Datafill activates Distinctive Ringing.

Translations table flow

Distinctive Ringing does not affect translations table flow.

Limits

The following limits apply to Distinctive Ringing:

- Operation of the Distinctive Ringing feature requires the Bell Canada ringing cycle (BCRC) firmware. The BCRC allows for coded ring cycles.
- Each of the preceding descriptions of the ringing cadences is a defined BCRC:
 - BCRC 1—normal ringing cadence
 - BCRC 3—Distinctive Ringing ring code
 - BCRC 4—ring again and call-back queuing ring code

Distinctive Ringing (continued)

- A maximum of 15 telephones can ring at the same time for each code.
- Assignment of Distinctive Ringing occurs to customer groups.
Assignment of Distinctive Ringing does not occur to individual lines.

Interactions

Distinctive Ringing does not have functionality interactions.

Activation/deactivation by the end user

Distinctive Ringing does not require activation or deactivation by the end user.

Billing

Distinctive Ringing does not affect billing.

Station Message Detail Recording

Distinctive Ringing does not affect Station Message Detail Recording.

Datafilling office parameters

The office parameters that Distinctive Ringing uses appear in the following table. Refer to *Office Parameters Reference Manual* for more information about office parameters.

Office parameters by Distinctive Ringing

Table name	Parameter name	Explanation and action
OFCOPT	DSR_OFFICE	Office Option Table. Specifies if the switching unit has the distinctive ringing feature. Enter Y or N. The default value is N.

Datafill sequence

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

Datafill requirements for Distinctive Ringing (Sheet 1 of 2)

Table	Purpose of table
OFCOPT	Office Option Table. Specifies if the switching unit has the distinctive ringing feature.
LCMINV	Line Concentrating Module Inventory Table. This table contains the data assignments for each bay associated with a line concentrating module (LCM).

Distinctive Ringing (continued)**Datafill requirements for Distinctive Ringing (Sheet 2 of 2)**

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. A switching unit with North American translations and the MDC or the feature AG0508 Residential Enhanced Services (RES) requires this table. This table lists the station options assigned to each of the customer groups.
LMRNG	Line Module Ring Code Table. This table specifies the type of ringing assigned to each line module (LM) or remote line module (RLM).

Datafilling table LCMINV

Table LCMINV (Line Concentrating Module Inventory) includes data assignments for each bay associated with an LCM.

Datafill for Distinctive Ringing for table LCMINV appears in the following table. The fields that apply to Distinctive Ringing 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 (PEC). Enter 6X04AA for LCM.
LCMTYPE		LCM	Line Concentrating Module Type. This field specifies the line concentrating module type. Enter LCM.
	RGEQUIP	Y or N	Ringing Generator Equipped. This subfield specifies if a ringing generator is available. Enter Y or N.
If you enter Y for RGEQUIP, subfield RNGTYPE requires datafill.			
	RNGTYPE	C or C3C	Ring Type. This subfield specifies the type of ringing assigned to the LCM. Enter C for coded 20 Hz. Enter C3C for UK three second ringing.

Datafill example for table LCMINV

Sample datafill for table LCMINV appears in the following example.

Distinctive Ringing (continued)

MAP example for table LCMINV

TABLE: LCMINV												
LCMNM		FRTYPE	SHPOS	FLOOR	ROW	FRPOS	EQPEC	LOAD	CSPMNO	LCMTYPE		
BICTST		ADNUM	MEMSIZE									
RCS2	00	1	LCE	38	1	H	2	6X04AA	LCM35B	RCC	2	
	N	137	64K	64K								
			LCM	Y		C	HLCM		(16)	(15)	(13)	\$

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains the station options assigned to each customer group.

The datafill for Distinctive Ringing for table CUSTSTN appears in the following table. The fields that apply to Distinctive Ringing 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		DRING	Option. This field specifies the distinctive ring option. Enter DRING.

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			
COREREGA	DRING	DRING	Y	1	Y	2	ALL	3	Y	4	Y	5	Y	1	Y	1	N	N

Datafilling table LMRNG

Table LMRNG (Line Module Ring Code) specifies the type of ringing for each line module (LM) or remote line module (RLM).

Distinctive Ringing (end)

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

Datafilling table LMRNG

Field	Subfield or refinement	Entry	Explanation and action
RNGDATA		see subfields	Ring Data. This field contains subfield RNGTYPE, FREQUENCIES, and PROMVOLT.
	RNGTYPE	C	Ring Type. This subfield specifies the type of ringing assigned to the line module. Enter C for coded ringing from a base of cyclic variation of 20 Hz.
	FREQUENCIES	blank	Frequencies. This subfield specifies the frequency. This subfield requires datafill when the entry in subfield RNGTYPE is F. Leave this subfield blank.
	PROMVOLT	blank	PROM Offset Voltage. This subfield specifies the PROM offset voltage required. This subfield requires datafill when the entry in subfield RNGTYPE is S. Leave this subfield blank.

Datafill example for table LMRNG

Sample datafill for table LMRNG appears in the following example.

MAP example for table LMRNG

TABLE: LMRNG				
FRAMENO	CNPRESV		RNGDATA	EXPRETRP
HOST	00	52V	C	N

Tools for verifying translations

Distinctive Ringing does not use tools for verifying translations.

SERVORD

Distinctive Ringing does not use SERVORD.

Distinctive Ringing Enhancements

Ordering codes

Operating group ordering code: MDC00001

Operating ordering code: does not apply

Release applicability

BCS30 and later versions.

Requirements

Distinctive Ringing Enhancements requires BAS Generic, BAS00003 to operate.

Description

Distinctive Ringing Enhancements permits the operating company to assign distinctive ringing to individual lines through datafill. The assignment of distinctive ringing occurs for each customer group before this feature allows this assignment. Every lines in the customer group received the same type of distinctive ringing. Operating companies can now assign the distinctive ringing (DRING) line to a particular line. The DRING line option overrides DRING customer group options assigned earlier.

Distinctive Ringing Enhancements adds ring codes (ringing patterns) 6, 7, and 8 to lines available for distinctive ringing. These three ring codes correspond to the ring codes in the Teen Service on Meridian Digital Centrex (MDC) feature. These three ring codes are available to the customer group. These three ring codes are available to individual lines that have the Distinctive Ringing feature.

United Kingdom ringing is ring type C3C, described in the DMS-100 Family Ringing System General Description. Distinctive Ringing Enhancements in the United Kingdom includes 8 different ringing patterns.

Operation

Call types

The Distinctive Ringing feature can provide separate distinctive ringing patterns for different types of calls. The system provides distinctive ringing

Distinctive Ringing Enhancements (continued)

according to the beginning of the call. The system can provide a separate distinctive ringing pattern for each of the following types of calls:

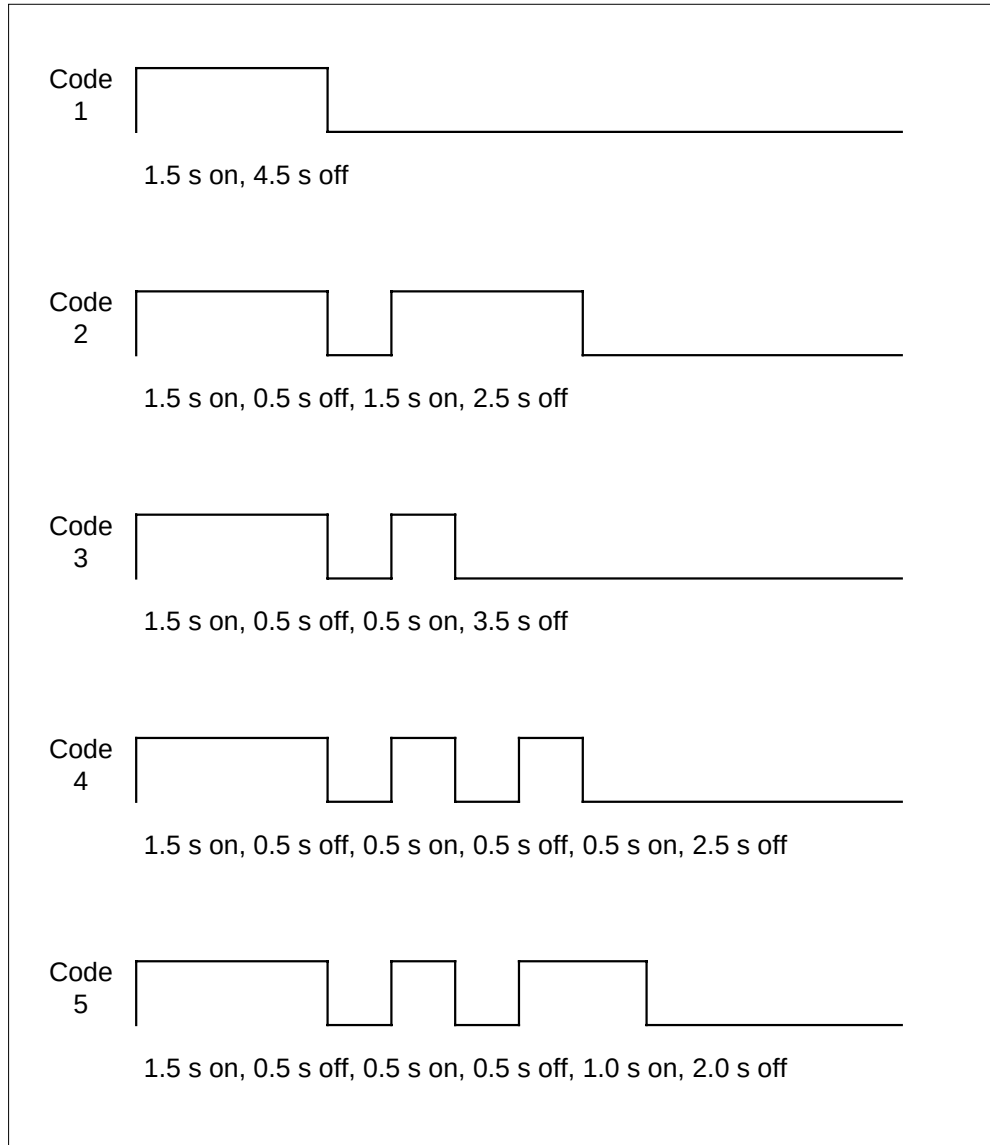
- intragroup calls that originate from MDC lines and attendant consoles in the same customer group
- intergroup calls that originate from MDC lines and attendant consoles in a different customer group. Other call types are calls extended from an attendant console in the same customer group
- MDC trunk calls that originate from MDC trunks in the same customer group
- Group Intercom (GIC) calls
- recall calls that the system recalls to the originating station. The activation of a feature, like Call Park, that supports recalls causes the recall calls.
- Uniform Call Distribution (UCD) calls
- Automatic Call Distribution (ACD) calls
- all other calls. These calls include calls from plain old telephone service (POTS) lines and POTS trunks. These calls include calls from MDC trunks that the customer group owns.

Ringing patterns

Distinctive Ringing Enhancements includes a selection of eight distinctive ringing patterns. The ringing patterns are ring codes 1 to 8. Before Distinctive Ringing Enhancements, only ring codes 1-5 were available. The ringing patterns for ring codes 1 to 5 appear in the following figure.

Distinctive Ringing Enhancements (continued)

Distinctive ringing patterns for ring codes 1 to 5

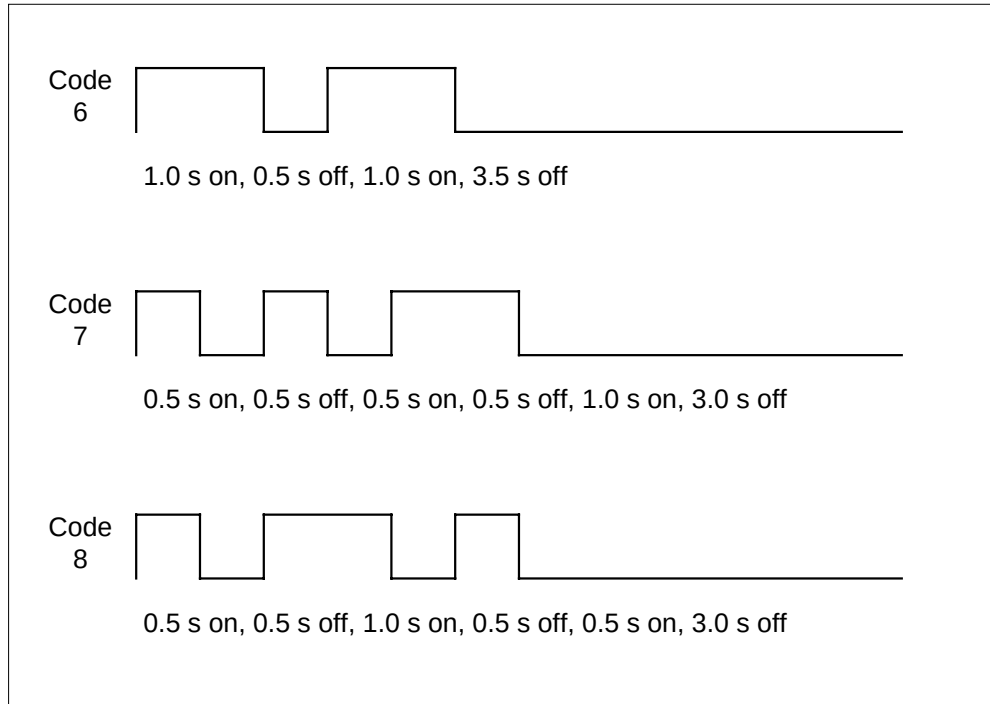


Distinctive Ringing Enhancements provides three additional ringing patterns. The ringing patterns for ring codes 6 to 8 appear in the following figure.

Note 1: Ring code 6 is like ring code 2. Ring code 6 has the same cadence as ring code 2, but the timing is different.

Note 2: Ring codes 6, 7, and 8 correspond to the ring codes in the Teen Service on MDC feature.

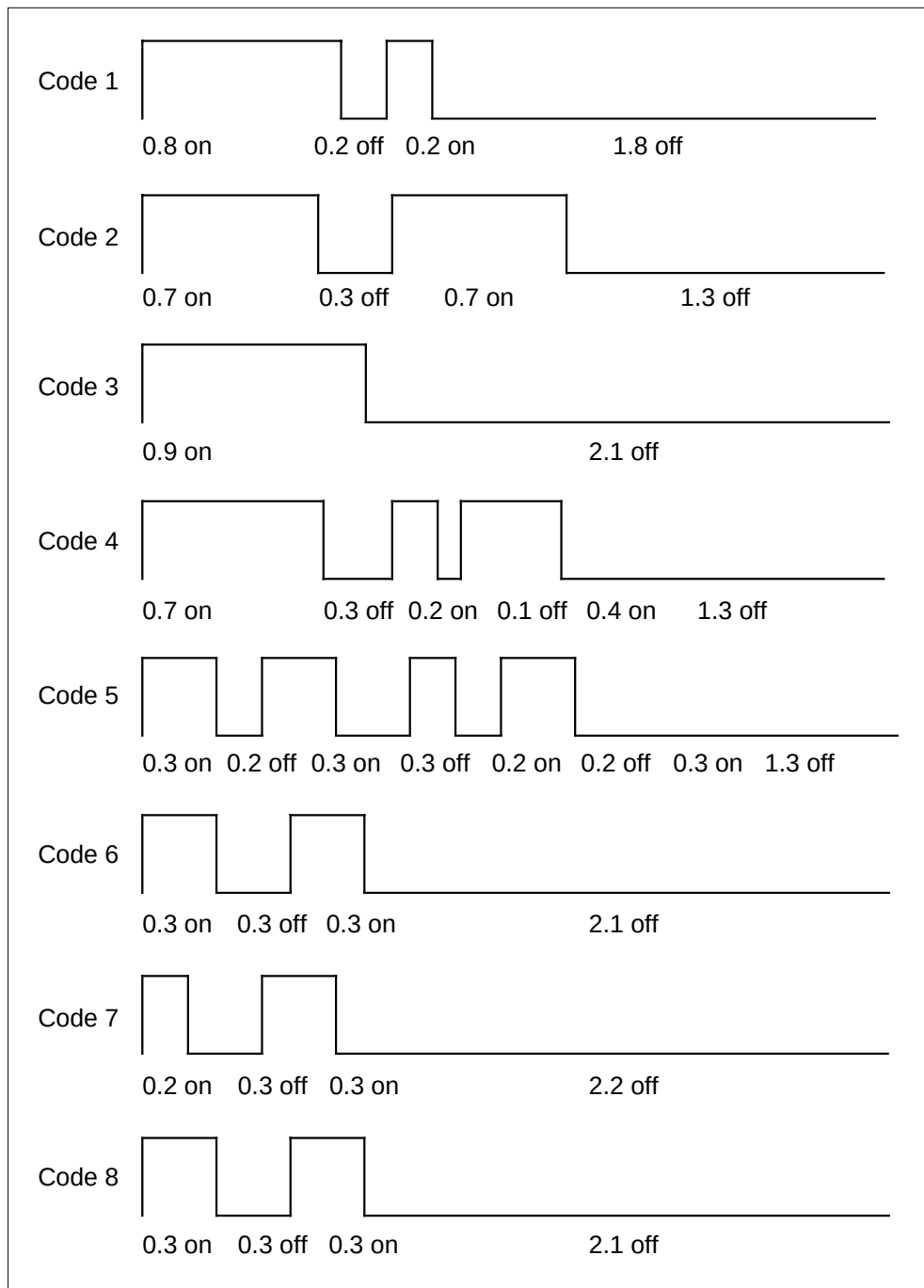
Distinctive Ringing Enhancements (continued)

Distinctive ringing patterns for ring codes 6 to 8

The United Kingdom ringing patterns are in the following figure.

Distinctive Ringing Enhancements (continued)

UK Distinctive Ringing Patterns for ring codes 1 to 8



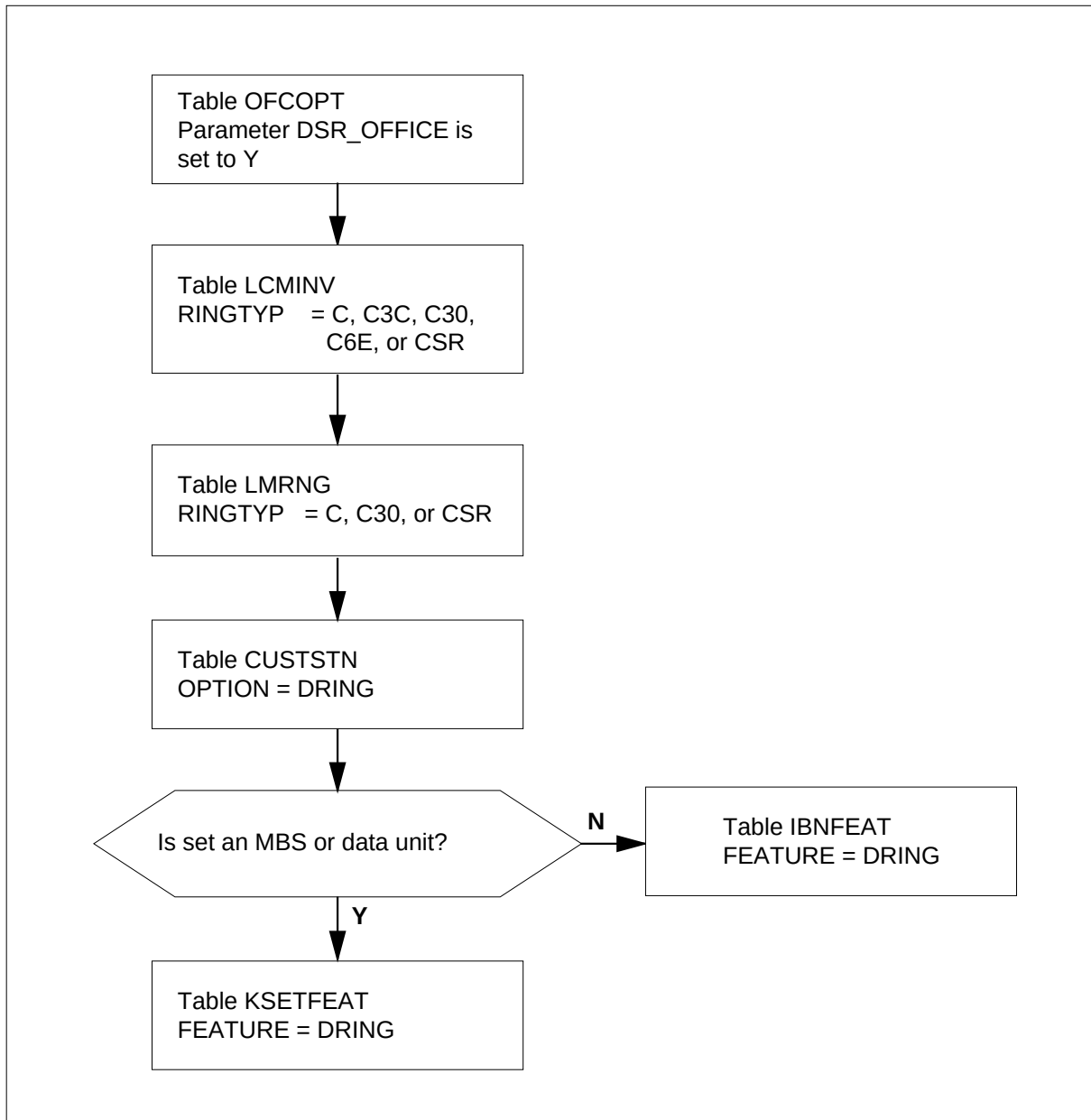
Distinctive Ringing Enhancements (continued)

Translations table flow

The Distinctive Ringing Enhancements translations tables appear in the following list:

- Table OFCOPT (Office Option) sets the office parameter values for the switching office. Office Option sets Office parameter DSR_OFFICE to Y to permit the switching office to have the Distinctive Ringing feature.
- Table LCMINV (Line Concentrating Module Inventory) indicates the ring type for a specified peripheral. Entry of this peripheral occurs in table LCMINV for line concentrating modules (LCM) and remote line concentrating modules (RLCM).
- Table LMRNG (Line Module Ring Code) specifies the ring type assigned to each line module (LM) or remote line module (RLM).
- Table CUSTSTN (Customer Group Station Option) assigns options to every station in a customer group. Distinctive Ringing Enhancements changes table CUSTSTN to allow three additional ringing patterns for distinctive ringing. Each customer group with the Distinctive Ringing feature must have the DRING line option assigned in table CUSTSTN.

The Distinctive Ringing Enhancements translation process appears in the following flowchart.

Distinctive Ringing Enhancements (continued)**Table flow for Distinctive Ringing Enhancements**

Distinctive Ringing Enhancements (continued)

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

Datafill example for Distinctive Ringing Enhancements

Datafill table	Example data
OFCOPT	DSR_OFFICE Y
LCMN	HOST 0 0 0 1 LCEI 5 1 F 5 BX30AB LCME34T LTC 0 N 256K LCME Y S 48V (18) (16) (14) (12) \$
LMRNG	HOST 02 52V C30
CUSTSTN	MDCGRP1 DRING DRING Y 3 N ALL 3 N N N N N N
IBNFEAT	HOST 00 0 19 13 DRING DRING Y 3 N NO N N N N Y 8
KSETFEAT	HOST 00 0 16 10 DRING DRING Y 3 N NO N N N N N

Limits

The following limits apply to Distinctive Ringing Enhancements:

- Distinctive Ringing Enhancements enhances the current Distinctive Ringing feature. Previous limits for Distinctive Ringing are in effect.
- Only lines that use coded ringing support Distinctive Ringing Enhancements. These lines have C (coded 20 Hz) and C30 (coded 30 Hz). These lines include CSR (coded special ringing), entered as the ring type in table LMRNG or table LCMINV.
- Distinctive Ringing Enhancements do not support an electronic business set (EBS) line.
- The operating company can assign the DRING line option to a particular line. When this condition occurs, the DRING line option overrides DRING customer group options assigned earlier.
- The Distinctive Ringing feature does not prevent the assignment of the same ring code to different incoming call types. The operating company can decide the assignment of ring codes.
- The addition of the three ringing patterns can require the operating company to review the assignment of ring codes. This review verifies that ring code conflicts do not occur with features that use these ring codes. These features include Automatic Call Back (ACB) and Automatic Recall (AR).

Interactions

The interactions between Distinctive Ringing Enhancements and other functionalities appear in the following paragraphs.

Distinctive Ringing Enhancements (continued)

The custom local area signaling service (CLASS) Distinctive Ringing/Call Waiting (DRCW) feature takes priority over the Distinctive Ringing feature.

Activation/deactivation by the end user

Distinctive Ringing Enhancements does not require activation or deactivation by the end user.

Billing

Distinctive Ringing Enhancements does not affect billing.

Station Message Detail Recording

Distinctive Ringing Enhancements does not affect Station Message Detail Recording.

Datafilling office parameters

The DSR_OFFICE parameter in table OFCOPT specifies if the switching office has the Distinctive Ringing feature. Customer groups that have the Ring Again or Call Back Queuing feature require Distinctive Ringing.

The office parameters that Distinctive Ringing Enhancements uses appear in the following table. Refer to the *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters by Distinctive Ringing Enhancements

Table name	Parameter name	Explanation and action
OFCDPT	DSR_OFFICE	Specifies if the switching office has the Distinctive Ringing feature. Enter Y.

Distinctive Ringing Enhancements (continued)

Datafill sequence

The tables that require datafill to install Distinctive Ringing Enhancements appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Distinctive Ringing Enhancements

Table	Purpose of table
LCMINV	<i>Line Concentrating Module Inventory Table</i> This table indicates the data assignments for each bay that associates with a line concentrating module (LCM).
LMRNG	<i>Line Module Ring Code Table</i> This table specifies the type of ringing assigned to each line module (LM) or remote line module (RLM).
CUSTSTN	<i>Customer Group Station Option Table</i> A switching unit with North American translations and the Meridian Digital Centrex (MDC) requires this table. A switching unit with the feature AG0508 (Residential Enhanced Services) (RES) requires this table. This table indicates the station options assigned to each customer group.
IBNFEAT (Note)	<i>IBN Line Feature Table</i> This table indicates line features assigned to the IBN lines that appear in table IBNLINES.
KSETFEAT (Note)	<i>Business Set and Data-Unit Feature Table</i> This table indicates the line features assigned to the business sets and data units (DU) that appear in table KSETLINE. This table indicates the line features assigned to the Meridian digital telephone sets and DUs that appear in table IVDINV.
Note: Use SERVORD to enter 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 LCMINV

Table LCMINV (Line Concentrating Module Inventory) indicates the ring type for a specified peripheral. The entry of the peripheral occurs in table LCMINV for LCMs and RLCMs. Peripherals that use a ring type of C (coded 20 Hz), C30 (coded 30 Hz), CSR (coded special ringing) or C6E support Distinctive Ringing. The C6E applies to Saudi Arabia when the NT6X30HA ringing generator is in the LCM.

Datafill for Distinctive Ringing Enhancements for table LCMINV appears in the following table. The fields that apply to Distinctive Ringing Enhancements

Distinctive Ringing Enhancements (continued)

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
FRTYPE		LCE or RLCM	<i>Frame Type</i> This field specifies the frame type that contains the peripheral module equipment. Enter LCE or RLCM.
LCMTYPE		LCM	<i>Line Concentrating Module Type</i> This field specifies the LCM type. Enter LCM. If LCMTYPE adjusts to LCM, enter subfield RGEQUIP.
	RGEQUIP	Y	<i>Ringin Generator Equipped</i> This subfield specifies if the ringing generator is equipped. Enter Y. If RGEQUIP adjusts to Y, subfield RINGTYP requires datafill.
	RINGTYP	C, C3C, C30, CSR, or C6E	<i>Ring Type</i> This subfield specifies the type of ringing assigned to the LCM. Enter C, C3C, C30, CSR or C6E. Enter C6E for Saudia Arabia if the NT6X30HA ringing generator is in the LCM.

Datafill example for table LCMINV

Sample datafill for table LCMINV appears in the following example.

MAP example for table LCMINV

TABLE: LCMINV												
LCNM	FRTYPE	SHPOS	FLOOR	ROW	FRPOS	EQPEC	LOAD	CSPMNO				
BICTST	MEMSIZE											
											LCMTYPE	
HOST	0	0	0	1	LCEI	5	1	F	5	BX30AB	LCME34T	LTC 0
N					256K							
LCME	Y	S	48V	(18)	(16)	(14)	(12)	\$				

Distinctive Ringing Enhancements (continued)

Datafilling table LMRNG

Table LMRNG (Line Module Ring Code) specifies the ring type assigned to each LM or RLM. Peripherals that use a ring type of C (coded 20 Hz), C30 (coded 30 Hz), or CSR (coded special ringing) support Distinctive Ringing.

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

Datafilling table LMRNG

Field	Subfield or refinement	Entry	Explanation and action
RNGDATA		see subfield	<i>Ring Data</i> This field contains different subfields. Only subfield RINGTYP applies to this feature.
	RINGTYP	C, C30, or CSR	<i>Ring Type</i> This subfield specifies the type of ringing assigned to the line module. Enter C, C30, or CSR.

Datafill example for table LMRNG

Sample datafill for table LMRNG appears in the following example.

MAP example for table LMRNG

TABLE: LMRNG			
FRAMEN0	CNPRESV	RNGDATA	
HOST 02	52V	C30	

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) assigns options to all stations in a customer group. Distinctive Ringing Enhancements changes table CUSTSTN to allow three additional ringing patterns for distinctive ringing. Each customer group with the Distinctive Ringing feature must have the DRING line option assigned in table CUSTSTN.

Datafill for Distinctive Ringing Enhancements for table CUSTSTN appears in the following table. The fields that apply to Distinctive Ringing Enhancements

Distinctive Ringing Enhancements (continued)

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 4)

Field	Subfield or refinement	Entry	Explanation and action
OPTION		see subfield	<i>Option</i> This field contains subfield OPTION.
	OPTION	DRING	<i>Option</i> This subfield specifies the option. Enter DRING. When OPTION adjusts to DRING, subfields INTRNL, EXTRNL, TRKS, GIC, RECALL, UCD, REST, ACD, and MAKECALL require datafill.
	INTRNL	Y or N	<i>Internal</i> This subfield specifies if intragroup calls are qualified for distinctive ringing. Enter Y or N. If INTRNL is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.
	EXTRNL	Y or N	<i>External</i> This subfield specifies if intergroup calls can have distinctive ringing. Enter Y or N. If EXTRNL is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.

Distinctive Ringing Enhancements (continued)

Datafilling table CUSTSTN (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TRKS	NO, SEL, or ALL	<i>Trunks</i> This subfield specifies the IBN trunks that can have distinctive ringing. Enter NO if IBN trunks the customer group owns cannot have distinctive ringing. Enter SEL if selected IBN trunks the customer group owns can have distinctive ringing. Enter ALL if all IBN trunks the customer group owns can have distinctive ringing. When TRKS is SEL or ALL, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.
	GIC	Y or N	<i>Group Intercom</i> This subfield specifies if GIC calls can have distinctive ringing. Enter Y or N. When GIC is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.
	RECALL	Y or N	<i>Recall</i> This subfield specifies if recall calls are qualified for distinctive ringing. Enter Y or N. When RECALL is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.

Distinctive Ringing Enhancements (continued)

Datafilling table CUSTSTN (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	UCD	Y or N	<i>Uniform Call Distribution</i> This subfield specifies if UCD calls can have distinctive ringing. Enter Y or N. When UCD is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.
	REST	Y or N	<i>Remainder</i> This subfield specifies if all other calls can have distinctive ringing. These calls include calls from POTS lines and POTS trunks. These calls include MDC trunks that the customer group does not own. Enter Y or N.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.
	ACD	Y or N	<i>Automatic Call Distribution</i> This subfield specifies if ACD calls can have distinctive ringing. Enter Y or N. When ACD is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.

Distinctive Ringing Enhancements (continued)

Datafilling table CUSTSTN (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	MAKECALL	Y or N	<i>Make Outbound Call</i> This subfield specifies if outbound ACD calls can have distinctive ringing. Enter Y or N. When MAKECALL is Y, subfield DRINGTYP requires datafill.
	DRINGTYP	1 to 8	<i>Distinctive Ringing Type</i> This subfield specifies the type of ring code. Enter a value from 1 to 8.

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	DRING		DRING	Y	3	N	ALL	3	N	N	N

Tools for verifying translations

Distinctive Ringing Enhancements does not use translation verification tools.

SERVORD

Table IBNFEAT

Table IBNFEAT (IBN Line Feature) assigns features to 500/2500 sets. Distinctive Ringing Enhancements changes table IBNFEAT to make the Distinctive Ringing feature available to individual MDC lines.

Table KSETFEAT

Table KSETFEAT (Business Set and Data Unit Feature) contains the feature assignments for a Meridian business set (MBS). Distinctive Ringing Enhancements changes table KSETFEAT to make the Distinctive Ringing feature available to individual MDC lines.

SERVORD limits

Distinctive Ringing Enhancements does not have SERVORD limits.

Distinctive Ringing Enhancements (continued)

Distinctive Ringing Enhancements adds DRING as a line option. The DRING allows operating companies to add distinctive ringing to individual lines. Operating companies use the following Service Order System (SERVORD) commands to add or delete the DRING line option:

- NEW (establish service)
- ADO (add option)
- DEO (delete option)

SERVORD prompts

The SERVORD prompts to assign Distinctive Ringing Enhancements to a line appear in the following table.

SERVORD prompts for Distinctive Ringing Enhancements

Prompt	Valid input	Explanation
OPTION	DRING	Indicates the option associated with a service the operating company establishes, modifies, or deletes. Enter DRING.
INTRNL	Y,N	Indicates if DRING can apply to calls that originate in the same customer group.
EXTRNL	Y,N	Indicates if DRING can apply to calls that originate in a different customer group.
DRINGTYP	1 to 8	Indicates the ring code assigned to calls with distinctive ringing turned on.
TRKS	NO,ALL,SEL	Indicates if DRING can apply to calls incoming over IBN trunks.
GIC	Y,N	Indicates if DRING can apply to GIC calls.
RECALL	Y,N	Indicates if DRING can apply to recall type calls, like Call Park recalls.
UCD	Y,N	Indicates if DRING can apply to UCD calls.
REST	Y,N	Indicates if DRING can apply to all other calls. These calls include calls from POTS lines, POTS trunks, and MDC trunks that the same customer group does not own.
ACD	Y,N	Indicates if DRING can apply to ACD calls.
MAKECALL	Y,N	Indicates distinctive ringing for outbound calls at the customer group level.

Distinctive Ringing Enhancements (end)

SERVORD examples to add Distinctive Ringing Enhancements

The SERVORD examples appear in the following chart. These examples describe how to add Distinctive Ringing Enhancements to a line with the ADO command.

SERVORD example for Distinctive Ringing Enhancements in prompt mode

```
>ADO
SONUMBER:  NOW 92 11 23 AM
>
DN_OR_LEN:
> 6211234
OPTION:
> DRING
INTRNL:
> N
EXTRNL:
> Y
DRINGTYP:
> 2
TRKS:
> NO
GIC:
> Y
DRINGTYP
> 3
RECALL:
> N
UCD:
> N
REST:
> N
ACD:
> N
MAKECALL:
> Y
DRINGTYP:
> 1
OPTION:
> $
```

SERVORD example for Distinctive Ringing Enhancements in no-prompt mode

```
>ADO $ 6211234 DRING N Y 2 NO Y 3 N N N N Y $
```

DTMF Outpulsing on a Line

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply.

Release applicability

BCS12 and later versions

Requirements

The DTMF Outpulsing on a Line requires BAS Generic, BAS00003.

Description

The DTMF Outpulsing on a Line applies ringing to a designated line and outpulses digits using dual-tone multifrequency (DTMF) signaling. The designated line can be an IBN line or a plain old telephone service (POTS) line. The DTMF Outpulsing on a Line allows the DMS-100 switch to interface with a specialized common carrier (SCC) as a line termination. The line must have a directory number (DN). The line must not have option CFW (Call Forwarding).

Note: Use of dual-tone multifrequency outpulsing on a line can occur independently or with audio tone detection (ATD) and simplified dialing.

A digit manipulation index (DMI) can control the outpulsing. The DMI causes the ATD to pause the outpulsing and to generate answer supervision.

Operation

The DTMF Outpulsing on a Line can build a private network. This network contains two-wire, one-way or two-way trunks with line interfaces at the originating switch (DMS-100). The line interfaces can be at the host or a remote switch with IBN software.

Private networks

In some examples, private networks are built from tie trunks. The DTMF Outpulsing on a Line uses a line interface at the originating end if DTMF signaling is available. Trunks cannot attach to remotes. Lines can attach to remotes. This condition allows the installation of remote trunking for one-way or two-way, two-wire tie trunks for the originating switch.

One-way, outgoing trunks

The configuration of a line card must be for ground start operation for one-way, outgoing tie trunks. If this configuration does not occur, the line must have

DTMF Outpulsing on a Line (continued)

option cutoff on disconnect (COD). The line must be wired in series with a signal distribution (SD) point. The DTMF Outpulsing on a Line is necessary for this setup to operate.

The DMS-100 switch applies 20-Hz ringing to the line to indicate the seizure of the trunk.

Ground start at the DMS-100 switch end

The DMS-100 switch end can use a ground start line card, like a 2X18 line card. The DMS-100 switch end is the originating end of the trunk. The use of the ground start line card allows the correct indication of the disconnect to the far switch. Table LNINV (Line Circuit Inventory) must designate the line as ground start. The line must have line option GND for the DMS-100 switch to operate the relays. If the far switch is a DMS-100 switch, the switch can interface to a line. The switch uses the 5X25 two-wire ground trunk to interface to a line.

Line option COD

A different method to indicate disconnect from the DMS-100 switch end is the assignment of option COD to the line. This method requires an SD point wired in series with the loop. In this method, the DMS-100 switch opens the loop when the switch disconnects the call. The far switch can detect the open circuit. This method does not require a 2X18 line card. The 2X18 line card is a requirement for ground start operation. This method requires the use of one SD point and additional wiring at the main distribution frame (MDF).

Loop start without line option COD

Electrical conditions on the loop do not change when the DMS-100 switch attempts to terminate a call if the following occurs:

- the switch does not use ground start
- the switch does not use option COD

On a trunk, this event is a clear forward. The far end remains off-hook. The away from end cannot determine that the originating switch disconnected the call. This event causes the DMS-100 switch to place the line in lockout. The condition continues until the away from switch terminates the call. Northern Telecom does not recommend this method because disconnect supervision does not occur.

Two-way trunks

Two-way trunking to a line card can occur in the following conditions:

- the DMS-100 switch end is designated as ground start
- the away from end has the necessary abilities

DTMF Outpulsing on a Line (continued)

Ground start operation allows incoming and outgoing calls. Ground start operation allows the DMS-100 switch to indicate disconnect to the away from switch. Use of an SD point wired from the outside instead of ground start operation does not allow the detection of originations. These originations are on the line.

Specialized common carriers

Specialized common carriers (SCC) provide communication that receives services in competition with the public toll network. When the DMS-100 switch routes a call with an SCC, the following conditions can occur:

- The DMS-100 switch is separate from the class five office that serves the SCC. The DMS-100 outpulses the DN of the SCC to a trunk. The DMS-100 waits for an answer. The DMS-100 outpulses the called number for the SCC to process in DTMF signaling.
- One DMS-100 switch can be the IBN switch and the class five office that services the SCC. The DMS-100 switch must apply ringing to the line that represents the SCC trunk. The DMS-100 switch must wait for an answer. The DMS-100 must outpulse the called number for the SCC to process in DTMF signaling.

Virtual facility groups

An end user can arrange the routes for calls to pass through a virtual facility group (VFG). The calls can pass through the VFG before the calls reach a line termination for DTMF outpulsing. The queuing against the VFG can substitute queuing against the line terminations that DTMF Outpulsing on a Line use.

The definition of a hunt group that contains the specified line must occur for the hunt group to queue against the VFG. The hunt group contains the specified line and a VFG. The VFG has a member not larger than the number of lines in the hunt group. Calls to this VFG must reach the hunt group that uses DTMF Outpulsing on a Line. The end user must force all calls that must reach the hunt group to route to the VFG.

The VFG can have idle members when the hunt group does not have idle members. This condition occurs if hunt group members are not available to terminating calls. The hunt group members are not available after the members originate calls or after the system places the calls in lockout. When this condition occurs, these calls fail to complete because all the lines are busy.

INWATS

Specification for a POTS inward wide area telephone service (INWATS) line can occur as the line that receives ringing and outpulsing. The DTMF Outpulsing on a Line does not check for INWATS that do not have

DTMF Outpulsing on a Line (continued)

authorization. The DTMF does not check for INWATS when the destination line is an INWATS line. A local calling party can terminate on the INWATS line that uses DTMF Outpulsing on a Line.

Japanese DTMF interface

The IBN trunks and lines to the private branch exchange (PBX) that use Japanese DTMF IBN lines use DTMF Outpulsing on a Line. These trunks and lines use DTMF Outpulsing on a Line as an interface. Specify the line route in Table IBNRTE to access the DTMF outpulsing to a line. The options list for the line route in Table IBNRTE contains the option JAPANDID. Option JAPANDID indicates that the Japan direct inward dialing (DID) outpulsing is available when terminating on the line.

Translations table flow

A description of the DTMF Outpulsing on a Line translations tables appears in the following list:

- Table DIGMAN (Digit Manipulation) allows an end user to adopt a destination code-based dialing plan. The end user adopts the plan for the private network of the switching unit. The end user can dial a fixed number of digits to reach a called party. The number of digits in the connection does not effect this process.

Note: The DTMF Outpulsing on a Line requires the entry of data in table DIGMAN to store outpulsing and tone detection data.

- Table IBNXLA (IBN Translation) stores the data for the digit translations of calls from the following:
 - an IBN station
 - an attendant console (AC)
 - an incoming side of a two-way IBN trunk group

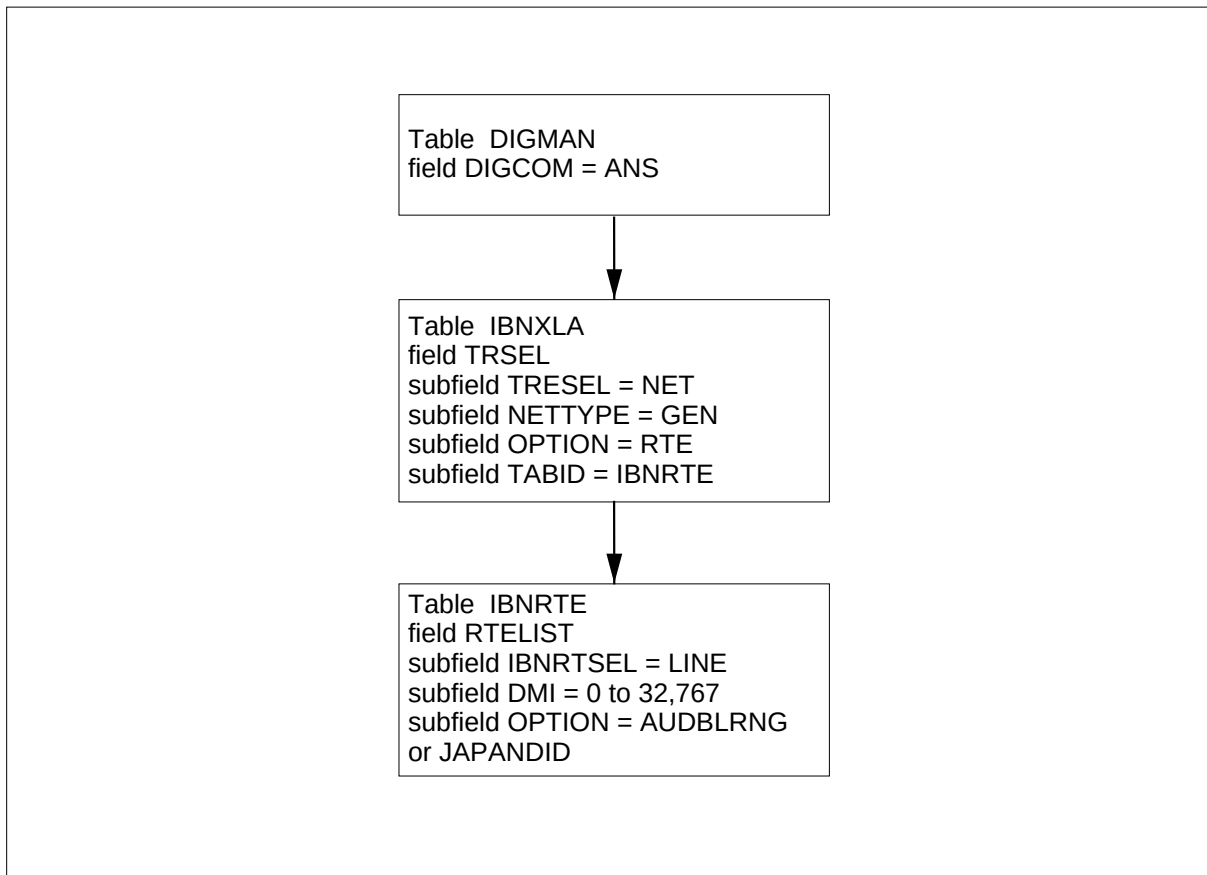
Note: The DTMF Outpulsing on a Line requires the entry of data Table IBNXLA to add an access route.

- Table IBN Route (IBNRTE) contains route lists that a reference index number identifies. Table IBNRTE supplies a selector to activate DTMF outpulsing to a line as an element of a route list. This route selector is a requirement when dialed digits converts to a ten-digit DN. The ten-digit DN terminates on the switching unit. Outpulsing or tone detection is a requirement for the ten-digit DN.

The DTMF Outpulsing on a Line translation process appears in the following flowchart.

DTMF Outputpulsing on a Line (continued)

Table flow for DTMF Outputpulsing on a Line



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

Datafill example for DTMF Outputpulsing on a Line

Datafill table	Example data
DIGMAN	4 ANS ELEC \$
IBNXLA	NTIXLA 123 NET N Y N 7 N MDCGRP N N GEN RTE IBNRTE 10
IBNRTE	5 (LINE 919 555 1212 4 4 (AUDBLRNG) \$) \$ 213 (LINE 919 555 1213 5 112 (JAPANDID 6) \$) \$

DTMF Outpulsing on a Line (continued)

Limits

The following limits apply to DTMF Outpulsing on a Line:

- The DTMF Outpulsing on a Line does not require that the calling party have a Digitone set. The line must have a DN.
- The DTMF Outpulsing on a Line requires DTMF senders to transmit the extension address digits to the PBX.
- The remote PBX must be able to accept DTMF inpulsing after the remote PBX detects and answers ringing. The DMS-100 switch applies the ringing.
- The DTMF Outpulsing on a Line does not apply to all conditions. Conditions this feature does not apply to are when the destination lines interface to DMS-100 switch as a P2 trunk. A 2X95 line card is an example of this condition. Refer to "Simplified Dialing" for details.
- For two-way trunk operation, the away from switch must have an interface that permits two-way operation. The DTMF Outpulsing on a Line does not provide this ability to the away from switch.
- If the assignment of the following options to a line occurs, DTMF Outpulsing on a Line cannot ring the line. The options are SUS, DTM, PLP and RSUS. The DTMF Outpulsing on a Line must select an alternate route.
- If the assignment of option FRS or FRO to a line occurs, the SD point activates. The activation of the SD point occurs when DTMF Outpulsing on a Line begins to ring the line.
- If the assignment of option SLU to a line occurs, the peg count increases. The increase occurs when DTMF Outpulsing on a Line begins to ring the line.
- If the assignment of option CLI to a line occurs, option CLI identifies the calling party. The identification occurs when DTMF Outpulsing on a Line begins to ring the line.

Interactions

A description of the interactions between DTMF Outpulsing on a Line and other functionalities appears in the following paragraphs.

- Ring Again
The user cannot use Ring Again (RAG) when the called party is busy because the system does not store the dialed digits.
- ESN Answer Supervision Generation

DTMF Outpulsing on a Line (continued)

An attendant cannot always extend or release a call originated through DTMF Outpulsing on a Line. These events cannot occur until outpulsing and a final ATD are complete. With ESN Answer Supervision Generation, an interval of time is present after outpulsing is complete. An interval of time also is present after the system establishes a speech path when DTMF Outpulsing on a Line remains active. The attendant can to speak with the party at the destination line. The interval ends when the ATD detects voice answer or when the timer expires.

- **Hunt Groups**

The DTMF Outpulsing on a Line selects an alternate route if the hunt group overflows. The DTMF Outpulsing on a Line can work with a ten-digit DN that designates a hunt group. The DTMF Outpulsing on a Line can designate a hunt group. If the DTMF Outpulsing on a Line designates a hunt group, the line options OFR and OFS assigned before record hunt group overflow.

- **Do Not Disturb**

The DMS-100 switch can ring an IBN line. The Do Not Disturb feature does not prevent this action if DTMF Outpulsing on a Line is active.

- **Call Forwarding**

Do not assign Call Forwarding (CFW) to a line if you enter a DN in a line route. If you assigned a CFW option to a line, like CFW or CFX, DTMF Outpulsing on a Line skips the line. The DTMF Outpulsing on a Line selects an alternate route. The activation of the CFW does not affect these actions of the DTMF Outpulsing on a Line.

- **Three-Way Calling**

An end user in a three-way call can flash the hookswitch when DTMF Outpulsing on a Line rings the line. An end user in a three-way call can flash the hookswitch. This event occurs when DTMF Outpulsing on a Line outpulses to a line. The result of the hookswitch flash depends on if the hookswitch flash is the first or second flash. If the flash is the first hookswitch flash, the flash does not affect the call. If the flash is the second hookswitch flash, the flash cancels Three-Way Calling. The flash idles the line. The call becomes a two-party call.

Activation/deactivation by the end user

The steps an end user performs to activate DTMF Outpulsing on a Line from IBN lines appear in the following procedure.

DTMF Outpulsing on a Line (continued)

Activation/deactivation of DTMF Outpulsing on a Line by the end user

At your telephone

- 1 The caller goes off-hook. The caller dials the access code and the DN.
Response:
The DMS-100 switch rings the specified line. The switch begins the ring time-out. The caller receives silence.
- 2 The called party answers.
Response:
The called switch carrier indicates an off-hook condition to the DMS-100 switch.
- 3 The DMS-100 switch outpulses the digits in the DTMF format.
Response:
The caller continues to receive silence.
- 4 The DMS-100 switch establishes a two-way connection. The switch completes outpulsing. The caller and the called party can communicate.
Response:
The call becomes a two-port call. The call continues as if the caller directly dialed the called station.

Billing

The DTMF Outpulsing on a Line does not affect billing.

Station Message Detail Recording

Calls to the line termination are subject to Station Message Detail Recording (SMDR). The SMDR depends on customer group parameters and the results of IBN translations determines if calls are subject to SMDR. The DN of the line does not effect the production of SMDR records. The DN does not affect production because the caller does not dial the DN when placing the call.

If SMDR applies, the DMS-100 switch generates one or two SMDR records. When an ATD supplies answer supervision and detects voice, the switch produces two records. The switch generates one SMDR record for other conditions.

Voice answer not detected

The switch generates one SMDR record if the call does not involve answer supervision generation. The switch generates one SMDR if the caller uses answer supervision but answer supervision does not detect voice answer. The DMS-100 switch generates one SMDR record that matches the LAMA record if the switch produced an SMDR record. The SMDR record does not indicate if the switch used DTMF Outpulsing on a Line. The SMDR record shows the

DTMF Outpulsing on a Line (continued)

line as the terminating party in the call. The field Digits to Outpulse in the SMDR record indicates the system outpulsed digits. This indication occurs if customer group option Record as Outpulsed is in effect.

Voice answer detected

The switch generates two SMDR records if SMDR applies. Both SMDR records indicate the line as the terminating party in the call.

The first SMDR record contains digits that the switch outpulsed when the system reached the system answer supervision generation modifier. The answer supervision generation modifier is in field ANS in table DIGMAN. This SMDR record matches the LAMA record if the switch produced the SMDR record.

The second SMDR record contains the digits that the switch outpulsed to the line after the system detected voice answer supervision. The terminating feature code marks the second SMDR record. This mark notifies the downstream data processing equipment that two SMDR records refer to a single call. The terminating code attempts to mark the start of conversation. This record appears when use of a DMI occurs. This record contains a digit manipulation command. The digit manipulation command attaches an ATD to provide answer supervision. The attachment command occurs if the ATD detects voice answer supervision. If the call fails before the ATD detects voice answer supervision, the switch does not generate the second SMDR record.

Note the following points about the second SMDR record:

- The electrical answer indication that the DMS-100 switch receives indicates that the called party answered the line. The line is ready for outpulsing. The DMS-100 switch does not always receive an indication from the SCC that the called party answered the line. The DMS-100 switch does not receive an indication if the line is already off-hook. This event occurs if the DTMF outpulsing interfaces to an SCC.
- The tone-detection command for the DMI determines the start time of the conversation.

Datafilling office parameters

The DTMF Outpulsing on a Line does not affect office parameters.

DTMF Outpulsing on a Line (continued)

Datafill sequence

The tables that require datafill to implement DTMF Outpulsing on a Line appear in the following list. The tables appear in the correct entry order.

Datafill requirements for DTMF Outpulsing on a Line

Table	Purpose of table
IBNRTE	IBN Route Table. This table contains route lists that a route index number identifies.

Datafilling table IBNRTE

Table IBNRTE contains a selector, LINE, to activate DTMF Outpulsing on a Line as an element of a route list. This route selector performs the following:

- identifies the line or hunt group to ring
- specifies the DMI
- provides the interdigit timing to use when outpulsing DTMF

Datafill for DTMF Outpulsing on a Line for table IBNRTE appears in the following table. The fields that apply to DTMF Outpulsing on a Line appear in this table. See the data schema section of this document for a description of the other fields.

Datafilling table IBNRTE (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
RTE		1 to 1023 or blank	Route Reference Index. This field specifies the reference number assigned to the route list. If the record is the first entry in the route list, enter a value from 1 to 1023. If the record is not the first entry in the route list, leave this field blank.
RTELIST		see subfields	Route List. This field contains the following subfields: • IBNRTSEL • SNPA • COCODE • DEFGDIGS • IDGTIME • DMI • OPTION

DTMF Outpulsing on a Line (continued)

Datafilling table IBNRTE (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	IBNRTSEL	LINE	IBN Route Selector. This subfield specifies the selector for IBN route lists. Enter LINE.
	SNPA		Serving Numbering Plan Area. This subfield specifies the serving numbering plan area (SNPA) number of the DN to which the call terminates. Enter a three-digit value.
	COCODE		NXX Code. This subfield specifies the NXX number of the DN to which the call terminates. Enter a three-digit value.
	DEFGDIGS		DEFG Digits. This subfield specifies the DEFG digits of the DN to which the call terminates. Enter a four-digit value.
	IDGTIME	0 to 63	Interdigital Timing. This subfield specifies the time delay between digits while outpulsing occurs in 10 ms intervals. Enter a value from 0 to 63.
	DMI	0 to 32 767	Digital Manipulation Index. This subfield specifies the tuple in Table DIGMAN that contains the outpulsing and tone detection data. Enter a value from 0 to 32 767. Note: An entry of 0 in subfield DMI indicates that Table DIGMAN does not contain outpulsing commands that apply to this route.
	OPTION	JAPANDID or AUDBLRNG	Option. This subfield specifies the available options. Enter JAPANDID if direct inward dialing (DID) occurs. Enter AUDBLRNG if audible ringback during outpulsing of digits to a line occurs. Note: Options JAPANDID and AUDBLRNG are not compatible. An error response appears if you attempt to enter data in both of these options.

DTMF Outpulsing on a Line (end)

Datafilling table IBNRTE (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
If OPTION is JAPANDID, subfield PASTIMER requires datafill.			
	PASTIMER	0 to 63	Primary Answer Signal Timer. This subfield specifies a number that represents the primary answer signal timer. Enter a value from 0 to 63. Note: An entry of 0 in subfield PASTIMER indicates that timing does not occur. In this example, a ring applies until the PBX supplies the primary answer or the caller abandons the call.

Datafill example for table IBNRTE

Sample datafill for table IBNRTE appears in the following example.

MAP example for table IBNRTE

TABLE: IBNRTE

RTE				RTELIST			
5	(LINE	919 555 1212	4 4	(	AUDBLRNG		
)\$)\$							
213	(LINE	919 555 1213	5 112	(	JAPANDID 6		
)\$)\$							

Tools for verifying translations

The DTMF Outpulsing on a Line does not use tools for verifying translations.

SERVORD

The DTMF Outpulsing on a Line does not use SERVORD.

End-to-End Signaling through Speed Call

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply.

Release applicability

BCS30 and later versions

Requirements

End-to-End Signaling through Speed Call requires BAS Generic, BAS00003

Description

End-to-End Signaling through Speed Call allows the end user to use speed calling to place a call to a specified station. The end user can output a series of dual-tone multifrequency (DTMF) tones to the station. The end user inserts pauses in the outputted tones that break the outputting of tones in bursts.

To use speed calling, you must program the string of digits in the speed calling cell with embedded asterisks (*). Each asterisk is a pause in outputting. You can use multiple asterisks and multiple strings of asterisks. A definition of the duration of the pause for the customer group appears in table CUSTSTN Customer Group Station Option (CUSTSTN).

You can enter data to program speed calling cells for use with this feature. Enter this data by the same method as for the basic speed calling capability. Refer to "Speed Calling Individual - Short List" for information on both basic short and long speed calling lists.

Operation

Background

Speed calling allows the end user to place calls with a list of dialed numbers that the user entered before. A directory number (DN) is in a speed calling cell. Each cell can contain a maximum of 24 digits. An end user has a fixed number of speed calling cells available in each speed calling list. The type of speed calling of the end user determines the number of cells in the list. The type of speed calling can be a short list or long list.

To dial digits from a specified speed calling cell, the end user dials a series of digits for the cell address in the speed calling list. The same method of translation occurs for the digits in the cell as when the end user dials the digits directly. Basic speed calling is complete and the call can proceed.

End-to-End Signaling through Speed Call (continued)

The last digit in a speed calling cell can be an asterisk. When a cell that ends with an asterisk is in use, the system prompts the end user for additional digits. The prompt occurs before the call proceeds. The digit string to accommodate the following codes can have asterisks embedded in the following:

- account codes
- authorization codes
- Cut Through Dialing access code

Current implementation

The entry of data in option SCPAUSE in table CUSTSTN starts End-to-End Signaling through Speed Call. End-to-End Signalling inserts an embedded asterisk to start or pause DTMF signaling. If option SCPAUSE does not contain data, an embedded asterisk has the same meaning as an embedded asterisk basic speed calling.

End-to-End Signaling through Speed Call allows the end user to place a call to another station. The End-to-End Signaling through Speed Call output a series of tones with embedded pauses to this station from a speed calling cell. The terminating station connecting to the originating station is a line-to-line call. A line-to-line-trunk call which is a series of trunks to the originating station, can connect the terminating station.

Interpreting embedded asterisks

When you start End-to-End Signaling through Speed Call, the system checks the digit string in a speed calling cell. The format of the digit string determines if the call routes to a terminating station. The call can or cannot output tones to the terminating station over the voice connection.

The system divides the call in two parts:

- call routing
- signaling

The call routing part is like the operation of Speed Calling Individual - Short List. You can use digits in the speed calling cell to place a call. Speed calling operates the same as when the end user dials the digits directly.

When the call routing part is complete, the signaling part can occur. This event depends on the form of the digit string programmed in the speed calling cell. The digits that precede the first embedded asterisk place the call. The system can output these digits as tones over the voice connection to the terminating station. This outputting occurs if you place the digits after the first embedded asterisk. The end user of the speed calling cell does not hear from the

End-to-End Signaling through Speed Call (continued)

terminating station during outpulsing. If an asterisk is not embedded in the digit string, use the digit string to place the call. Signaling part does not occur as in Speed Calling Individual - Short List, the basic speed calling capability.

The asterisk between the call routing part and the signaling part of the digit string is a pause symbol. End-to-End Signaling through Speed Call always pauses between the placing of the call and the outpulsing of tones.

Note: End-to-End Signaling through Speed Call does not wait for an answer from the terminating station. If an answer does not occur for the call at the terminating station before the end of the pause period, outpulsing does not occur and the call continues. The term *pause period* refers to the pause before or during outpulsing. The presence of an asterisk embedded in the digit string of the speed calling cell causes this pause.

The end user has the responsibility to make sure that programming of a long enough pause in the digit string occurred. The pause must be long enough to satisfy the time requirements of the call in progress. The pause is enough time for the party at the terminating station to answer.

Additional asterisks

Additional asterisks, or strings of asterisks, can be embedded in the signaling part of the digit string. In this event, the system outpulses the tones in groups. The system takes pauses in outpulsing according to the position of the additional asterisks in the digit string. A string of asterisks represents a single long pause. The duration of this long pause is the sum of the pauses that each asterisk in the string represents. You can use an asterisk string in place of the first embedded asterisk. The asterisk string allows the party at the terminating station a longer time period to answer before outpulsing of tones begins.

The final digit programmed in a speed calling cell can be an asterisk or an asterisk string. In this event, the asterisks translate in one of the following two ways:

- If the final asterisks are at the end of the signaling part of the digit string, if the system ignores these additional asterisks. The partial dial capability of basic speed calling is not available in this event. The system does not prompt the end user for additional digits before the end user places the call.
- If only the call routing part of the digit string is present, you can program a single asterisk in the cell. The programming occurs after the call routing part of the digit string. The presence of only the call routing part of the digit string means the same as when prior embedded asterisks are not in the digit string. The asterisk translates as a request to prompt the end user for additional call routing digits. The translation occurs when you use the cell

End-to-End Signaling through Speed Call (continued)

to place the call. This translation occurs in the same method as Speed Calling Individual - Short List translates.

Generating tones

You can use a DTMF sender to produce the tones that you send over a voice connection to the terminating station. The end user of the speed calling cell does not hear the tones that the system outpulses. The end user of the speed calling cell does not connect to the terminating station during the bursts of outpulsing. The system connects the end user to the terminating station during any pauses in outpulsing. The end user can hear feedback from the terminating station during a pause. The end user does not hear feedback during outpulsing. When outpulsing is complete, the system connects the end user to the terminating station again for the remainder of the call.

The datafill determines the duration of the pause that each asterisk generates. You must assign this datafill on an individual customer group basis. Enter data in option SCPAUSE in Table CUSTSTN.

The system outpulses a tone for a duration of 70 ms. The time between tones that outpulse in succession is 70 ms. These time values are fixed. Datafill does not affect these time values.

If you cannot perform signalling, the system disconnects the end user from the terminating station. The end user receives a failure tone. The terminating station disconnects from the call.

Authorization and account codes

You can insert an authorization or account code in the digit string as required. Place the authorization or account code after the authorization feature access code. Place the authorization or account code before the call routing part of the digit string. Asterisks separate the authorization feature access code from the authorization or account code. Asterisks separate the authorization or account code from the call routing part of the digit string. These asterisks are translated as dividers. These asterisks do not translate as pauses. The signaling part of the digit string can follow the call routing part of the string. This event occurs if an asterisk or asterisk string separate the two parts. This asterisk or asterisk string translates as a pause.

Translations table flow

End-to-End Signaling through Speed Call does not affect translations table flow.

End-to-End Signaling through Speed Call (continued)

Limits

The following limits apply to End-to-End Signaling through Speed Call:

- The combination of digits and asterisks cannot exceed the 24-digit limit for speed calling cells.
- At the end of a pause period, if the end user receives a local announcement or tone, outpulsing does not occur. End-to-End Signaling through Speed Call cancels. The call does not change for other conditions.
- During outpulsing, if the end user receives a local announcement or tone, outpulsing discontinues. End-to-End Signaling through Speed Call cancels. The call does not change for other conditions.
- The system sends a local announcement or tone to the end user. The system does not send an announcement or tone directly to the end user over a trunk. Announcements or tones the system sends to the end user over a trunk do not effect the functionality of this feature. The system sends these announcements or tones when the call to the terminating station occurs over a trunk.
- End users with dial pulse sets (500/2500 sets) cannot activate End-to-End Signaling through Speed Call. The end users cannot dial an asterisk when the end users program a speed calling cell. An alternate code for a leading asterisk is present for dial pulse set end users. End-to-End Signaling through Speed Call does not provide a substitute pause symbol for the asterisk.
- At the end of the pause period, the system does not perform outpulsing. if the terminating station is a line that the recipient does not answer. The system does not initiate outpulsing if the terminating station party answers the call. End-to-End Signaling through Speed Call does not wait for an answer to occur on the line. Signaling cancels and the call continues as a normal call.

Interactions

The following features interact with End-to-End Signaling through Speed Call.

Auto Dial

Tone signaling can use Auto Dial instead of speed calling. You must enter the data in the speed calling cell for Auto Dial exactly as for End-to-End Signaling through Speed Call.

Call Forwarding

The terminating call forwards to another party that uses Call Forward Busy or Call Forward All Calls and that party answers before the first pause expires. In

End-to-End Signaling through Speed Call (continued)

this event, the system performs outpulsing on that party. If an answer for the call does not occur before the first pause ends, signaling cancels, but the call continues.

Call Forward Don't Answer

If the terminating station has Call Forward Don't Answer (CFDA) set to forward to another party, the system performs signaling. The system performs signaling on the party that answers the call. This event occurs if an answer for the call occurs before signaling starts.

Call Forward Remote Access

End-to-End Signaling through Speed Call cannot create the Call Forward Remote Access (CFRA).

Call Hold

The interaction of End-to-End Signaling through Speed Call with Call Hold (CHD) depends if the call is on network hold or on local hold. Network hold refers to a hold state that a hookswitch flash or a feature interaction create. An example of this interaction is the CHD. The network hold differs from local hold. The local hold is a hold state the end user initiates when the end user presses the Hold key on an MBS. The use of local hold does not effect the functionality of End-to-End Signaling through Speed Call. Network hold has the following effects:

- Tone outpulsing does not occur at the end of a pause period if the terminating station is on network hold. Signaling cancels and call processing continues
- During tone outpulsing, outpulsing discontinues and call processing continues if the terminating station is on network hold

Call Pickup

Signaling occurs on the station that picks up the call. This signaling occurs if a different station that has Call Pickup (CPU) picks up the call before the first pause expires. If the pause expires before the recipient answers the call, signaling does not occur.

Call Transfer

If the originator transfers a call of the terminating station with Call Transfer (CXR), outpulsing continues on the terminating station. The outpulsing continues if the call does not include the end user of the speed calling cell. If the terminating station party leaves the call, End-to-End Signaling through Speed Call cancels. If the end user of the speed calling cell leaves the call, outpulsing does not continue. If the end user and the terminating station party leave the call, the call does not continue.

End-to-End Signaling through Speed Call (continued)

Cut Through Dialing

Cut Through Dialing and End-to-End Signaling through Speed Call are mutually exclusive. The End-to-End Signaling through Speed Call does not initiate. This event occurs if the call routing part of the digit string contains the Cut Through Dialing access code. The Cut Through Dialing interprets asterisks as pause symbols, if the asterisks are in the digit string. End-to-End Signaling through Speed Call does not interpret the asterisks if the asterisks are in the digit string. The Cut Through Dialing datafill determines the pause period.

Direct Inward System Access

End-to-End Signaling through Speed Call output pulses to the terminator. The outputting occurs when you enter the DISA DN and the necessary authorization or account codes. The speed calling cell must contain the DN of the terminator. Asterisks and outputting digits follow the speed calling cell, as in a typical End-to-End Signaling through Speed Call call.

Hookswitch flash

If the end user flashes the hookswitch during the outputting of tones, the system ignores the flash. The system allows the flash when the end user connects to the terminating station during a pause period. This event occurs if the end user flashes the hookswitch during a pause period in outputting.

Last Number Redial

Last Number Redial (LNR) calls the terminating station from the previous call. The LNR does not output pulse the terminating station because the system did not save the outputted digits. The output pulse does not occur when the LNR is in use after you place a call with End-to-End Signaling through Speed Call.

Multiple Appearance Directory Number

If the terminator is an MADN with single call arrangement (SCA) or multiple call arrangement (MCA), outputting occurs on member answers.

Simplified Dialing

The Simplified Dialing feature output pulses digits with or without pauses for call routing to the terminating station. To prevent conflicts between features, End-to-End Signaling through Speed Call cancels. The cancellation occurs if the Simplified Dialing is still active in a call. The call does not change for other conditions.

Three-Way Calling

You can establish one leg or both legs of a three-way call for End-to-End Signaling through Speed Call. The end user can wait until the signaling on the second leg of the call completes. This wait occurs before the end user adds the

End-to-End Signaling through Speed Call (continued)

first leg of the call to the second leg of the call. The second leg of the call is the conference mode. An outpulse occurs only on the parties that the Speed Calling Individual - Short List calls.

If the originator transfers a call of a terminating station with Three-Way Calling (3WC), outpulsing continues on the terminating station. This outpulsing continues even if the end user of the speed calling cell does not have involvement in the call. If the terminating station party leaves the call, End-to-End Signaling through Speed Call cancels. If the end user of the speed calling cell leaves the call, outpulsing does not continue. If the end user and the terminating station party leave the call, the call does not continue.

Activation by the end user

The end user activates End-to-End Signaling through Speed Call in the same method as Speed Calling Individual - Short List. The following procedure lists the steps the end user uses to activate end-to-end Signaling through Speed Call.

Activation of End-to-End Signaling through Speed Call by the end user

At your telephone:

- 1 End user goes off-hook.
Response:
End user hears dial tone.
- 2 End user presses an asterisk key. The end user dials the address code of a speed calling cell.
Note: Meridian business set (MBS) end users press the Speed Calling key instead of the asterisk key.
Response:
End-to-End Signaling through Speed Call is activated.

Billing

End-to-End Signaling through Speed Call does not affect billing.

Station Message Detail Recording

End-to-End Signaling through Speed Call does not affect Station Message Detail Recording.

Datafilling office parameters

End-to-End Signaling through Speed Call does not affect office parameters.

End-to-End Signaling through Speed Call (continued)

Datafill sequence

The tables that require datafill to implement End-to-End Signaling through Speed Call appear in the following table. The tables appear in the correct entry order.

Datafill requirements for End-to-End Signaling through Speed Call

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. This table is a requirement for a switching unit. The unit has North American translations and the Meridian Digital Centrex (MDC) or the feature AG0508 (Residential Enhanced Services) (RES). The station options assigned to each of the customer groups appears in this table.

Datafilling table CUSTSTN

Table Customer Group Station Option (CUSTSTN) is a requirement for a switching unit. The unit has North American translations and MDC or Subscriber Services (SS) features. The switching unit defines the duration of the pause that an asterisk embedded in the speed calling digit string generates. Option SCPAUSE adds to Table CUSTSTN to allow the end user to insert pauses in a digit string. Option SCPAUSE adds to Table CUSTSTN to determine the duration of the pauses.

If you do not enter option SCPAUSE, the system interprets embedded asterisks the same as asterisks for Speed Calling Individual - Short List. Tone signaling does not occur. Option SCPAUSE is not in the customer group datafill by default. The exclusion of option SCPAUSE indicates that End-to-End Signaling through Speed Call is disabled.

Note: The entry of data in Table CUSTSTN sets the pause duration. The entry of data also activates end-to-end Signaling through Speed Call.

Datafill for End-to-End Signaling through Speed Call for table CUSTSTN appears in the following table. The fields that apply to End-to-End Signaling

End-to-End Signaling through Speed Call (end)

through Speed Call 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 Group Name. This field specifies the customer group name. Enter the 1- to 16-character name assigned to the customer group.
OPTNAME		SCPAUSE	Option Name. This field specifies the name of the feature option. Enter SCPAUSE.
OPTION		refer to subfields	Option. This field contains subfields OPTION and SCTIME.
	OPTION	SCPAUSE	Option. This subfield specifies the name of the option. Enter SCPAUSE.
If OPTION is set to SCPAUSE, subfield SCTIME requires datafill.			
	SCTIME	1 to 7	Speed Calling Pause Time. This subfield specifies the number of seconds tone outputting pauses. Enter a value from 1 to 7.

Datafill example for table CUSTSTN

Datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

TABLE: CUSTSTN			
CUSTNAME	OPTNAME	OPTION	
CUST1	SCPAUSE	SCPAUSE	3

Tools for verifying translations

End-to-End Signaling through Speed Call does not use tools for verifying translations.

SERVORD

End-to-End Signaling through Speed Call does not use SERVORD.

Executive Right of Way

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply.

Release applicability

BCS11 and later versions

Requirements

Executive Right of Way requires BAS Generic, BAS00003.

Description

Executive Right of Way allows a station end user to gain access to a busy station. The end user flashes the hookswitch during busy tone and dials an access code. The calling station establishes a three-way conference with the busy station.

Operation

Executive Right of Way operates as follows:

- The calling station dials the called station and receives a busy tone.
- The calling station flashes the hookswitch, hears special dial tone, and dials the Executive Right of Way access code. The special dial tone is two bursts of tone and a steady dial tone.
- The called station and the party that connects to the called station receive an Executive Right of Way warning tone. This tone has an alternating on-off-on-off-on pattern for a 0.5 s interval.
- At the end of the 0.5 s interval, a three-way call connection establishes. The calling station in control.

The calling station can give a message to the called station. The calling station goes on-hook. These actions allow the called station and the party that connects to the called station to continue the conversation.

If the calling station flashes the hookswitch, the party connects to the called station drops from the connection. The connection between the calling station and the called station remains.

Executive Right of Way (continued)

Tools for verifying translations

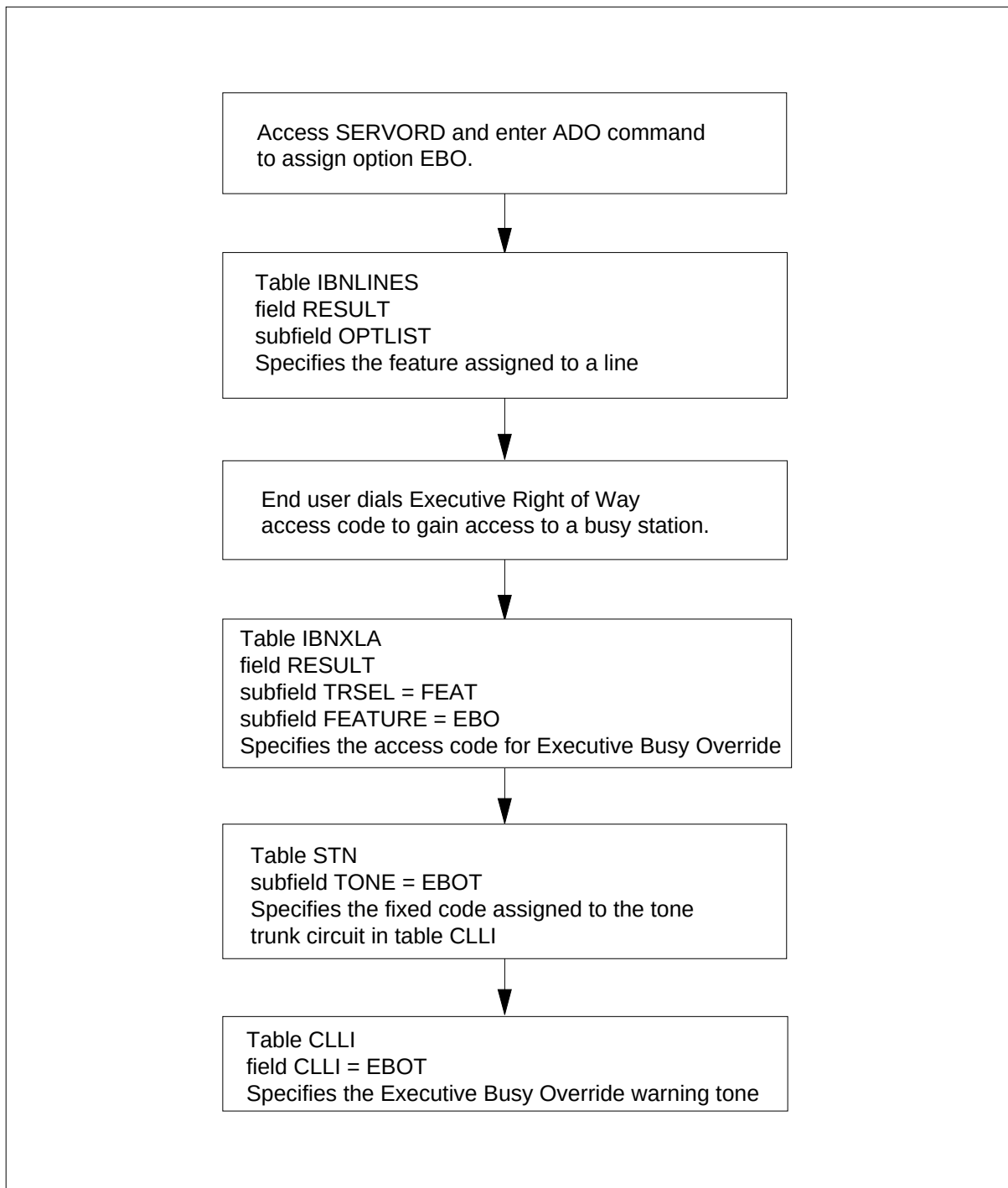
The Executive Right of Way translations process appears in the following flowchart. The flowchart and data describe how to assign option EBO to a line.

- Table CLLI (Common Language Location Identifier) contains a list of CLLIs that identify the far end of each announcement, tone, or trunk group. Data entry in Table CLLI must occur to define the tone for Executive Right of Way.
- Table STN (Special Tone) contains descriptions of the special tones. Data entry in Table STN must occur to define the tone for Executive Right of Way.
- The line assignments for each 500/2500 set assigned an MDC or station number appears in Table IBN Line Assignment (IBNLINES). You must enter data in this table when assignment of the line occurs in SERVORD.
- Table IBNXLA (IBN Translation) contains IBN translations. You must enter data in Table IBNXLA so that this table contains the feature access code for Executive Right of Way.

The Executive Right of Way translation process appears in the following flowchart.

Executive Right of Way (continued)

Table flow for Executive Right of Way



Executive Right of Way (continued)

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

Datafill example for Executive Right of Way

Datafill table	Example data
IBNLINES	HOST 00 0 00 01 01 DT STN IBN 5554667 919 (EBO) \$
IBNXLA	NTIXLA 123 FEAT N Y N EBO
STN	EBOT 1 MTM 7 18 3X68AC 20 0
CLLI	EBOT 97 32 EXEC, BUSY, OVERRIDE, TONE

Limits

The following limits apply to Executive Right of Way:

- The calling station must be an IBN line in the same customer group as the called station.
- The called station must not associate with an attendant console.
- the called station must be in the talking state. The called station must connect to a line or trunk. The called station must not be assigned the executive right of way exempt line option.
- Executive Right of Way cannot interrupt a call that involves a hunt group member.

Interactions

The following features interact with Executive Right of Way:

- You cannot activate Executive Right of Way. This event occurs if the called station has the no double connect or the Executive Right of Way option.
- When the called station is in the do not disturb mode, the calling station routes to the attendant or to treatment. Executive Right of Way does not apply.
- Executive Right of Way does not apply when the system reroutes the calling station because of the flexible intercept feature.
- When the called station is in a three-way conference/call transfer mode, you cannot use Executive Right of Way.
- Then the calling station forwards from the called station, you cannot use Executive Right of Way. This condition occurs because the called station is in the call forward all calls or call forward do not answer mode. When

Executive Right of Way (continued)

the final destination of the forwarded call of the calling station is busy tone, you cannot use Executive Right of Way.

- When the calling station forwards from the called station, Executive Right of Way can be applied to the originally called station. This condition occurs if the calling station forwards the call because the called station is in the call forward busy mode. The forwarded call connects to busy tone
- If the called station has call waiting, the calling station hears ringing tone. The system ignores Executive Right of Way. If the called station has someone call waiting already, the calling station connects to busy tone. You cannot use Executive Right of Way.
- The calling station can use speed calling to dial the called station and/or the Executive Right of Way feature code.

Activation/deactivation by the end user

Executive Right of Way does not require activation or deactivation by the end user.

Billing

Executive Right of Way does not affect billing.

Station Message Detail Recording

Executive Right of Way does not affect Station Message Detail Recording.

Datafilling office parameters

Executive Right of Way does not affect office parameters.

Executive Right of Way (continued)

Datafill sequence

The tables that require datafill to implement Executive Right of Way appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Executive Right of Way

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 table contains the line assignments under the format name of BL. Note: Data entry of this table occurs through SERVORD. A datafill procedure or an example is not available. See "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: • an IBN station • an attendant console • an incoming IBN trunk group • an incoming side of a two-way IBN trunk group
STN	Special Tone. This table contains descriptions of the special tones.
CLLI	Common Language Location Identifier. This table identifies the following: • the far end of each announcement • tone • test trunk • national millwatt test lines • service circuit

Datafilling table CLLI

Table Common Language Location Identifier (CLLI) contains a list of CLLIs that identify the far end of each announcement, tone, or trunk group. You must enter data in Table CLLI to define the tone for Executive Right of Way.

Executive Right of Way (continued)

Datafill for Executive Right of Way for table CLLI appears in the following table. The fields that apply to Executive Right of Way 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		EBOT	Common Language Location Identifier. This field specifies the common language location identifier name. Enter EBOT (executive busy override warning tone).

Datafill example for table CLLI

Datafill for table CLLI appears in the following example.

MAP example for table CLLI

TABLE: CLLI				
CLLI	ADMUN	TRKGRSIZ	ADMINIF	
EBOT	97	32	EXEC, BUSY, OVERRIDE, TONE	

Datafilling table STN

Descriptions of the special tones appear in table Special Tone (ST). You must enter data in Table STN to define the tone for Executive Right of Way

Datafill for Executive Right of Way for table STN appears in the following table. The fields that apply to Executive Right of Way appear in this table. 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
	TONE	EBOT	Tone. This subfield specifies the fixed code assigned to the tone trunk circuit in Table CLLI. Enter EBOT.
CARDCODE		3X68AC	Card Code. This field specifies the product engineering code of the tone trunk circuit. Enter 3X68AC.

Executive Right of Way (continued)**Datafill example for table STN**

Datafill for table STN appears in the following example.

MAP example for table STN

TABLE: STN							
SK	TMTYPE	TMNO	TMCKTNO	CARDCODE	MAXCONN	TRAFSNO	
EBOT	1	MTM	7	18	3X68AC	20	0

Datafilling table IBNXLA

Table IBN Translation (IBNXLA) contains IBN translations. You must enter data in Table IBNXLA so that this table contains the feature access code for Executive Right of Way

Datafill for Executive Right of Way for table IBNXLA appears in the following table. The fields that apply to Executive Right of Way 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	1- to 8-characters	Translator Name. This subfield specifies the assignment of the name 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		refer to subfield	Result. This field contains subfield TRSEL.
	TRSEL	FEAT	Translations Selector. This subfield specifies the translations selector to use. Enter FEAT.
If TRSEL is set to FEAT, subfields ACR, SMDR, and FEATURE require datafill.			

Executive Right of Way (continued)

Datafilling table IBNXLA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ACR	Y or N	Account Code Entry. This subfield specifies if an account code is a requirement. Enter Y (yes) or N (no).
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies if SMDR is a requirement. Enter Y or N.
	FEATURE	EBO	Feature. This subfield specifies the feature assigned to a line. Enter EBO.

Datafill example for table IBNXLA

Datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

TABLE: IBNXLA KEY		RESULT
NTIXLA	123	FEAT N Y N EBO

Tools for verifying translations

Executive Right of Way does not use tools for verifying translations.

SERVORD

Option EBO allows an end user to gain access to a busy station. The end user flashes the hookswitch during busy tone and dials an access code.

The SERVORD prompts that assign Executive Right of Way to a line appear in the following table.

Executive Right of Way (end)

SERVORD prompts

The SERVORD prompts that assign Executive Right of Way to a line appear in the following table.

SERVORD prompts for Executive Right of Way

Prompt	Valid input	Explanation
OPTION	EBO	This field specifies the option to be assigned. Enter EBO.

Note: Table IBNLINES is automatically entered with data when Executive Right of Way is assigned with SERVORD.

Example service orders for implementing Executive Right of Way

The description for how Executive Right of Way adds to a line with the ADO command appears in the following service order example.

SERVORD example for Executive Right of Way in prompt mode

```
>ADO
SONUMBER: NOW 92 4 13 PM
>
DN_OR_LEN
> 7213724
OPTION:
> EBO
OPTION:
> $
```

SERVORD example for Executive Right of Way in no-prompt mode

```
> ADO $ 7213724 EBO $
```

Flexible Console Alerting

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS12 and later versions.

Requirements

To operate, Flexible Console Alerting requires BAS Generic, BAS00003.

Description

Different types of console alerting are available with the Flexible Console Alerting feature. These types of console alerting include the length of the buzz and complete removal of console alerting. During busy hours, the attendant console (AC) operator does not always need an audible alert for a call response. The console speaker normally provides the alert. With this feature, the operator can discontinue the audible alert from the console speaker. The alert audible occurs through the headset.

At night and hours that are not busy the attendant can set audible alert on the AC. The attendant sets a specified extended period of time that the audible alert lasts through the console speaker. This action helps when security personnel must handle the responsibilities of an AC operator.

Operation

The Flexible Console Alerting feature provides help for AC personnel. This improvement helps receptionists, security guards, and supervisors. Personnel with different work environments can use this feature to share a console. The time of day affects the ability to share a console.

The feature provides the following improvements to the previous short buzz alert:

- The system sends a short tone to the attendant through the headset. The system sends an audible buzz to the console speaker.
- The system sends a short tone to the attendant through the headset.
- The system sends continuous buzzing to the console speaker. The buzzing ends when an operator performs some action at the console. The buzzing occurs through the console speaker. The system sends the tone to the headset.

Flexible Console Alerting (continued)

- The attendant can activate and deactivate the continuous buzzing when necessary during the day.
- The attendant can activate or substitute another type of buzz for the standard short buzz sent to the console speaker.
- An attendant can change the pattern and alerting method when necessary.

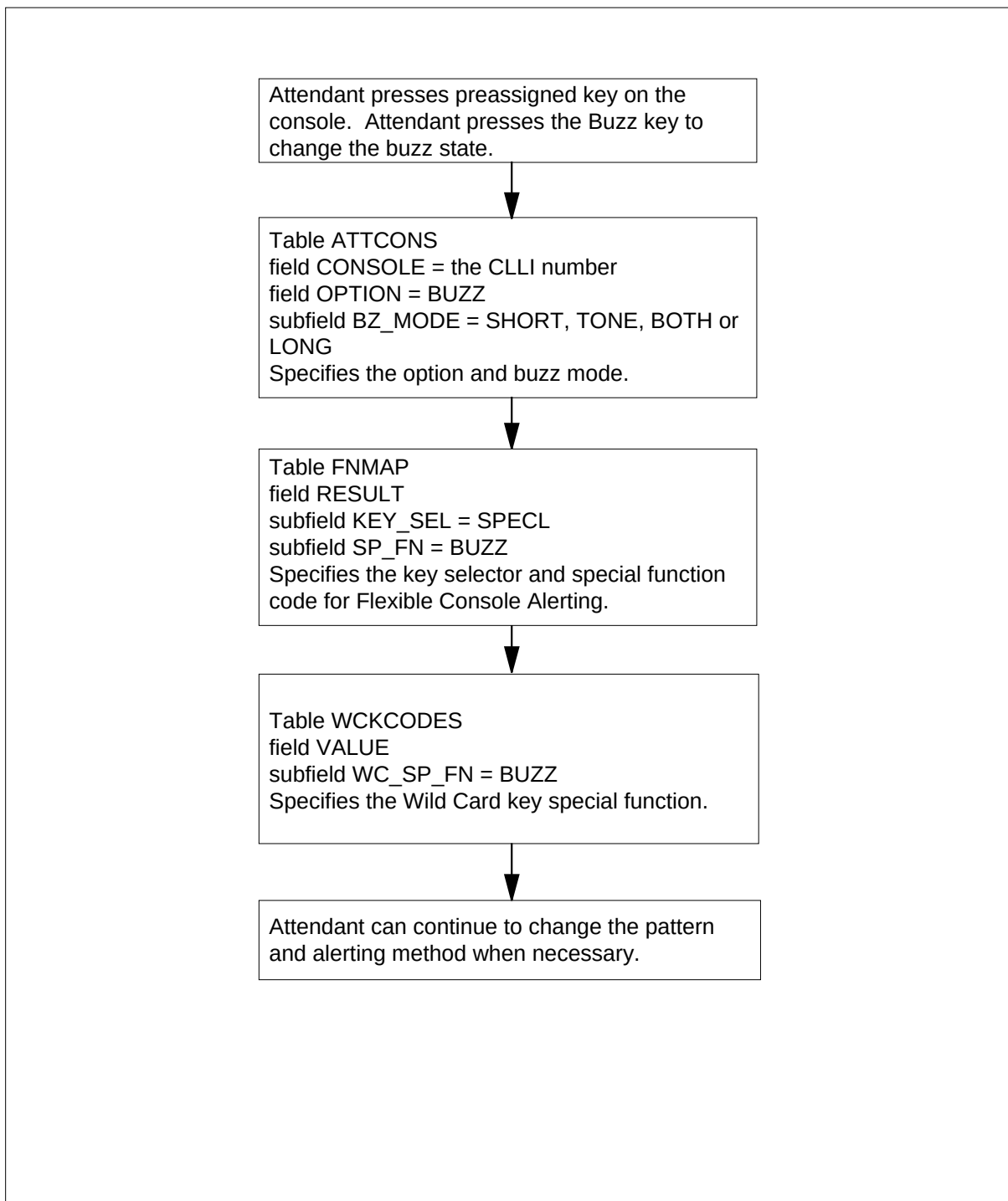
Translations table flow

The Flexible Console Alerting translations tables appear in the following list:

- Table ATTCONS (Attendant Console) contains a list of options the attendant console can access. Table ATTCONS has a new field to provide for the list of features the AC can access.
- Table FNMAP (Attendant Console Functional Key) contains fields for assigning a key and lamp on the AC. For the Flexible Console Alerting feature, you must enter data in table FNMAP or table WCKCODES. The new value allows the attendant to change the alert status of the console to one of four modes. The attendant can choose BUZZ in the special function field only.
- Table WCKCODES (Wild Card Key Codes) contains fields for assigning a Wild Card key access code to the Flexible Console Alerting feature. If the wild card key is the option selected, enter data in this table.

The Flexible Console Alerting translation process appears in the following flowchart.

Flexible Console Alerting (continued)

Table flow for Flexible Console Alerting

Flexible Console Alerting (continued)

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

Datafill example for Flexible Console Alerting

Datafill table	Example data
ATTCONS	BNRMCCON1 BNRMC 0 5 Y 4X08AA 02 0 04 02 02 0 04 03 02 0 04 04 Y (BUZZ SHORT)
FNMAP	IBNCON1 NRMCCON1 22 SPECL BUZZ
WCKCODES	BNRMC 7 BUZZ

Limits

The following limits apply to the Flexible Console Alerting feature:

- Removal of a console from service for maintenance can occur. In this event, the console returns in the same buzz state that the console was in before the process. The action of jacking and unplugging the headset does not affect the feature.
- If the attendant enters a keying sequence that is not correct, the current buzz state remains. The attendant receives 2 s of recorder tone when the following actions occur:
 - the attendant enters a code that is not correct during the keying sequence
 - the attendant presses the Buzz key a second time
- The buzz sequence can occur during any state of the AC.
- If buzzing of the console occurs when the attendant presses the Buzz key, the system discontinues buzzing of the console. Lighted incoming call indicators turn off. The Source (SRC) lamp associated with calls in a queue in a loop turns off. The calls remain in queue.
- If the attendant answers when Buzz_Long is active, the system sends a message to the central controller (CC). The CC sends another buzz message to the console before the CC validates the keying sequence.

Interactions

The Flexible Console Alerting feature does not have functionality interactions.

Activation/deactivation by the end user

The attendant selects when to activate the feature. The attendant selects the form of activation. For example, if the attendant is at a busy period, the attendant can select the headset-only option for audible alerting. At night and

Flexible Console Alerting (continued)

during periods that are not busy, the attendant sets the console for extended console speaker alerting.

The attendant presses the preassigned key on the console. This key can be one of the 42 keys available or the Wild Card key. To change the buzz state, the attendant presses the Buzz key. The lamp associated with the key turns on. The attendant enters a single digit that defines the desired state. The attendant presses the Buzz key a second time and the lamp turns off. The attendant does not have to access an idle loop before activating this feature.

To activate the various options, the attendant must perform the following procedure. The BUK in the following chart indicates the Buzz key.

Desired state	Keying sequence
Activate Short	BUK + 1 + BUK
Activate Tone	BUK + 2 + BUK
Activate Both	BUK + 3 + BUK
Activate Long	BUK + 4 + BUK

Billing

The Flexible Console Alerting feature does not affect billing.

Station Message Detail Recording

The Flexible Console Alerting feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Flexible Console Alerting feature does not affect office parameters.

Flexible Console Alerting (continued)

Datafill sequence

The tables that require datafill to implement the Flexible Console Alerting feature appear in the following table. The tables appear in the correct entry order.

Datafill requirement Flexible Console Alerting

Table	Purpose of table
ATTCONS	Attendant Console. This table contains datafill for all ACs. This table does not require special datafill to activate the operational measurements (OMs).
FNMAP	Attendant Console Functional Key. This table contains fields for assigning a key and lamp on the AC.
WCKCODES	Wild Card Key Codes. This table provides the attendant with a visual indication of the number of queued calls to answer.

Datafilling table ATTCONS

Table ATTCONS contains datafill for all ACs. This table does not require special datafill to activate the OMs. The system keeps OMs for each console in table ATTCONS.

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

Datafilling table ATTCONS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CONSOLE		alphanumeric	Console. This field specifies the alphanumeric CLLI assigned to the console. Enter the CLLI number.
OPTION		BUZZ	Console Options. This field specifies the options available. Enter BUZZ.

Flexible Console Alerting (continued)

Datafilling table ATTCONS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
If OPTION is BUZZ, subfield BZ_MODE requires datafill.			
	BZ_MODE	SHORT, TONE, BOTH, or LONG	Buzz Mode. This subfield specifies the buzz mode. Enter SHORT, TONE, BOTH, or LONG.

Datafill example for table ATTCONS

Sample datafill for table ATTCONS appears in the following example. A tuple assigned the Flexible Console Alerting feature appears in the example.

MAP example for table ATTCONS

TABLE: ATTCONS					
CONSOLE	CUSTNAME	SUBGRP	NCOS	CDR	CARDCODE
	INLEN	OUTLEN		TALKLEN	INSV
		OPTION			
BNRMCCON1	BNRMC	0	5	Y	4X08AA
04 02 02 0 04 03		02 0 04 04		Y (BUZZ SHORT)	02 0

Datafilling table FNMAP

Table FNMAP contains fields for assigning a key and lamp on the AC. For the Flexible Console Alerting feature, enter data in table FNMAP or table WCKCODES. The new value allows the attendant to change the alert status of the console to one of four modes. The attendant can choose BUZZ in the special function field.

Datafill for Flexible Console Alerting for table FNMAP appears in the following table. The fields that apply to the Flexible Console Alerting feature

Flexible Console Alerting (continued)

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. A tuple assigned the Flexible Console Alerting feature appears in the example.

MAP example for table FNMAP

TABLE: FNMAP			
KEY		RESULT	
IBNCON1	NRMCCON1	22	SPECL BUZZ

Datafilling table WCKCODES

Table WCKCODES provides the attendant with a visual indication of the number of queued calls to answer. With this feature, the attendant can display the number of calls queued to answer for the following:

- the subgroup of the attendant
- a specified ICI category

Datafill for Flexible Console Alerting for table WCKCODES appears in the following table. The fields that apply to the Flexible Console Alerting feature

Flexible Console Alerting (continued)

appear in the 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	alphanumeric (1 to 16 characters)	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 assigned to the Flexible Console Alerting feature. Enter a value from 0 to 99.
VALUE		alphabetical	Value 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.

MAP example for table WCKCODES

TABLE: WCKCODES		
WCKEY		VALUE
BNRMC	7	BUZZ

Tools for verifying translations

The Flexible Console Alerting feature does not use translation verification tools.

Flexible Console Alerting (end)

SERVORD

The Flexible Console Alerting feature does not use SERVORD.

Flexible Intercept

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS08 and later versions.

Requirements

To operate, the Flexible Intercept feature has the following requirements:

- MDC Minimum, MDC00001
- BAS Generic, BAS00003

Description

The Flexible Intercept feature intercepts and reroutes calls that cannot complete. These calls cannot complete for one of the following reasons:

- unassigned numbers
- equipment or dialing irregularities
- imposed system and customer group restrictions
- temporarily disconnected and out-of-service lines
- vacant codes and changed numbers

The Flexible Intercept feature routes calls to an attendant, to a tone, or to an announcement.

Operation

The system automatically implements the Flexible Intercept feature after entry of all the necessary tables occurs. When the Flexible Intercept feature intercepts a call, the feature routes the call to an IBN treatment.

Translations table flow

The Flexible Intercept feature does not affect translations table flow.

Limits

The following limits apply to the Flexible Intercept feature:

- A call cannot always complete because of station restrictions or any of the reasons the description lists. In this event, the feature routes the call to an IBN treatment or to the attendant. When the feature routes the call to the

Flexible Intercept (continued)

attendant, the system returns answer supervision when the attendant answers. When the call routes to an IBN treatment, answer supervision does not occur. The system supplies a recorded announcement or reorder tone.

- If an attendant call routes to an IBN treatment, the attendant normally receives the same treatment as other users. If the call routes to the attendant, the system returns the reorder tone.

Interactions

The Flexible Intercept feature does not have functionality interactions.

Activation/deactivation by the end user

The Flexible Intercept feature require end user activation or deactivation.

Billing

The Flexible Intercept feature does not affect billing.

Station Message Detail Recording

The Flexible Intercept feature does not affect Station Message Detail Recording.

Datafilling office parameters

The Flexible Intercept feature does not affect office parameters.

Datafill sequence

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

Datafill requirement for Flexible Intercept

Table	Purpose of table
IBNXLA	IBN Translations. This table contains the data for the digit translation of calls from the following: • an MDC station • an attendant console • the incoming side of a two-way MDC trunk group

Datafilling table IBNXLA

Table IBNXLA must include the translation selector for the Flexible Intercept (FLEXI) feature. When entry of the FLEXI feature occurs, calls route to a treatment in Table IBNTREAT (IBN Treatment).

Flexible Intercept (end)

Datafill for Flexible Intercept for table IBNXLA appears in the following table. The fields that apply to Flexible Intercept 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
RESULT		see subfields	Result. This field contains subfields TRSEL and FLEX_INTERCEPT.
	TRSEL	FLEXI	Translation Selector. This subfield contains the name of the translation selector. Enter FLEXI.
If subfield TRSEL is FLEXI, subfield FLEX_INTERCEPT requires datafill.			
	FLEX_INTERCEPT	0 - 63	Flexible Intercept. This subfield contains the treatment number in Table IBNTREAT to which all calls route. Correct entries are from 0 to 63.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

KEY	RESULT
CXN2 333	FLEXI 23

Tools for verifying translations

The Flexible Intercept feature does not use translation verification tools.

SERVORD

The Flexible Intercept feature does not use SERVORD.

Generalized Distinctive Ringing

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS20 and later versions.

In BCS30 and later versions, feature AF2303, Distinctive Ringing Enhancements improves Distinctive Ringing.

Requirements

To operate, the Generalized Distinctive Ringing feature requires BAS Generic, BAS00003.

Description

The Generalized Distinctive Ringing feature allows the end user to specify the ringing cadences applied to different types of calls. The following types of calls are available for distinctive ringing with a specified cadence:

- intragroup calls
- intergroup calls
- call incoming on IBN trunks that the customer group owns
- group intercom calls
- all other call types

Note: Refer to the features that describe distinctive and ring again ringing for additional information on distinctive ringing.

Previous releases of the distinctive ringing feature support only one ringing cadence to differentiate between the types of calls. The Generalized Distinctive Ringing feature allows the application of all five Bell Canada ringing cycles (BCRC).

Note: This feature applies to 500/2500 sets and business sets.

Operation

The five Bell Canada ringing cycles are as follows:

- BCRC 1—2.0 s on, 4.0 s off, repeated
- BCRC 2—1.5 s on, 0.5 s off, 1.5 s on, 2.5 s off, repeated

Generalized Distinctive Ringing (continued)

- BCRC 3—1.5 s on, 0.5 s off, 0.5 s on, 3.5 s off, repeated
- BCRC 4—1.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 0.5 s on, 2.5 s off, repeated
- BCRC 5—1.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 1.0 s on, 2.0 s off, repeated

Translations table flow

The Generalized Distinctive Ringing feature does not affect translations table flow.

Limits

The following limits apply to Generalized Distinctive Ringing:

- Generalized Distinctive Ringing applies to BCRC only.
- This feature does not affect superimposed, frequency, and other types of ringing.

Interactions

The Generalized Distinctive Ringing feature interacts with other features. Use of the BCRC 4 denotes only ring again recall. Other call types now use this ring code. This condition can cause problems.

Activation/deactivation by the end user

The Generalized Distinctive Ringing feature does not require activation or deactivation by the end user.

Billing

The Generalized Distinctive Ringing feature does not affect billing.

Station Message Detail Recording

The Generalized Distinctive Ringing feature does not affect Station Message Detail Recording.

Generalized Distinctive Ringing (continued)

Datafilling office parameters

The office parameters the Generalized Distinctive Ringing feature uses appear in the following table. Refer to *Office Parameters Reference Manual* for additional information on office parameters.

Office parameters that are used by Generalized Distinctive Ringing

Table name	Parameter name	Explanation and action
OFCOPT	DSR_OFFICE	Specifies if the switching unit has the distinctive ringing feature. Enter Y or N. The default value is N.

Datafill sequence

The tables that require datafill to implement the Generalized Distinctive Ringing feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Generalized Distinctive Ringing

Table	Purpose of table
OFCOPT	Office Option. This table contains data on office option parameters for the office. See "How to enter office parameters" for information on how the Generalized Distinctive Ringing feature affects office parameters.
LCMINV	Line Concentrating Module Inventory. This table allows you to make the correct data assignments for each line concentrating module (LCM) and remote line concentrating module (RLCM).
CUSTSTN	Customer Group Station Option. This table contains the station options assigned to each customer group.
LMRNG	Line Module Ring Code. This table contains the type of ringing assigned to each line module (LM) or remote line module (RLM).

Datafilling table LCMINV

You must enter data in table LCMINV (Line Concentrating Module Inventory) for each LCM or RLCM. These LCMs and RLCMs contain line cards associated with stations in a customer group that have the Generalized Distinctive Ringing feature. This table allows you to make the correct data assignments for each LCM and RLCM.

Note: The stations in the customer group do not always have associated LCMs or RLCMs with distinctive ringing. In this event, you do not have to enter data in this table.

Generalized Distinctive Ringing (continued)

Datafill for Generalized Distinctive Ringing for table LCMINV appears in the following table. The fields that apply to the Generalized Distinctive Ringing feature 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, 6X04BA, 6X05AA, 8X95AB, BX30AA, BX30AB, BX3118, MX85AA, NX1201, NX3826	Equipment Product Engineering Code. This field specifies the equipment product engineering code. Enter the code.
	RGEQUIP	Y or N	Ringing Generator Equipped. This field specifies if the system has the ringing generator. Enter Y or N.

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	0	LCE	51	1	C 5	6X04AA	XLCM36E LTC 0
	N	3	256K	256K				
	LCM	Y	F	B0C	20	30	40	50 HLCM (16) (18) (17)
(19)	\$							

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains the station options assigned to each customer group. You must enter data in table CUSTSTN to assign the distinctive ringing option to the customer group.

Datafill for the Generalized Distinctive Ringing for table CUSTSTN appears in the following table. The fields that apply to the Generalized Distinctive

Generalized Distinctive Ringing (continued)

Ringing 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	Explanation and action
OPTION		see subfields	Option. This field contains the following subfields: • OPTION • INTRNL • EXTRNL • TRKS • GIC • RECALL • UCD • ACD • MAKECALL • REST
	OPTION	DRING	Option. This subfield specifies the distinctive ringing option. Enter DRING.
	INTRNL	Y or N	Internal. This subfield specifies if intragroup calls receive distinctive ringing. Enter Y or N.
	EXTRNL	Y or N	External. This subfield specifies if intergroup calls receive distinctive ringing. Enter Y or N.
	TRKS	NO, SEL, ALL	Trunks. This subfield specifies the trunks. Enter NO if the IBN trunks that the customer group owns do not receive distinctive ringing. Enter SEL if selected IBN trunks receive distinctive ringing. Enter ALL if IBN trunks that the customer group owns receive selective ringing.
	GIC	Y or N	Group Intercom. This subfield specifies if Group Intercom calls can receive distinctive ringing. Enter Y or N.
	RECALL	Y or N	Recall. This subfield specifies if recall type calls can receive distinctive ringing. Enter Y or N.

Generalized Distinctive Ringing (continued)

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	UCD	Y or N	Uniform Call Distribution. This subfield specifies if UCD type calls can receive distinctive ringing. Enter Y or N.
	ACD	Y or N	Automatic Call Distribution. This subfield specifies if ACD type calls can receive distinctive ringing. Enter Y or N.
	MAKECALL	Y or N	Make Outbound Call. This subfield specifies when to apply distinctive ringing for an outbound ACD call. Enter Y or N.
	REST	Y or N	Remainder. This subfield specifies if IBN trunks that other customer groups own, POTS lines, and POTS trunks receive distinctive ringing. Enter Y or N.

Datafill example for table CUSTSTN

Sample datafill for table CUSTSTN appears in the following example.

MAP example for table CUSTSTN

CUSTNAME	OPTNAME	OPTION			
COMIBN2	CXFER	CXFER	CTALL	N	STD

Datafilling table LMRNG

Table LMRNG (Line Module Ring Code) contains the type of ringing assigned to each LM or RLM. You must enter data in table LMRNG to assign the distinctive ringing option to the customer group.

Datafill for Generalized Distinctive Ringing for table LMRNG appears in the following table. The fields that apply to the Generalized Distinctive Ringing

Generalized Distinctive Ringing (end)

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

Datafilling table LMRNG

Field	Subfield or refinement	Entry	Explanation and action
CNPRESV		52V or 25V	Coin Presence voltage. Enter the coin presence voltage magnitude dependent on the type of coin phone assigned to the line. Enter 52 V or 25 V.
RNGDATA		see subfields	Ring Data. This field contains subfields RNGTYPE, FREQUENCIES, and PROMVOLT.
	RNGTYPE	S	Ring Type. Enter the type of ringing assigned to the line module. Enter S.
	PROMVOLT	40V or 48V	PROM Offset Voltage. Enter the PROM offset voltage required for the POM in the ringing generator.

Datafill example for table LMRNG

Sample datafill for table LMRNG appears in the following example.

MAP example for table LMRNG

FRAMENO	CPNRESV	RNGDATA	EXPRETRP
HOST 02	52V	S 48V	N

Tools for verifying translations

The Generalized Distinctive Ringing feature does not use tools for verifying translations.

SERVORD

The Generalized Distinctive Ringing feature does not use SERVORD.

IBN Call Forward Validation

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS18 and later versions

Requirements

To operate, the IBN Call Forward Validation feature requires BAS Generic, BAS00003.

Description

The IBN Call Forward Validation feature verifies the successful forwarding of a directory number (DN). The forwarding of the DN occurs with Call Forwarding (CFW) active. The system verifies that the forwarding DN can route correctly or completes a call to the forwarded DN. The validation method specified for the customer group determines which action the system performs. Validation only applies to Call Forwarding Universal (CFU) and Call Forwarding Intragroup (CFI).

In addition, the IBN Call Forward Validation feature makes Call Waiting (CWT) and Call Forward Busy (CFB) compatible. The first call to a busy station with CWT and CFB waits. The system forwards additional calls to the designated station.

Operation

To program the IBN Call Forward Validation feature, an end user must enter data in table CUSTSTN (Customer Group Station Option). If subfield TERMOPTN in table CUSTSTN is Y (yes), the system activates the terminating validation option. If subfield TERMOPTN is N (no), the system activates the routing validation option.

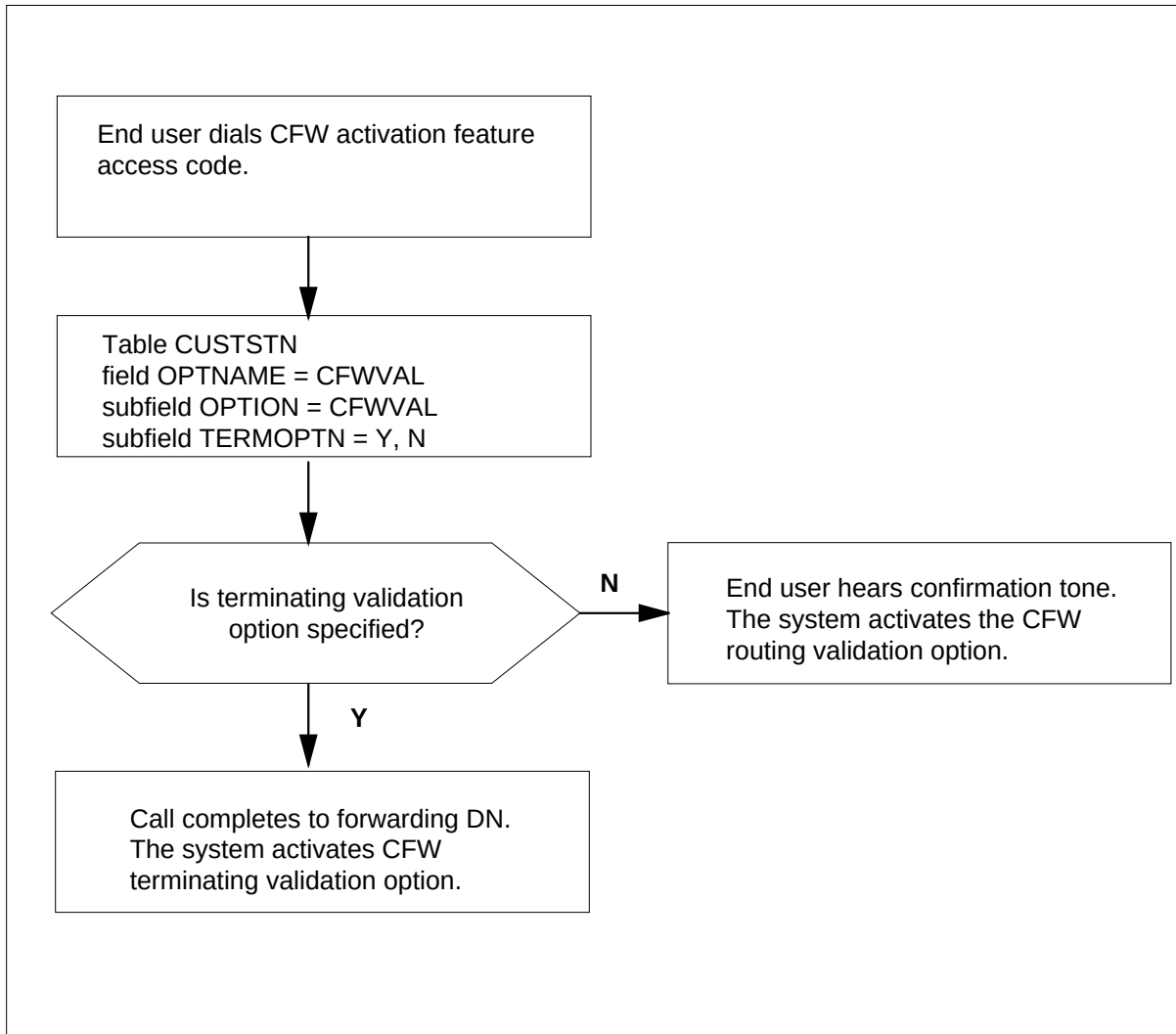
Translations table flow

Table CUSTSTN (Customer Group Station Option) contains customer group data for station-dependent features. Switching units with North American translations and MDC or Subscriber Services (SS) features require this table. If subfield TERMOPTN is Y, the system activates the terminating validation option. If subfield TERMOPTN is N, the system activates the routing validation option.

IBN Call Forward Validation (continued)

The IBN Call Forward Validation translation process appears in the following flowchart. The flowchart and data explain how the system uses the datafill for table CUSTSTN. The system uses the datafill to determine the selection of the end user. The end user can select the terminating or routing validation option.

Table flow for IBN Call Forward Validation



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

Datafill example for IBN Call Forward Validation

Datafill table	Example data
CUSTSTN	BNRMC CFWVAL CFWVAL Y

IBN Call Forward Validation (continued)

Limits

The following limits apply to the IBN Call Forward Validation feature:

- You cannot forward calls to a number that includes an authorization code. You cannot use IBN Call Forwarding Validation to validate a number that requires an authorization code.
- You cannot forward calls to operator-assisted codes, like 555 or N11. You can forward calls to 411 codes.
- Trunks that do not have answer supervision require audio tone detectors to distinguish between tones and voice on a validation attempt.
- The system can forward a call when the activation of IBN Call Forward Validation occurs through an MBS end user. In this event, the system disconnects the call immediately if the call terminates on a busy line or trunk. When this action occurs, the system does not enable the following features:
 - Ring Again
 - Executive Busy Override
 - Call Back Queuing
 - Busy Verification Station
 - Busy Verification Trunk
- Validation does not occur when terminating to an Automatic Call Distribution Group queue. Repeat the programming process to validate the call.

Interactions

The following features interact with the IBN Call Forward Validation feature:

Call Forwarding Busy, Call Forwarding Don't Answer

The IBN Call Forward Validation feature does not affect CFB and Call Forwarding Don't Answer (CFD). Assignment of the forwarded DN is in the Service Order System (SERVORD).

Call Forwarding Universal, Call Forwarding Intragroup

Attendant activation of CFU and CFI makes sure the system can route the call.

Direct Inward System Access

Interaction between the IBN Call Forward Validation feature and a Direct Inward System Access (DISA) number is not recommended. An end user can attempt to validate a DISA number with a CFW value (CFWVAL) in Table CUSTSTN. In this event, the end user receives negative acknowledgment

IBN Call Forward Validation (continued)

(NACK) treatment. The NACK treatment occurs because the DISA number termination is a reorigination. You can program CFW to a DISA number without the CFW value. This action results in terminations that are not consistent.

The interactions between the IBN Call Forward Validation feature and other functionalities appear in the following paragraphs.

Activation/deactivation by the end user

500/2500 sets

Activation of the IBN Call Forward Validation feature on 500/2500 sets occurs when the end user dials a CFW activation access code. The end user must first go off-hook. When the end user hears dial tone, the end user dials the access code. After hearing special dial tone, the end user dials the forwarding DN.

A customer group can have the routing validation option specified. When the system determines that the call routed correctly, the system returns a confirmation tone. If the system blocks the call, the system returns a reorder tone.

If a customer group has the terminating validation specified, the system attempts to complete the call to the forwarding DN. The system does not return a confirmation tone. If a party answers the call, the system activates CFW. If the forwarding line is busy or no answer occurs, the system does not activate CFW. If the end user dials the same forwarding DN in less than 2 min, the system forwards all calls. The status of the dialed station does not affect this action. The system returns a confirmation tone. This tone indicates that the system stored the number. Completion of the call does not occur. The system returns a reorder tone if a number is not stored correctly.

The following procedure explains the sequence of steps a 500/2500 set end user must perform to activate IBN Call Forward Validation.

Activation/deactivation of IBN Call Forward Validation by the end user

At your telephone

- 1 Go off-hook.
Response:
End user hears dial tone.
- 2 Dial CFW activation feature access code.
Response:
End user hears special dial tone.

IBN Call Forward Validation (continued)

3 Dial forwarding DN.

Response:

Routing validation option: If successful CFW routing occurs, the end user hears confirmation tone. If the system blocks the call, the end user hears a reorder tone or a busy tone.

Terminating validation option: An attempt to complete a call to a forwarding DN occurs. The end user does not hear confirmation tone. If a party answers the call, the system activates CFW. If forwarding line is busy or no answer occurs, the system does not activate CFW.

If end user dials same forwarding DN in less than 2 min, the system activates CFW. The status of the forwarding station does not affect this action. The system returns a confirmation tone. This tone indicates that the system stored the DN. Completion of the call does not occur. If the system does not store the forwarding DN, the end user hears reorder tone.

Meridian business sets

To activate the IBN Call Forward Validation feature on Meridian business sets (MBS), use a feature key. This key has the CFW activation feature access code assigned. Another method is to dial a CFW activation feature access code. This action is the same as for 500/2500 sets. If you use feature key activation, the MBS end user does not hear tones. A confirmation tone does not occur. The lamp for the CFW key stays lit. If the system does not store a number correctly, the lamp for the CFW key goes off. This action indicates an error condition.

A customer group can have the routing validation option specified. In this event, an MBS user can press the CFW key or dial the CFW activation feature access code for activation.

If a customer group has the terminating validation option specified, the MBS end user must activate the IBN Call Forward Validation feature. To activate this feature, the MBS end user must dial the CFW activation feature access code. If the end user presses the CFW key, the system does not activate this feature. The system does activate CFW. If the end user requires the IBN Call Forward Validation feature, the DN must be idle for the call to be originated.

The sequence of steps an MBS end user must perform to activate the IBN Call Forward Validation feature appear in the following procedure. The end user uses the CFW key to activate this feature.

Note: The end user can use the CFW key to activate the IBN Call Forward Validation. The customer group must have the routing validation option specified.

Activation of IBN Call Forward Validation by an MBS end user using the CFW

IBN Call Forward Validation (continued)

key (routing validation option only)***At your telephone***

- 1** Press CFW key.

Response:

CFW lamp lights.

- 2** Dial forwarding DN.

Response:

If successful CFW routing occurs, CFW lamp remains lit. If the system blocks the call, CFW lamp goes off.

The sequence of steps an MBS end user executes to activate the IBN Call Forward Validation feature appear in the following procedure. The end user uses the CFW activation feature access code to activate this feature.

Note: The validation option specified does not affect the ability of the end user to use the CFW activation feature access code.

Activation of IBN Call Forward Validation by an MBS end user using the CFW activation feature access code (routing validation option or terminating validation option)***At your telephone***

- 1** Go off-hook.

Response:

End user hears dial tone.

- 2** Dial CFW activation feature access code.

Response:

End user hears special dial tone. CFW lamp lights.

- 3** Dial forwarding DN.

Response:

Routing validation option: If successful CFW routing occurs, the end user hears a confirmation tone. The CFW lamp remains lit. If CFW routing is not successful, the end user hears a reorder tone. The CFW lamp goes off.

Terminating validation option: An attempt occurs to complete a call to a forwarding DN. If a party answers the call, the system activates CFW. The CFW lamp remains lit. If the forwarding line is busy or the call is not answered, the system does not activate CFW. The CFW lamp goes off.

IBN Call Forward Validation (continued)

Multiline variety package call forwarding

Multiline variety package (MVP) CFW is an option that automatically transfers calls made to the line of the end user. The calls transfer to a different line or trunk inside or outside the MVP group. The end user can use the CFW activation feature access code to activate MVP CFW. When end user activates MVP CFW, the system selects the forwarding DN. The end user must select the terminating validation option in Table CUSTSTN.

The relation of the forwarding DN to the MVP group determines the activation of MVP CFW. The forwarding DN can be internal or external to the MVP group. The following procedure explains the sequence of steps an MVP end user must perform to activate IBN Call Forward Validation. In this procedure, the forwarding DN is in the same MVP group.

Activation of IBN Call Forward Validation by an MVP end user (internal)***At your telephone***

- 1 Go off-hook at the base station.
Response:
End user hears dial tone.
- 2 Dial CFW activation feature access code.
Response:
End user hears special dial tone.
- 3 Dial forwarding DN of station inside MVP group. You cannot enter a Group Intercom code.
Response:
The system places the call to specified station and activates MVP CFW. The status of the forwarding DN does not affect this action. The status can be busy or idle.

The following procedure explains the sequence of steps an MVP end user must perform to activate IBN Call Forward Validation. In this procedure, the forwarding DN is in another MVP group.

Activation of IBN Call Forward Validation by an MVP end user (external)***At your telephone***

- 1 Go off-hook at the base station.
Response:
End user hears dial tone.
- 2 Dial CFW activation feature access code.
Response:
End user hears special dial tone.

IBN Call Forward Validation (continued)

- 3** Dial forwarding DN of station outside MVP group (remote station).

Response:

If successful storage and validation of the call occurs, call completes to the forwarding DN. If successful storage and validation of call does not occur, the end user hears a reorder tone.

The end user can hang up before the remote station end user answers or the remote station is busy. In these conditions, the system does not activate MVP CFW. The end user can attempt to reactivate MVP CFW to the same remote station. The second attempt can succeed in less than 2 min of the first activation attempt. In this event, the end user hears a confirmation tone. If the second attempt fails, the system terminates the call.

Deactivation by the end user

The following procedure explains the steps 500/2500 set end users and MVP end users must perform to deactivate this feature.

Deactivation of IBN Call Forward Validation by a 500/2500 set end user and an MVP end user

At your telephone

- 1** Go off-hook.

Response:

End user hears dial tone.

- 2** Dial CFW cancel feature access code.

Response:

End user hears confirmation tone.

- 3** Go on-hook.

Response:

The system deactivates the IBN Call Forward Validation feature.

To deactivate the IBN Call Forward Validation an MBS end user can perform the following actions:

- press the CFW key, if assigned
- dial the CFW cancel feature access code.

This process appears in the preceding deactivation procedure.

Billing

The IBN Call Forward Validation feature does not affect billing.

Station Message Detail Recording

The IBN Call Forward Validation feature does not affect Station Message Detail Recording.

IBN Call Forward Validation (continued)

Datafilling office parameters

The IBN Call Forward Validation feature does not affect office parameters.

Datafill sequence

The tables that require datafill to implement the IBN Call Forward Validation feature appear in the following table. The tables appear in the correct entry order.

Datafill requirements for IBN Call Forward Validation

Table	Purpose of table
CUSTSTN	Customer Group Station Option Table. The operating company requires this table for the following equipment: - a switching unit with North American translations and the Meridian Digital Centrex (MDC) - feature AG0508 (Residential Enhanced Services) (RES) This station options assigned to each of the customer groups appear in this table.

Datafilling table CUSTSTN

Table CUSTSTN (Customer Group Station Option) contains customer group data for station-dependent features. Switching units with North American translations and MDC or SS features require this table.

You must enter data in table CUSTSTN to allow the IBN Call Forward Validation capability for the customer group.

Datafill for IBN Call Forward Validation for table CUSTSTN appears in the following table. The fields that apply to IBN Call Forward Validation 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
OPTNAME		CFWVAL	Option Name. This field specifies the name of the option. Enter CFWVAL.
OPTION		see subfields	Option. This field contains subfields OPTION and TERMOPTN.

IBN Call Forward Validation (end)

Datafilling table CUSTSTN (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CFWVAL	Option. This subfield specifies the option. Enter CFWVAL.
	TERMOPTN	Y or N	Terminating Option. This subfield specifies if the customer group has the terminating version of call forwarding validation. Enter Y or N.

g>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
-----
BNRMC      CFWVAL  CFWVAL  Y
```

Tools for verifying translations

The IBN Call Forward Validation feature does not use tools for verifying translations.

SERVORD

The IBN Call Forward Validation feature does not use SERVORD.

IBN Cancel Call Waiting

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS22 and later versions

Requirements

To operate, IBN Cancel Call Waiting requires BAS Generic, BAS00003.

Description

The IBN Cancel Call Waiting (CCW) allows an integrated business network (IBN) station to block call waiting attempts for the period of a call. When CCW is active, attempts to call wait the busy line receive a destination busy treatment. Activation of CCW must occur for each call. The feature is active only for the period of one call. When the IBN line returns to idle, the system deactivates the CCW feature.

The IBN Cancel Call Waiting is an optional improvement package to the call waiting feature. This feature is not a line option. Station or business sets with call waiting can access this feature.

Operation

A description of the operation of IBN Cancel Call Waiting appears in the following list:

- The 500/2500 station or business set end user goes off-hook.
- After the CCW end user receives dial tone, the user dials the CCW access code. The user waits to receive a confirmation tone after a 0.3 s delay. A dial tone follows the confirmation tone.
- After the CCW end user receives a dial tone, the user dials the number of the call destination. The CCW feature is active for the period of the call.

IBN Cancel Call Waiting (continued)

A 500/2500 station or business set in a talking state can use IBN Cancel Call Waiting. The steps for activating CCW in a talking state appear in the following procedure:

- The station end user flashes the hookswitch. The system places the current connection on hold. The system returns a special dial tone.
- After the station end user receives a special dial tone, the user dials the CCW access code. After a 0.3 s delay, the system establishes the original connection again. This connection continues for the period of the call.

Meridian business set (MBS) stations can use CCW in a talking state. To activate CCW, the MBS station end must perform the following actions:

- Press the CONF 3XFER key. The system places the current connection on hold. The system returns a special dial tone. The CONF 3/XFER lamp turns on solid. The DN key starts winking.
- After the system returns the dial tone, the CCW end user dials the CCW access code. After a 0.3 s delay, the system returns a confirmation tone. The system establishes the connection again. The CONF 3/XFER lamp turns off. The DN key returns to solid.

Note: Any party of a two-party call can activate CCW if the connection is in the talking state. When CCW is active, additional CCW requests do not produce additional effects.

Translations table flow

The IBN Cancel Call Waiting does not affect translations table flow.

Limits

The following limits apply to IBN Cancel Call Waiting:

- If the calling station is an MBS station, the system can call wait the station before CCW activates. In this event, the station end user receives a negative acknowledgment (NACK) tone. This tone notifies the end user that the system denies the CCW request.
- Only MBS with the CONF 3/XFER option can use CCW.
- The CCW is not a line option.

Interactions

Other features require a flash of the hookswitch to operate. An example of this type of feature is Calling Line Identification with Flash (CLF). For these features, the station end user must dial an additional access code to select between activating the special feature or activating CCW.

IBN Cancel Call Waiting (continued)

Activation/deactivation by the end user

The IBN Cancel Call Waiting does not require activation or deactivation by the end user.

Billing

The IBN Cancel Call Waiting does not affect billing.

Station Message Detail Recording

The IBN Cancel Call Waiting does not affect Station Message Detail Recording.

Datafilling office parameters

The IBN Cancel Call Waiting does not affect office parameters.

Datafill sequence

The table that require datafill to implement IBN Cancel Call Waiting appear in the following table.

Datafill requirements for IBN Cancel Call Waiting

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

Datafilling table IBNXLA

Table IBNXLA (IBN Translation) stores the data for the digit translation of calls from the following:

- an IBN station
- an AC
- an incoming side of a two-way IBN trunk group

You must enter data in table IBNXLA to define the access code for IBN Cancel Call Waiting. This access code can be the same for each customer group. The same access code for each customer group is not a requirement.

IBN Cancel Call Waiting (continued)

The datafill for IBN Cancel Call Waiting for table IBNXLA appears in the following table. The fields that apply to IBN Cancel Call Waiting 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 subfield	Key. This field contains subfields XLANAME and DGLIDX.
	XLANAME	character	Translator Name. This subfield specifies the name assigned to the translator. Enter the one to eight 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 to use. Enter FEAT.
	ACR	Y or N	Account Code Entry. This subfield specifies the requirement of an account code. Enter Y (yes) or N (no).
	SMDR	Y or N	Station Message Detail Recording. This subfield specifies the requirement of SMDR. Enter Y or N.
	FEATURE	CCW	Feature. This subfield specifies the feature assigned to a line. Enter CCW.

Datafill example for table IBNXLA

Sample datafill for table IBNXLA appears in the following example.

MAP example for table IBNXLA

TABLE: IBNXLA		RESULT	
KEY			
NTIXLA	123	FEAT	N Y N CCW

IBN Cancel Call Waiting (end)

Tools for verifying translations

The IBN Cancel Call Waiting does not use translation verification tools.

SERVORD

The IBN Cancel Call Waiting does not use SERVORD.

IBN Feature Activation OMs I

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS19 and later versions

Requirements

To operate, the IBN Feature Activation OMs I feature requires BAS Generic, BAS00003.

Description

This feature adds operational measurement (OM) for IBN station features. Division of these features is by customer group. The feature informs customers about the number of times the features are in use. This information allows customers to plan for new hardware and software purchases. This phase does not include attendant console feature use and traffic OMs. This feature provides OMs for the following features:

- Call Forwarding, every type
- Call Waiting, every type
- Speed Calling, long and short types
- Call Pickup
- Last Number Redial
- Attendant Message Waiting/Station Message Waiting
- Call Hold

The feature of each OM group is keyed by customer groups. The OMs track the following data:

- number of attempts to activate the feature
- number of failures to use the feature because of feature restriction
- number of failures to use the feature because of software resource overflow
- number of recalls from the feature, if appropriate
- number of abandons when the feature starts, if appropriate

IBN Feature Activation OMs I (continued)

Operation

The OMs provide data for the following features. The OM group name of each feature is in parentheses. Descriptions of the OMs in each group appear in the following tables.

- Call Forwarding (CALLFWD)
- Call Waiting (CALLWAIT)
- Speed Calling (SPEEDCAL)
- Call Pickup (CPICKUP)
- Last Number Redial (LNREDIAL)
- Attendant Message Waiting/Station Message Waiting (MWTCAR)
- Call Hold (CALLHOLD)

Call Forwarding OMs

CALLFWD register	Information tracked
CFUATT	Attempts of call forwarding universal (CFU) or call forwarding intragroup (CFI)
CFDATT	Attempts of call forwarding don't answer (CFD)
CFDATT2	Extension peg for CFDATT
CFBATT	Attempts of call forwarding busy (CFB)
CFUFAIL CFBFAIL CFDFAIL	Failures of a call forwarding attempt because of feature restrictions
CFBEXMPT	Failures when the base station does not require forward external (CDE) or internal (CDI)
CFUOVFL CFBOVFL CFDOVFL	Each overflow of software resources. An example of this type of problem is the failure to obtain an extension block
CFDCNCL	Cancellations of call forwarding don't answer. Cancellations occur when a call does not forward because a party answers the call in time
CFDCNCL2	Extension increase for CFDCNCL
Note: The system does not record information about call forwarding programming.	

IBN Feature Activation OMs I (continued)

Call Waiting OMs

CALLWAIT register	Information tracked
CWTTATT	Call waiting attempts that the line or key option of a terminator imposes.
CWDATT	Call waiting attempts that originator use of dial call waiting imposes.
CWOATT	Call waiting attempts that an originator imposes. The originator instigates dial call waiting (CWO) to perform this action.
CWDEXMPT	Failures when an agent is exempt from CWD, like CWX
CWOEXMPT	Failures when an agent is exempt from CWO, like CWX
CWTABDN	Each time a caller uses and abandons the call waiting feature
CWDABDN	Each time the caller uses and abandons the dial call waiting feature
CWOABDN	Each time the caller uses and abandons originator-instigated call waiting
CWRCL	Recalls of an agent with call waiting
CWTFAIL CWDFAIL CWOFAIL	Failures of call waiting that occur because of feature restrictions; for example, the called party already has call waiting
CWTTTOVFL	Failures of call waiting to obtain software resources. This register records failures for the terminator option of call waiting.
CWOOOVFL	Failures of call waiting to obtain software resources for dial call waiting or call waiting originator. This register records failures for the originator option of call waiting.
Note 1: Meridian business sets (MBS) use CWTTATT. An originator can have CWD or call waiting originator (CWO). If the terminator has call waiting, call waiting for the terminator has priority. Use of CWD or CWO cannot occur. The MBSs have a call waiting key. Note 2: The CWD and CWO are optional IBN features. Peg counts appear in the CALLWAIT OM group. The presence of these packages in the load does not affect this process.	

IBN Feature Activation OMs I (continued)

Speed Calling OMs

SPEEDCAL register	Information tracked
SCSATT	Speed call short attempts
SCLATT	Speed call long attempts
SCSFALL	Speed call short failures. These failures occur when one of the following conditions is present: • the feature cannot retrieve stored digits • the system stores an incorrect digit
SCLFAIL	Speed call long failures. These failures occur when one of the following conditions is present: • the feature cannot retrieve stored digits • the system stores a digit that is not correct
Note: The system does not record information about speed call programming.	

Call Pickup OMs

CPICKUP register	Information tracked
CPUATT	Attempts to pick up a call in a customer group
CPUFAIL	Failures to connect to the ringing party
CPUINVLD	Attempts to pick up calls that are not correct
Note: Directed call pickup is not included for these OMs. Types of directed call pickup include barge-in and non-barge-in.	

Last Number Redial OMs

LNREDIAL register	Information tracked
LNRCATT	Attempts to use last number redial
LNRPVFL	Failure to store the last number dialed because of an overflow of software resources
LNRCFAIL	Failure to use last number redial because of failure to retrieve last number stored
Note: The system does not record information on the frequency of storage the last dialed number.	

IBN Feature Activation OMs I (continued)

Attendant Message Waiting OMs

MWTCAR register	Information tracked
MWTATT	Attempts to terminate the message center
MWTACT	When the message the message center activates the waiting lamp
MWTDEACT	When the message the message center turns off the waiting lamp - The number of times the waiting lamp turns off indicates the number of retrieved messages.
MWTQUERY	Each time the query command provides the message waiting status - This process occurs when an end user calls the message center to check on messages.
MWTOVFL	Failures to activate the message waiting lamp because of an overflow of software resources.

Station Message Waiting OMs I (Sheet 1 of 2)

MWTCAR register	Information tracked
CARATT	Attempts to dial the call request (CAR) access code to activate message waiting
CARFAIL	Failure to activate the CAR access code because of feature interaction. These failures include conditions in which the terminator does not require call request.
CAROVFL	Failure to activate the call request (CAR) access code because of an overflow of software resources
CARODACT	Attempts to remove call requests when a caller dials a call request delete specific (CRDS) access code
CARTDACT	Attempts to remove call requests when a caller dials a CRDA access code. Each deleted call request has one peg.
CARDOVFL	Failures to remove call requests when a caller dials a CRDS access code. A caller uses the access code because of an overflow of software resources.
CARRETRV	Attempts of call request retrieval (CRR)
CARRFAIL	Failures of CRR because of feature restrictions
CARROVFL	Failures of call request retrieval because of an overflow of software resources
CHDATT	Attempts to use call hold
CHDFAIL	Failures to use call hold because of feature interactions
CHDOVFL	Failures to use call hold because of an overflow of software resources

IBN Feature Activation OMs I (continued)

Station Message Waiting OMs I (Sheet 2 of 2)

MWTCAR register	Information tracked
CHDRBK	Ringback of calls on hold
CHDABDN	Each time a party goes on-hook before recall; abandon

Translations table flow

The IBN Feature Activation OMs I feature does not affect translations table flow.

Limits

The IBN Feature Activation OMs I feature does not have limits.

Interactions

The interactions between the IBN Feature Activation OMs I features and other functionalities appear in the following paragraphs.

The following features interact with the IBN Feature Activation OMs I feature:

- Call Forwarding
- Call Waiting
- Speed Calling
- Call Pickup
- Last Number Redial
- Attendant Message Waiting/Station Message Waiting
- Call Hold

Activation/deactivation by the end user

The IBN Feature Activation OMs I feature does not require end user activation or deactivation.

Billing

The IBN Feature Activation OMs I feature does not affect billing.

Station Message Detail Recording

The IBN Feature Activation OMs I feature does not affect Station Message Detail Recording.

IBN Feature Activation OMs I (end)

Datafilling office parameters

The IBN Feature Activation OMs I feature does not affect office parameters.

Datafill sequence

The IBN Feature Activation OMs I feature does not affect datafill.

Tools for verifying translations

The IBN Feature Activation OMs I feature does not use translation verification tools.

SERVORD

The IBN Feature Activation OMs I feature does not use SERVORD.

IBN LCC Compatibility with FRO Line Option

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS30 and later versions

Requirements

IBN LCC Compatibility with FRO Line Option requires BAS Generic, BAS00003, to operate.

Description

The IBN LCC Compatibility with FRO Line Option feature makes the following line options compatible with the IBN line class code (LCC):

- FRO
- RMR
- RMT

Operation

The IBN LCC Compatibility with FRO Line Option feature has three new options for MDC lines assigned to 500/2500 telephone sets. Meridian business sets and attendant consoles do not support the new MDC line options.

Option FRO

Option FRO operates a signal distribution (SD) point. Option FRO operates an SD point for each call that originates from a line. Option FRO operates an SD point for each incoming call terminating to the line. The signal from the SD point can activate an emergency indicator at a remote location. The SD point does not operate when the associated line is on-hook. The SD point remains ON when the call goes to lockout. You can assign option FRO to lines with originating and terminating service that require sleeve lead control.

The associated SD point must appear as an acceptable entry in the Signal Distributor Group. A line with option FRO does not require a special line card to generate signals. A dedicated line is necessary to trigger the office alarm unit (OAU).

Option RMR

Hotel lines use option RMR to indicate that a charge is owing for a local call. An indication at the terminal end of the loop appears to indicate that the charge

IBN LCC Compatibility with FRO Line Option (continued)

is owing. When a called party answers a local call originating from an MDC line with option RMR, the indication appears. Option RMR applies tip and ring reversal on the answer of local calls. These local calls originate from a directory number (DN) with this line option. Detection of the line reversal occurs at the originating terminal end.

A dedicated line is necessary for triggering the OAU. A special line card is necessary for generation of the line reversal signal. The following line cards can issue line reversal signals:

- NT6X18AB, Standard Line Card Type B with +48V
- NT2X18AD, STD Line Card Type B With +48V

Option RMT

Hotel lines use option RMT to indicate that a charge is owing for a call that is not local. Examples of calls that are not local are toll, operator-assisted, and direct distance dialing (DDD) calls. When a called party answers a non-local call that originates from an MDC line with option RMT, an indication appears. The indication appears at the terminal end of the loop. Option RMT applies tip and ring reversal on the answer of non-local calls. These non-local calls originate from a DN with this line option. The detection of the line reversal occurs at the originating terminal end.

A special line card is necessary for generation of the line reversal signal. The NT6X18AB and NT2X18AD line cards can issue a line reversal signal. A dedicated line is necessary for triggering the OAU.

Translations table flow

Descriptions of the IBN LCC Compatibility with FRO Line Option translations tables appear in the following list:

- Table SDGRP (Signal Distributor Group) lists the product engineering code and location of specified signal distributor groups. These signal distributor groups are at the host or remote switching unit. These signal distributor groups are reserved for use as SD points for line features. Table

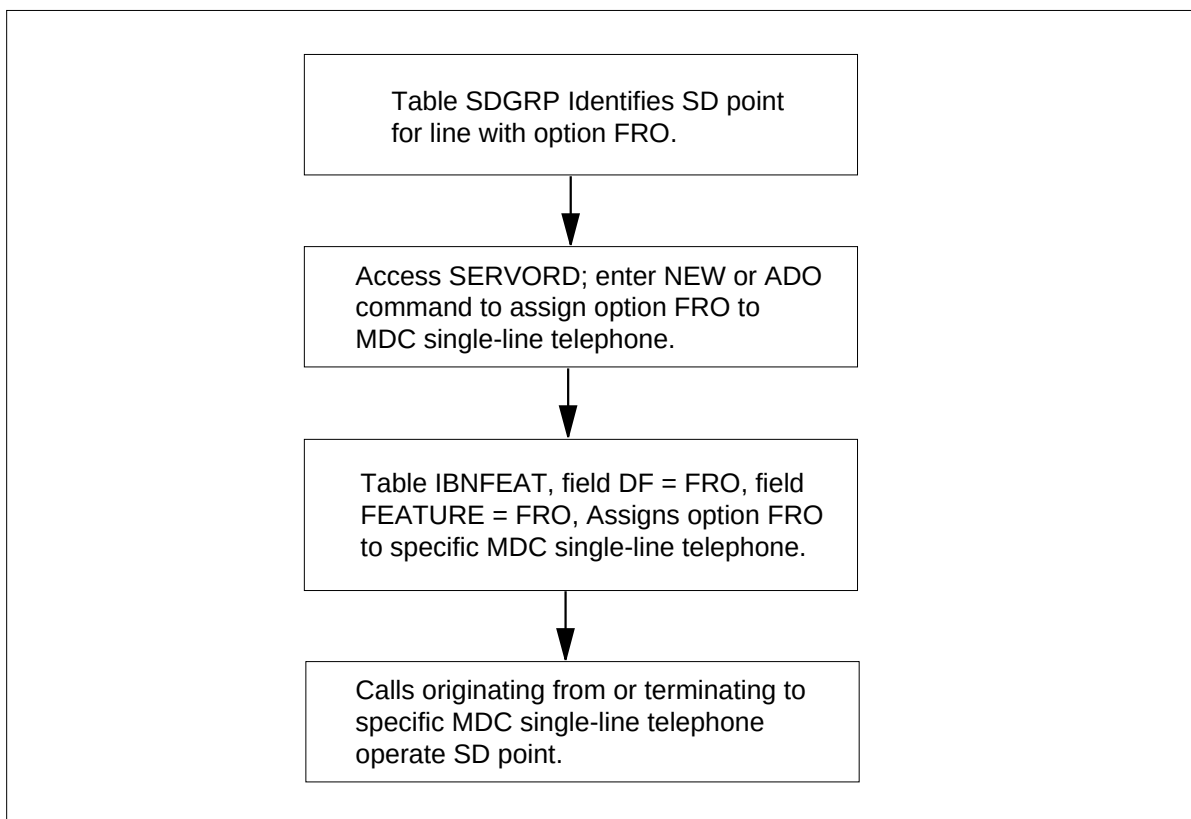
IBN LCC Compatibility with FRO Line Option (continued)

SDGRP is necessary for lines with option FRO assigned in Table IBNLINES.

- Table IBNFEAT (IBN Line Feature) lists features of the MDC lines listed in Table IBNLINES. The feature present on an MDC line determines the tuple datafill. Each feature requires different datafill.
- Table IBNLINES (IBN Line Assignment) contains the line assignments for each 500/2500 set assigned to MDC. This table contains the following:
 - the DN of the line
 - the numbering plan area (NPA) of the line
 - the group name to which the line belongs
 - any options or features assigned to the line

The IBN LCC Compatibility with FRO Line Option translation process appears in the flowcharts that follow.

Table flow for activating IBN LCC Compatibility with FRO Line Option



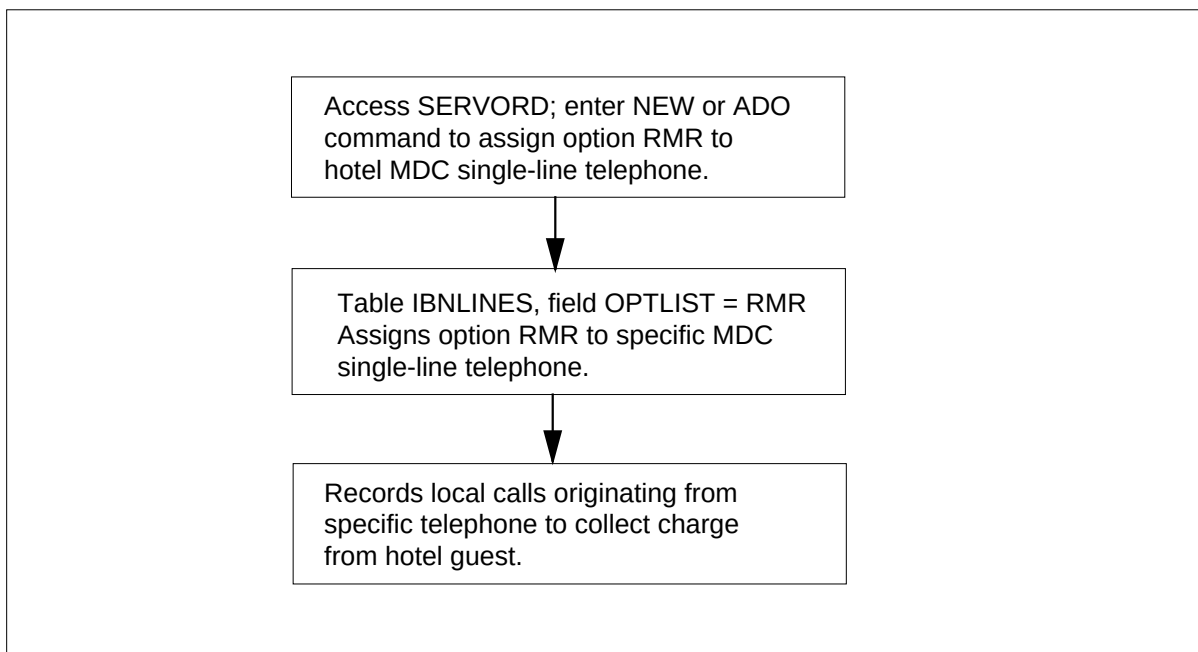
IBN LCC Compatibility with FRO Line Option (continued)

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

Datafill example for IBN LCC Compatibility with FRO Line Option (option FRO)

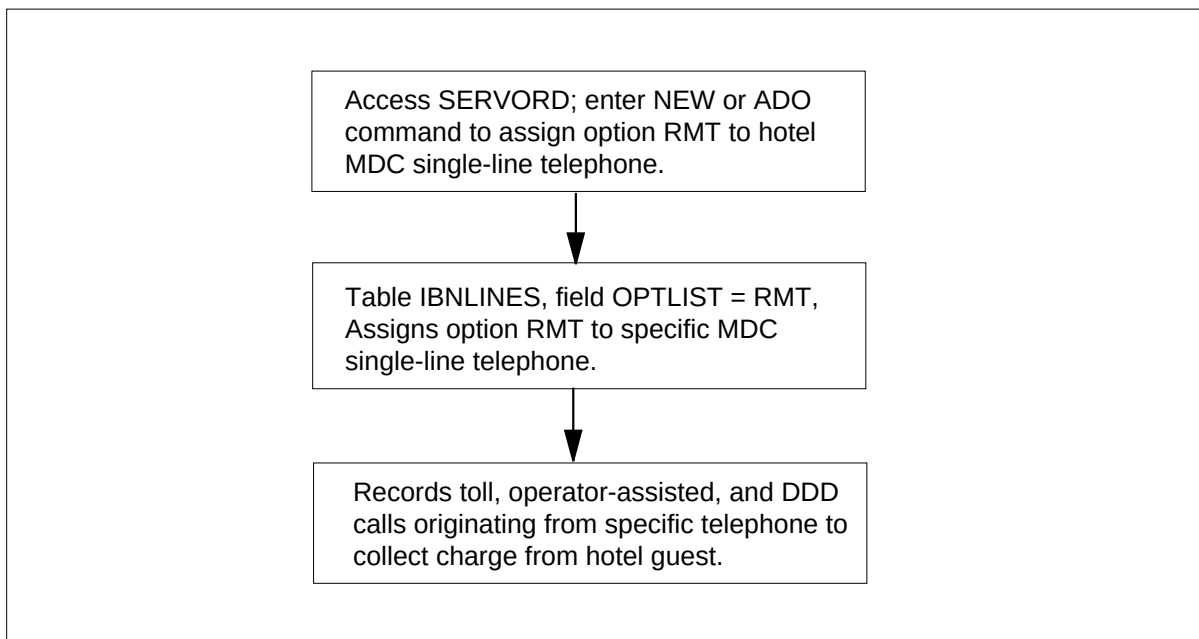
Datafill table	Example data
SDGRP	0 RMM 0 14 2X57AA
IBNFEAT	00 0 00 01 FRO FRO MTM 0 14 2 0

Table flow for activating IBN LCC Compatibility with FRO Line Option (option RMR)



IBN LCC Compatibility with FRO Line Option (continued)

Table flow for activating IBN LCC Compatibility with FRO Line Option (option RMT)



Datafill content used in the previous flowcharts appears in the following table.

Datafill example for IBN LCC Compatibility with FRO Line Option

Datafill table	Example data
IBNLINES	00 0 00 01 DP STN IBN 6215000 IBNGRP 0 0 + 919 RMR \$
IBNLINES	00 0 00 01 DP STN IBN 6215000 IBNGRP 0 0 + 919 RMT \$

Limits

The following limits apply to IBN LCC Compatibility with FRO Line Option:

- The MBSs or attendants consoles cannot support the MDC line options that this feature introduces. Only standard 500/2500 telephone sets support these line options.
- When you assign option FRO, the associated SD point must appear as an acceptable entry in Table SDGRP.
- when you assign options RMR and RMT, a special line card is necessary for generation of the line reversal signal. The NT6X18AB and NT2X18AD line cards can generate the line reversal signal.
- dedicated lines are necessary for the triggering of the OAU when an MDC line option that this feature introduces are assigned.

IBN LCC Compatibility with FRO Line Option (continued)

Interactions

The IBN LCC Compatibility with FRO Line Option does not have functionality interactions.

Activation/deactivation by the end user

The IBN LCC Compatibility with FRO Line Option does not require activation or deactivation by the end user.

Billing

The IBN LCC Compatibility with FRO Line Option does not affect billing.

Station Message Detail Recording

The IBN LCC Compatibility with FRO Line Option does not affect Station Message Detail Recording.

Datafilling office parameters

The IBN LCC Compatibility with FRO Line Option does not affect office parameters.

Datafill sequence

The tables that require datafill to implement IBN LCC Compatibility with FRO Line Option appear in the following table. The tables appear in the correct entry order.

Datafill requirements for IBN LCC Compatibility with FRO Line Option

Table	Name and purpose of table
SDGRP	Signal Distributor Group. This table contains the product engineering code and location at the host or remote switching unit of specified signal distributor groups. These signal distributor groups are reserved for use as SD points for line features.
IBNFEAT (Note)	IBN Line Features. This table defines the functionalities assigned to each MDC or RES line.
IBNLINES (Note)	IBN Line Assignment. This table defines the assignment and deletion of the new MDC line options.
Note: You must enter data for this table through SERVORD. Datafill procedures are not provided.	

Datafilling table SDGRP

Table SDGRP contains the product engineering code and location at the host or remote switching unit for specified signal distributor groups. These signal distributor groups are reserved for use as SD points for line features. When

IBN LCC Compatibility with FRO Line Option (continued)

you assign option FRO to an MDC line, the associated SD point must appear as an entry in Table SDGRP.

Datafill for IBN LCC Compatibility with FRO Line Option for table SDGRP appears in the following table. The fields that apply to IBN LCC Compatibility with FRO Line Option 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 to 511	Signal Distributor Group. This field specifies the SD group number. Enter a value from 0 to 511.
TMTYPE		MTM, RMM, or RSM	Trunk Module Type. The SD card mounts on a trunk module. This field specifies the type of trunk module. Enter MTM for maintenance trunk module. Enter RMM for remote maintenance module. Enter RSM for remote service module.
TMNO		0 to 2047	Trunk Module Number. The SD card mounts on a trunk module number. This field specifies the trunk module number. Enter a value from 0 to 2047.
TMCKTNO		0 to 19	Trunk Module Circuit Number. This field specifies the trunk module circuit number of the SD group. Enter a value from 0 to 29.
CARDCODE		2X57AA	Cardcode. This field specifies the product engineering code of the SD 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
0	MTM	0	14	2X57AA

Tools for verifying translations

The IBN LCC Compatibility with FRO Line Option feature does not use tools for verifying translations.

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD

Complete the datafill for the required Tables IBNLINES and IBNFEATS with the service order utility, SERVORD.

You can assign and delete the new MDC line options that this feature introduces through the Service Order System (SERVORD). You also can modify the suboptions associated with option FRO through SERVORD.

You can add options RMR and RMT to an MDC line assigned to a specified line card. These specified line cards must be able to issue a line reversal signal. If the line card does not have this ability, an error message states that the line card cannot accomplish tip/ring reversal.

You can assign option FRO to lines with originating and terminating service that require sleeve lead control. If you assign option FRO, the associated SD point must appear as an entry in Table SDGRP. If the SD point entry is not correct, an error message appears and states that the SD point is not correct.

SERVORD limits

The options that are not compatible with the MDC line options that this feature introduces appear in the following table.

Options incompatible with FRO, RMR, and RMT line options

Option	Incompatible options
FRO	FGA, FRS, LDTPSAP, MAN, MPB, RMS
RMR	CSDO
RMT	CSDO, FGA, TDN, TDV

You can use the following SERVORD commands to manipulate options FRO, RMR, and RMT:

- NEW - establish service
- OUT - remove service
- ADO - add option
- CHF - change feature information for already present feature

Note: You cannot use command CHF with options RMR and RMT. These options do not have suboptions. You do not need to change feature information because suboptions are not present. If you use

IBN LCC Compatibility with FRO Line Option (continued)

command CHF with either option, an error message appears. The error message states that command CHF does not apply to the option.

- DEO delete option

SERVORD prompts

You can use some SERVORD prompts to assign IBN LCC Compatibility with FRO Line Option options to an MDC line. These options are FRO, RMR, and RMT. These SERVORD prompts appear in the following table.

SERVORD prompts for IBN LCC Compatibility with FRO Line Option (Sheet 1 of 3)

Prompt	Correct input	Explanation
DN_OR_LEN	DN or LEN	Specifies the DN or LEN of the line that must change. Enter the DN or LEN.
LCC	Correct LCC	Specifies the LCC of the service the user establishes, modifies, or deletes. Enter the LCC.
GROUP	A maximum of eight alphanumeric characters, beginning with an alphabetic character	Indicates the customer group identified with the LCC. Enter a one- to eight-character alphanumeric name.
SUBGRP	0 to 7	Specifies the subgroup number of the customer group to which the station or DN belongs. Enter a value from 0 to 7.
NCOS	0 to 511	Specifies the network class of service for IBN lines, trunks, or attendant consoles. The entry also defines a set of capabilities or restrictions that allows or denies calls. Enter a value from 0 to 511.
SNPA	3-digit SNPA	Specifies the serving numbering plan area (area code). Enter the 3-digit SNPA.
Note: The system enters data for table IBNFEAT when you assign option FRO through SERVORD. The system enters data for table IBNLINES when you assign option RMR or option RMT through SERVORD.		

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD prompts for IBN LCC Compatibility with FRO Line Option (Sheet 2 of 3)

Prompt	Correct input	Explanation
LATANAME	Alphanumeric	Specifies the calling local access and transport area (LATA) name associated with the originator of the call. Enter the LATA name.
LTG	0 to 511	Specifies the line treatment group member. Enter a value from 0 to 511.
LEN_OR_LTID	LEN or LTID	Specifies the line equipment number (LEN) or logical terminal identifier (LTID) of the DN the user changes. Enter the LEN or LTID.
OPTION	FRO, RMR, RMT	Specifies the name of the option. Enter FRO, RMR, or RMT. Note: Options RMR and RMT do not depend on each other. The assignment of one or both of these options can occur on a specified MDC line.
SD	MTM, RSM, RMM	Specifies the trunk module type. Enter MTM for maintenance trunk module, RSM for remote service module, or RMM for remote maintenance module.
TMNO	0 to 255	The SD card mounts on a trunk module. Specifies the trunk module number assigned to the trunk module. Enter a value from 0 to 255.
TMCKTNO	0 to 23	Specifies the trunk module circuit number to which the SD point belongs. Enter a value from 0 to 23.
POINT	0 to 6	Specifies the SD point within the trunk module circuit number. Enter a value from 0 to 6.
Note: The system enters data for table IBNFEAT when you assign option FRO through SERVORD. The system enters data for table IBNLINES when you assign option RMR or option RMT through SERVORD.		

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD prompts for IBN LCC Compatibility with FRO Line Option (Sheet 3 of 3)

Prompt	Correct input	Explanation
NORMALST	0, 1	Specifies the normal state of the SD point. Enter 0 if the SD point is normally OFF. Enter 1 if the SD point is normally ON.
INTERCEPT_NAME	AIN, ANCT, BLDN, CANN, OPRT, UNDN	Specifies the type of intercept desired. Enter AIN, ANCT, BLDN, CANN, OPRT, or UNDN.
Note: The system enters data for table IBNFEAT when you assign option FRO through SERVORD. The system enters data for table IBNLINES when you assign option RMR or option RMT through SERVORD.		

Example service orders for implementing IBN LCC Compatibility with FRO Line Option

This document provides the following service order examples:

- creating a new line with option FRO
- creating a new line with option RMR
- creating a new line with option RMT
- removing a line with options
- adding option FRO to a current line
- adding option RMR to a current line
- adding option RMT to a current line
- changing option FRO
- deleting option FRO
- deleting option RMR
- deleting option RMT

SERVORD example for creating a new line with IBN LCC Compatibility with FRO Line Option

You can use the NEW command to create an MDC line with option FRO assigned. The procedure appears in the following SERVORD example. In the example, operating company personnel assigns option FRO to DN 555-3100. The trunk module type is RMM. The trunk module number that the SD card is on is 0. The trunk module circuit number to which the SD point belongs is 14. The SD point is 0. The normal state of the SD point is off or open (0).

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for creating a new line with option FRO in prompt mode

```
SO:
> NEW
SONUMBER:  NOW 90 1 15 AM
>
DN_OR_LEN:
> 5553100
LCC:
> IBN
GROUP:
> BNR
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 919
LATANAME:
> NILLATA
LTG:
> 0
LEN_OR_LTID:
> 0012
OPTION:
> FRO
SD:
> RMM
TMNO:
> 0
TMCKTNO:
> 14
POINT:
> 0
NORMALST:
> 0
OPTION:
> $
```

SERVORD example for creating a new line with option FRO in no-prompt mode

```
> NEW $ 5553100 IBN BNR 0 0 919 NILLATA 0 0 0 1 2 FRO RMM
0 14 0 0 $
```

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for creating a new line with option RMR

You can use the NEW command to create an MDC line with option RMR assigned. The procedure appears in the following SERVORD example. In the example, the operating company personnel assigns the new line with option RMR to DN 555-0301.

SERVORD example for creating a new line with option RMR in prompt mode

```
S0:
> NEW
SONUMBER:  NOW 90 1 15 AM
>
DN_OR_LEN:
> 555301
LCC:
> IBN
GROUP:
> BNR
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 919
LATANAME:
> NILLATA
LTG:
> 0
LEN_OR_LTID:
> 00183
OPTION:
> RMR
OPTION:
> $
```

SERVORD example for creating a new line with option RMR in no-prompt mode

```
> NEW $ 5550301 IBN BNR 0 0 919 NILLATA 0 0 0 18 3 RMR $
```

SERVORD example for creating a new line with option RMT

You can create an MDC line with option RMT assigned with the use of the NEW command. The procedure appears in the following SERVORD example. In the example, the operating company personnel assigns the new line with option RMT to DN 555-0302.

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for creating a new line with option RMT in prompt mode

```

SO:
> NEW
SONUMBER:  NOW 90 1 15 AM
>
DN_OR_LEN:
> 555302
LCC:
> IBN
GROUP:
> BNR
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 919
LATANAME:
> NILLATA
LTG:
> 0
LEN_OR_LTID:
> 00184
OPTION:
> RMT
OPTION:
> $

```

SERVORD example for creating a new line with option RMT in no-prompt mode

```
> NEW $ 5550302 IBN BNR 0 0 919 NILLATA 0 0 0 18 4 RMT $
```

SERVORD example for removing a line with options

You can use the OUT command to remove a line from service. The procedure appears in the following SERVORD example. The deletion of the associated line options occurs. In the example, operating company personnel removes the line assigned to DN 555-3100 from service. The LEN is HOST 00 0 01 02. After the removal of this line, the system routes calls to this DN to the blank DN (BLDN) treatment.

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for removing a line with options in prompt mode

```
SO:  
> OUT  
SONUMBER:  NOW 90 1 1 PM  
>  
DN_OR_LEN:  
> 5553100  
LEN_OR_LTID:  
>0012  
INTERCEPT_NAME:  
> BLDN
```

SERVORD example for removing a line with options in no-prompt mode

```
> OUT $ 5553100 0 0 1 2 BLDN
```

SERVORD example for adding option FRO to a present line

You can use the ADO command to add option FRO to a current MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel assigns option FRO to DN 555-3100. The trunk module type is RMM. The trunk module number that the SD card is on is 0. The trunk module circuit number to which the SD point belongs is 14. The SD point is 0. The normal state of the SD point is off or open (0).

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for adding option FRO to a current line in prompt mode

```
SO:
> ADO
SONUMBER:  NOW 90 1 15 AM
>
DN_OR_LEN:
> 5553100
OPTION:
> FRO
SD:
> RMM
TMNO:
> 0
TMCKTNO:
> 14
POINT:
> 0
NORMALST:
> 0
OPTION:
> $
```

SERVORD example for adding option FRO to a current line in no-prompt mode

```
> ADO $ 5553100 FRO RMM 0 14 0 0 $
```

SERVORD example for adding option RMR to a current line

You can use the ADO command to add option RMR a current MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel assigns option RMR to DN 555-0301.

SERVORD example for adding option RMR to a current line in prompt mode

```
SO:
> ADO
SONUMBER:  NOW 90 1 15 AM
>
DN_OR_LEN:
> 555301
OPTION:
> RMR
OPTION:
> $
```

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for adding option RMR to a current line in no-prompt mode

```
> ADO $ 5550301 RMR $
```

SERVORD example for adding option RMT to a current line

You can use the ADO command to add option RMT to a current MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel assigns option RMT to DN 555-0302.

SERVORD example for adding option RMT to a current line in prompt mode

```
S0:  
> ADO  
SONUMBER:  NOW 90 1 15 AM  
>  
DN_OR_LEN:  
> 555302  
OPTION:  
> RMT  
OPTION:  
> $
```

SERVORD example for adding option RMT to a current line in no-prompt mode

```
> ADO $ 5550302 RMT $
```

SERVORD example for changing option FRO

You can use the CHF command to change option FRO on an MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel assigns option FRO to DN 555-3100. The trunk module type changes from RMM to MTM. The trunk module number that the SD card is on changes from 0 to 5. The trunk module circuit number to which the SD point belongs is 14. The SD point is 0. The normal state of the SD point is off or open (0).

IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for changing option FRO in prompt mode

```
S0:  
> CHF  
SONUMBER:  NOW 90 1 15 AM  
>  
DN_OR_LEN:  
> 5553100  
OPTION:  
> FRO  
SD:  
> MTM  
TMNO:  
> 5  
TMCKTNO:  
> 14  
POINT:  
> 0  
NORMALST:  
> 0  
OPTION:  
> $
```

SERVORD example for changing option FRO in no-prompt mode

```
> CHF $ 5553100 FRO MTM 5 14 0 0 $
```

SERVORD example for deleting option FRO

You can use the DEO command to delete option FRO from an MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel deletes option FRO from DN 555-3100.

SERVORD example for deleting option FRO in prompt mode

```
S0:  
> DEO  
SONUMBER:  NOW 90 1 15 AM  
>  
DN_OR_LEN:  
> 5553100  
OPTION:  
> FRO  
OPTION:  
> $
```


IBN LCC Compatibility with FRO Line Option (continued)

SERVORD example for deleting option FRO in no-prompt mode

```
> DEO $ 5553100 FRO $
```

SERVORD example for deleting option RMR

You can use the DEO command to delete option RMR from an MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel deletes option RMR from DN 555-0301.

SERVORD example for deleting option RMR in prompt mode

```
S0:  
> DEO  
SONUMBER:  NOW 90 1 15 AM  
>  
DN_OR_LEN:  
> 555301  
OPTION:  
> RMR  
OPTION:  
> $
```

SERVORD example for deleting option RMR in no-prompt mode

```
> DEO $ 5550301 RMR $
```

SERVORD example for deleting option RMT

You can use the DEO command to delete option RMT from an MDC line. The procedure appears in the following SERVORD example. In the example, the operating company personnel deletes option RMT from DN 555-0302.

IBN LCC Compatibility with FRO Line Option (end)

SERVORD example for deleting option RMT in prompt mode

```
SO:  
> DEO  
SONUMBER:  NOW 90 1 15 AM  
>  
DN_OR_LEN:  
> 555302  
OPTION:  
> RMT  
OPTION:  
> $
```

SERVORD example for deleting option RMT in no-prompt mode

```
> DEO $ 5550302 RMT $
```

IBN Outpulsing to POTS Trunks

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS11 and later versions

Requirements

To operate, IBN Outpulsing to plain old telephone service (POTS) Trunks requires BAS Generic, BAS00003.

Description

The IBN Outpulsing to POTS Trunks feature improves feature BV0509, Simplified Dialing. The IBN Outpulsing to POTS trunk feature allows Integrated Business Network (IBN) end users in the class five environment to use digit manipulation. This digit manipulation occurs on non-IBN trunk groups. The feature adds the record as outpulsed (RAO) option to calls that route to trunks. The feature generates logs because of failures of digit manipulation datafill. The feature verifies translations for some selectors of Table IBNRTE (IBN Route).

Operation

The IBN Outpulsing to POTS Trunks performs the following functions:

- digit manipulation outpulsing
- RAO
- digit manipulation for datafill errors
- translation verification

Digit manipulation outpulsing

The feature affects class five IBN operation only. The POTS trunk types are not in use in a PBX operation. The feature outpulses manipulated digits on POTS trunks. Without this feature, the system uses digit manipulation on IBN trunk groups only.

Record as outpulsed (RAO)

This enhancement allows the RAO option to outpulse digits on POTS trunks. The RAO option in Table CUSTSMR (Customer Group SMDR Option) records the digits that outpulse on a trunk in Station Message Detail Recording

IBN Outpulsing to POTS Trunks (continued)

(SMDR). Alternate routing because of trunk failure can result in a no circuit treatment. The SMDR record shows that the system does not outpulse digits.

Digit manipulation for datafill errors

Digit manipulation can cause more failure conditions than standard outpulsing. The log system records software errors but does not record all datafill errors. The following errors can occur:

- You do not enter data in digit manipulation. The system uses a digit manipulation index in Table IBNRTE. You do not enter data in the digit manipulation.
- Digit manipulation creates a digit string that the system cannot retranslate. Digit manipulation causes a number to exceed 18 digits or removes all digits. In these occurrences, retranslation cannot occur.
- The installation method allows you to enter six-digit manipulation commands for each index. If the requirement is more than six commands, a command like NEX in Table DIGMAN can link the commands to another digit manipulation index (DMI). Table DIGMAN is Digit Manipulation. To avoid looping DMIs, a check occurs to prevent the jumping to more than 25 DMIs. This check limits the DMI to a maximum of 126 possible commands.
- The cursor control commands in Table DIGMAN, like CF and CB, move the cursor outside the digit manipulation string.
- All resources for manipulated digits are in use. The system allows a combination of a maximum of 64 digits and special outpulsing modifiers.
- All resources required to store the outpulsing file are used. The system can store a combination of 48 items in the outpulsing file. In the outpulsing file each digit is equal to an item. Each special outpulsing item is equal to four items. The outpulsing file can hold one of the following:
 - 48 digits
 - 36 digits and 3 pauses
 - 24 digits and 6 pauses
 - 12 digits and 12 pauses

The system uses the DMI 0 (nil_dmi) as a route selector to avoid an error condition. The DMI 0 allows end users to change the DMI according to needs. For example, the end user can add pause insertion easily because the field is present in the selector.

The remove command changes to permit the removal of more digits than are present in the digit manipulation file.

IBN Outpulsing to POTS Trunks (continued)

The substitute DN (SDN) command permits substitution of the digits to the right side of the cursor. This substitution allows the substitute digits to replace manipulated digits.

Digit manipulation for datafill errors generates the following message to address the use of the remove command and SDN command:

- You did not enter the DMI.
- Datafill problem in DMI. You entered wrong data in the DMI. The system does not always detect wrong datafill.
- The DMI datafill exceeds resource limits.
- The DMI result exceeds RX digit register. For successful retranslation, the manipulated file cannot exceed the size of the digit register. The size of the digit register is 18 digits.
- Retranslation cannot occur if the manipulated file does not have digits.
- Check DIGMAN cursor commands. The cursor command in Table DIGMAN moved the cursor out of bounds.

Translations table flow

The IBN Outpulsing to POTS Trunks does not affect translations table flow.

Limits

The IBN Outpulsing to POTS Trunks does not have limits.

Interactions

The IBN Outpulsing to POTS Trunks does not have functionality interactions.

Activation/deactivation by the end user

The IBN Outpulsing to POTS Trunks does not require activation or deactivation by the end user.

Billing

The IBN Outpulsing to POTS Trunks does not affect billing.

Station Message Detail Recording

The RAO option in Table CUSTSMRDR records the digits that outpulse on a trunk in SMDR. Alternate routes because of trunk failure can result in a no circuit treatment. The SMDR record shows that the system does not outpulse digits.

IBN Outpulsing to POTS Trunks (continued)

Datafilling office parameters

The IBN Outpulsing to POTS Trunks does not affect office parameters.

Datafill sequence

The tables that require datafill to implement IBN Outpulsing to POTS Trunks appear in the following table. The tables appear in the correct entry order.

Datafill requirements for IBN Outpulsing to POTS Trunks

Table	Purpose of table
CUSTSMR	Customer Group SMDR Option. This table contains the SMDR options assigned to each customer group.

Datafilling table CUSTSMR

Table CUSTSMR (Customer Group SMDR Option) contains the SMDR options assigned to each customer group. The RAO option in Table CUSTSMR records the digits that outpulse on a trunk in SMDR.

Datafill for IBN Outpulsing to POTS Trunks for table CUSTSMR appears in the following table. The fields that apply to IBN Outpulsing to POTS Trunks appear in this table. See the data design section of this document for a description of the other fields.

How to enter data into table CUSTSMR

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		1 to 16 alphanumeric character name	Customer Group Name. This field specifies the customer group name assigned to the customer group. Enter a 1 to 16 alphanumeric character name.
OPTIONS		RAO	Options. This field specifies the options assigned to the customer group. Enter RAO.

Datafill example for table CUSTSMR

Sample datafill for table CUSTSMR appears in the following example.

MAP example for table CUSTSMR

CUSTNAME	BUSNSID	OPTIONS
MDCGRP1	0	(RAO) (ANSTIM 15) \$

IBN Outpulsing to POTS Trunks (end)

Tools for verifying translations

Translation verification (TRAVER) helps trace the datafill of dialed digits. The TRAVER is a debugging tool. The IBN Outpulsing to POTS Trunks allows TRAVER to trace Table IBNRTE.

The TRAVER trace does not display digit manipulation commands in Table DIGMAN. This condition occurs because the digit manipulation commands in Table DIGMAN are an outpulsing function and not a translation function. The TRAVER trace does not display digits that outpulse when a DMI is in use.

SERVORD

The IBN Outpulsing to POTS Trunks does not use SERVORD.

IBN Quantity Control (100 Lines)

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS13 and later versions

Requirements

To operate, IBN Quantity Control (100 Lines) requires BAS Generic, BAS00003.

Description

The IBN Quantity Control (100 Lines) feature allows the operating company to specify the maximum number of Integrated Business Network (IBN) lines. This specification occurs in increases of 100 IBN lines. The DMS family office contains the IBN lines. This feature is a requirement. This feature specifies the method to control the number of Meridian Digital Centrex (MDC) lines. This feature specifies the method to control business sets available in an office. The line count does not include the line assignment for attendant consoles (AC).

Operation

In earlier features, IBN line quantity control allowed the specification of a maximum number of IBN lines in a DMS-100 office in increases of 1000.

The IBN Quantity Control (100 Lines) establishes the maximum number of IBN lines in increases of 100 lines. The IBN lines include business sets in a DMS-100. This condition allows for flexibility in the number of IBN lines allocated for different end users.

Translations table flow

The IBN Quantity Control (100 Lines) does not affect translations table flow.

Limits

The line counts that this feature affects do not include lines that ACs use.

Interactions

The IBN Quantity Control (100 Lines) does not have functionality interactions.

IBN Quantity Control (100 Lines) (end)

Activation/deactivation by the end user

The IBN Quantity Control (100 Lines) does not require activation or deactivation by the end user.

Billing

The IBN Quantity Control (100 Lines) does not affect billing.

Station Message Detail Recording

The IBN Quantity Control (100 Lines) does not affect Station Message Detail Recording.

Datafilling office parameters

There are no required office parameters. Office parameter MAX_IBN_LINES was replaced by Software Optionality Control (SOC) MDC00058 in NA007. SOC MDC00058 is used to set the maximum number of Meridian Digital Centrex (MDC) lines in a DMS-100 office.

The limit set by SOC MDC00058 applies to IBN lines you enter in Tables IBNLINES and KSETLINE. SOC option MDC00058 also applies to 500/2500 sets and DMS-100 business sets.

The following message appears on the MAP when IBN lines reach the maximum line assignment for the office:

> MAXIMUM NUMBER OF BUSINESS LINES REACHED

Datafill sequence

The IBN Quantity Control (100 Lines) does not affect datafill sequence.

Tools for verifying translations

The IBN Quantity Control (100 Lines) does not use tools for verifying translations.

SERVORD

The IBN Quantity Control (100 Lines) does not use SERVORD.

IBNRTE Table Capacity Increase

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS31 and later versions

Requirements

To operate, IBNRTE Table Capacity Increase requires BAS Generic, BAS00003.

Description

The IBNRTE Table Capacity Increase quadruples the number of Integrated Business Network (IBN) routes in one DMS-100 switch. The IBN routes are available to the operating company. In earlier features, 1023 routes were available for datafill in table IBNRTE (IBN Route). With the increase in ability, 4092 routes are available for datafill.

Multiple-table ability changes data administration. To change data administration, this ability segregates routing schemas by function in separate tables. For example, this capability segregates routing schemas in the following tables:

- Private network translations that one table can serve.
- Equal access that a second table can serve.
- Wide area telephone service (WATS) or data services that a third table can serve.

A large operating company can have one designated table in a specified DMS-100 switch. This condition simplifies the access to a large translations database. This condition simplifies the management of a large translations database.

Operation

Before IBNRTE Table Capacity Increase, all IBN routes contained entries in table IBNRTE. Table IBNRTE can contain a maximum of 1023 routes for

IBNRTE Table Capacity Increase (continued)

datafill. The IBNRTE Table Capacity Increase creates the following tables to supplement current table IBNRTE:

- IBNRT2 (IBN Second Route)
- IBNRT3 (IBN Third Route)
- IBNRT4 (IBN Fourth Route)

Tables IBNRT2, IBNRT3, and IBNRT4 have a design like table IBNRTE. Each table can contain a maximum of 1023 routes for datafill.

Translations table flow

The IBNRTE Table Capacity Increase does not affect translations table flow.

Limits

Tables IBNRT2, IBNRT3, and IBNRT4 can contain a maximum of 1023 routes for each table.

Interactions

The IBNRTE Table Capacity Increase does not have functionality interactions.

Activation/deactivation by the end user

The IBNRTE Table Capacity Increase does not require activation or deactivation by the end user.

Billing

The IBNRTE Table Capacity Increase does not affect billing.

Station Message Detail Recording

The IBNRTE Table Capacity Increase does not affect Station Message Detail Recording.

Datafilling office parameters

The IBNRTE Table Capacity Increase does not affect office parameters.

IBNRTE Table Capacity Increase (continued)

Datafill sequence

The tables that require datafill to implement IBNRTE Table Capacity Increase appear in the following table. The tables appear in the correct entry order.

Datafill requirements for IBNRTE Table Capacity Increase

Table	Purpose of table
IBNRTE	IBN Route. This table contains route lists that a route reference index number identifies.
IBNRT2 (Note)	IBN Second Route. This table contains route lists that a route reference index number identifies.
IBNRT3 (Note)	IBN Third Route. This table contains route lists that a route reference index number identifies.
IBNRT4 (Note)	IBN Fourth Route. This table contains route lists that a route reference index number identifies.
Note: You enter data into Tables IBNRT2, IBNRT3, and IBNRT4 in the same way you enter data into table IBNRTE. Datafill procedures for these tables are not necessary.	

Datafilling table IBNRTE

Table IBNRTE contains route lists that a route reference index number identifies.

Activation of IBNRTE Table Capacity Increase does not require a datafill procedure. Tables IBNRT2, IBNRT3, and IBNRT4 are present in a switch with feature package NTX100AA or NTXZ00AA. You enter data into these tables in the same way you enter data into table IBNRTE. The field names and values are the same.

The IBNRTE Table Capacity Increase does not affect dump and restore. Data store impact for table IBNRTE expansion increases store overhead by three times. This increase occurs in additional store use when you enter data into the tables.

Datafill for IBNRTE Table Capacity Increase for table IBNRTE appears in the following table. The fields that apply to IBNRTE Table Capacity Increase

IBNRTE Table Capacity Increase (continued)

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			Route Reference Index. This field specifies the route reference index. This field cannot be first in the route list. Leave the entry blank.
RTELIST		see subfields	Route List. This field contains subfields IBNRTESEL, NCOSLIST, TREATMT, and ARSROUTE.
	IBNRTESEL	ARS	IBN Route Selector. This subfield specifies the IBN route selector. Enter ARS for automatic route selection.
If you set IBNRTESEL to ARS, datafill subfields NCOSLIST, TREATMT, and ARSROUTE.			
	NCOSLIST	see explanation	Network Class of Service List. This subfield specifies the network class of service (NCOS) for which the specified route list attempt occurs. Enter a maximum of eight NCOSs on one line. Separate each NCOS with a space.
	TREATMT	0 to 63	Treatment. This subfield specifies the table treatment in use when the NCOS does not appear in subfield NCOSLIST. This NCOS associates with the entered authcode for ARS Table IBNTREAT (IBN Treatment) specifies the table treatment. Enter a value from 0 to 63.
	ARSROUTE	see subfields	Automatic Route Selection Route. This subfield contains subfields TABID and KEY. This subfield is a single-entry subfield.
	TABID	IBNRTE, IBNRT2, IBNRT3, or IBNRT4	Table Identification. This subfield specifies the name of the table to which the system routes translations. Enter IBNRTE, IBNRT2, IBNRT3, or IBNRT4.
	KEY	0 to 1023	Key. This subfield specifies the table index. Enter a value from 0 to 1023.

IBNRTE Table Capacity Increase (continued)

Datafill example for table IBNRTE

Sample datafill for table IBNRTE that uses the IBN route selector ARS appears in the following example. The NCOS associated with the authcode for ARS can be 84 or 98. If the NCOS is 84 or 98, the call routes to route list 7 in table IBNRTE. If the NCOS is not 84 or 98, table treatment is available to the end user. The entry number 4 in table IBNTREAT specifies the table treatment available to the end user.

MAP example for table IBNRTE

RTE				RTELIST			
1	(ARS	(84)	(98)	\$	4	IBNRTE	7) \$

Tools for verifying translations

The output from TRAVER that verifies IBNRTE Table Capacity Increase appears in the following example.

IBNRTE Table Capacity Increase (continued)

TRAVER output example for IBNRTE Table Capacity Increase

```
TRAVER  L  3674741  '4736'  B
TABLE IBNLINES:
HOST 00 1 05 00  DT  STN  62111111
MDCGRP1  0  0  919
TABLE NCOS:
MDCGRP1  0  0  KDKO  (OHQ 0  TONE)
(CBQ 0 3 N 2)$
TABLE CUSTHEAD:  PRELIMXLA,
CUSTXLA, FEATXLA, VACTRMT, AND
DIGCOL NXLA CXDK NXLA 0 KDK
TABLE DIGCOL:
KDK 9 POTS Y
NCOS PRELIM XLA NAME IS NIL. GO TO
NEXT TABLE
CUST PRELIM XLA NAME IS NIL. GO TO
NEXT TABLE
TABLE IBNXLA:  XLANAME CXDK
CXDK 9 ROUTE N Y 1 N 5 7 POTS N T
IBNRTE 100
TABLE DIGCOL:
POTS SPECIFIED:  POTS DIGIT
COLLECTION
TABLE IBNRTE:
100 S N N N DODTRK
CND CALLLCHR RC3 SK 4
S N N N TANDEMI
S N N N TANDEM2
CND CALLCHR RC2 T IBNRT2 100
T IBNRT2 100
TABLE IBNRT2:
100 S N N N FXTRK1
S N N N FXTRK2
T IBNRT3 100
TABLE IBNRT3:
100 S N N N WATS1
S N N N WATS2
S N N N WATS3
EXIT TABLE IBNRTE
EXIT TABLE IBNRT2
EXIT TABLE IBNRT3
+++ TRAVER:  SUCCESSFUL CALL TRACE
```

IBNRTE Table Capacity Increase (end)

TRAVER output example for IBNRTE Table Capacity Increase

DIGIT TRANSLATION ROUTES

1	DODTRK	6211234
2	TANDEM1	6211234
3	TANDEM2	6211234
4	FXTRK1	6211234
5	FXTRK2	6211234
6	WATS1	6211234
7	WATS2	6211234
8	WATS3	6211234

TREATMENT ROUTES. TREATMENT IS:

GNCT

1	*OFLO
2	LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE

+++

SERVORD

The IBNRTE Table Capacity Increase does not use SERVORD.

Immediate Answer Reporting for IBN

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS20 and later versions

Requirements

To operate, Immediate Answer Reporting for IBN requires BAS Generic, BAS00003.

Description

Immediate Answer Reporting for IBN is a continuation of feature BC1931, Immediate Answer Reporting. Immediate Answer Reporting for Integrated Business Network (IBN) modifies the mechanism for determining minimum charge duration (MCD) timing. The MCD is the period an active call is in the talking phase before the system records the call as answered. The call is billable when the system records the call as answered. Modifications to the Immediate Answer Reporting for IBN feature apply to calls with attendant consoles (AC).

Operation

Before Immediate Answer Reporting for IBN, the condition for the system to record a billable call as answered was different. A billable call in the talking phase had to exceed MCD timing for the system to record the call as answered. The default value for the MCD is 2.08 s. The MCD is in table OFCENG (Engineered Office). If the terminating party went on-hook before MCD timing expired, the central control (CC) did not produce a billing record. The CC did not produce a billing record because the system did not record the call as answered. If MCD timing expired, the system recorded the call as answered. The CC produced a billing record for the call. When the MCD timing expired, the terminating party remained off-hook.

With Immediate Answer Reporting for IBN, the system records the call as answered when the system detects the called party as off-hook. The CC produces a billing record for calls that exceed MCD timing. The system immediately reports an answer indication to the CC.

Translations table flow

The Immediate Answer Reporting for IBN does not affect translations table flow.

Immediate Answer Reporting for IBN (continued)

Limits

Immediate Answer Reporting for IBN does not have limits.

Interactions

Descriptions of the interactions between Immediate Answer Reporting for IBN and other functionalities appear in the following paragraphs.

- **Three-Way Calling.** An end user can flash to prompt a three-way call or enter a feature activation code. The end user can perform these actions even if MCD timing does not expire.
- **Multiple Appearance Directory Number (MADN).** The MADN Hold and Privacy Release features can activate on a Meridian business set (MBS). This activation can occur even if MCD timing does not expire.
- **Conference Calls**
 - Thirty-port conferences can activate on an MBS even if MCD timing does not expire.
 - The addition to a 30-port conference call before MCD timing expires does not cause the system to drop the consult party.
- **Call Pickup.** The system does not pick up the terminating call when two parties are in the talking phase. The system does not drop the terminating party when two parties are in the talking phase. These events occur even if MCD timing did not expire.
- **Call Request.** The system does not drop the terminating call when the Call Request feature activates on an answered call during MCD timing.
- **Call Forward No Answer.** The system does not drop the terminating call. The system does not forward the answered call. These events occur even if a Call Forward No Answer (CFNA) timer expires during MCD timing.

Activation/deactivation by the end user

Immediate Answer Reporting for IBN does not require activation or deactivation by the end user.

Billing

Immediate Answer Reporting for IBN does not affect billing.

Station Message Detail Recording

Immediate Answer Reporting for IBN does not affect Station Message Detail Recording.

Immediate Answer Reporting for IBN (end)

Datafilling office parameters

Immediate Answer Reporting for IBN does not affect office parameters.

Datafill sequence

Immediate Answer Reporting for IBN does not affect datafill.

Tools for verifying translations

Immediate Answer Reporting for IBN does not use tools for verifying translations.

SERVORD

Immediate Answer Reporting for IBN does not use SERVORD.

Increase in Number of IBN Customer Groups

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS14 and later versions

Requirements

To operate, Increase in Number of IBN Customer Groups requires BAS Generic, BAS00003.

Description

This feature increases the number of IBN customer groups that a DMS-100 switch from 128 to 2048 can define.

The number of subgroups for each customer group is eight. This number does not change. The number of attendant consoles (AC) for each switch is 255. This number does not change. The number of incoming call indicators (ICI) for each customer group is 256. This number does not change.

Operation

This feature adds a new type to the switch database CUSTOMER_GROUP. This feature defines customer groups. The tuples in Table CUSTHEAD (Customer Group Head) define the customer groups. When you add each tuple to Table CUSTHEAD, the name in use as the key becomes a correct CUSTOMER_GROUP name. The user interface now uses this new type for input and output of customer group names. The new type replaces COMMON_LANGUAGE_NAME.

Before this feature, common language location identifiers (CLLI) named the IBN customer groups. Table CLLI defines the IBN customer groups. The user interface used type COMMON_LANGUAGE_NAME for input and output of customer group names.

This feature changes the following command interpreter (CI) commands:

- **SELECT.** This command appears in the IBNCON level of the MAP. When G is the first parameter for this command (SELECT G), the system prompts the user for <CUSTGRP> STRING. The system does not prompt

Increase in Number of IBN Customer Groups (continued)

the user for <CLLI> STRING. The operation of this command does not change.

- **SELECT.** This command appears in the ACDYNMS level of the MAP. This command prompts the user for <CUST_NAME> STRING. This command does not prompt the user for <CUST_CLLI> STRING. The operation of this command does not change.
- **SELECT.** This command appears in the ACOM level of the MAP. This command requires a CUSTOMER_GROUP name for the first parameter. This command does not require a COMMON_LANGUAGE_NAME for the first parameter. The prompt of CUSTNAME for this parameter does not change. The operation of this command does not change.
- **QQ.** This command prompts the user for <CUST_NAME> STRING. This command does not prompt the user for <CUST_CLLI> STRING. The operation of this command does not change.
- **ACSIM.** This command is ACSIM START. When START is the first parameter for this command, the command requires a CUSTOMER_GROUP name for the second parameter. This command does not require a COMMON_LANGUAGE_NAME for the second parameter. The name of the the second parameter is CUSTOMER GROUP. This parameter does not change. The operation of this command does not change.
- **DND.** This command is DND ALT or DND DISPLAY. When ALT or DISPLAY is the first parameter for this command, the system prompts the user for <CUSTNAME> STRING. The system does not prompt the user for <CUSTCLLI> STRING. The meaning of the parameter does not change. This parameter must be the name of an IBN customer group. The operation of this command does not change.
- **IBNSGKEY.** This command requires a CUSTOMER_GROUP name for the first parameter. This command does not require a COMMON_LANGUAGE_NAME for the first parameter. The prompt for this parameter is <CUSTNAME> STRING. The prompt for this parameter is not <CUST_CLLI> STRING. This command determines that the customer group is not configured for CONSOLESS operation.

Translations table flow

Increase in Number of IBN Customer Groups does not affect translations table flow.

Limits

Increase in Number of IBN Customer Groups does not have limits.

Increase in Number of IBN Customer Groups (continued)

Interactions

Increase in Number of IBN Customer Groups does not have functionality interactions.

Activation/deactivation by the end user

Increase in Number of IBN Customer Groups does not require activation or deactivation by the end user.

Billing

Increase in Number of IBN Customer Groups does not affect billing.

Station Message Detail Recording

Increase in Number of IBN Customer Groups does not affect Station Message Detail Recording.

Datafilling office parameters

Table OFCENG (Engineered Office) contains office parameter CUSTOMER_GROUP_IBNGRP_OM_COUNT. This parameter controls the amount of data store the parameter allocates to hold operational measurements on a separate customer group base. The value specified for this parameter places an upper limit on the number of IBN customer groups that you can enter. Increase in Number of IBN Customer Groups increases the maximum value for this parameter to 2048.

Datafill sequence

The office parameters that Increase in Number of IBN Customer Groups uses appear in the following table. Refer to *Office Parameters Reference Manual* for additional information about office parameters.

Office parameters used by Increase in Number of IBN Customer Groups

Table name	Parameter name	Explanation and action
OFCENG	CUSTOMER_GROUP_IBNGRP_OM_COUNT	This parameter allocates data store for the customer group operational measurements. Enter a value from 0 to 4095. The default value is 32.

Tools for verifying translations

Increase in Number of IBN Customer Groups does not use tools for verifying translations.

Increase in Number of IBN Customer Groups (end)

SERVORD

Before this feature, some Service Order System (SERVORD) commands required a customer group name. With this feature, all SERVORD commands that required a customer group name now use a CUSTOMER_GROUP name. This name replaces a COMMON_LANGUAGE_NAME. An example of this type of command is the establish service (NEW) command that creates an IBN line. The query directory number (QDN) and query line equipment number (QLEN) commands display the customer group as type CUSTOMER_GROUP. The commands do not display the customer group as COMMON_LANGUAGE_NAME. These changes are transparent to the end user.

Increase Number of Equivalent DN Appearances for IBN

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: Does not apply

Release applicability

BCS17 and later versions

Requirements

To operate, Increase Number of Equivalent DN Appearances for IBN BAS Generic, BAS00003.

Description

The Increase Number of Equivalent DN Appearances for IBN feature includes the following components that associate with directory number (DN) appearances:

- number of Integrated Business Network (IBN) lines
- Meridian business set (MBS)
- data-unit keys

This feature does not include the number of different DNs that associate with an IBN, MBS, or data-unit system.

Each IBN station or 500/2500 set, associates with an equivalent DN appearance. The MBS stations and data units can associate with many equivalent DN appearances. The number of DN keys assigned determines this association. With MBS stations and data units, specified feature keys correspond to equivalent DN appearances. These feature keys function like a separate line on the set. The features that this category includes are Intercom (ICM), Group Intercom (GIC), Call Waiting (CWT), and Ring Again (RAG).

The MBS stations and data units can associate with equivalent DNs for each programmable feature. The equivalent DN appearance does not associate with a specified key. The equivalent DN appearance associates with the programmable feature at installation. These features include the following:

- Call Forwarding (CFW)
- Automatic Dial (AUD)
- Speed Calling Short list (SCS)
- Speed Calling Long List (SCL)

Increase Number of Equivalent DN Appearances for IBN (continued)

- Make Set Busy (MSB)
- Query Time and Date (QTD)
- Automatic Answerback (AAB)

The improvements in this feature provide the user with a better operating system. The changes in this feature do not involve data table modifications or changes to office parameters. This feature provides an increase in memory capacity for the end use.

Operation**Background**

The earlier abilities of the systems limited the number of MBS stations and data units. This limited number was the number of equivalent DN appearances available for the IBN at the SL-100 office. The MBS station requires a minimum of two DN appearances. These DN appearances are features CWT and RAG. The MBS station requires a minimum of one programmable feature. This feature calls for a minimum of five equivalent DN appearances for each set. The maximum number of MBS stations that the IBN line supports is approximately 6400.

With data units, a minimum of three equivalent DN appearances associate with each unit. A single DN appearance, RAG, and speed calling assigned to each unit specify this association. The maximum number of data units available for the IBN line is approximately 10 000.

This feature provides the SL-100 office with additional ability to support the IBN stations, MBS stations, and data units. Additional advantages include an increase in the number of stations and units supported from 32 511 to 128 000. The higher the number of data units assigned, the lower the number of total stations and units supported on the line. The same condition affects the number of equivalent DN appearances for a line. The maximum capability is 216 000. With additional data units, the number of equivalent DN appearances decreases to a maximum of 180 048.

The figures from the earlier feature are absolute maximums. The number of line modules and the number of lines assigned to each module determine the capability of the office. An example of the improvements that this feature provides appears in the following table. The table figures are based on 500 line cards assigned to each line module. The figures are also based on an average of six equivalent DN appearances for each MBS. The line data structure for a

Increase Number of Equivalent DN Appearances for IBN (continued)

large SL-100 office supports 40 000 IBN lines, 16 000 MBS stations, and 4000 data units.

Regular lines (POTS/IBN)	Keyset lines* (MBS/data units)	Line modules (LM/LCM) required
10 000	30 000	80
20 000	27 000	94
30 000	23 500	104
40 000	20 000	120
50 000	18 000	136
60 000	16 000	152
Note: These figures are based on the assumption that 10% of the keyset lines are assigned to data units. These figures are on keyset lines.		

The feature does not change the log reports. This feature adds a new message to the SWER log display. The message appears when the data blocks in the data pool are allocated. The message indicates that the pool cannot store additional items. The system automatically creates a new pool each time the first pool fills. The user can ignore this message when the system creates a new pool. The following is an example of the type of message that appears.

```

SWER      FEB12   16:41:58   3500   DATA
  REASON   =   7C00, PROCID   =   #E10C #A001:
LOGUTIL, TEXT = NO ITEMS
  0180DD   =   SEGSTOR.DG04:   ALLOC_IT + #002F
  4BD0AD   =   IBNPLINE.AD01:  ALLOCATE + #0057
.
```

User interface

This feature adapts a change in the error messages that appear for the Tables KSETLINE or KSETFEAT. When the user attempts to add any of the following, the message EQUIVALENT DN APPEARANCE LIMIT EXCEEDED appears:

- a new DN
- MADN

Increase Number of Equivalent DN Appearances for IBN (continued)

- GIC in Table KSETLINE
- a new feature key for ICM, RAG, or CWT in Table KSETFEAT

The message warns the user when the number of equivalent DN appearances available for MBS and data units reach the limit.

Translations table flow

Increase Number of Equivalent DN Appearances for IBN does not affect translations table flow.

Limits

The Increase Number of Equivalent DN Appearances for IBN feature improves the system capacity. Absolute maximums that limit the system are present.

The following limits apply to Increase Number of Equivalent DN Appearances for IBN:

- The maximum number of IBN stations, MBSs, and data units supported is approximately 128 000.
- The maximum number of equivalent DN appearances supported for IBN stations, MBSs, and data units is approximately 216 000.
- The maximum number of equivalent DN appearances for MBSs and data units is 180 048.
- The maximum number of line data structures in a large SL-100 office are the following:
 - 40 000 IBN lines
 - 16 000 MBSs
 - 4000 data units
- This feature lifts restrictions associated with data allocation for IBN lines and keyset DN appearances and features.

Interactions

Increase Number of Equivalent DN Appearances for IBN does not have functionality interactions.

Activation/deactivation by the end user

Increase Number of Equivalent DN Appearances for IBN does not require activation or deactivation by the end user.

Increase Number of Equivalent DN Appearances for IBN (end)

Billing

Increase Number of Equivalent DN Appearances for IBN does not affect billing.

Station Message Detail Recording

Increase Number of Equivalent DN Appearances for IBN does not affect Station Message Detail Recording.

Datafilling office parameters

Increase Number of Equivalent DN Appearances for IBN does not affect office parameters.

Datafill sequence

Increase Number of Equivalent DN Appearances for IBN does not affect datafill.

Tools for verifying translations

Increase Number of Equivalent DN Appearances for IBN does not use tools for verifying translations.

SERVORD

Increase Number of Equivalent DN Appearances for IBN does not use SERVORD.

Interposition Calls and Transfers

Ordering codes

Functional group ordering code: MDC00001

Functionality ordering code: does not apply

Release applicability

BCS10 and later versions

Requirements

The Interposition Calls and Transfers feature requires BAS Generic, BAS00003.

Description

The Interposition Calls and Transfers feature allows an attendant to call and speak to another attendant. The attendant can transfer a call to another attendant. Interposition Calls and Transfers allows a subscriber to direct a call to a specified attendant console (AC) instead of the most idle console.

An interposition call represents two calls. One call associates with the calling AC. One call associates with the called AC.

Operation

The Interposition Calls and Transfers feature requires that each AC has a different directory number (DN) assignment. The AC has the listed DN of the customer subgroup.

To make an interposition call, an attendant keys the DN of the AC. The calling attendant receives audible ringing when the destination AC is idle. If the destination console is not available to receive a call, the system connects the calling attendant to a busy signal. The destination console cannot receive a call when Out of Service, Position Busy or Night Service is in effect. An unseated headset can prevent the destination console from receiving a call.

The destination AC can be idle. When this condition occurs, the Source lamp on the console flashes and the console buzzes. The direct Incoming Call Identification (ICI) lamp turns on. If the destination AC is not idle, the calls Waiting lamp turns on. The system holds the call in queue for the destination console until the call becomes idle.

To answer an interposition call, the destination attendant presses the corresponding Loop key or the direct ICI key. After the called attendant

Interposition Calls and Transfers (continued)

accesses the loop, the Source lamp turns on and console buzzing stops. All ICI lamps, except for the direct ICI lamp, turn off.

Translations table flow

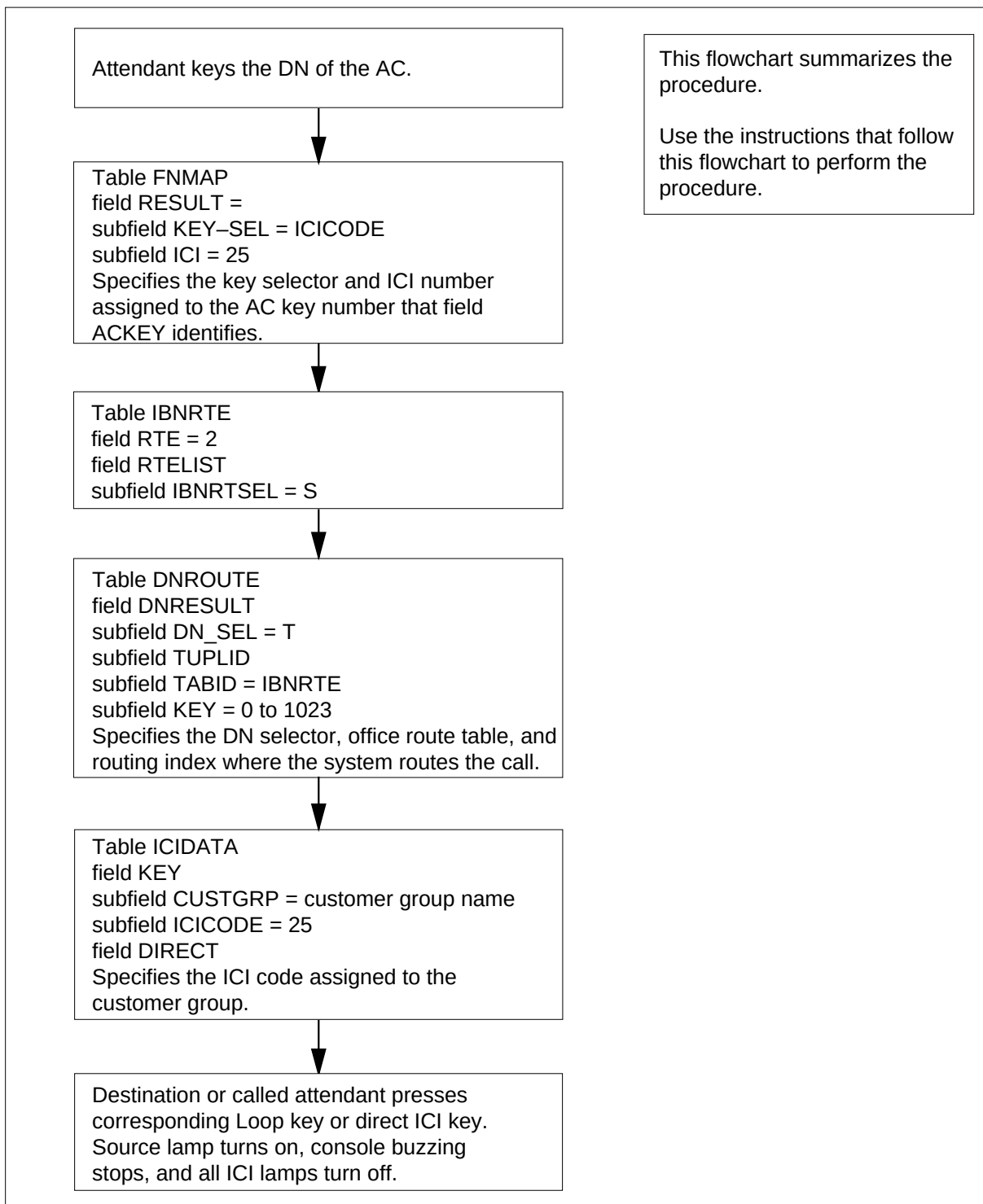
The description of Interposition Calls and Transfers translations tables appears in the following list:

- Table FNMAP (Attendant Console Functional Key) contains fields for assigning a direct ICI key and lamp for the AC. A direct ICI is a requirement when each AC receives an extension number assignment.
- Table IBNRTE (IBN Route) contains route lists that a route reference index number identifies.
- Table DNROUTE (Directory Number Route) contains fields for assigning an extension number for each AC.
- Table ICIDATA (Incoming Call Identification Data) contains fields for assigning a key and lamp display for the ICI code.

The Interposition Calls and Transfers translation process appears in the following flowchart.

Interposition Calls and Transfers (continued)

Table flow for Interposition Calls and Transfers



Interposition Calls and Transfers (continued)

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

Datafill example for Interposition Calls and Transfers

Datafill table	Example data
FNMAP	IBNCON1 2 ICICODE 25
IBNRTE	2 (S N N N N PILE2) \$
DNROUTE	919 555 1212 T IBNRTE 15
ICIDATA	BNRMC 25 DIRECT \$

Limits

The following limits apply to Interposition Calls and Transfers:

- An AC can transfer a simple source. Transfer of conference ports and ACs cannot occur.
- To make an interposition call, a calling attendant must have the following conditions.
 - loop accessed without source or destination
 - loop accessed and only source attached
 - loop accessed and only destination attached

Interactions

Future releases of this document contain applicable interactions that do not appear in this release.

Activation/deactivation by the end user

To operate Interposition Calls and Transfers, the attendant performs the following steps.

Activation/deactivation of Interposition Calls and Transfers by the end user

At the telephone of the attendant

- 1 To make an interposition call, key the directory number (DN) of the desired AC.
Response:
 - The calling attendant receives audible ringing if the destination AC is idle. If the destination console is not available to receive a call, the system connects the calling attendant to a busy signal. The destination console

Interposition Calls and Transfers (continued)

cannot receive a call when Out of Service, Position Busy, or Night Service is in effect. An unseated headset can prevent the destination console from receiving a call.

- The destination AC can be idle. When this event occurs, the Source lamp on the console flashes, the console buzzes, and the direct ICI lamp turns on. When the destination is not idle, the calls Waiting lamp turns on. The system holds the call in queue for the destination console until the call becomes idle.

- 2 To answer an interposition call, press the corresponding Loop key or the direct ICI key.

Response:

After the called attendant accesses the loop, the Source lamp turns on, console buzzing stops. All ICI lamps, except for the direct ICI lamp, turn off.

Billing

Interposition Calls and Transfers does not affect billing.

Station Message Detail Recording

Interposition Calls and Transfers does not affect Station Message Detail Recording.

Datafilling office parameters

Interposition Calls and Transfers does not affect office parameters.

Datafill sequence

The tables that require datafill to implement Interposition Calls and Transfers appear in the following table. The tables appear in the correct entry order.

Datafill requirements for Interposition Calls and Transfers

Table	Purpose of table
FNMAP	Attendant Console Functional Key. This table contains the link map information between the Line Trunk Controller (LTC) / Line Group Controller (LGC) and the host FMT.
IBNRTE	IBN Route. This table contains route lists that a route reference index number identifies.
DNROUTE	Directory Number Route. This table contains information for writable DNs in the switch like a DN that identifies a route. This table does not contain the line equipment number (LEN).
ICIDATA	Incoming Call Identification Data. This table provides for flexible night service and the key and lamp display for each incoming call identification (ICI) number.

Interposition Calls and Transfers (continued)

Datafilling table FNMAP

Table FNMAP (Attendant Console Functional Key) contains fields for assigning a direct ICI key and lamp for the AC. Each AC extension number assignment requires a direct ICI.

Datafill for Interposition Calls and Transfers for table FNMAP appears in the following table. The fields that apply to Interposition Calls and Transfers 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 key selector. Enter ICICODE.
	ICI	25	Incoming Call Identification Code. This subfield specifies the ICI number assigned to the AC key number that field ACKKEY defines. Enter 25.

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 25

Datafilling table IBNRTE

Table IBNRTE (IBN Route) contains route lists that a route reference index number identifies.

Datafill for Interposition Calls and Transfers for table IBNRTE appears in the following table. The fields that apply to Interposition Calls and Transfers

Interposition Calls and Transfers (continued)

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 contains a route reference number.
RTELIST		see subfields	Route List. This field contains several subfields. Subfields IBNRTSEL and CLLI apply to this feature.
	IBNRTSEL	S	IBN Route Selector. This subfield specifies the route selector that is a requirement.
	ICLLI	alphanumeric of 1 to 16 characters	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 the name reference appears in table IBNRTE.

Datafill example for table IBNRTE

Sample datafill for table IBNRTE appears in the following example.

MAP example for table IBNRTE

TABLE: IBNRTE	
RTE	RTELIST
2	(S N N N N PILE2) \$

Datafilling table DNROUTE

Table DNROUTE (Directory Number Route) contains fields for assigning an extension number for each AC.

Datafill for Interposition Calls and Transfers for table DNROUTE appears in the following table. The fields that apply to Interposition Calls and Transfers

Interposition Calls and Transfers (continued)

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 subfields DN_SEL, CUSTGRP, SUBGRP, ICI, and LDN_OM_REPORT.
	DN_SEL	M	Directory Number Selector. This subfield specifies the directory number (DN) selector. Enter M.
	CUSTGRP	alphanumeric of 1 to 16 characters	Customer Group. This subfield specifies the customer group of the listed DN.
	SUBGRP	0 to 7	Subgroup. This subfield specifies the subgroup of the customer group of the listed DN.
	ICI	0 to 255	Incoming Call Identification Codes. This subfield specifies the incoming call identification code assigned to the listed DN.
	LDN_OM_REPORT	Y or N	Listed Directory Number Report. This subfield specifies if the operational measurement (OM) file increases the listed DN.

Datafill example for table DNROUTE

Sample datafill for table DNROUTE appears in the following example.

MAP example for table DNROUTE

TABLE: DNROUTE								
AREACODE	OFFCCODE	STNCODE	DNRESULT					
919	555	1212	M	MDCGRP1	1	26	Y	

Datafilling table ICIDATA

Table ICIDATA (Incoming Call Identification Data) contains fields for assigning a key and lamp display for the ICI code.

Interposition Calls and Transfers (end)

Datafill for Interposition Calls and Transfers for table ICIDATA appears in the following table. The fields that apply to Interposition Calls and Transfers 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-character to 16-character 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.
	ICICODE	25	Incoming Call Identification Code. This subfield specifies the incoming call identification (ICI) code. Enter 25.
NAME		DIRECT	KLD Name. This field specifies the 1-character to 7-character alphanumeric name assigned to the specified ICI code. The specified ICI code is in the specified customer group for the key and lamp display. The key and lamp display is at the console of the attendant. Enter DIRECT.
OPTIONS		\$	Options. This field specifies the option. Enter \$.

Datafill example for table ICIDATA

Sample datafill for table ICIDATA appears in the following example.

MAP example for table ICIDATA

KEY	NAME	OPTIONS
BNRMC	25 DIRECT	\$

Tools for verifying translations

Interposition Calls and Transfers does not use tools for verifying translations.

SERVORD

Interposition Calls and Transfers does not use SERVORD.

Index

A

activating

- 2-Way Digital FX Trunk - Business Services 2-4
- 3-Way Conference/Transfer 2-11
- 3WC Dial 0 for 608 Cord Board 2-19
- 3WC/Call Transfer for UCD 2-28
- 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
- 6 Port Conference Circuit Use Control 2-36
- Access to CCSA (BV0420) 2-44
- Access to CO from PBX 2-51
- Access to ETN 2-60
- Access to Special Service Facilities 2-65
- AC-Extended Calls to CFB/CFD 2-40
- Attendant Call Park Recall Timer 2-74
- Attendant Call Selection 2-78
- Attendant Camp-On 2-84
- Attendant Conference (Maximum Six Conferees) 2-93
- Attendant Console Call Hold Recall 2-102
- Attendant Console Display 2-113
- Attendant Console End-to-End Signalling 2-117
- Attendant Control of Trunk Group Access 2-124
- Attendant Display of Queued Calls by ICI Key 2-130
- Attendant Locked Loop Operation 2-138
- Attendant Release Upon Completion of Dialing 2-141
- Attendant Speed Calling 2-146
- Attendant to Recorded Announcement 2-153
- Attendant to UCD 2-158
- Attendant Transfer 2-166

- Attendent - Auto Dial 2-68
- Audio Input on Incoming Calls in Queue (BV0602) 2-172
- Audio Interlude (BC0946) 2-181
- Audio Table Expansion (AD0822) 2-193
- Automatic Intercept System (AIS) Enhancement 2-201
- Automatic Line 2-216
- Automatic Recall 2-222
- Blind Transfer Recall 2-236
- Blind Transfer Recall Identification 2-249
- Busy Verification - Stations 2-262
- Busy Verification - Trunks 2-274
- Call Forward All Calls 2-288
- Call Forward Busy 2-298
- Call Forward Do Not Answer and Call Waiting Interaction 2-328
- Call Forward No Answer 2-312
- Call Hold 2-340
- Call Park 2-353
- Call Pickup 2-367
- Call Pickup Transparency 2-374
- Call Request Call Processing Enhancements 2-377
- Call Transfer Enhancement 2-383
- Call Waiting 2-397
- Call Waiting - Originating 2-416
- Call Waiting for 3-Way Calling 2-405
- Camp On with Music 2-426
- CFD from Hunt Group Station 2-434
- CFD Interaction with Three-Way Calling 2-443
- CFGDA for Hunt Groups 2-448
- Class of Service Restrictions 2-456
- Code Call Access 2-462
- Code Calling - Line Termination 2-470

- Code Restriction 2-478
- Conference Join 2-487
- CPU Datafill Enhancements 2-494
- Customer Group Transparency 2-501
- Denied Incoming 2-510
- Dial - Call Waiting 2-522
- Dictation Access and Control (DTMF Only) 2-532
- Direct Outward Dialing (DOD) 2-537
- Directed Call Park 2-545
- Directed Call Pickup - Barge In 2-556
- Directed Call Pickup - Non Barge In 2-566
- Distinctive and Ring Again Ringing 2-571
- Distinctive Call Waiting Tones 2-577
- Distinctive Ringing 2-584
- Distinctive Ringing Enhancements 2-596
- DTMF Outpulsing on a Line 2-612
- End to End Signalling via Speed Call 2-625
- Executive Right of Way 2-632
- Flexible Console Alerting 2-641
- Flexible Intercept 2-649
- Generalized Distinctive Ringing 2-652
- IBN Call Forward Validation 2-661
- IBN Cancel Call Waiting 2-670
- IBN Feature Activation OMs I 2-678
- IBN LCC Compatibility with FRO Line Option 2-685
- IBN Outpulsing to POTS Trunks 2-702
- IBN Quantity Control (100 Lines) 2-706
- IBNRTE Table Capacity Increase 2-708
- Immediate Answer Reporting for IBN 2-715
- Increase in Number of IBN Customer Groups 2-719
- Increase Number of Equivalent DN Appearances for IBN 2-724
- Interposition Calls and Transfers 2-729
- ANNMEMS, table
 - datafilling 2-174
- ANNS, table
 - datafilling 2-173
- ATTCONS, table
 - datafilling 2-643
- AUDIO, table
 - datafilling 2-176, 2-182, 2-194, 2-355, 2-427

B

billing

- 2-Way Digital FX Trunk - Business Services 2-4
- 3-Way Conference/Transfer 2-12
- 3WC Dial 0 for 608 Cord Board 2-19
- 3WC/Call Transfer for UCD 2-29
- 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
- 6 Port Conference Circuit Use Control 2-36
- Access to CCSA (BV0420) 2-45
- Access to CO from PBX 2-51
- Access to ETN 2-60
- Access to Special Service Facilities 2-65
- AC-Extended Calls to CFB/CFD 2-40
- Attendant Call Park Recall Timer 2-74
- Attendant Call Selection 2-78
- Attendant Camp-On 2-84
- Attendant Conference (Maximum Six Conferencees) 2-93
- Attendant Console Call Hold Recall 2-103
- Attendant Console Display 2-113
- Attendant Console End-to-End Signalling 2-118
- Attendant Control of Trunk Group Access 2-124
- Attendant Display of Queued Calls by ICI Key 2-131
- Attendant Locked Loop Operation 2-139
- Attendant Release Upon Completion of Dialing 2-142
- Attendant Speed Calling 2-147
- Attendant to Recorded Announcement 2-153
- Attendant to UCD 2-158
- Attendant Transfer 2-167
- Attendant - Auto Dial 2-70
- Audio Input on Incoming Calls in Queue (BV0602) 2-172
- Audio Interlude (BC0946) 2-182
- Audio Table Expansion (AD0822) 2-193
- Automatic Intercept System (AIS) Enhancement 2-201
- Automatic Line 2-217
- Automatic Recall 2-222
- Blind Transfer Recall 2-236

Blind Transfer Recall Identification 2-250
 Busy Verification - Stations 2-263
 Busy Verification - Trunks 2-274
 Call Forward All Calls 2-288
 Call Forward Busy 2-298
 Call Forward Do Not Answer and Call Waiting Interaction 2-328
 Call Forward No Answer 2-312
 Call Hold 2-341
 Call Park 2-354
 Call Pickup 2-368
 Call Pickup Transparency 2-374
 Call Request Call Processing Enhancements 2-377
 Call Transfer Enhancement 2-383
 Call Waiting 2-397
 Call Waiting - Originating 2-416
 Call Waiting for 3-Way Calling 2-405
 Camp On with Music 2-426
 CFD from Hunt Group Station 2-434
 CFD Interaction with Three-Way Calling 2-443
 CFGDA for Hunt Groups 2-449
 Class of Service Restrictions 2-456
 Code Call Access 2-462
 Code Calling - Line Termination 2-471
 Code Restriction 2-478
 Conference Join 2-489
 CPU Datafill Enhancements 2-495
 Customer Group Transparency 2-501
 Denied Incoming 2-510
 Dial - Call Waiting 2-523
 Dictation Access and Control (DTMF Only) 2-532
 Direct Outward Dialing (DOD) 2-537
 Directed Call Park 2-547
 Directed Call Pickup - Barge In 2-556
 Directed Call Pickup - Non Barge In 2-567
 Distinctive and Ring Again Ringing 2-572
 Distinctive Call Waiting Tones 2-577
 Distinctive Ringing 2-584
 Distinctive Ringing Enhancements 2-596
 DTMF Outpulsing on a Line 2-613
 End to End Signalling via Speed Call 2-625
 Executive Right of Way 2-632
 Flexible Console Alerting 2-642
 Flexible Intercept 2-649

Generalized Distinctive Ringing 2-652
 IBN Call Forward Validation 2-665
 IBN Cancel Call Waiting 2-670
 IBN Feature Activation OMs I 2-678
 IBN LCC Compatibility with FRO Line Option 2-685
 IBN Outpulsing to POTS Trunks 2-702
 IBN Quantity Control (100 Lines) 2-706
 IBNRTE Table Capacity Increase 2-708
 Immediate Answer Reporting for IBN 2-715
 Increase in Number of IBN Customer Groups 2-719
 Increase Number of Equivalent DN Appearances for IBN 2-725
 Interposition Calls and Transfers 2-730

C

CLLI, table
 datafilling 2-203, 2-263, 2-275, 2-417, 2-471, 2-557, 2-578, 2-579, 2-633
 CODEBLK, table
 datafilling 2-481
 CODECALL, table
 datafilling 2-464, 2-473
 CUSTCONS, table
 datafilling 2-185
 CUSTCONS, table
 datafilling 2-41, 2-75, 2-85, 2-103, 2-142, 2-223, 2-428
 CUSTENG, table
 datafilling 2-37, 2-329, 2-502
 CUSTFAM, table
 datafilling 2-501
 CUSTHEAD, table
 datafilling 2-61, 2-94, 2-177, 2-184, 2-357
 CUSTSMR, table
 datafilling 2-703
 CUSTSTN, table
 datafilling 2-12, 2-187, 2-240, 2-252, 2-315, 2-344, 2-345, 2-358, 2-386, 2-418, 2-436, 2-524, 2-558, 2-586, 2-599, 2-626, 2-654, 2-666

D

datafill sequence

- 2-Way Digital FX Trunk - Business Services 2-5
- 3-Way Conference/Transfer 2-12
- 3WC Dial 0 for 608 Cord Board 2-20
- 3WC/Call Transfer for UCD 2-29
- 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
- 6 Port Conference Circuit Use Control 2-37
- Access to CCSA (BV0420) 2-45
- Access to CO from PBX 2-51
- Access to ETN 2-61
- Access to Special Service Facilities 2-65
- AC-Extended Calls to CFB/CFD 2-41
- Attendant Call Park Recall Timer 2-74
- Attendant Call Selection 2-78
- Attendant Camp-On 2-85
- Attendant Conference (Maximum Six Conferencees) 2-94
- Attendant Console Call Hold Recall 2-103
- Attendant Console Display 2-113
- Attendant Console End-to-End Signalling 2-119
- Attendant Control of Trunk Group Access 2-125
- Attendant Display of Queued Calls by ICI Key 2-132
- Attendant Release Upon Completion of Dialing 2-142
- Attendant Speed Calling 2-148
- Attendant to Recorded Announcement 2-153
- Attendant to UCD 2-159
- Attendant Transfer 2-167
- Attendent - Auto Dial 2-70
- Audio Input on Incoming Calls in Queue (BV0602) 2-173
- Audio Interlude (BC0946) 2-182
- Audio Table Expansion (AD0822) 2-194
- Automatic Intercept System (AIS) Enhancement 2-202
- Automatic Line 2-217
- Automatic Recall 2-223
- Blind Transfer Recall 2-240
- Blind Transfer Recall Identification 2-250
- Busy Verification - Stations 2-263
- Busy Verification - Trunks 2-275
- Call Forward All Calls 2-289
- Call Forward Busy 2-298
- Call Forward Do Not Answer and Call Waiting Interaction 2-329
- Call Forward No Answer 2-313
- Call Hold 2-342
- Call Park 2-355
- Call Pickup 2-369
- Call Pickup Transparency 2-374
- Call Request Call Processing Enhancements 2-377
- Call Transfer Enhancement 2-386
- Call Waiting 2-398
- Call Waiting - Originating 2-417
- Call Waiting for 3-Way Calling 2-406
- Camp On with Music 2-427
- CFD from Hunt Group Station 2-435
- CFD Interaction with Three-Way Calling 2-444
- CFGDA for Hunt Groups 2-449
- Class of Service Restrictions 2-457
- Code Call Access 2-463
- Code Calling - Line Termination 2-471
- Code Restriction 2-479
- Conference Join 2-490
- CPU Datafill Enhancements 2-495
- Customer Group Transparency 2-501
- Denied Incoming 2-511
- Dial - Call Waiting 2-523
- Dictation Access and Control (DTMF Only) 2-533
- Direct Outward Dialing (DOD) 2-538
- Directed Call Park 2-548
- Directed Call Pickup - Barge In 2-557
- Directed Call Pickup - Non Barge In 2-567
- Distinctive and Ring Again Ringing 2-572
- Distinctive Call Waiting Tones 2-578
- Distinctive Ringing 2-584
- Distinctive Ringing Enhancements 2-597
- DTMF Outpulsing on a Line 2-615
- End to End Signalling via Speed Call 2-626
- Executive Right of Way 2-633
- Flexible Console Alerting 2-643
- Flexible Intercept 2-649
- Generalized Distinctive Ringing 2-653
- IBN Call Forward Validation 2-666
- IBN Cancel Call Waiting 2-670
- IBN Feature Activation OMs I 2-679

-
- IBN LCC Compatibility with FRO Line Option 2-685
 - IBN Outpulsing to POTS Trunks 2-703
 - IBN Quantity Control (100 Lines) 2-706
 - IBNRTE Table Capacity Increase 2-709
 - Immediate Answer Reporting for IBN 2-716
 - Increase in Number of IBN Customer Groups 2-719
 - Increase Number of Equivalent DN Appearances for IBN 2-725
 - Interposition Calls and Transfers 2-730
 - deactivating
 - 2-Way Digital FX Trunk - Business Services 2-4
 - 3-Way Conference/Transfer 2-11
 - 3WC Dial 0 for 608 Cord Board 2-19
 - 3WC/Call Transfer for UCD 2-28
 - 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
 - 6 Port Conference Circuit Use Control 2-36
 - Access to CCSA (BV0420) 2-44
 - Access to CO from PBX 2-51
 - Access to ETN 2-60
 - Access to Special Service Facilities 2-65
 - AC-Extended Calls to CFB/CFD 2-40
 - Attendant Call Park Recall Timer 2-74
 - Attendant Call Selection 2-78
 - Attendant Camp-On 2-84
 - Attendant Conference (Maximum Six Conferencees) 2-93
 - Attendant Console Call Hold Recall 2-102
 - Attendant Console Display 2-113
 - Attendant Console End-to-End Signalling 2-117
 - Attendant Control of Trunk Group Access 2-124
 - Attendant Display of Queued Calls by ICI Key 2-130
 - Attendant Locked Loop Operation 2-138
 - Attendant Release Upon Completion of Dialing 2-141
 - Attendant Speed Calling 2-146
 - Attendant to Recorded Announcement 2-153
 - Attendant to UCD 2-158
 - Attendant Transfer 2-166
 - Attendent - Auto Dial 2-68
 - Audio Input on Incoming Calls in Queue (BV0602) 2-172
 - Audio Interlude (BC0946) 2-181
 - Audio Table Expansion (AD0822) 2-193
 - Automatic Intercept System (AIS) Enhancement 2-201
 - Automatic Line 2-216
 - Automatic Recall 2-222
 - Blind Transfer Recall 2-236
 - Blind Transfer Recall Identification 2-249
 - Busy Verification - Stations 2-262
 - Busy Verification - Trunks 2-274
 - Call Forward All Calls 2-288
 - Call Forward Busy 2-298
 - Call Forward Do Not Answer and Call Waiting Interaction 2-328
 - Call Forward No Answer 2-312
 - Call Hold 2-340
 - Call Park 2-353
 - Call Pickup 2-367
 - Call Pickup Transparency 2-374
 - Call Request Call Processing Enhancements 2-377
 - Call Transfer Enhancement 2-383
 - Call Waiting 2-397
 - Call Waiting - Originating 2-416
 - Call Waiting for 3-Way Calling 2-405
 - Camp On with Music 2-426
 - CFD from Hunt Group Station 2-434
 - CFD Interaction with Three-Way Calling 2-443
 - CFGDA for Hunt Groups 2-448
 - Class of Service Restrictions 2-456
 - Code Call Access 2-462
 - Code Calling - Line Termination 2-470
 - Code Restriction 2-478
 - Conference Join 2-487
 - CPU Datafill Enhancements 2-494
 - Customer Group Transparency 2-501
 - Denied Incoming 2-510
 - Dial - Call Waiting 2-522
 - Dictation Access and Control (DTMF Only) 2-532
 - Direct Outward Dialing (DOD) 2-537
 - Directed Call Park 2-545
 - Directed Call Pickup - Barge In 2-556
-

- Directed Call Pickup - Non Barge In 2-566
- Distinctive and Ring Again Ringing 2-571
- Distinctive Call Waiting Tones 2-577
- Distinctive Ringing 2-584
- Distinctive Ringing Enhancements 2-596
- DTMF Outpulsing on a Line 2-612
- Executive Right of Way 2-632
- Flexible Console Alerting 2-641
- Flexible Intercept 2-649
- Generalized Distinctive Ringing 2-652
- IBN Call Forward Validation 2-661
- IBN Cancel Call Waiting 2-670
- IBN Feature Activation OMs I 2-678
- IBN LCC Compatibility with FRO Line Option 2-685
- IBN Outpulsing to POTS Trunks 2-702
- IBN Quantity Control (100 Lines) 2-706
- IBNRTE Table Capacity Increase 2-708
- Immediate Answer Reporting for IBN 2-715
- Increase in Number of IBN Customer Groups 2-719
- Increase Number of Equivalent DN Appearances for IBN 2-724
- Interposition Calls and Transfers 2-729
 - description
 - 2-Way Digital FX Trunk - Business Services 2-2
 - 3-Way Conference/Transfer 2-7
 - 3WC Dial 0 for 608 Cord Board 2-16
 - 3WC/Call Transfer for UCD 2-22
 - 3WC/CXR to 2500 Set Call Waiting Interactions 2-30
 - 6 Port Conference Circuit Use Control 2-35
 - Access to CCSA (BV0420) 2-43
 - Access to CO from PBX 2-50
 - Access to ETN 2-57
 - Access to Special Service Facilities 2-64
 - AC-Extended Calls to CFB/CFD 2-39
 - Attendant Call Park Recall Timer 2-72
 - Attendant Call Selection 2-77
 - Attendant Camp-On 2-80
 - Attendant Conference (Maximum Six Conferencees) 2-89
 - Attendant Console Call Hold Recall 2-100
 - Attendant Console Display 2-105
 - Attendant Console End-to-End Signalling 2-114
 - Attendant Control of Trunk Group Access 2-122
 - Attendant Display of Queued Calls by ICI Key 2-127
 - Attendant Locked Loop Operation 2-136
 - Attendant Release Upon Completion of Dialing 2-140
 - Attendant Speed Calling 2-144
 - Attendant to Recorded Announcement 2-152
 - Attendant to UCD 2-154
 - Attendant Transfer 2-166
 - Attendant - Auto Dial 2-66
 - Audio Input on Incoming Calls in Queue (BV0602) 2-169
 - Audio Interlude (BC0946) 2-179
 - Audio Table Expansion (AD0822) 2-192
 - Automatic Intercept System (AIS) Enhancement 2-196
 - Automatic Line 2-216
 - Automatic Recall 2-219
 - Blind Transfer Recall 2-231
 - Blind Transfer Recall Identification 2-244
 - Busy Verification - Stations 2-258
 - Busy Verification - Trunks 2-269
 - Call Forward All Calls 2-283
 - Call Forward Busy 2-293
 - Call Forward Do Not Answer and Call Waiting Interaction 2-321
 - Call Forward No Answer 2-304
 - Call Hold 2-334
 - Call Park 2-348
 - Call Pickup 2-364
 - Call Pickup Transparency 2-373
 - Call Request Call Processing Enhancements 2-375
 - Call Transfer Enhancement 2-378
 - Call Waiting 2-391
 - Call Waiting - Originating 2-411
 - Call Waiting for 3-Way Calling 2-404
 - Camp On with Music 2-422
 - CFD from Hunt Group Station 2-432
 - CFD Interaction with Three-Way Calling 2-440
 - CFGDA for Hunt Groups 2-445

-
- Class of Service Restrictions 2-455
 - Code Call Access 2-461
 - Code Calling - Line Termination 2-467
 - Code Restriction 2-477
 - Conference Join 2-484
 - CPU Datafill Enhancements 2-493
 - Customer Group Transparency 2-500
 - Denied Incoming 2-505
 - Dial - Call Waiting 2-517
 - Dictation Access and Control (DTMF Only) 2-529
 - Direct Outward Dialing (DOD) 2-536
 - Directed Call Park 2-541
 - Directed Call Pickup - Barge In 2-553
 - Directed Call Pickup - Non Barge In 2-563
 - Distinctive and Ring Again Ringing 2-571
 - Distinctive Call Waiting Tones 2-576
 - Distinctive Ringing 2-582
 - Distinctive Ringing Enhancements 2-588
 - DTMF Outpulsing on a Line 2-606
 - End to End Signalling via Speed Call 2-618
 - Executive Right of Way 2-628
 - Flexible Console Alerting 2-638
 - Flexible Intercept 2-648
 - Generalized Distinctive Ringing 2-651
 - IBN Call Forward Validation 2-658
 - IBN Cancel Call Waiting 2-668
 - IBN Feature Activation OMs I 2-673
 - IBN LCC Compatibility with FRO Line Option 2-680
 - IBN Outpulsing to POTS Trunks 2-700
 - IBN Quantity Control (100 Lines) 2-705
 - IBNRTE Table Capacity Increase 2-707
 - Immediate Answer Reporting for IBN 2-714
 - Increase in Number of IBN Customer Groups 2-717
 - Increase Number of Equivalent DN Appearances for IBN 2-721
 - Interposition Calls and Transfers 2-726
 - DNROUTE, table
 - datafilling 2-162, 2-732
- F**
- FNMAP, table
 - datafilling 2-71, 2-75, 2-79, 2-86, 2-95, 2-119, 2-125, 2-132, 2-148, 2-225, 2-265, 2-277, 2-298, 2-317, 2-429, 2-644, 2-731
- I**
- IBNRTE, table
 - datafilling 2-615, 2-709
 - IBNXLA, table
 - datafilling 2-48, 2-55, 2-163, 2-280, 2-289, 2-314, 2-342, 2-359, 2-370, 2-459, 2-463, 2-472, 2-482, 2-525, 2-533, 2-538, 2-549, 2-560, 2-567, 2-635, 2-649, 2-670
 - ICIDATA , table
 - datafilling 2-316
 - ICIDATA, table
 - datafilling 2-87, 2-98, 2-134, 2-227, 2-300, 2-430, 2-733
 - interactions
 - 2-Way Digital FX Trunk - Business Services 2-4
 - 3-Way Conference/Transfer 2-11
 - 3WC Dial 0 for 608 Cord Board 2-17
 - 3WC/Call Transfer for UCD 2-27
 - 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
 - 6 Port Conference Circuit Use Control 2-36
 - Access to CCSA (BV0420) 2-44
 - Access to CO from PBX 2-51
 - Access to ETN 2-60
 - Access to Special Service Facilities 2-65
 - AC-Extended Calls to CFB/CFD 2-40
 - Attendant Call Park Recall Timer 2-74
 - Attendant Call Selection 2-78
 - Attendant Camp-On 2-83
 - Attendant Conference (Maximum Six Conferees) 2-92
 - Attendant Console Call Hold Recall 2-102
 - Attendant Console Display 2-112
 - Attendant Console End-to-End Signalling 2-116
 - Attendant Control of Trunk Group Access 2-124
 - Attendant Display of Queued Calls by ICI Key 2-130
 - Attendant Locked Loop Operation 2-137
-

- Attendant Release Upon Completion of Dialing 2-141
 - Attendant Speed Calling 2-146
 - Attendant to Recorded Announcement 2-153
 - Attendant to UCD 2-158
 - Attendant Transfer 2-166
 - Attendant - Auto Dial 2-68
 - Audio Input on Incoming Calls in Queue (BV0602) 2-172
 - Audio Interlude (BC0946) 2-180
 - Audio Table Expansion (AD0822) 2-193
 - Automatic Intercept System (AIS) Enhancement 2-201
 - Automatic Line 2-216
 - Automatic Recall 2-222
 - Blind Transfer Recall 2-233
 - Busy Verification - Stations 2-262
 - Busy Verification - Trunks 2-273
 - Call Forward All Calls 2-287
 - Call Forward Busy 2-296
 - Call Forward Do Not Answer and Call Waiting Interaction 2-327
 - Call Forward No Answer 2-310
 - Call Hold 2-340
 - Call Park 2-353
 - Call Pickup 2-367
 - Call Pickup Transparency 2-374
 - Call Request Call Processing Enhancements 2-377
 - Call Transfer Enhancement 2-382
 - Call Waiting 2-395
 - Call Waiting - Originating 2-414
 - Call Waiting for 3-Way Calling 2-405
 - Camp On with Music 2-426
 - CFD from Hunt Group Station 2-433
 - CFD Interaction with Three-Way Calling 2-443
 - CFGDA for Hunt Groups 2-448
 - Class of Service Restrictions 2-456
 - Code Call Access 2-462
 - Code Calling - Line Termination 2-470
 - Code Restriction 2-478
 - Conference Join 2-487
 - CPU Datafill Enhancements 2-494
 - Customer Group Transparency 2-501
 - Denied Incoming 2-510
 - Dial - Call Waiting 2-520
 - Dictation Access and Control (DTMF Only) 2-532
 - Direct Outward Dialing (DOD) 2-537
 - Directed Call Park 2-542
 - Directed Call Pickup - Barge In 2-554
 - Directed Call Pickup - Non Barge In 2-564
 - Distinctive and Ring Again Ringing 2-571
 - Distinctive Call Waiting Tones 2-577
 - Distinctive Ringing 2-584
 - Distinctive Ringing Enhancements 2-595
 - DTMF Outpulsing on a Line 2-611
 - End to End Signalling via Speed Call 2-622
 - Executive Right of Way 2-631
 - Flexible Console Alerting 2-641
 - Flexible Intercept 2-649
 - Generalized Distinctive Ringing 2-652
 - IBN Call Forward Validation 2-660
 - IBN Cancel Call Waiting 2-669
 - IBN Feature Activation OMs I 2-678
 - IBN LCC Compatibility with FRO Line Option 2-685
 - IBN Outpulsing to POTS Trunks 2-702
 - IBN Quantity Control (100 Lines) 2-705
 - IBNRTE Table Capacity Increase 2-708
 - Immediate Answer Reporting for IBN 2-715
 - Increase in Number of IBN Customer Groups 2-719
 - Increase Number of Equivalent DN Appearances for IBN 2-724
 - Interposition Calls and Transfers 2-729
- L**
- LCMINV, table
 - datafilling 2-572, 2-585, 2-597, 2-653
 - limitations
 - 2-Way Digital FX Trunk - Business Services 2-4
 - 3-Way Conference/Transfer 2-11
 - 3WC Dial 0 for 608 Cord Board 2-16
 - 3WC/Call Transfer for UCD 2-27
 - 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
 - 6 Port Conference Circuit Use Control 2-35
 - Access to CCSA (BV0420) 2-44

-
- Access to CO from PBX 2-51
 - Access to ETN 2-60
 - Access to Special Service Facilities 2-65
 - AC-Extended Calls to CFB/CFD 2-40
 - Attendant Call Park Recall Timer 2-74
 - Attendant Call Selection 2-78
 - Attendant Camp-On 2-83
 - Attendant Conference (Maximum Six Conferees) 2-92
 - Attendant Console Call Hold Recall 2-102
 - Attendant Console Display 2-112
 - Attendant Console End-to-End Signalling 2-115
 - Attendant Control of Trunk Group Access 2-123
 - Attendant Display of Queued Calls by ICI Key 2-130
 - Attendant Locked Loop Operation 2-137
 - Attendant Release Upon Completion of Dialing 2-141
 - Attendant Speed Calling 2-146
 - Attendant to Recorded Announcement 2-153
 - Attendant to UCD 2-157
 - Attendant Transfer 2-166
 - Attendent - Auto Dial 2-68
 - Audio Input on Incoming Calls in Queue (BV0602) 2-172
 - Audio Interlude (BC0946) 2-180
 - Audio Table Expansion (AD0822) 2-193
 - Automatic Intercept System (AIS) Enhancement 2-201
 - Automatic Line 2-216
 - Automatic Recall 2-222
 - Blind Transfer Recall 2-232
 - Blind Transfer Recall Identification 2-249
 - Busy Verification - Stations 2-261
 - Busy Verification - Trunks 2-272
 - Call Forward All Calls 2-287
 - Call Forward Busy 2-296
 - Call Forward Do Not Answer and Call Waiting Interaction 2-327
 - Call Forward No Answer 2-310
 - Call Hold 2-340
 - Call Park 2-353
 - Call Pickup 2-367
 - Call Pickup Transparency 2-374
 - Call Request Call Processing Enhancements 2-376
 - Call Transfer Enhancement 2-381
 - Call Waiting 2-395
 - Call Waiting - Originating 2-413
 - Camp On with Music 2-425
 - CFD from Hunt Group Station 2-433
 - CFD Interaction with Three-Way Calling 2-443
 - CFGDA for Hunt Groups 2-447
 - Class of Service Restrictions 2-456
 - Code Call Access 2-462
 - Code Calling - Line Termination 2-470
 - Code Restriction 2-478
 - Conference Join 2-486
 - CPU Datafill Enhancements 2-494
 - Customer Group Transparency 2-501
 - Denied Incoming 2-510
 - Dial - Call Waiting 2-519
 - Dictation Access and Control (DTMF Only) 2-531
 - Direct Outward Dialing (DOD) 2-537
 - Directed Call Park 2-542
 - Directed Call Pickup - Barge In 2-554
 - Directed Call Pickup - Non Barge In 2-563
 - Distinctive Call Waiting Tones 2-577
 - Distinctive Ringing 2-583
 - Distinctive Ringing Enhancements 2-595
 - DTMF Outpulsing on a Line 2-611
 - End to End Signalling via Speed Call 2-622
 - Executive Right of Way 2-631
 - Flexible Console Alerting 2-641
 - Flexible Intercept 2-648
 - Generalized Distinctive Ringing 2-652
 - IBN Call Forward Validation 2-660
 - IBN Cancel Call Waiting 2-669
 - IBN Feature Activation OMs I 2-678
 - IBN LCC Compatibility with FRO Line Option 2-684
 - IBN Outpulsing to POTS Trunks 2-702
 - IBN Quantity Control (100 Lines) 2-705
 - IBNRTE Table Capacity Increase 2-708
 - Immediate Answer Reporting for IBN 2-715
 - Increase in Number of IBN Customer Groups 2-718
-

Increase Number of Equivalent DN Appearances for IBN 2-724
Interposition Calls and Transfers 2-729
LMRNG, table
 datafilling 2-574, 2-586, 2-599, 2-656

M

Meridian Digital Centrex
 datafilling 1-6
 functional groups 1-37
 translations 1-1

N

NCOS, table
 datafilling 2-20, 2-457, 2-479

O

office parameters
 2-Way Digital FX Trunk - Business Services 2-4
 3-Way Conference/Transfer 2-12
 3WC Dial 0 for 608 Cord Board 2-19
 3WC/Call Transfer for UCD 2-29
 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
 6 Port Conference Circuit Use Control 2-36
 Access to CCSA (BV0420) 2-45
 Access to CO from PBX 2-51
 Access to ETN 2-61
 Access to Special Service Facilities 2-65
 AC-Extended Calls to CFB/CFD 2-40
 Attendant Call Park Recall Timer 2-74
 Attendant Call Selection 2-78
 Attendant Camp-On 2-84
 Attendant Conference (Maximum Six Conferencees) 2-93
 Attendant Console Call Hold Recall 2-103
 Attendant Console Display 2-113
 Attendant Console End-to-End Signalling 2-118
 Attendant Control of Trunk Group Access 2-125
 Attendant Display of Queued Calls by ICI Key 2-131
 Attendant Locked Loop Operation 2-139

Attendant Release Upon Completion of Dialing 2-142
Attendant Speed Calling 2-148
Attendant to Recorded Announcement 2-153
Attendant to UCD 2-158
Attendant Transfer 2-167
Attendant - Auto Dial 2-70
Audio Input on Incoming Calls in Queue (BV0602) 2-172
Audio Interlude (BC0946) 2-182
Audio Table Expansion (AD0822) 2-193
Automatic Intercept System (AIS) Enhancement 2-202
Automatic Line 2-217
Automatic Recall 2-222
Blind Transfer Recall 2-239
Blind Transfer Recall Identification 2-250
Busy Verification - Stations 2-263
Busy Verification - Trunks 2-275
Call Forward All Calls 2-289
Call Forward Busy 2-298
Call Forward Do Not Answer and Call Waiting Interaction 2-328
Call Forward No Answer 2-312
Call Hold 2-341
Call Park 2-354
Call Pickup 2-368
Call Pickup Transparency 2-374
Call Request Call Processing Enhancements 2-377
Call Transfer Enhancement 2-385
Call Waiting 2-398
Call Waiting - Originating 2-416
Call Waiting for 3-Way Calling 2-406
Camp On with Music 2-427
CFD from Hunt Group Station 2-434
CFD Interaction with Three-Way Calling 2-444
CFGDA for Hunt Groups 2-449
Class of Service Restrictions 2-457
Code Call Access 2-463
Code Calling - Line Termination 2-471
Code Restriction 2-479
Conference Join 2-489
CPU Datafill Enhancements 2-495
Customer Group Transparency 2-501

-
- Denied Incoming 2-510
 - Dial - Call Waiting 2-523
 - Dictation Access and Control (DTMF Only) 2-533
 - Direct Outward Dialing (DOD) 2-538
 - Directed Call Park 2-547
 - Directed Call Pickup - Barge In 2-557
 - Directed Call Pickup - Non Barge In 2-567
 - Distinctive and Ring Again Ringing 2-572
 - Distinctive Call Waiting Tones 2-577
 - Distinctive Ringing 2-584
 - Distinctive Ringing Enhancements 2-596
 - DTMF Outpulsing on a Line 2-614
 - End to End Signalling via Speed Call 2-625
 - Executive Right of Way 2-632
 - Flexible Console Alerting 2-642
 - Flexible Intercept 2-649
 - Generalized Distinctive Ringing 2-653
 - IBN Call Forward Validation 2-666
 - IBN Cancel Call Waiting 2-670
 - IBN Feature Activation OMs I 2-679
 - IBN LCC Compatibility with FRO Line Option 2-685
 - IBN Outpulsing to POTS Trunks 2-703
 - IBN Quantity Control (100 Lines) 2-706
 - IBNRTE Table Capacity Increase 2-708
 - Immediate Answer Reporting for IBN 2-716
 - Increase in Number of IBN Customer Groups 2-719
 - Increase Number of Equivalent DN Appearances for IBN 2-725
 - Interposition Calls and Transfers 2-730
 - OFRT, table
 - datafilling 2-209
 - operation
 - 2-Way Digital FX Trunk - Business Services 2-2
 - 3-Way Conference/Transfer 2-8
 - 3WC Dial 0 for 608 Cord Board 2-16
 - 3WC/Call Transfer for UCD 2-22
 - 3WC/CXR to 2500 Set Call Waiting Interactions 2-30
 - 6 Port Conference Circuit Use Control 2-35
 - Access to CCSA (BV0420) 2-44
 - Access to CO from PBX 2-50
 - Access to ETN 2-57
 - Access to Special Service Facilities 2-64
 - AC-Extended Calls to CFB/CFD 2-39
 - Attendant Call Park Recall Timer 2-72
 - Attendant Call Selection 2-77
 - Attendant Camp-On 2-80
 - Attendant Conference (Maximum Six Conferencees) 2-89
 - Attendant Console Call Hold Recall 2-100
 - Attendant Console Display 2-105
 - Attendant Console End-to-End Signalling 2-114
 - Attendant Control of Trunk Group Access 2-122
 - Attendant Display of Queued Calls by ICI Key 2-127
 - Attendant Locked Loop Operation 2-136
 - Attendant Release Upon Completion of Dialing 2-140
 - Attendant Speed Calling 2-144
 - Attendant to Recorded Announcement 2-152
 - Attendant to UCD 2-154
 - Attendant Transfer 2-166
 - Attendant - Auto Dial 2-66
 - Audio Input on Incoming Calls in Queue (BV0602) 2-170
 - Audio Interlude (BC0946) 2-180
 - Audio Table Expansion (AD0822) 2-192
 - Automatic Intercept System (AIS) Enhancement 2-196
 - Automatic Line 2-216
 - Automatic Recall 2-219
 - Blind Transfer Recall 2-231
 - Blind Transfer Recall Identification 2-244
 - Busy Verification - Stations 2-258
 - Busy Verification - Trunks 2-269
 - Call Forward All Calls 2-284
 - Call Forward Busy 2-293
 - Call Forward Do Not Answer and Call Waiting Interaction 2-321
 - Call Forward No Answer 2-304
 - Call Hold 2-335
 - Call Park 2-348
 - Call Pickup 2-364
 - Call Pickup Transparency 2-373
 - Call Request Call Processing Enhancements 2-376
-

Call Transfer Enhancement 2-378
Call Waiting 2-391
Call Waiting - Originating 2-411
Call Waiting for 3-Way Calling 2-404
Camp On with Music 2-422
CFD from Hunt Group Station 2-432
CFD Interaction with Three-Way Calling 2-441
CFGDA for Hunt Groups 2-445
Class of Service Restrictions 2-456
Code Call Access 2-461
Code Calling - Line Termination 2-467
Code Restriction 2-477
Conference Join 2-485
CPU Datafill Enhancements 2-493
Customer Group Transparency 2-500
Denied Incoming 2-505
Dial - Call Waiting 2-517
Dictation Access and Control (DTMF Only) 2-529
Direct Outward Dialing (DOD) 2-536
Directed Call Park 2-541
Directed Call Pickup - Barge In 2-553
Directed Call Pickup - Non Barge In 2-563
Distinctive and Ring Again Ringing 2-571
Distinctive Call Waiting Tones 2-576
Distinctive Ringing 2-583
Distinctive Ringing Enhancements 2-588
DTMF Outpulsing on a Line 2-606
End to End Signalling via Speed Call 2-618
Executive Right of Way 2-628
Flexible Console Alerting 2-638
Flexible Intercept 2-648
Generalized Distinctive Ringing 2-651
IBN Call Forward Validation 2-658
IBN Cancel Call Waiting 2-668
IBN Feature Activation OMs I 2-674
IBN LCC Compatibility with FRO Line Option 2-680
IBN Outpulsing to POTS Trunks 2-700
IBN Quantity Control (100 Lines) 2-705
IBNRTE Table Capacity Increase 2-707
Immediate Answer Reporting for IBN 2-714
Increase in Number of IBN Customer Groups 2-717

Increase Number of Equivalent DN Appearances for IBN 2-722
Interposition Calls and Transfers 2-726
ordering codes
2-Way Digital FX Trunk - Business Services 2-2
Access to CO from PBX 2-50
Attendant to Recorded Announcement 2-152
Call Pickup 2-364
Call Request Call Processing Enhancements 2-375
Code Restriction 2-477
Conference Join 2-484
Distinctive and Ring Again Ringing 2-571
MDC00001 2-2, 2-7, 2-16, 2-22, 2-30, 2-34, 2-39, 2-43, 2-57, 2-64, 2-66, 2-72, 2-77, 2-80, 2-89, 2-100, 2-105, 2-114, 2-122, 2-127, 2-136, 2-140, 2-144, 2-152, 2-154, 2-166, 2-169, 2-179, 2-192, 2-196, 2-219, 2-244, 2-258, 2-269, 2-283, 2-293, 2-304, 2-334, 2-348, 2-364, 2-373, 2-375, 2-378, 2-391, 2-411, 2-422, 2-432, 2-440, 2-445, 2-455, 2-461, 2-467, 2-493, 2-500, 2-505, 2-517, 2-529, 2-536, 2-541, 2-553, 2-563, 2-571, 2-576, 2-582, 2-588, 2-606, 2-618, 2-628, 2-638, 2-648, 2-651, 2-658, 2-668, 2-680, 2-700, 2-705, 2-707, 2-714, 2-717, 2-721, 2-726
MDC00003 2-216, 2-231, 2-321, 2-404, 2-673
MDC00007 2-375

P

prerequisites
2-Way Digital FX Trunk - Business Services 2-2
3-Way Conference/Transfer 2-7
3WC Dial 0 for 608 Cord Board 2-16
3WC/Call Transfer for UCD 2-22
3WC/CXR to 2500 Set Call Waiting Interactions 2-30
Access to CO from PBX 2-50
AC-Extended Calls to CFB/CFD 2-39
Attendant Call Park Recall Timer 2-72
Attendant Call Selection 2-77

-
- Attendant Camp-On 2-80
 - Attendant Conference (Maximum Six Confererees) 2-89
 - Attendant Console Call Hold Recall 2-100
 - Attendant Console Display 2-105
 - Attendant Console End-to-End Signalling 2-114
 - Attendant Control of Trunk Group Access 2-122
 - Attendant Display of Queued Calls by ICI Key 2-127
 - Attendant Locked Loop Operation 2-136
 - Attendant Release Upon Completion of Dialing 2-140
 - Attendant Speed Calling 2-144
 - Attendant to Recorded Announcement 2-152
 - Attendant to UCD 2-154
 - Attendant Transfer 2-166
 - Attendent - Auto Dial 2-66
 - Audio Interlude (BC0946) 2-179
 - Audio Table Expansion (AD0822) 2-192
 - Authcode for MDR 2-34, 2-43, 2-57, 2-64, 2-169, 2-455, 2-461, 2-500, 2-529, 2-536
 - Automatic Intercept System (AIS) Enhancement 2-196
 - Automatic Line 2-216
 - Automatic Recall 2-219
 - Blind Transfer Recall 2-231
 - Blind Transfer Recall Identification 2-244
 - Busy Verification - Stations 2-258
 - Busy Verification - Trunks 2-269
 - Call Forward All Calls 2-283
 - Call Forward Busy 2-293
 - Call Forward Do Not Answer and Call Waiting Interaction 2-321
 - Call Forward No Answer 2-304
 - Call Hold 2-334
 - Call Park 2-348
 - Call Pickup 2-364
 - Call Pickup Transparency 2-373
 - Call Request Call Processing Enhancements 2-375
 - Call Transfer Enhancement 2-378
 - Call Waiting 2-391
 - Call Waiting - Originating 2-411
 - Call Waiting for 3-Way Calling 2-404
 - Camp On with Music 2-422
 - CFD from Hunt Group Station 2-432
 - CFD Interaction with Three-Way Calling 2-440
 - CFGDA for Hunt Groups 2-445
 - Code Calling - Line Termination 2-467
 - Code Restriction 2-477
 - Conference Join 2-484
 - CPU Datafill Enhancements 2-493
 - Denied Incoming 2-505
 - Dial - Call Waiting 2-517
 - Directed Call Park 2-541
 - Directed Call Pickup - Barge In 2-553
 - Directed Call Pickup - Non Barge In 2-563
 - DISA Definable Timeout Destination 2-673
 - Distinctive and Ring Again Ringing 2-571
 - Distinctive Call Waiting Tones 2-576
 - Distinctive Ringing 2-582
 - Distinctive Ringing Enhancements 2-588
 - DTMF Outpulsing on a Line 2-606
 - End to End Signalling via Speed Call 2-618
 - Executive Right of Way 2-628
 - Flexible Console Alerting 2-638
 - Flexible Intercept 2-648
 - Generalized Distinctive Ringing 2-651
 - IBN Call Forward Validation 2-658
 - IBN Cancel Call Waiting 2-668
 - IBN LCC Compatibility with FRO Line Option 2-680
 - IBN Outpulsing to POTS Trunks 2-700
 - IBN Quantity Control (100 Lines) 2-705
 - IBNRTE Table Capacity Increase 2-707
 - Immediate Answer Reporting for IBN 2-714
 - Increase in Number of IBN Customer Groups 2-717
 - Increase Number of Equivalent DN Appearances for IBN 2-721
 - Interposition Calls and Transfers 2-726
- R**
- REASONS, table
 - datafilling 2-250
 - restrictions
 - 2-Way Digital FX Trunk - Business Services 2-4
-

- 3-Way Conference/Transfer 2-11
- 3WC Dial 0 for 608 Cord Board 2-16
- 3WC/Call Transfer for UCD 2-27
- 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
- 6 Port Conference Circuit Use Control 2-35
- Access to CCSA (BV0420) 2-44
- Access to CO from PBX 2-51
- Access to ETN 2-60
- Access to Special Service Facilities 2-65
- AC-Extended Calls to CFB/CFD 2-40
- Attendant Call Park Recall Timer 2-74
- Attendant Call Selection 2-78
- Attendant Camp-On 2-83
- Attendant Conference (Maximum Six Conferencees) 2-92
- Attendant Console Call Hold Recall 2-102
- Attendant Console Display 2-112
- Attendant Console End-to-End Signalling 2-115
- Attendant Control of Trunk Group Access 2-123
- Attendant Display of Queued Calls by ICI Key 2-130
- Attendant Locked Loop Operation 2-137
- Attendant Release Upon Completion of Dialing 2-141
- Attendant Speed Calling 2-146
- Attendant to Recorded Announcement 2-153
- Attendant to UCD 2-157
- Attendant Transfer 2-166
- Attendent - Auto Dial 2-68
- Audio Input on Incoming Calls in Queue (BV0602) 2-172
- Audio Interlude (BC0946) 2-180
- Audio Table Expansion (AD0822) 2-193
- Automatic Intercept System (AIS) Enhancement 2-201
- Automatic Line 2-216
- Automatic Recall 2-222
- Blind Transfer Recall 2-232
- Blind Transfer Recall Identification 2-249
- Busy Verification - Stations 2-261
- Busy Verification - Trunks 2-272
- Call Forward All Calls 2-287
- Call Forward Busy 2-296
- Call Forward Do Not Answer and Call Waiting Interaction 2-327
- Call Forward No Answer 2-310
- Call Hold 2-340
- Call Park 2-353
- Call Pickup 2-367
- Call Pickup Transparency 2-374
- Call Request Call Processing Enhancements 2-376
- Call Transfer Enhancement 2-381
- Call Waiting 2-395
- Call Waiting - Originating 2-413
- Camp On with Music 2-425
- CFD from Hunt Group Station 2-433
- CFD Interaction with Three-Way Calling 2-443
- CFGDA for Hunt Groups 2-447
- Class of Service Restrictions 2-456
- Code Call Access 2-462
- Code Calling - Line Termination 2-470
- Code Restriction 2-478
- Conference Join 2-486
- CPU Datafill Enhancements 2-494
- Customer Group Transparency 2-501
- Denied Incoming 2-510
- Dial - Call Waiting 2-519
- Dictation Access and Control (DTMF Only) 2-531
- Direct Outward Dialing (DOD) 2-537
- Directed Call Park 2-542
- Directed Call Pickup - Barge In 2-554
- Directed Call Pickup - Non Barge In 2-563
- Distinctive Call Waiting Tones 2-577
- Distinctive Ringing 2-583
- Distinctive Ringing Enhancements 2-595
- DTMF Outpulsing on a Line 2-611
- End to End Signalling via Speed Call 2-622
- Executive Right of Way 2-631
- Flexible Console Alerting 2-641
- Flexible Intercept 2-648
- Generalized Distinctive Ringing 2-652
- IBN Call Forward Validation 2-660
- IBN Cancel Call Waiting 2-669
- IBN Feature Activation OMs I 2-678
- IBN LCC Compatibility with FRO Line Option 2-684
- IBN Outpulsing to POTS Trunks 2-702

IBN Quantity Control (100 Lines) 2-705
 IBNRTE Table Capacity Increase 2-708
 Immediate Answer Reporting for IBN 2-715
 Increase in Number of IBN Customer Groups 2-718
 Increase Number of Equivalent DN Appearances for IBN 2-724
 Interposition Calls and Transfers 2-729

S

SDGRP, table
 datafilling 2-685

STN, table
 datafilling 2-264, 2-276, 2-398, 2-406, 2-419, 2-525, 2-559, 2-580, 2-634

T

table flow
 2-Way Digital FX Trunk - Business Services 2-3
 3-Way Conference/Transfer 2-9
 3WC Dial 0 for 608 Cord Board 2-16
 3WC/Call Transfer for UCD 2-27
 3WC/CXR to 2500 Set Call Waiting Interactions 2-32
 6 Port Conference Circuit Use Control 2-35
 Access to CCSA (BV0420) 2-44
 Access to CO from PBX 2-50
 Access to ETN 2-58
 Access to Special Service Facilities 2-64
 AC-Extended Calls to CFB/CFD 2-39
 Attendant Call Park Recall Timer 2-72
 Attendant Call Selection 2-78
 Attendant Camp-On 2-81
 Attendant Conference (Maximum Six Conferees) 2-89
 Attendant Console Call Hold Recall 2-101
 Attendant Console Display 2-112
 Attendant Console End-to-End Signalling 2-115
 Attendant Control of Trunk Group Access 2-123
 Attendant Display of Queued Calls by ICI Key 2-128
 Attendant Locked Loop Operation 2-137

Attendant Release Upon Completion of Dialing 2-141
 Attendant Speed Calling 2-144
 Attendant to Recorded Announcement 2-153
 Attendant to UCD 2-154
 Attendant Transfer 2-166
 Audio Input on Incoming Calls in Queue (BV0602) 2-170
 Audio Interlude (BC0946) 2-180
 Audio Table Expansion (AD0822) 2-193
 Automatic Intercept System (AIS) Enhancement 2-199
 Automatic Line 2-216
 Automatic Recall 2-220
 Blind Transfer Recall 2-232
 Blind Transfer Recall Identification 2-247
 Busy Verification - Stations 2-258
 Busy Verification - Trunks 2-269
 Call Forward All Calls 2-285
 Call Forward Busy 2-294
 Call Forward Do Not Answer and Call Waiting Interaction 2-324
 Call Forward No Answer 2-307
 Call Hold 2-335
 Call Park 2-349
 Call Pickup 2-365
 Call Pickup Transparency 2-373
 Call Request Call Processing Enhancements 2-376
 Call Transfer Enhancement 2-380
 Call Waiting 2-393
 Call Waiting - Originating 2-412
 Call Waiting for 3-Way Calling 2-404
 Camp On with Music 2-423
 CFD from Hunt Group Station 2-433
 CFD Interaction with Three-Way Calling 2-443
 CFGDA for Hunt Groups 2-447
 Class of Service Restrictions 2-456
 Code Call Access 2-462
 Code Calling - Line Termination 2-468
 Code Restriction 2-478
 Conference Join 2-485
 CPU Datafill Enhancements 2-494
 Customer Group Transparency 2-500
 Denied Incoming 2-508

- Dial - Call Waiting 2-519
- Dictation Access and Control (DTMF Only) 2-531
- Direct Outward Dialing (DOD) 2-536
- Directed Call Park 2-542
- Directed Call Pickup - Barge In 2-554
- Directed Call Pickup - Non Barge In 2-563
- Distinctive and Ring Again Ringing 2-571
- Distinctive Call Waiting Tones 2-576
- Distinctive Ringing 2-583
- Distinctive Ringing Enhancements 2-593
- DTMF Outpulsing on a Line 2-609
- End to End Signalling via Speed Call 2-621
- Executive Right of Way 2-629
- Flexible Console Alerting 2-639
- Flexible Intercept 2-648
- Generalized Distinctive Ringing 2-652
- IBN Call Forward Validation 2-658
- IBN Cancel Call Waiting 2-669
- IBN Feature Activation OMs I 2-678
- IBN LCC Compatibility with FRO Line Option 2-681
- IBN Outpulsing to POTS Trunks 2-702
- IBN Quantity Control (100 Lines) 2-705
- IBNRTE Table Capacity Increase 2-708
- Immediate Answer Reporting for IBN 2-714
- Increase in Number of IBN Customer Groups 2-718
- Increase Number of Equivalent DN Appearances for IBN 2-724
- Interposition Calls and Transfers 2-727
- TMTCNTL.TREAT, table
datafilling 2-210
- TMTMAP, table
datafilling 2-212
- translating
 - 2-Way Digital FX Trunk - Business Services 2-2
 - 3-Way Conference/Transfer 2-7
 - 3WC Dial 0 for 608 Cord Board 2-16
 - 3WC/Call Transfer for UCD 2-22
 - 3WC/CXR to 2500 Set Call Waiting Interactions 2-30, 2-404
 - 6 Port Conference Use Control 2-34
 - Access to CCSA 2-43
 - Access to CO from PBX 2-50
 - Access to ETN 2-57
 - Access to Special Service Facilities 2-64
 - AC-Extended Calls to CFB/CFD 2-39
 - Attendant - Auto Dial 2-66
 - Attendant Call Park Recall Timer 2-72
 - Attendant Call Selection 2-77
 - Attendant Camp-On 2-80
 - Attendant Conference (Maximum Six Conferencees) 2-89
 - Attendant Console Call Hold Recall 2-100
 - Attendant Console Display 2-105
 - Attendant Console End to End Signalling 2-114
 - Attendant Control of Trunk Group Access 2-122
 - Attendant Display of Queued Calls by ICI Key 2-127
 - Attendant Locked Loop Operation 2-136
 - Attendant Release Upon Completion of Dialing 2-140
 - Attendant Speed Calling 2-144
 - Attendant to Recorded Announcement 2-152
 - Attendant to UCD 2-154
 - Attendant Transfer 2-166
 - Audio Input on Incoming Calls in Queue 2-169
 - Audio Interlude 2-179
 - Audio Table Expansion 2-192
 - Automatic Intercept System (AIS) Enhancement 2-196
 - Automatic Line 2-216
 - Automatic Recall 2-219
 - Blind Transfer Recall 2-231
 - Busy Verification - Stations 2-258
 - Busy Verification - Trunks 2-269
 - Call Forward All Calls 2-283
 - Call Forward Busy 2-293
 - Call Forward Do Not Answer and Call Waiting Interaction 2-321
 - Call Forward Don't Answer 2-304
 - Call Hold 2-334
 - Call Park 2-348
 - Call Pickup 2-364
 - Call Pickup Transparency 2-373
 - Call Request Call Processing Enhancements 2-375

Call Transfer Enhancement 2-378
 Call Waiting 2-391
 Call Waiting - Originating 2-411
 Camp On with Music 2-422
 CFD from Hunt Group Station 2-432
 CFD Interaction with Three-Way Calling 2-440
 CFGDA for Hunt Groups 2-445
 Class of Service Restrictions 2-455
 Code Call Access 2-461
 Code Calling - Line Termination 2-467
 Code Restriction 2-477
 Conference Join 2-484
 CPU Datafill Enhancements 2-493
 Customer Group Transparency 2-500
 Denied Incoming 2-505
 Dial - Call Waiting 2-517
 Dictation Access and Control (DTMF Only) 2-529
 Direct Outward Dialing (DOD) 2-536
 Directed Call Park 2-541
 Directed Call Pickup - Barge In 2-553
 Directed Call Pickup - Non Barge In 2-563
 Distinctive and Ring Again Ringing 2-571
 distinctive call waiting tones 2-576
 Distinctive Ringing 2-582
 Distinctive Ringing Enhancements 2-588
 DTMF Outpulsing on a Line 2-606
 End-to-End Signalling via Speed Call 2-618
 Executive Right of Way 2-628
 Flexible Console Alerting 2-638
 Flexible Intercept 2-648
 Generalized Distinctive Ringing 2-651
 IBN Call Forward Validation 2-658
 IBN Cancel Call Waiting 2-668
 IBN Feature Activation OMs I 2-673
 IBN LCC Compatibility with FRO Line Option 2-680
 IBN Outpulsing to POTS Trunks 2-700
 IBN Quantity Control (100 Lines) 2-705
 IBNRTE Table Capacity Increase 2-707
 Immediate Answer Reporting for IBN 2-714
 Increase in Number of IBN Customer Groups 2-717
 Increase Number of Equivalent DN Appearances for IBN 2-721

Interposition Calls and Transfers 2-726
 Multipilot Directory Numbers on MLH Group 2-244
 TRKGRP, table
 datafilling 2-5, 2-47, 2-52, 2-62, 2-204, 2-511
 TRKMEM, table
 datafilling 2-55, 2-207
 TRKSGRP, table
 datafilling 2-53, 2-206

U

UCDGRP, table
 datafilling 2-159, 2-189

V

VIRTGRPS, table
 datafilling 2-512

W

WCKCODES, table
 datafilling 2-97, 2-120, 2-133, 2-150, 2-267, 2-279, 2-645

DMS-100 Family

North American DMS-100

Translations Guide Volume 11 of 25

Meridian Digital Centrex (MDC) Part 1 of 6

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