

297-1001-830

DMS-100 Family

# **Bellcore Format Automatic Message Accounting**

Reference Guide

00Q2 Standard 21.01 May 2000

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DMS-100 FAMILY

# Bellcore Format Automatic Message Accounting Reference Guide

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# Publication history

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## April 2000

Quarter 00Q2, Standard 21.01

- made editorial improvements
- made a change to data field 237

## October 1999

Quarter 99Q4, Standard 20.03

- added a note to call codes 031 and 330
- made a change to the text in data field 639

## September 1999

Quarter 99Q3, Standard 20.02

- changed applicability from LEC012 to 99Q3

## July 1999

Quarter 99Q3, Standard 20.01

- added technical information and made editorial corrections

## December 1998

Quarter 98Q4, Standard 19.01

- changed the subscriber identifier field from number 25 to 27. Change also reflected in module code 47
- changed module codes 180 and 181
- added structure code 690
- added call code 183

- added data field 195, ISDN Channel Identifier
- changed information in fields 34 and 152
- added field 675, modified service or equipment indicator
- added field 677, modified treatment indicator
- added field 678, additional service information indicator
- added field 679, originating billing/services indicator
- added field 680, additional originating billing/services indicator
- added module code 219
- added structure code 772

### **September 1998**

Quarter 98Q2, Standard 18.03

- made grammatical and spelling corrections

### **August 1998**

Quarter 98Q2, Standard 18.02

- made additions to accommodate ABSK006 release

### **June 1998**

Quarter 98Q2, Standard 18.01

- removed information in generating call code 021 - CCSA Originating line option
- removed Advanced maintenance guide reference from About this document
- removed class feature code field 085 from structure code 01030; deleted duplicate 01030 table; changed heading to “Class features”
- made additions to data fields 638 and 730
- made corrections to Table 2-1
- corrected module code 104, value 6 definition
- added call code 127

- 
- added module code 098
  - added context identifiers 80006, 80008, 80016, and 80024 to module code 611
  - added context identifiers 80015, 80020, and 80023 to module code 612

### **March 1998**

Quarter 98Q1, Standard 17.01

- corrected module code 720 title
- added call code 720
- changed structure code 106
- added module code 074
- changed data fields 88, 89, 155, 244, 730, and 734
- added data fields 188, 189, and 407

### **January 1998**

Quarter 97Q4, Standard 16.02

- corrected data fields 89, 585, 730, 802, and 804
- added structure code 512

### **December 1997**

Quarter 97Q4, Standard 16.01

- corrected data field 431, character 9
- added module codes, 044, 125, and 719
- updated module code 338, and data fields 730 and 638
- added module code 720 and data fields 730, 731, 732, 733, 734, and 801
- added call codes 126, 128, 721, and 722
- added structure codes 0513 and 0514

### **October 1997**

Quarter 97Q3, Standard 15.02

- Table 4-38, module code 060-Charges, corrected Amount deposited field from 23 to 38

### **September 1997**

Quarter 97Q3, Standard 15.01

- corrected field 330, character 2-3, value 06 changed to Session abort
- updated data fields 126 and 237
- added new module code 123, updated data fields 802 and 804
- updated module code 338, and data fields 730, 638, and 639
- updated module codes 611, 612, 164, 151, and 051

### **June 1997**

Quarter 97Q2, Standard 14.01

- updated data fields 76, 126, 280, 281, and 282
- corrected data field 412
- added data fields 237, 613, 614, and 615
- updated module code 070
- added module codes 290, 338, 184, 185, 186, and 187
- updated structure code 00110, added fields 080, 082, 085, and 087

### **March 1997**

Quarter 97Q1, Standard 13.01

- updated data fields 00, 0, 2, 3, 4, 5, 6, 12, 18, 34, 55, 88, 282, 290, 296, 297, 403, and 504
- corrected data fields 19, 83, 280, 298, and 426
- added data fields 169, 430, 491, 492, 493, 494, 495, 496, 730, 731, 732, 733, and 734
- updated structure code 00106

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- added structure code 00511
  - updated explanation of module codes
  - added module codes 062, 093, 095, 097, 115, 116, 180, 181, 194, and 720

**October 1996**

Quarter 96Q4, Standard 12.02

- updated structure code 00025, removed fields 15, 16, and 17

**April 1996**

Quarter 96Q1, Standard 12.01

- added data fields 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, and 182
- updated field 85

**December 1995**

Quarter 95Q4, Standard 11.01

- added new data fields 409, 580, 581, 582, 583, 584, and 585
- corrected information on fields 244, 410, 411, and 412
- added new module code 071, 073, 511, 512, 513

**August 1995**

Quarter 95Q3, Standard 10.01

- corrected information in Table 2-1, BC AMA recording fields
- corrected information on fields 76, 88, and 165
- added new module codes 151, 156, and 158

**May 1995**

Quarter 95Q2, Standard 09.01

- added new data fields 75, 165, 168, 340, 417, 418, 801, and 803
- corrected information on call codes 009, 067, 074, and 251
- added structure codes 00670, 00671, 00685, 00686, 00692, and 00693

- corrected information on structure codes 00001, 00076, 00128, 00220, 00221, 00500, 00510, 00625, 00645, 00700, 00702, 00718, 00721, 00723, 00727, and 00729
- deleted all references to structure code 00625 in relation to call code 132
- corrected information on data fields 36, 71, 72, 74, 207, and 208
- added call code 550
- added new module codes 034, 036, 037, 045, 121, 150, and 164
- corrected information on module code 508
- added new sub-field 089 to data field 415

**March 1994**

CSP02 Preliminary 08.01 CSP02 is an interim designation that identifies a preliminary release of post-BCS 36 NTPs.

**March 1994**

BCS36, and up Standard 07.03

- added information on module codes 030, 039, 040, 102, and 307
- added information on data fields 282, 338, and 339
- corrected information on data field 400
- added call code 006 to structure code 00510

**December 1993**

BCS36, Standard 07.02

- added call codes 174 and 175
- added data fields 105, 207, and 208
- added information on module codes 022 and 047
- added information on structure code 00001
- added structure code 00510 to call code 006

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**October 1993**

## BCS36, Preliminary 07.01

- added call codes 047, 148, 149, and 150
- added, corrected, and/or changed information on data fields 12, 42, 415, and 423
- added, corrected, and/or changed information on structure codes 00190 and 00645
- added information on call code 264
- added information on data field 57 for E800 calls
- added information on module code 021
- added new module codes 29, 30, 39, 40, 49, 103, and 509
- added new structure codes 00220 and 00221
- changed information on module code 307
- deleted screening list editing (SLE) daily continuation (value 074) from data fields 12 and 415

**March 1993**

## BCS35, Standard 06.01

- added, corrected, and/or changed information on data fields 7, 8, 9, 12, 46, 57, 70, 72, 85, 117, 281, 290, 435, 501, 503, 911, and 912
- deleted obsolete structure codes 2, 16, 21, 80, 86, 87, 101, 115, 120, 125, 141, 179, 191, 194, 362, 363, 366, 367, 368, 369, 627, 633, 647, 654, 657, and 665
- added two fields to structure codes 360 through 364
- supplied information on module codes 22, 25, 33, 100, 102, 104, 314, and 315
- added module codes 68, 504, 911, and 912
- deleted some of tracer output for generating call code 119

- added information for generating call code 132
- added information on TERM NPA for call codes 6 and 119

**July 1992**

BCS34, Standard 05.01

- added feature QMS: Call Queue Assignment (AF2875)
- added feature AMA Compliance-TR-508 (AF3078)
- added feature TR-862 AMA Compliance: Circuit (AF3556)
- added feature MBG III-Support of Private Numbering Plan (AG2555)
- added feature AIN AMA (AN0099)
- added feature AMA TR-508 Compliancy II (AN0101)
- added feature Universal Bellcore Centrex Billing (NC0267)

**October 1991**

BCS33, Standard 04.01

- added information on data field 8-Study Indicator
- added module code 031-Feature Type Indicator
- added module code 032-Operator Information
- added module code 033-Intl Call Completion Service
- added module code 035-Intl Credit Recording Service
- added module code 038-Party Name
- added module code 069-Frame Relay Service
- added module code 301-Account Code Billing
- added information on new data field 071-Feature Type Indicator
- added field 72-Alternate Route Number
- added field 73-Intl Service Difficulty
- added field 74-Multiplier Factor

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- added field 76-Type of Name
  - added field 391-Account Code Billing Indicator
  - added field 392-Account Code Billing Number
  - append field 57-IEC/INC Prefix
  - added structure code 00106-Intl Originating
  - added structure code 00107-Intl Terminating
  - added structure code 00693-Frame Relay
  - added CLASS feature field 415 to structure code 01030
  - added OM peg BCRCOTHR to AMAPEG data field numbers in structure code 09046
  - changed number of characters from 10 to 6 in field BCLTSTPD
  - changed number of characters from 6 to 10 in field 244-Incoming/Outgoing trunk facility identification in module code 104-Trunk Identification Module
  - added call code 089-Frame Relay
  - changed call code 134-Originating FGB
  - change call code 135-Terminating FGB

**October 1991**

BCS32, Standard 03.03

- added CLASS feature field-415 to structure code 01030
- added OM peg BCRCOTHR to AMAPEG data field numbers in structure code 09046
- changed number of characters from 10 to 6 in field BCLTSTPD
- changed number of characters from 6 to 10 in field 244-Incoming/Outgoing trunk facility identification in module code 104-Trunk Identification Module

**October 1991**

BCS31, Standard 02.03

- added CLASS feature field-415 to structure code 01030
- added OM peg BCRCOTHR to AMAPEG data field numbers in structure code 09046
- changed number of characters from 10 to 6 in field BCLTSTPD

**March 1991**

BCS32, Standard 03.02

- removed all references to Trunk Network Numbers (TNNs)
- removed structure code series 1xxxx, 3xxxx, 5xxxx, and 7xxxx
- clarified description of answered/unanswered calls
- corrected an error in the examples of call code 001 records
- added value 014-Call forward blocking with no answer
- added call code 215
- added values 065, 066, and 104 to field 88
- added value 8 to character 5 of field 282
- added values 012, 013, 014, and 016 to characters 1-3 of field 283
- added values 5 and 6 to character 1 of field 287
- change the operator number value (characters 8-9) maximum to 9999 of field 296
- added field 303
- update field 421 description to include SLT ANI recording
- added field 803
- clarified information on high runner structure codes
- added call code 950 to structure code 00001
- added structure code 01030

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**March 1991**

BCS32, Standard 03.01

- added module code 065
- added module code 314
- added module code 066
- added module code 104
- updated module code 306 description to include ANI recording
- added call codes 215 and 950
- update call code-to-structure code cross-reference information in Chapters 6 and 7

**March 1991**

BCS31, Standard 02.02

- clarified information on high runner structure codes
- clarified description of answered/unanswered calls
- corrected an error in the examples of call code 001 call records
- added value 014-Call forward blocking with no answer
- added field 803
- added structure code 01030 record for CLASS ACB and AR features
- added module code 314
- make several editorial changes
- update call code-to-structure code cross-reference information in Chapters 6 and 7

**September 1990**

BCS31, Draft 02.01

- added field 271-Out of Band Indication
- added field 431-Keying Actions

- added field 432-Origination Call Type
- added field 433-Guest Name/Room Number
- added field 434-Overseas Calling Card Number
- added field 436-Local Determination Indicator
- added field 421-Originating Line Parameter
- added field 500-Originating Open Digits 1
- added field 501-Originating Open Digits 2
- added field 502-Terminating Open Digits 1
- added field 503-Terminating Open Digits 2
- added field 504-Originating Charge Information
- added field 505-Domestic/International Indicator
- added module 306-Originating Line Information Parameter
- added module 309-Enhanced 800 Service
- added module 310-Operator Keying Action
- added module 311-Origination Call Type
- added module 312-Hotel Information
- added module 313-Overseas Calling Card Billing
- added module 316-Local Determination
- added structure code 0510
- In addition to new information, the *Generating Call Codes* section previously in Release 01.01 of 297-1001-160 has been moved to this document. and included in Chapter 6, *Generating Call Codes*.

**September 1990**

BCS30, Standard 01.01 first release of this document

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**List of terms A-1**

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# About this document

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## When to use this document

This document provides reference information on the DMS Bellcore format automatic message accounting (AMA) system. There is a description and listing of the:

- data fields
- structure codes
- module codes
- call codes

used in the DMS Bellcore AMA format.

## How to check the version and issue of this document

The version and issue of the document are indicated by numbers, for example, 01.01.

The first two digits indicate the version number, which increases each time there is a document update to support a new software release. For example, the first release of a document is 01.01. In the *next* software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue number, which increases each time there is a document revision, but re-released, in the *same* software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

To determine which version of this document applies to the software in your office, and how documentation for your product is organized, check the release information in *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001.

## How to identify the software in your office

The *Office Feature Record (D190)* identifies the current BCS/PCL level and the Nortel Networks feature packages in your switch.

## References in this document

The following documents are referred to in this document:

- *DMS-100 Family Guide to Northern Telecom Publications* 297-1001-001
- *DMS-100 System Description*, 297-1001-100
- *Magnetic Tape Reference Manual*, 297-1001-118
- *Bellcore Format Automatic Message Accounting Administration Guide*, 97-1001-341
- *Bellcore Format Automatic Message Accounting Planning and Engineering Guide*, 297-1001-182
- *Bellcore Format Automatic Message Accounting Product Guide*, 297-1001-012
- *Blue Box Fraud Detection Feature Description*, 297-1001-132
- *Multi-Protocol Controller (MPC) Product Guide*, 297-1001-015
- *Power Distribution and Grounding Systems*, 297-1001-156
- *Automatic Message Accounting (AMA) Northern Telecom Format Conversion*, 297-1001-119
- *Core Translations Guide*
- *DMS-100 Provisioning Manual*, 297-1001-450
- *Translations Guide*
- *Office Parameters Reference Manual*
- *DMS-100 Family Commands Reference Manual*, 297-1001-822
- *Remote Data Polling System Description and Man-Machine Interface*, 297-1001-524
- *Data Packet Controller Reference Manual*, 297-1001-525
- *Disk Maintenance Subsystem Reference Manual*, 297-1001-526
- *Operational Measurements Reference Guide*
- *Log Report Reference Manual*
- *Subscriber Services Product Guide*, 297-1421-010
- *Meridian Digital Centrex Station Message Detail Recording Reference Guide*, 297-2071-119
- *DMS-100 Family Equal Access Product Guide*, 297-2101-011
- *SERVORD Reference Manual*
- *TOPS-04 Planning and Engineering Guide*, 297-2271-155
- *TOPS MP Planning and Engineering Guide*, 297-2281-155

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# 1 Call record overview

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## Overview

An automatic message accounting (AMA) Bellcore format record contains information about a particular call or statistic. The following characteristics determine each record's format:

- **Call code** - a four-character call type descriptor. Three characters define the type of call or statistic being recorded.
- **AMA recording option activated/deactivated** - an option to control the activation and scheduling of information not automatically recorded on the AMA device. Use table AMAOPTS to activate these options. The *Translations Guide* describes the contents of this table.
- **Structure code** - an identifier that defines a set of data fields that make up an AMA record, and determine the order of its fields
- **Trunk group member number (TGMN) or customer dialed account code (CDAR)** - the TGMN identifies the trunk terminator. For Traffic Operator Position System (TOPS) calls, it also reflects the terminating trunk. CDAR identifies the customer group to which the call is charged. It does not apply to TOPS records.
- **Module code** - an identifier that defines a set of additional data fields that you can append to the base AMA record

The call and structure codes, and AMA options that table AMAOPTS activates, determine the format for the AMA record entries. To format the AMA record according to the data stored in the recording unit for a call, the DMS:

- determines the call code, based on the originating and terminating attributes of the call stored in the local automatic message accounting (LAMA) or centralized automatic message accounting (CAMA) recording unit
- compares the call code with the recording options assigned in table AMAOPTS. This determines whether to write the record immediately after writing the device entry into the output buffer. A log entry (AMAB117

report) is produced if the LOGAMA option in table AMAOPTS is ON. The log report indicates a successful formatting process.

- determines the structure code for the call code, using the information stored in the LAMA or CAMA recording unit
- determines whether to append the TGMN, CDAR numbers, or modules to the AMA record. This information is in the LAMA or CAMA recording unit. CDAR does not apply to TOPS records.

## Record structure

Each record contains complete information regarding a specific call or statistic, and consists of the following data:

- record descriptor word (RDW)
- hexadecimal identifier (HEXID)
- structure identifier code
- data fields that define the record

### Record descriptor word

The first four bytes of each record are the record descriptor word (RDW). The first two bytes of the RDW contain the length, in binary, of the entire record, including the RDW.

### Hexadecimal identifier

The hexadecimal identifier follows the RDW. It consists of two hexadecimal characters, AA, that indicate no known errors exist in the record.

### Structure identifier code

The structure code identifies the structure of a record (the set of data fields it contains). It determines which data fields to include, and the ordering of the data in the record. Several structure codes can correspond to one call code. There is a unique structure to each recognized call. For example, an answered call for call code 006 has a structure code 00001, while an unanswered call of the same type has a structure code 00002. The following conditions, along with the attributes of the call, help determine the appropriate structure code for a non-TOPS call:

- high runner
- full details

These attributes do not apply to TOPS records.

Each structure code has six characters that define a set of data fields. The sixth character is a sign character indicating the field is complete.

All data fields that a structure requires must be present in the record, since the revenue accounting office (RAO) expects that the reported data is correct, unless the HEXID indicates otherwise.

### **Answered/unanswered calls**

Answered and unanswered calls have a zero or one in the last field of the structure code (answer field), to indicate the answered/unanswered status of the call. For answered calls, AMA record's Answer field contains a zero. For unanswered calls, it contains a one. The first field of the structure code for answered/unanswered calls is zero unless there are additional fields in the record as shown in section , *Appended fields*..

### **Appended fields**

The first character of a structure code identifies whether the record contains a CDAR, data modules, or a combination of the two. For TOPS calls, the second character indicates whether the call is for TOPS InterLATA carrier service (TICS). The system adds the following fields to the records if any of these conditions exist in the structure code:

- **2xxxx** - The record has a CDAR account code appended. The AMA record includes the CDAR number only when the CDAR option is ON in table AMAOPTS. This value does not apply to TOPS records.
- **4xxxx** - The record does not contain a CDAR, but does contain data modules.
- **6xxxx** - The record contains a CDAR account code and data modules.
- **8xxxx**-Reserved for future use.
- **9xxxx** - Reserved for future use.
- **x47xx** - The record has TICS event information appended to structure codes x47xx. The structure only applies to TOPS calls.

If the most significant digit of the structure code is 0 or 2, the last four digits of the structure code (see Figure 1-1) define the rest of the data fields in the record (except for CDAR).

**Figure 1-1 Bellcore AMA record with structure**

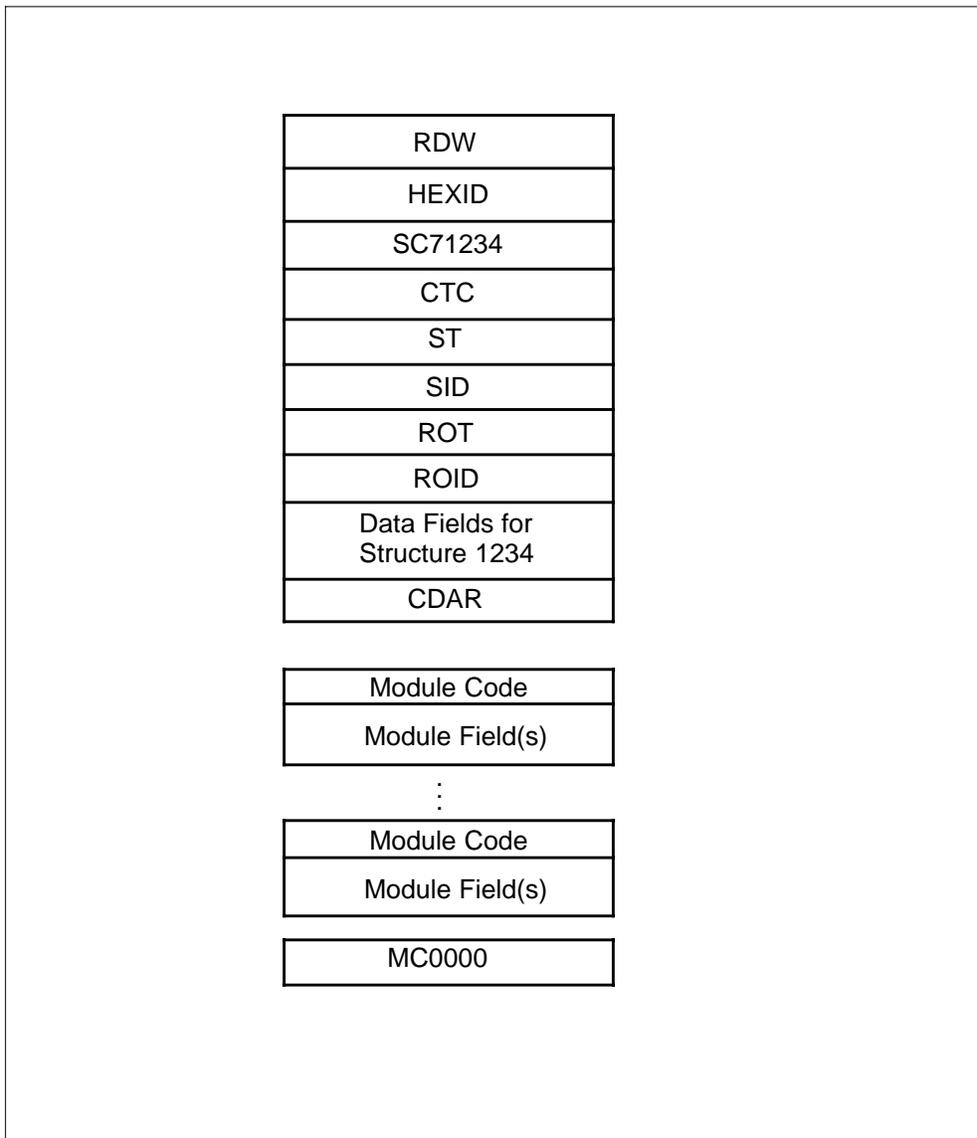
RDW
HEXID
SC71234
CTC
ST
SID
ROT
ROID
Data Fields for Structure 1234
CDAR

Note that:

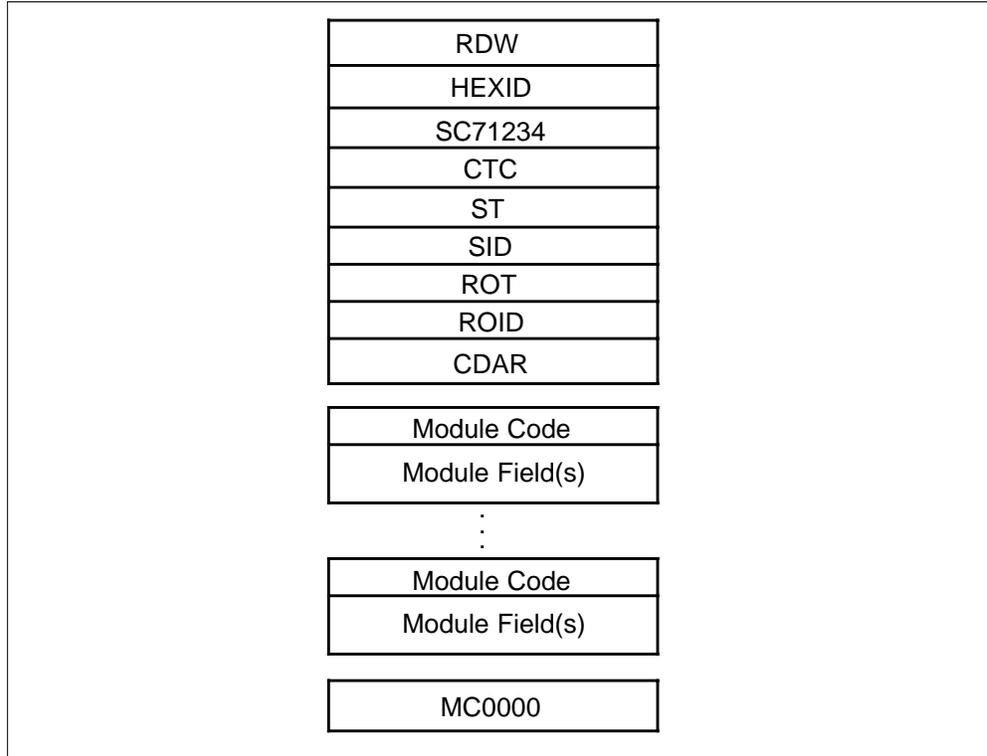
- If the first character of a structure code is 4 or 6, the record contains one or more data modules.
- The structure code does not indicate these modules, the service that the customer requests does.
- They are appended to the AMA record as needed.
- The module order concatenation is not important, except that the last module must be module code 000.

Except for CDAR, the last four digits of the structure code contain the non-module data fields in a record that have a structure code beginning with 4 or 6. If the last four digits are not 0000, then, except for CDAR, a pre-defined structure specifies the data fields (see Figure 1-2).

Figure 1-2 Bellcore AMA record with structure and modules



**Figure 1-3 Bellcore AMA record with structure and modules**



When a suitable structure exists, record Bellcore AMA format modules by attaching modules to pre-defined recording structures.

If the value of the last four digits of the structure code is 0000, there is no pre-defined structure (see Figure 1-3). You may not record modules without using a pre-defined recording structure, unless specifically authorized in service requirement documents.

Here are examples of call records for different structure codes associated with call code 001.

**High runner:**

```

HEX ID=AA STRUCT CODE:00502C CALL TYPE:001C SENSOR TYPE:036C
SENSOR ID:0000000C REC OFC TYPE:036C REC OFC ID:0000000C
DATE:60306C ANSWER:0C SERV FEAT:000C ORIG NPA:613C
ORIG NO:6211092C OVERSEAS IND:1C
TERM NPA:00613C TERM NO:6211234C CONN TIME:0037207C
ELAPSED TIME:000000058C WATS BAND IND:020C
  
```

**High runner:**

HEX ID=AA STRUCT CODE:00502C CALL TYPE:001C SENSOR TYPE:036C  
SENSOR ID:0000000C REC OFC TYPE:036C REC OFC ID:0000000C  
DATE:60306C ANSWER:1C SERV FEAT:000C ORIG NPA:613C  
ORIG NO:6211092C OVERSEAS IND:1C  
TERM NPA:00613C TERM NO:6211234C CONN TIME:0036562C  
ELAPSED TIME:000000000C WATS BAND IND:020C

**Answered:**

HEX ID=AA STRUCT CODE:00020C CALL TYPE:001C SENSOR TYPE:036C  
SENSOR ID:0000000C REC OFC TYPE:036C REC OFC ID:0000000C  
DATE:60422C TIMING IND:00000C STUDY IND:2300000C ANSWER:0C  
SERV OBSERVED:0C OPER ACTION:0C SERV FEAT:000C ORIG NPA:613C  
ORIG NO:6211092C OVERSEAS IND:1C TERM NPA:00613C  
TERM NO:6211234C CONN TIME:0043506C  
ELAPSED TIME:000000051C WATS IND:0C WATS BAND IND:020C



## 2 Data fields

Each data field in a record contains a signed packed decimal number. It has an odd number of binary coded decimal (BCD) characters (maximum 13), and a sign character (hex C), as described for the structure code.

### Bellcore Automatic Message Accounting recording fields

Table 2-1 and the paragraphs that follow, describe the fields that make up different record structures.

**Table 2-1 BC AMA recording fields**

Field number	Information in field	Number of characters
000	Record descriptor word	4
00	Hexadecimal identifier	2
0	Structure code	6
1	Call type codes	4
2	Sensor type	4
3	Sensor identification	8
4	Recording office type	4
5	Recording office identification	8
6	Date, circuit date, present date	6
7	Timing indicator	6
8	Study indicator	8
9	Called party off-hook indicator	2
10	Service observed/traffic sampled	2
- continued -		

## 2-2 Data fields

**Table 2-1 BC AMA recording fields**

Field number	Information in field	Number of characters
11	Operator action	2
12	Service feature	4
13	Originating NPA	4
14	Originating number	8
15	Overseas numbering plan area (NPA) dialing indicator	2
16	Terminating NPA	6
17	Terminating number	8
18	Time	8
19	Elapsed time	10
20	Trunk network number (TNN)	8
	<b>Note:</b> The TNN is no longer present in BCS32, and forward, offices.	
21	Customer dialed account recording number	10
22	Charge indicator	2
23	Amount of charge	6
24	Calling card failure	4
25	Billing number	12
26	Circuit time	8
27	Subscriber identifier	12
28	Wide are telephone service (WATS) indicator	2
29	WATS band or message billing index (MBI)	4
31	Customer identification	6
32	Digits dialed 1	12
33	Digits dialed 2	14
34	Screening code	4
- continued -		

Table 2-1 BC AMA recording fields

Field number	Information in field	Number of characters
35	Station signaling and announcement subsystem (SSAS) code	4
36	Coin credit indicator	2
37	SSAS indicator	2
38	Walkaway or deposited amount	6
40	Type of tracer	4
41	Datapath class of service indicator	4
42	Information transfer rate indicator	4
46	Revenue accounting office (RAO) number	4
47	Billing number content	2
48	Billing validation file	2
49	Dialing rate	2
55	Significant digits in next field	4
56	Terminating company	4
57	Interexchange carrier/International carrier (IC/INC) prefix	6
58	IC/INC call event status	4
59	Routing indicator	2
60	Automatic number identification (ANI) indicator	2
70	Called DN description	4
71	Feature type indicator	14
72	Alternate route number	4
73	International service difficulty	4
74	Multiplier factor	6
75	Base charge, tax, surcharge, amount deposited	6
76	Type of name	2
- continued -		

2-4 Data fields

**Table 2-1 BC AMA recording fields**

<b>Field number</b>	<b>Information in field</b>	<b>Number of characters</b>
77	Service program logic identification	10
78	Digits identifier	4
81	NPA-NXX identification	8
83	Trunk group number	6
85	Dialing indicator	2
87	Business customer identification	12
88	Module code	4
89	Translations settable field	4
91	Service difficulty	2
92	Number of occurrences/minutes	4
95	Amount of credit	6
105	IP service code	6
108	Minutes of credit	4
117	Billing type identification	2
120	Generic information	6
126	Digits dialed, additional digits dialed, or authorization number	16
128	Overflow peg count	6
130	Usage count	6
138	Alternate billing number	12
139	Rate period segment count	8
140	AMA sequence number	6
152	Context Identifier	4
155	Source of charge number	2
158	Coins collected	4
- continued -		

Table 2-1 BC AMA recording fields

Field number	Information in field	Number of characters
159	Coin deposit trouble indicator	4
165	Country code or data network identification code	6
168	Connection type and identification	8
169	Call redirection or call deflection indicator	6
170	Originating network element identifier	8
171	Terminating network element identifier	8
172	Originating data number plan area	4
173	Originating data central office-end point number	8
174	Terminating data numbering plan area	4
175	Terminating data central office-end point number	8
176	Network user identification	16
177	Termination cause indicator	4
178	Originating (local service) type	4
179	Terminating service type	4
180	Priority	2
181	Segment size	2
182	Fast select	2
183	Tariff utility	10
184	Originating DNIC	6
185	Terminating DNIC	6
186	Call identifier billing	10
188	Chargeable data numbering plan area	4
189	Chargeable data central office-end point number	8
194	Incoming X.75 interface identifier	12
- continued -		

2-6 Data fields

**Table 2-1 BC AMA recording fields**

<b>Field number</b>	<b>Information in field</b>	<b>Number of characters</b>
195	ISDN channel identifier	6
197	Originating local access transport area (LATA)	4
200	Operator number	8
201	Operator service feature	4
202	Carrier identification	6
204	Charge adjust indicator	2
207	Access method	2
208	Conversion required	2
209	Inward service type	4
237	Generic context identifier	8
243	Incoming/outgoing facility type	4
244	Incoming/outgoing trunk facility identification	10
271	Out of band indicator	2
276	Station signaling indicator	2
277	Billing number treatment number	2
278	Called number/service access number input	2
279	Calling number source	2
280	Completion indicator	4
281	Rate indicator	2
282	Operator services systems (OSS) call completion service conditions	8
283	Service identification	4
284	Means of information input	2
285	Means of lines service data base (LSDB) access	2
286	Line information data base (LIDB) response	4
- continued -		

Table 2-1 BC AMA recording fields

Field number	Information in field	Number of characters
287	Listing response, means of report provision, means of information input	2
288	Listing status	10
289	Calling card subaccount number	4
290	Means of input/response	4
291	Operator services system action	2
292	Source of IC/INC code	2
293	IC/INC checks	6
294	IC/INC agreement table	2
295	Method of signaling to IC/INC	4
296	Operator identifications	14
297	LSDB Bell operating company (BOC) identification, source of request, country/company identification	6
298	Busy line verification (BLV)/interrupt result	4
299	Database queried	4
330	Custom local area signalling service (CLASS) function	4
331	Feature status	4
338	Facility release cause	6
339	Call characteristic	4
340	Location value	6
341	Originating feature code	4
342	Terminating feature code	4
391	Account code billing indicator	2
392	Account code billing number	6
400	Format identifier	2
- continued -		

2-8 Data fields

**Table 2-1 BC AMA recording fields**

<b>Field number</b>	<b>Information in field</b>	<b>Number of characters</b>
401	Billable digits 1	12
402	Billable digits 2	10
403	Chargeable operator holding time, small interval elapsed time, accumulated operator work time	6
407	Basic business group call type	4
409	ISDN signaling or supplementary service capability	16
410	Network interworking	2
411	Release cause indicator	6
412	Bearer capabilities	4
413	Signaling or supplemental service capabilities usage	16
415	CLASS feature code	4
417	Cause of overflow	6
418	Type of announcement	2
421	Origination line parameter	4
423	Line number type	4
426	Voice mailbox port indicator	4
430	Operator notification	2
431	Keying actions	10
432	Origination call type	4
433	Guest name	7
433	Room number	7
434	Overseas calling card number	20
435	Overwritten number type	2
436	Local determination indicator	2
444	Direction	2
- continued -		

Table 2-1 BC AMA recording fields

Field number	Information in field	Number of characters
456	Business group scope	2
457	Business group identifier	8
458	Type of VCN call	4
459	VCN voice/data identifier	4
460	VCN call egress identifier	2
470	Audit flag	2
491	Notify period duration	4
492	Type of text	4
493	Text	32
494	Transit code	3
495	Day of the month	4
496	Ticket number	4
500	Originating open digits 1	12
501	Originating open digits 2	10
502	Terminating open digits 1	12
503	Terminating open digits 2	10
504	Originating charge information	4
505	Domestic/international indicator	2
580	Meter count information	2
581	Meter count	10
582	Tariff	4
583	Costs of call	10
584	Calling party category	6
585	Trunk CLLI identifier	32
- continued -		

2-10 Data fields

**Table 2-1 BC AMA recording fields**

<b>Field number</b>	<b>Information in field</b>	<b>Number of characters</b>
610	BAF	4
613	Service node data identifier	4
614	Service node data-small	40
615	Service node data-large	140
638	Service provider type	4
639	Service provider ID	4
675	Modified service or equipment indicator	4
677	Modified treatment indicator	4
678	Additional service information	4
679	Originating billing/services indicator	12
680	Additional originating billing/services indicator	8
730	Party identifier	4
731	Location routing number (LRN)	12
732	Service provider identity	10
733	Location	16
734	Supporting information	8
801	LSDB accesses	2
802	Sequence call counter, request counter, number of occurrences, application identifier	4
803	Count of available and unavailable calling information	6
804	Call record sequence number, billing identifier	8
911	Business group information	8
912	Private called number information	8
A.130	Auditability flag	2
A.131	Count of records AMA transmitter (AMAT) sent to disk	8
- continued -		

Table 2-1 BC AMA recording fields

Field number	Information in field	Number of characters
A.132	Count of records lost when writing to disk	8
A.133	Count of records sent to data link	8
A.134	Count of records received from data link	8
A.135	Count of records written to magnetic tape	8
A.136	Count of records lost at the collector	8
A.137	Count of records lost at AMAT	8
B.1	1-digit number	2
B.2	3-digit number	4
B.3	5-digit number	6
B.4	7-digit number	8
B.5	9-digit number	10
C.1	File sequence number	4
C.2	Count of file blocks	6
C.3	Count of records	8
BCORIGS	AMA originations	10
AMINPROG	AMA calls currently in talking state	6
BCTRMT	Billable calls after digit reception	10
BCNOTRMT	Non billable calls after digit reception	10
BCANS	Answered AMA calls	10
BCRCSTPD	Station paid records	10
BCLTSTPD	Lost records	6
BCEDSTPD	Estimated disconnect	6
- end -		

**Field 000 Record descriptor word**

Every call record contains a 4-byte record descriptor word (RDW) field, indicating the size of the record. The first two bytes record the total number of

bytes in the record (including the RDW), expressed as a 16-bit binary number. The first byte contains 8 most significant bits of the 16-bit binary number; the second byte has the 8 least significant bits. The last two bytes of the RDW are hexadecimal zeros, to indicate that there is no spanning of records.

**Table 2-2 Field 000 characters - values and meaning**

Byte	Meaning
1-2	16-bit binary number indicating the size of the record including all fields and modules
3-4	All zeroes

**Field 00 Hexadecimal identifier**

Every call record contains an initial byte of two hexadecimal identifiers. The first character is always A and the second character is either an A for a good record or a B for a record with data errors that the recording system could not resolve.

**Table 2-3 Field 00 characters - values and meaning**

Character	Value	Meaning
1	A	Constant
2	A	No known data errors in the record
	B	Record contain data errors

**Field 0 Structure code**

This field of six BCD characters defines the record's structure code.

**Table 2-4 Field 0 characters - values and meaning**

Character(s)	Value	Meaning
1-5	nnnnn	Structure code, for example, 00106
6	C	SIGN character (HEX C)

**Field 1 Call type codes**

Different types of calls correspond to different call codes. In a call record, a four-character BCD call code identifies a call type. The fourth character is a sign character for the structure code. Field 1 defines the type of call or statistic

the office is recording. For example, a 008 indicates that the terminating office is recording an INWATS call.

**Table 2-5 Field 1 characters-values and meaning**

Character(s)	Value	Meaning	
1-3	001	Detailed message rate, timed, with MBI	
	002	Message rate, timed, with MBI	
	003	Detailed message rate, untimed, with MBI	
	004	Message rate, untimed, with MBI	
	005	Detailed message rate, timed, no MBI	
	006 (Note 2)	Station paid	
	007	WATS station detail recording (no special billing (SPB))	
	008	INWATS, terminating entry	
	009 (Note 2)	Directory assistance (411)	
	010 (Note 1)	Station paid, operator handled	
	011	Foreign exchange, automatic flexible routing	
	014 (Note 1)	Station collect	
	015 (Note 1)	Station special calling	
	016 (Note 1)	Person paid	
	017 (Note 1)	Person collect	
	018 (Note 1)	Person special calling	
	019 (Note 1)	Automatic collect	
	021	Common control switching arrangement (CCSA) sampling	
	022 (Note 1)	Station special called	
	023 (Note 1)	Person special called	
	024 (Note 1)	Direct distance dialing (DDD), operator assisted	
	- continued -		
	<b>Note 1:</b> TOPS call codes only.		
	<b>Note 2:</b> Also TOPS call codes.		

**Table 2-5 Field 1 characters-values and meaning**

<b>Character(s)</b>	<b>Value</b>	<b>Meaning</b>
1-3	026	Conference trunk usage
	027 (Note 1)	Person paid call back
	028 (Note 1)	Person special calling, call back
	031	Call forwarding activation
	032	Tandem tie trunk
	033	Directory assistance (555)
	034	Signaling irregularities
	035 (Note 1)	Non-revenue
	036	SLUS, terminating entry
	037	SLUS, overflow counts
	041	Local coin
	042	Time change
	043 (Note 1)	Verify
	044 (Note 1)	Emergency interrupt
	045	ISDN user service
	047	AIN default
	048	Usage-sensitive three-way calling (USTWC)
	049	Usage sensitive feature activation
	054 (Note 1)	Verify, special calling
	055 (Note 1)	Emergency interrupt, special calling
	057 (Note 1)	Verify, non-revenue
	058 (Note 1)	Emergency interrupt, non-revenue
	063	Originating call to cellular mobile carrier (CMC), type-1 or -2B
- continued -		
<b>Note 1:</b> TOPS call codes only.		
<b>Note 2:</b> Also TOPS call codes.		

Table 2-5 Field 1 characters-values and meaning

Character(s)	Value	Meaning
1-3	064	Originating call to CMC, type-2A
	065	Terminating call to CMC, type-1 or -2B
	066	Terminating call to CMC, type-2A
	067	Flat rate
	068	WATS special billing (SPB)
	071	Inward WATS (INWATS) overflow count
	072	Intra-LATA datapath
	074 (Note 1)	Free call
	085	Electronic tandem switched call
	088	Non-directory assistance (555)
	089	Frame relay
	090	Sensor tracer
	092	Sensor/RAO tracer
	107 (Note 1)	Credit adjustment record
	108 (Note 1)	Carrier or operating company, inward service record
	110	Inter-LATA station paid
	111	Inter-LATA WATS, station detail
	114	Inter-LATA WATS, billing number
	117	Inter-LATA datapath
	119	Terminating access
120	Originating exchange overflow counts	
121	Datapath terminating access	
126	Originating intraswitch call	
- continued -		
<b>Note 1:</b> TOPS call codes only.		
<b>Note 2:</b> Also TOPS call codes.		

**Table 2-5 Field 1 characters-values and meaning**

<b>Character(s)</b>	<b>Value</b>	<b>Meaning</b>
1-3	127	Forced LSPI recording
	128	Terminating intraswitch call
	131	Feature group A (FGA) originating
	132	FGA terminating
	134	Feature group B (FGB) originating
	135	FGB terminating
	136	Coin originated toll
	141	IC/INC number service calls
	142	Operating company number services calls
	148	Intranetwork high bandwidth call
	149	Originating access high bandwidth call
	150	Terminating access high bandwidth call
	159	Message detail recording to revenue accounting office
	160	On-net private virtual network (PVN)
	161	On-net PVN overflow
	162	Off-net PVN
	163	Off-net PVN Overflow call
	164	PVN call using FGA
	165	PVN call using foreign exchange (FX)
	166	PVN call using OUTWATS
167	PVN call using tie trunks	
174	Network facility access explicit connection	
175	Network facility access assisted non-billable call	
- continued -		
<b>Note 1:</b> TOPS call codes only.		
<b>Note 2:</b> Also TOPS call codes.		

Table 2-5 Field 1 characters-values and meaning

Character(s)	Value	Meaning
1-3	180	ISDN packet call
	181	ISDN packet call/no frame relay
	183	ISDN daily aggregate of service event deliveries per user
	184	ISDN terminating user service
	189 (Note1)	Originating call provided with credit recording service
	190 (Note 1)	Originating call provided with carrier ID processing but no service processing
	191 (Note 1)	Terminating call provided with carrier identification processing but no service processing
	192	Originating call provided with call completion service
	193 (Note 1)	Terminating call provided with call completion service
	194 (Note 1)	Originating call provided with a listing of services service
	195 (Note 1)	Terminating call provided with a listing of services service
	196 (Note 1))	Originating call provided with a general assistance service
	197 (Note 1)	Terminating call provided with a general assistance service
	198 (Note 1)	Originating call provided with a busy line verification service
	199 (Note 1)	Terminating call provided with a busy line verification service
	215	Terminating call provided with intercept service
	250 (Note 1)	Carrier or operating company customer, service record
	251 (Note 1)	InterLATA 1+, +, 0- call transfer
	264	CLASS calling information delivery
	270	Access authorization verification
271	Area number calling	
272	Data and reports	
- continued -		
<b>Note 1:</b> TOPS call codes only.		
<b>Note 2:</b> Also TOPS call codes.		

**Table 2-5 Field 1 characters-values and meaning**

<b>Character(s)</b>	<b>Value</b>	<b>Meaning</b>
1-3	273	Local polling
	274	MGB Extension dialing
	275	NPA-NXX screening
	276	Busy/overflow distribution
	277	Customer defined modifications - telephone access
	278	Customer defined modifications - terminal access
	279	Flexible routing
	280	Selective call forwarding - busy/don't answer
	281	Selective call rejection/acceptance - terminating (SCR/A-T)
	282	Selective toll restriction
	330	CLASS subscriber usage sensitive pricing (SUSP) Customer originated trace (COT), calling number delivery blocking (CNDB), automatic call back (ACB), and automatic recall (AR)
	332	Class SUSP CND
	550	Automatic meter reading
	720	Connecting network access record (CNAR)
	721	LNP AMA module
	722	Last resort AMA
	950	Trunk group member usage (TGMU)
800-999	Generic record	
4	C	SIGN character (HEX C)
- end-		
<b>Note 1:</b> TOPS call codes only.		
<b>Note 2:</b> Also TOPS call codes.		

### Field 2 Sensor type

This field defines the type of switching equipment sending information to the record. For instance, a 036 indicates that the call or statistical data's origin was a DMS-100 office. Each switch type has a unique code.

**Table 2-6 Field 2 characters-values and meaning**

Character(s)	Value	Meaning
1-3	000	Not used
	008	5ESS (OSPS)
	011	TSPS-SPC
	029	DMS-10
	031	TSPS-3B
	036	DMS-100F (DMS-200/TOPS)
4	C	SIGN character (HEX C)

### Field 3 Sensor identification

This field identifies the individual switch type. Operating company personnel assign this number.

**Table 2-7 Field 3 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Original record
	1	Secondary copy of record
		<b>Note:</b> Parameter OFFICE_ID_ON_AMA_TAPE, table OFCENG
2-7	nnnnn	Sensor identification code
8	C	SIGN character (HEX C)

When there is a 1 in the first character, it indicates that this record is a secondary copy; that is, the record has been output previously. If the first character is 0, this record is the primary copy; that is, the record has not been previously output.

### Field 4 Recording office type

This field defines the type of recording machine that output this record. For example, when a DMS-200 switch records data for a DMS-100 switch, this

field contains a 036 (DMS-200), while the switch type field contains a 028 (DMS-100).

**Table 2-8 Field 4 characters - values and meaning**

Character(s)	Value	Meaning
1-3	008	5ESS (OSPS)
	011	TSPS-SPC
	029	DMS-10
	031	TSPS-3B
	032	AT&T KS (IBM series1) AMATPS collector
	036	DMS-100F (DMS-200/TOPS)
	200	Telescience collector
	220	Teltone AMATPS collector
	270	Teltone AMATPS collector
	271	AT&T Billdats 3B5 AMATPS collector
4	C	SIGN character (HEX C)

### Field 5 Recording office identification

This field identifies the individual recording machine. Operating company personnel assign this number.

**Table 2-9 Field 5-characters and values**

Character(s)	Value	Meaning
1	0	On-line status of sensor, for example, live
	1	Sensor is off-line, for example, under validation testing
2-7	nnnnnn	Recording office identification code  <b>Note:</b> Parameter, OFFICE_ID_ON_AMA_TAPE, table OFCENG
8	C	SIGN character (HEX C)

### Billing and statistical fields

Fields that provide the billing and statistical data are next. They appear in various combinations in an individual structure. The structure code/call record combination defines them.

## Field 6 Date

This field captures the record's date. It has various presentation methods, depending upon the service the user requests. The following dates use this field format:

- carrier connect
- event
- present
- activation or deactivation (for call forwarding)

This field also indicates the service difficulty report date on a call for which a customer desires credit (that is, the time the call came to a TOPS position). Here is a list of the way other records use this field:

- for call completion service it is the connect, and start of conversation date. For calls that do not complete, it contains the date TOPS first connects to the call.
- listing service uses it as the request date; it contains the date of operator or automated system connection with the calling party
- in busy line verification and general assistance service, it is the date of operator connection with the calling party

**Table 2-10 Field 6 characters-values and meaning**

Character(s)	Value	Meaning
1	0-9	Last digit of year
2-3	01-12	Month
4-5	01-31	Day
6	C	SIGN character (HEX C)

**Note:** When a TICS call is cancelled prior to outpulsing to the carrier, the carrier connect (CC) date (or event date) and record date fields reflect the abandon date.

## Field 7 Timing indicator

These field contains three flags and indicators related to special timing and service capability conditions that can occur for circuit-switched calls. If none of the special conditions applies to a call, characters 1-5 of this field are all 0.

**First character**

The first character of this field is a timing guard flag whose default value is 0. The flag changes to 2 if there is a timing guard condition on a call.

**Second character**

The second character of this field is a short-called-party-off-hook indicator whose default value is 0. The indicator becomes a 1 if there is a short-called-party on-hook, off-hook, on-hook transition on a call before the calling and called parties are both off-hook for a continuous two-second period.

**Third character**

The third character of this field has two uses. One is to flag records generated for long duration call events. The second use is to indicate activation/continuation/deactivation status of a switching system service capability. The two uses of this character are distinguished by the call type code in the call type code field of data field 1. The default value of this field is 0.

For flagging long duration events it is set as follows:

- 1 in the first BAF record
- 2 for the second and subsequent records

The last BAF record of a long duration call has this character set to 2.

For indicating the status of a switching system service capability, the third character is set as follows:

- 1 in a BAF record generated on activation of the capability
- 2 in a BAF record generated to indicate continuation of the capability
- 3 in a BAF record generated on deactivation of a capability such as call forwarding

**Forth and fifth characters**

Characters 4-5 of this field are always 0.

**Table 2-11 Field 7 characters-values and meaning**

Character(s)	Value	Meaning
1		Timing guard flag
	0	Not used
	2	Condition exists
- continued -		

Table 2-11 Field 7 characters-values and meaning

Character(s)	Value	Meaning
2		Short called party off-hook indicator
	0	Not used
	1	Off-hook detected
3		Long duration/service party capability indicator
	0	Not used
	1	Start of long duration call (for service capability status: activation)
	2	Continuation of long duration call (for service capability status: continuation)
	3	Service capability status: deactivation
4	0	Not used
5	0	Not used
6	C	SIGN character (HEX C)
- end -		

### Field 8 Study indicator

This field indicates if there are any studies pertaining to the call, or other study related information. If there is a call record because of a study, the third character of this field indicates that it is a study-generated record.

A sanity timer is activated when all subscribers attached to an operator position have gone on-hook. The timer, set to a value between from 1 and 60 min., takes down calls the operator abandoned. If the subscribers remain on-hook and the timer expires, the call is taken down.

The end of the TOPS call produces an AMA record. Since the operator abandoned it, the record shows that the call is non-chargeable. This is accomplished using field 8 (study indicator field) in the Bellcore format AMA record. Bit 7 of the study indicator field is set to 2, indicating NO AMA CALL. This occurs in all three TOPS extended Bellcore AMA format (EBAF) phases (0-2). Determine the value either by office datafill or operator action. It is also set to 2 when the position sanity timer expires.

The study indicator field contains five indicators related to studies, test calls, and special conditions. These conditions can occur for the originating and terminating numbers for both circuit-switched calls and calls involving an

operator services system (OSS). You can set the indicators independently of one another. Note that if none of the special conditions apply, characters 1-7 are all 0.

The study indicators in characters 1 and 2 are provided for switching systems that support the various studies.

### **First character**

The first character has a value of 2, to indicate subscriber line usage study (SLUS) under the following conditions:

- For originating line usage studies
  - the LUSORIG is ON in table AMAOPTS, and
  - the originator of a call has the SDY option with the ORIG field set to Y
- For terminating line usage studies, when the first character in field 8 is set to 2
  - LUSTERM is ON in table AMAOPTS, and
  - either the terminating trunk has the TERMSDY option, or the terminating line has the SDY option with the TERM field set to Y

### **Second character**

The second character records value 2 when table AMAOPTS indicates that unanswered TOPS calls should produce an AMA record.

There is a test call indicator in character 4 for switching systems that permit identification of individual calls or groups of calls as test calls. Its use is independent of use of the validation testing indicator in character 1 of field 5-recording office identification, which is an office-wide parameter.

### **Third and fourth characters**

The third and fourth characters are not applicable.

### **Fifth character**

The fifth character of this field is assigned by the Bellcore client company (BCC). Each BCC has full control, discretion, and responsibility for the administration of values 1-9. The default value is 0.

### **The sixth character**

The sixth character of this field is an originating and terminating number indicator for North American numbering plan (NANP) numbers. It identifies BAF records that may require number-oriented exception processing by a

BCC accounting system. The default value of the character is 0. Other values indicate that character six is:

- 0 when the call is calling line identifier (CLI) success and the called number is present
- 1 if the originating 7-digit number is not known or available. Failure of the the automatic number identification (ANI) and/or operator number identification (ONI) is just one example of the events that can cause this condition.
- 3 if the terminating 7-digit number is not known or available. A cut-through call to an OSS causes this condition. An originating feature group B (interexchange carrier) call for which the terminating number is only known as 950-xxxx also causes this condition.
- 4 if both the originating and the terminating 7-digit numbers are not known or available
- 5 if the terminating NXX is known, but the terminating station number is not known or available. Situations that result in this condition are discussed in detail in connection with field 16-Terminating NPA, and field 17-Terminating number, as discussed in connection with the Terminating NPA field (field 16).
- 6 if the originating NXX is known but the called station number is not known or available. When this condition applies, the originating number in field 14-Originating number is populated as NXX-0000. Two examples of situations that result in this condition are, calls from multi-party lines and CAMA calls to an 800 number.

### The seventh character

The seventh character of this field indicates an OSS call that has no class of charge or AMA associated with it. The character's default value is 0.

**Table 2-12 Field 8 characters-values and meaning**

Character	Value	Meaning
1		Study type A
	0	Not applicable on this call
	1	Point-to-point (PTP)
	2	Subscriber line usage study (SLUS)
	3	PTP and SLUS
- continued -		

Table 2-12 Field 8 characters-values and meaning

Character	Value	Meaning
2		Study type B
	0	Not applicable on this call
	1	Complaint observed
	2	Network completion, unanswered call recording  <b>Note 1:</b> The network completion value indicates that this office is recording unanswered calls. This record enables the operating company to assess the network completion rate by examining the number of unanswered calls as a percentage of total calls.  <b>Note 2:</b> For CAMA calls from an incoming TOPS trunk to an outgoing ATC trunk using BELL I and BELL II signaling, the start of elapsed time is reception of off-hook from the outgoing trunk.
	3	Complaint observed and network completion, unanswered call recording
4-9	Study dependent	
3	0	Not applicable on this call
	1	Validation test
	2	Study generated record
	3	Validation test and study generated record
	4-9	Study dependent
4		Test call indicator
	0	Not applicable on this call
	1	Test call to terminating 10X test line
	2-9	Study dependent
5		BCC assigned
	0	Unused
- continued -		

Table 2-12 Field 8 characters-values and meaning

Character	Value	Meaning
6		Originating and terminating number indicator
	0	Not applicable on this call
	1	No originating 7-digit number
	2	Usage sensitive three-way calling (USTWC)
	3	No terminating 7-digit number
	4	No originating and no terminating 7-digit numbers
	5	No terminating 4-digit station number
	6	No originating 4-digit station number
	7-9	Study dependent
7		Operator services system (OSS) Indicator
	0	Not applicable on this call
	1	No class of charge (OSS)
	2	No AMA call (OSS)
	3	Holding time study
	4	Expanded 4 digits
	5	Expanded 5 digits
	6	Expanded 5 digits
	7	Expanded 7digits
	8	Corrected undetermined number of digits
9	More than 7 digits seen, no correction	
8	C	SIGN character (HEX C)
- end -		

**Field 9 Called party off-hook indicator**

This field indicates whether the call is an answered or unanswered call.

The first character of this field is a called party off-hook indicator. A value of 0 indicates called party off-hook is detected on the call, regardless of the duration of the called party off-hook interval.

This field was previously called Answer. Because Answer is technically a signaling matter, timing requirements were revised so this field would provide information on called party off-hook, which is a billing matter. There was no change to this field's meaning for operator services.

**Table 2-13 Field 9 characters-values and meaning**

Character	Value	Meaning
1		Called party off-hook indicator
	0	Called party off-hook detected
	1	Called party off-hook not detected
	2	Answered attempt (OSS, person or collect call)
	3	Simulated called party off-hook indicator
	9	Unknown
2	C	SIGN character (HEX C)

**Field 10 Service observed, traffic sampled indicator**

The service observed, traffic sampled indicator (STOS) field specifies whether the call is being service observed or traffic sampled.

**Table 2-14 Field 10 characters-values and meaning**

Character	Value	Meaning
1	0	Not service observed (non-TOPS)
	1	Service observed (non-TOPS)
1	0	Not traffic sampled; not service observed
	1	Service observed; not traffic sampled
- continued -		

**Table 2-14 Field 10 characters-values and meaning**

Character	Value	Meaning
	2	Traffic sampled; not service observed  <b>Note:</b> The traffic sampling feature only applies to TOPS calls.
	3	Service observed; traffic sampled
	4	Requires RAO processing for station message detail recording (SMDR) purposes
2	C	SIGN character (HEX C)
- end -		

**Field 11 Operator action**

This field indicates whether the call in which it appears was operator dialed, operator identified, or both, and whether the identified number was complete.

**Table 2-15 Field 11 characters - values and meaning**

Character	Value	Meaning
1	0	Not operator dialed or identified
	1	Operator dialed only
	2	Operator identified; customer dialed
	3	Operator dialed and identified
2	C	SIGN character (HEX C)

**Field 12 Service feature**

This field indicates any special services associated with the call.

**Table 2-16 Field 12 characters-values and meaning**

Character(s)	Value	Meaning
1-3	000	Other (none of the features shown below)
	001	Prepay coin
	002	Hotel/motel without tax
- continued -		

Table 2-16 Field 12 characters-values and meaning

Character(s)	Value	Meaning
1-3	004	Postpay coin
	005	Chargeable quotation
	008	INWATS
	010	Three-way calling
	011	Hotel/motel with tax
	012	Call forwarding (CFW) (terminating leg of CFW or flat rate)
	013	Hotel/motel message register
	014	Call forward blocking with no answer
	017	Remote call forwarding (term. leg)
	018	Three-way calling - usage sensitive
	023	Terminating CMC 2A call to FGC/FGD or FGB carrier
	026	Remote access PVN call
	027	AIN default
	032	Automatic recall (AR) reactivation delayed processing
	033	Automatic call back (ACB) reactivation delayed processing
	036	AR reactivation timeout
	037	ACB reactivation timeout
	038	AR reactivation deactivation
	039	ACB deactivation
	060	Marine or ACB immediate processing (ACB default)
	061	Marine or ACB immediate processing (ACB default)
	062	AR delayed processing
	063	ACB delayed processing
064	AR busy ringback	
- continued -		

Table 2-16 Field 12 characters-values and meaning

Character(s)	Value	Meaning	
1-3	065	ACB busy ringback	
	066	AR timeout	
	067	ACB timeout	
	068	AR deactivation	
	069	ACB deactivation	
	070	COT activation (COT default)	
	071	Selective CFW (SCF) (SCF default)	
	072	Selective call rejection (SCR) (SCR default)	
	073	Distinctive ringing/call waiting (DRCW) (DRCW default)	
	075	Calling number delivery blocking (CNDB) activation (CNDB default)	
	085	Five digits dialed	
	086	Six digits dialed	
	087	Seven digits dialed	
	156	Route optimized call	
	700	Directory assistance (DA) call completion other	
	701	DA call completion prepay coin	
	702	DA call completion hotel/motel without tax	
	704	DA call completion postpay coin	
	705	DA call completion chargeable quotation	
	711	DA call completion hotel/motel with tax	
	760	DA call completion mobile	
	761	DA call completion marine	
	800	Intercept other	
	801	Intercept prepay coin	
	802	Intercept hotel/motel without tax	
	- continued -		

**Table 2-16 Field 12 characters-values and meaning**

Character(s)	Value	Meaning
1-3	804	Intercept postpay coin
	811	Intercept hotel/motel with tax
	860	Intercept mobile
	861	Intercept marine
	900	DA if ENHAMA set to Y other
	901	DA if ENHAMA set to Y prepay coin
	902	DA if ENHAMA set to Y hotel/motel without tax
	904	DA if ENHAMA set to Y postpay coin
	911	DA if ENHAMA set to Y hotel/motel with tax
	980	DA if ENHAMA set to Y mobile
	961	DA if ENHAMA set to Y marine
4		SIGN character (HEX C)
- end -		

The service feature field is set to 12 when the forwarded leg of a forwarded call is billable. For a call forwarded by a subscriber using the call forwarding usage sensitive pricing feature, this field is set to 000 in the AMA record.

When the originating access record is for CMC 2A terminating calls to either FGC/FGD (structure code 625/call code 110) or FGB (structure code 625/call code 134), the service feature field contains 23.

Service feature field values 032, 033, 036-039, and 060-075 are supported for CLASS features in a SUSP environment. These features provide residential customers with ACB, AR, CND, CNDB, and COT.

The following actions do not generate AMA records:

- AR requests receiving short- or long-term denial announcements or tones
- requests that do not complete due to system failures

The service feature codes 032, 033, 036, 037, 038, and 039 apply to reactivated ACB or AR requests. The type of service being re-activated, either ACB or AR, depends on the access code used. For example, an AR request reactivated

by the ACB access code becomes an ACB reactivation request. In this case, if delayed processing is applied, use the service feature code 032 (not 033).

At most, one AMA record results from each use of an ACB or AR feature. A single request never produces more than one AMA record.

When subtable AMAPRT is contains a value between 800 and 999, and a non-TOPS call is routed using the AMAPRT subtable, the service feature field contains a value between 800 and 999.

All calls from a coin line use 001. There is no longer a distinction between prepay coin calls and postpay coin calls.

### **Field 13 Originating NPA**

This field contains the originating number's NPA code. For the call forwarding feature, it is the activating NPA. It reflects the NPA from which call forwarding was activated. For CMC calls, if the BILLNO field in table TRKGRP has ten digits datafilled, the first three are used as the CMC NPA. Otherwise, it uses the SNPA field in table TRKGRP for the cellular trunk.

There are certain scenarios when this field must be derived. For TOPS calls, when no calling number, or only an NPA and NXX, are present for a calling number, and the call

- originates on a TOPS or SuperCAMA (SC) trunk, and
- the calling number is not sent to TOPS (operator number identification (ONI) call), and either
- field NPANXXRQ of table TRKGRP is set to Y for the originating TOPS trunk group (only NPA-NXX present), or office parameter TOPS\_RECORD\_CLG\_NPA\_NXX\_IN\_AMA is set to Y (no calling number present)

a default NPA-NXX is derived.

Equal access (EA) calls routed directly to a carrier, such as 1800 or FGD calls, can also have the NPA-NXX derived.

The default values are derived by finding the first entry in table TOPSBC where field CLLI matches the originating trunk CLLI. The NPA and NXX are

then taken to be the NPA and NXX in field ACTUALBC of the tuple found in table TOPSBC.

**Table 2-17 Field 13 characters-meaning**

Character(s)	Meaning
1-3	NPA
4	SIGN character (HEX C)

**Field 14-Originating number**

This field contains the seven-digit originating number. For call forwarding, this field is the activating number field, and reflects the number that activated call forwarding. For CMC calls outgoing to a termination, the last seven digits in the BILLNO field in table TRKGRP are used.

If the incoming trunk is an integrated services digital network (ISDN) user part (ISUP) IBN trunk (datafilled in table TRKGRP), the calling DN output in the AMA record comes from the initial address message, when the datafill in table TRKGRP is set to N. Otherwise, it comes from the TRKGRP billing DN field.

Refer to section “Field 13 Originating NPA”, for TOPS calls when no calling number or only an NPA and NXX are present for a calling number, and for EA calls routed directly to a carrier.

**Table 2-18 Field 14 characters-meaning**

Character(s)	Meaning
1-3	NXX of the originating number
4-7	Station number
8	SIGN character (HEX C)

**Field 15 Overseas NPA dialing (international call) indicator**

This field indicates whether the record is for an overseas call. If so, it indicates the number of digits dialed; otherwise, it indicates whether the called NPA was dialed or derived.

With an overseas call, the dialed digits may appear in both the terminating NPA and terminating number fields.

For call forwarding, this field reflects the forwarded-to number.

The recorded number is always right adjusted in these two fields. It is also with zeros, where necessary, in the most significant digits. For example, an 11-digit

overseas number has one 0 padding character in the first BCD character of the terminating NPA field. This is followed by the four most significant digits of the dialed number. The terminating number field contains the seven remaining digits.

**Table 2-19 Field 15 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Not an overseas call (NPA dialed)
	1	Not an overseas call (NPA not dialed)
	2	Less than 7-digit overseas number
	3	7-digit overseas number
	4	8-digit overseas number
	5	9-digit overseas number
	6	10-digit overseas number
	7	11-digit overseas number
	8	12-digit overseas number
	9	Operator special dialed code is in the called (CLD) number field
2	C	SIGN character (HEX C)

### Field 16 Terminating NPA

For domestic calls, the first two characters in this field are zeros. Characters 3 through 5 contain the called NPA (dialed or derived, as indicated in the overseas indicator field).

- For CMC calls outgoing to a termination, if the CMC sends only seven digits, the terminating NPA is the same as the CMC NPA (SNPA field table TRKGRP). If ten digits are dialed, the first three are used as the terminating NPA.
- In a CMC-to-FGD carrier call, if the CMCMON field of table OCCINFO is set to Y, the NPA of the called directory number is in the terminating NPA field. If it is set to N, the terminating NPA field is filled with zeros.

- For TOPS calls, when calls incoming over intertoll (IT) or access tandem to carrier (ATC) trunks use directory assistance, characters 3 through 5 are filled with serving NPA taken from the IT or ATC trunk information.

**Table 2-20 Field 16 characters-meaning**

Character(s)	Meaning
1-2	Overseas expander positions
3-5	NPA code
6	SIGN character (HEX C)

**Field 17 Terminating number**

For domestic calls this field contains the 7-digit terminating number. For overseas calls, the recorded number is always right-adjusted in these two fields, and padded with zeros, where necessary, in the most significant digits. For example, an 11-digit overseas number has one 0 padding character as the first BCD character of the terminating NPA field. This is followed by the four most significant digits of the dialed number. The terminating number field contains the seven remaining digits. For CMC calls, where a call is incoming to a CMC, this field records the last seven digits received from a collocated station, an IC/INC, another CMC, or another operating company office.

For CMC calls where a call is outgoing from a CMC to a termination, the last seven digits received from the CMC are recorded in this field. If an FGD call is made, the called directory number is placed in the terminating number field if the CMCMON field of table OCCINFO is set to Y. Setting CMCMON to N, records zeros.

**Table 2-21 Field 17 characters-meaning**

Character(s)	Meaning
1-3	NXX
4-7	Station paid
8	SIGN character (HEX C)

**Field 18 Time**

This field records the time of day at answer or carrier connect. It formats the carrier connect or event time.

- Call completion service - records the time as the connect time, and contains the time of the start of conversation. For not-completed calls, it contains the time when TOPS is first connected to the call.
- Listing services service - records the time as the time of request and contains the time of operator or automated system connection with the calling party
- Busy line verification and general assistance service - records the time and contains the time the operator was connected with the calling party

**Table 2-22 Field 18 characters-values and meaning**

Character(s)	Value	Meaning
1-2	00-23	Hours
3-4	00-59	Minutes
5-6	00-59	Seconds
7	0-9	Tenths of seconds
8	C	SIGN character (HEX C)

This field also indicates the time that the service difficulty was reported on a call for which credit is desired (that is, the time the call came to a TOPS position).

TOPS also records this field in tenths of seconds.

When a TOPS interLATA carrier service (TICS) call is canceled prior to outpulsing to the carrier, the CC time and the record time field reflect the abandoned time.

### Field 19 Elapsed time

This field records the elapsed time of the call in terms of minutes, seconds, and tenths of seconds. The structure of this field is also used to record the elapsed time from carrier connect or the operator work time. For unanswered calls, 000000000 is recorded.

The information in this field is different, based upon the service requested, as shown below:

- Call completion service - records the elapsed time as the length of conversation time between the calling and called parties. The time begins when answer is received from the called party and the operator indicated the start of timing by either keying the start timing or position release

function. For non-operator handled calls, the time begins when answer from the called party is received. This field contains zeroes for non-completed calls. Note that no elapsed time is given for calls that are marked as NO AMA.

- Listing services service, busy line verification, and general assistance service - records the elapsed time as the total amount of time the caller is connected to TOPS for the current request. This includes the time spent at automated systems. It also includes recalls to the operator. It does not include the time spent in queue for an operator.

**Table 2-23 Field 19 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Padding
2-6	00000-99999	Minutes
7-8	00-59	Seconds
9	0-9	Tenths of seconds
10	C	SIGN character (HEX C)

TOPS also records this field in tenths of seconds.

**Field 20 Trunk network number (TNN)**

This field records the numerical identification of the trunk network number (TNN) of the call. This field is removed in BCS32 and forward offices.

In DMS, trunk groups are numbered 0 - 2047, and trunk members 0 - 9999. To make this information fit in the allotted 7-character field, the system encodes it. Similarly, line information is also encoded. The BCCONV command decodes it for identification of the corresponding equipment.

Table 2-24 Field 20 characters-values and meaning

Character(s)	Value	Meaning
1-7	nnnnnnn	Trunk or line number  <b>Note 1:</b> The TNN is removed in BCS32 and forward offices. <b>Note 2:</b> This association provides data for patterning supervisory events such as 0% or 100% completion on individual switch supervisory units. <b>Note 3:</b> When the TNN number is appended to a record, the most significant digit of the structure code is the indicator.
8	C	SIGN character (HEX C)

**Field 21 Customer-dialed account recording number**

This field records the customer-dialed account recording number.

Table 2-25 Field 21 characters-values and meaning

Character(s)	Value	Meaning
1	0	Padding
2-9	nnnnnnnnn	Custom dialed account recording (CDAR) number
10	C	SIGN character (HEX C)

**Field 22 Charge indicator**

This field indicates the type of the charge being recorded in field 23.

Table 2-26 Field 22 characters-values and meaning

Character	Value	Meaning
1	0	Hotel/motel
	1	Coin difference indicator (walkaway)
	2	Coin
	3	Time and charges
	4	Part charge
	5	Other
2	C	SIGN character (HEX C)

**Field 23 Amount of charge**

This field displays the calculated amount of the charge in dollars and cents.

**Table 2-27 Field 23 characters-meaning**

Character(s)	Meaning
1-3	Dollars
4-5	Cents
6	SIGN character (HEX C)

**Field 24 Calling card failure**

This field is recorded on all calling card, third number, special billing number, and collect calls. Calling card number or other rejection causes a 2-digit code to be recorded.

**Table 2-28 Field 24 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Padding
2-3	00	No calling card failure
	01	Hot number failure
	03	Vacant code
	04	Billing number not found
	05	PIN not found
	06	Service denied
	07	Check digit failure
	08	Collect denied
	09	Third number denied
	10	Public telephone
4	C	SIGN character (HEX C)

**Field 25 Billing number**

This field is recorded on calling card, third number, and special billing number calls. It records zeros for incomplete calls.

**Table 2-29 Field 25 characters-meaning**

Character(s)	Meaning
1	Padding
2-11	Billing number (10 digits)
12	SIGN character (HEX C)

When a special calling card is used, and there is no database query, the RAO number is recorded in the billing number field for TOPS records. If there is a database query to validate special calling card calls, the RAO number is recorded in the RAO field for TOPS records. For normal calling card calls, it records the NPA, plus the 7-digit billing number, in the billing number field.

**Field 26 Circuit time**

This field records either seize or release (abandon) times in various recording structures.

**Table 2-30 Field 26 characters-values and meaning**

Character(s)	Value	Meaning
1-2	00-23	Hours
3-4	00-59	Minutes
5-6	00-59	Seconds
7	0-9	Tenths of seconds
8	C	SIGN character (HEX C)

**Field 27 Subscriber identifier**

This field indicates the user identification of the subscriber connected to the intelligent peripheral (IP).

**Table 2-31 Field 27 characters-meaning**

Character(s)	Meaning
1	Padding
2-11	Digits of USR_ID
12	SIGN character (HEX C)

**Field 28 WATS indicator**

This field is recorded to differentiate between full business day measured time WATS service.

**Table 2-32 Field 28 characters-values and meaning**

Character	Value	Meaning
1	0	Unused
	1	Full business day
	2	Measured time
2	C	SIGN character (HEX C)

**Field 29 WATS band or message billing index (MBI)**

This field records the WATS band or MBI, which are mutually exclusive.

**Table 2-33 Field 29 characters-meaning**

Character(s)	Meaning
1-3	WATS band or MBI
4	SIGN character (HEX C)

**Field 31 Customer identification**

This field contains a number that corresponds directly to the sequential datafill order of customer groups in table CUSTENG. For example, the first entry in table CUSTENG, if applicable to field 31, would have a value of 0, the second entry would have a value of 1, and so on up to 4094. A value of 4095 is considered a nil value and never appears in the AMA billing record. For AMA

records to contain customer group identification, the option AMACUST must be datafilled in table CUSTSMR against the appropriate customer groups.

**Note:** If entries in table CUSTENG are removed and a replacement or spare not inserted in the same position, BCS upgrades to the office cause the ordinal value of the customer group to shift accordingly. The value output in table 31 may thus differ across BCS releases unless you take appropriate datafill measures.

**Table 2-34 Field 31 characters-meaning**

Character(s)	Meaning
1-5	Customer identification
6	SIGN character (HEX C)

### Field 32 Digits dialed 1

This field records the 1st through the 11th digits dialed, of a possible 24-digit number.

**Table 2-35 Field 32 characters-meaning**

Character(s)	Meaning
1-11	Tandem digits dialed
12	SIGN character (HEX C)

### Field 33 Digits dialed 2

This field records the 12th through the 24th tandem digits dialed, of a possible 24-digit number.

**Table 2-36 Field 33 characters-meaning**

Character(s)	Meaning
1-13	Tandem digits dialed
14	SIGN character (HEX C)

### Field 34 Screening code

This field indicates when the trunk being used is marked for screening. If so, the index into the restricted billing (RESTBIL) table is recorded. The index

into table iRESTBIL is obtained from the special number identification (SPLDNID) table, which the customer may datafill.

**Table 2-37 Field 34 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Constant
2-3		screening code indicator
	00	Non-screened call (OLNS not necessary; internal screening table not examined)
	01	OLNS query could not be launched
	64	Operating company option
	66	Operating company option
	67	No restrictions
	68	No restrictions
	71	Sent-paid only
	72	Credit card only
	73	Special billing number only
	74	Collect only
	76	Dormitory calling
	81	Credit card and special billing number only
	82	Send-paid and collect only
	83	Collect and special called only
	88	Customer-owned public phone
	89	Multiple carrier public phone
	91	Sent-paid, credit card, special billing number only
	92	Sent-paid, collect, special called only
	93	Credit card, special billing number, bill to third party, collect, special called only
	94	Screened hotel/motel
- continued -		

**Table 2-37 Field 34 characters-values and meaning**

Character(s)	Value	Meaning
	96	Everything but local assistance
	97	Everything but sent-paid and bill to third number
	98	Coinless public telephone (credit card, collect, bill to third number and special called only)
	99	IC card caller
4	C	SIGN character (HEX C)
- end -		

**Field 35 SSAS code**

Station signaling and announcement subsystem (SSAS) is used for automatic coin toll service (ACTS). This field contains information on the SSAS handling of the call.

**Table 2-38 Field 35 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Padding
2-3	12	SSAS+OP.FRD
	18	SSAS-(OK)
	22	SSAS.OP.OVR+OP.FRD
	28	SSAS.OP.OVR-OP
	32	NSSAS+OP.FRD
	38	NSSAS-(OK)
	52	SSAS+OP.WALK+OP.FRD
	58	SSAS+OP.WALK
	62	SSAS.OP.OVR+OP.WALK+OP.FRD
	68	SSAS.OP.OVR+OP.WALK
	72	NSSAS+OP.WALK+OP.FRD
	78	NSSAS+OP.WALK
- continued -		

**Table 2-38 Field 35 characters-values and meaning**

Character(s)	Value	Meaning
	92	SSAS+SSAS.WALK+OP.FRD
	98	SSAS+SSAS.WALK
4	C	SIGN character (HEX C)
		- end -

**Definitions**

The field entries are defined as follows:

- OK - no trouble detected
- SSAS - handled by SSAS
- NSSAS - not handled by SSAS
- SSAS.FRD - forward party fraud detected by SSAS
- OP.FRD - fraud suspected by operator
- OP.WALK - walkaway entered by SSAS
- SSAS.WALK - walkaway entered by operator
- SSAS.OP.OVR - SSAS overridden by operator

**Field 36 Coin credit indicator**

This field specifies whether there is a coin credit on a call. A coin credit is done by the operator keying the charge adjust function.

**Table 2-39 Field 36 characters-values and meaning**

Character	Value	Meaning
1	0	No coin credit
	1	Coin credit
2	C	SIGN character (HEX C)

**Field 37 SSAS indicator**

This field indicates whether the call was handled by SSAS.

**Table 2-40 Field 37 characters-values and meaning**

Character	Value	Meaning
1	0	Not handled by SSAS
	1	Handled by SSAS (no operator involvement)
2	C	SIGN character (HEX C)

**Field 38 Walkaway or deposited amount**

This field contains the walkaway or deposited (coin credit) amount.

**Table 2-41 Field 38 characters-meaning**

Character(s)	Meaning
1-5	Amount expressed as dddcc (ddd = dollars) (cc = cents)
6	SIGN character (HEX C)

**Field 40 Type of tracer**

This field records the tracer type for tracer records. The kind of machine upon which AMA recording is being done determines the contents of this field.

**Table 2-42 Field 40 characters-values and meaning**

Character(s)	Value	Meaning
		Type of tracer record
1-3	007	Transfer in
	008	Transfer out
	032 (note)	AMA teleprocessing system (AMATPS) primary AMA record tracer
	033 (note)	AMATPS secondary AMA record tracer
	037	DMS-100F hourly tracer
4	C	SIGN character (HEX C)
<b>Note:</b> Generated by the Distributed Processing Peripheral (DPP)		

**Field 41 Datapath class of service indicator**

This field is used to record information about datapath class of service.

**Table 2-43 Field 41 characters-values and meaning**

Characters	Value	Meaning
		Service indicator
1-3	000	Unknown
	003	Data only
4	C	SIGN character (HEX C)

**Field 42 Information transfer rate indicator**

This field indicates the information transfer rate of a call for structure codes 0190 and 0645.

**Table 2-44 Field 42 characters - values and meaning**

Character	Value	Meaning
		Information transfer rate indicator
1-3	000	Unknown
	001	1536 kilobits per second (kb/s) clear
	002	1536 kb/s restricted
	003	384 kb/s clear
	004	384 kb/s restricted
	005	64 kb/s clear
	006	64 kb/s restricted
	008	56 kb/s
	009	128 kb/s clear
	010	192 kb/s clear
	011	256 kb/s clear
	012	320 kb/s clear
		- continued -

**Table 2-44 Field 42 characters - values and meaning**

Character	Value	Meaning
	013	448 kb/s clear
	014	512 kb/s clear
	015	576 kb/s clear
	016	640 kb/s clear
	017	704 kb/s clear
	018	768 kb/s clear
	019	832 kb/s clear
	020	896 kb/s clear
	021	960 kb/s clear
	022	1024 kb/s clear
	023	1088 kb/s clear
	024	1152 kb/s clear
	025	1216 kb/a clear
	026	1280 kb/s clear
	027	1344 kb/s clear
	028	1408 kb/s clear
	029	1472 kb/s clear
4	C	SIGN character (HEX C)
- end -		

**Field 46 RAO number**

This field contains the RAO number. A null value (hex FFFF) in this field indicates that the RAO number cannot be determined.

**Table 2-45 Field 46 characters-their meaning**

Character(s)	Meaning
1-3	3-digit RAO number
4	SIGN character (HEX C)

When a special calling card is used for a call, and there is no database query for validation, the RAO number appears in the first three digits of the billing number field for a TOPS call.

**Field 47 Billing number content**

This field indicates type of billing.

**Table 2-46 Field 47 characters-values and meaning**

Character	Value	Meaning
1	0	Unused
	1	3rd number billing with NPA, no RAO
	2	3rd number billing with NPA and RAO
	3	Calling card with RAO, no NPA (special billing number)
	4	Calling card with NPA, no RAO
	5	Calling card with NPA and RAO
	6	Collect with NPA and RAO
	7	Collect with NPA, no RAO
	8	10-digit special billing number
2	C	SIGN character (HEX C)

**Field 48 Billing validation file**

This field indicates whether the billing validation file or data base was accessed.

**Table 2-47 Field 48 characters-values and meaning**

Character	Value	Meaning
1	0	Billing validation file (BVF) or data base not accessed
	1	BVF or database accessed
	2	BVF or database unsuccessful attempt
2	C	SIGN character (HEX C)

**Field 49 Dialing rate**

This field contains a code whose value indicates rating information.

**Table 2-48 Field 49 characters-values and meaning**

Character	Value	Meaning
1	0	Unused
	1	Customer dialed calling card (applies to customer dialed calling card as well as operator assisted calling card with DDD)
	2	Operator assisted calling card, dialed 0+, time and charge (T and C), or notify not requested
	3	Operator assisted calling card, dialed 0+, with notify
	4	Operator assisted 3rd number, or special billing number, or calling card with T and C, or operator calling card call
2	C	SIGN character (HEX C)

**Field 55 Significant digits in next field**

This field is used to record the number of significant digits in the terminating private number field.

This field indicates how many significant digits are recorded in fields 500 and 501, originating open digits 1, and originating open digits 2. A total of 20 can be digits recorded in originating open digits 1 and originating open digits 2.

It also indicates how many significant digits are recorded in fields 502 and 503, terminating open digits 1, and terminating open digits 2.

**Table 2-49 Field 55 characters-values and meaning**

Character(s)	Value	Meaning
1-3	000-999	Number of significant digits
4		SIGN character (HEX C)

**Field 56 Terminating company**

This field records information about the terminating company.

**Table 2-50 Field 56 characters-values and meaning**

Character(s)	Value	Meaning
1-3		Terminating company
	001	Company unknown, interstate
	002	Company unknown, intrastate
	011	LEC interstate
	012	LEC intrastate
	021	Independent, interstate
	022	Independent, intrastate
4	C	SIGN character (HEX C)

**Field 57 Interexchange carrier/international carrier (IC/INC) prefix**

This record identifies the IC/INC that transports the call. The carrier identification code (CIC) in this field represents either a domestic IC or an INC. If a domestic carrier delivers the call to an INC, the INC code is recorded.

Characters 1-4 contain the 4-digit CIC. These characters are zero when the CIC is either 0000, or when the switch has no valid CIC to populate these characters. In the latter situation, the switch cannot fill this field, the CIC is considered to be unknown. For PVN calls that complete to an IC, the IC/INC prefix field is changed to include 4-digit CICs by defining characters 1-4 as the IC/INC identification. When this occurs, the switch populates character 5 of this field with a value that appropriately indicates the unknown condition.

Character 5 identifies the following conditions:

- User dials access to an IC/INC operator system or dials direct
- CIC in characters 1-4 is an FGB or FGD identity, or is unknown

When 0000 is a valid CIC, character 5 indicates whether the CIC is a feature group B (FGB) or feature group D (FGD) identity. When 0000 indicates the CIC is unknown, character 5 has a value of 7, 8, or 9, depending on the type of unknown condition.

If this field is not appropriate for a call, fill it according to the Bellcore AMA format fill procedure.

**Table 2-51 Field 57 characters-values and meaning**

Character	Value	Meaning
1-4	nnnn	IC/INC identification
5		Operator involvement indicator
	0	The carrier identification code (CIC) is a feature group D (FGD) identity, and an IC/INC operator system is involved
	1	The CIC is an FGD identity, the call is dialed direct, and no IC/INC operator system is involved
	2	The CIC is an FGD identity, and IC/INC operator system involvement cannot be determined
	3	The CIC is a feature group B (FGB) identity, and an IC/INC operator system is involved
	4	The CIC is an FGB identity, the call is dialed direct, and no IC/INC operator system is involved
	5	The CIC is an FGB identity, and an IC/INC operator system involvement cannot be determined
	7	The CIC is unknown, and an IC/INC operator system is involved
	8	The CIC is unknown, the call is dialed direct, and no IC/INC operator system is involved
	9	The CIC is unknown, and IC/INC operator system involvement cannot be determined
6	C	SIGN character (HEX C)

**Field 57 Interexchange carrier/international carrier prefix (E800 calls)**

Field 57 is included in call code 141 for E800 calls. It is changed to include 4-digit CICs, by defining character 1-4 as the IC/INC identification. The following describes field 57 for E800 calls.

**Table 2-52 Field 57 characters - values and meaning**

Character	Value	Meaning
1-4		IC/INC identification
5	0	Operator involved

**Table 2-52 Field 57 characters - values and meaning**

Character	Value	Meaning
	1	Direct dialed
	2	Cannot determine if IC/INC operator Involved
6	C	SIGN character (HEX C)

**Field 58 Interexchange carrier/international carrier call event status**

This field records the last event, up to and including answer supervision, which preceded disconnect.

**Table 2-53 Field 58 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Padding
2-3	01	First wink from IC/INC (originating LATA); AMA register seized or call record put on call (terminating LATA record)
	02	Abandoned or timed out before dialing was completed (originating LATA record)
	03	Second start dial wink from IC/INC (originating LATA record)
	04	Timed out while waiting for acknowledgment wink (originating LATA record)
	05	Operator services or CAMA signaling -- off-hook from IC/INC after receipt of called number (originating LATA record)
	06	Call terminated due to network management feature (terminating LATA record)
	07	Acknowledgment wink received (originating LATA record)
	08	Invalid called number (terminating LATA record)
	09	All failures (except invalid called number) that do not allow the call to be set up to the terminating office (for example, all trunks to the terminating office are busy, the called number is incomplete, or there was a timeout while waiting for the wink from the terminating end office-terminating LATA record)
	10	Answer (originating or terminating LATA record)
- continued -		

**Table 2-53 Field 58 characters-values and meaning**

Character(s)	Value	Meaning
	11	Timed out while waiting for the second start dial wink on a call that used INC signaling (originating LATA record)
	12	Operator services or CAMA signaling -- timed out waiting for off-hook (originating LATA record). This also includes 1+ DD, ONI, ANIF calls outpulsed FGC (BELLI, BELLII, FGB) to the carrier over ATC trunk groups without sending ANI. Non-CAMA calls outpulsed to FGC to the other carrier over ATC trunk groups and non-CAMA calls outpulsed to the carrier over IT trunk groups are also included.
	13	Received off-hook rather than the second start dial wink on a call that used INC signaling (originating LATA record)
4		SIGN character (HEX C)
- end -		

This field is populated when signaling on the outgoing ATC trunk is FGB, FGD, BELLI, or BELLII.

### Field 59 Routing indicator

This field indicates whether the call was routed directly, or through a tandem, to the carrier.

**Table 2-54 Field 59 characters-values and meaning**

Character	Value	Meaning
1	0	Direct
	1	Tandem (always 1 when handled by access tandem)
	2	Call routed by partial feature access tandem (PFAT)
2	C	SIGN character (HEX C)

### Field 60 ANI/CPN indicator

This field indicates whether there is normally an automatic number identification (ANI) for originating calls. If there is a charge number in the initial address message (IAM), it is used to code the originating NPA and originating number fields. If there is no charge number in the IAM, and the

calling party number (CPN) is included, the CPN is used to code the originating NPA and originating number fields.

**Table 2-55 Field 60 characters-values and meaning**

Character	Value	Meaning
1	0	No ANI or CPN provided
	1	ANI provided, no CPN
	2	CPN provided, no ANI
	3	Both CPN and ANI provided
2	C	SIGN character (HEX C)

**Field 70 Called directory number description**

This field indicates the privacy status of a called directory number (DN) on an automatic call back/automatic recall (ACB/AR) call. For a more complete description of the values, see the explanation given in module code 68.

**Table 2-56 Field 70 characters-values and meaning**

Character	Value	Meaning
1-3	001	Private, using ACB/AR
	006	Non-private, using ACB/AR
4	C	SIGN character (HEX C)

### Field 71 Feature type indicator

This field contains the feature billing flags. Each flag indicates whether the corresponding 800+E feature is subscribed and whether it is active. This field is used in conjunction with module code 031-feature type indicator.

**Table 2-57 Field 71 characters-values and meaning**

Character	Value	Meaning
1	3, 4, 6, or 7	Dialed number identification
2	3, 4, 6, or 7	800 Caller identification
3	0, 2, or 3	Command routing
4	0, 2, or 3	Call overflow on busy
5	0, 2, or 3	Low entry 800 service
6	0, 2, or 3	Call prompter (not used)
7	0, 2, or 3	Courtesy response (not used)
8	0, 2, or 3	Call overflow on no answer
9-13	0	Unused storage for additional feature flags
14	C	SIGN character (HEX C)
<p><b>Note:</b> These characters define the status of a group of features. There are several possible status values for each feature-0, 2, 3, 4, 6, and 7 (1 is unused). The value 0 indicates the feature is not subscribed. The value 2 indicates the feature is subscribed but not active. The value 3 indicates the feature is subscribed and active. The value 4 indicates the feature is not delivered. The value 6 indicates the feature is not delivered, but is subscribed. The value 7 indicates the feature is not delivered, but is subscribed and active.</p>		

### Field 72 Alternate route number

This field is used to record the alternate route number determined during translations. This field is used in module code 033.

When it is not possible to complete an overseas call through a direct route, the alternate route number (ARN) used by the operator is recorded in field 72. In this case, the number is taken from the field AMA entry in table IALTRTE, and is determined from the ARN used in call processing.

When a call is floated to an international directory assistance (DA), or inward operator is floated and the call is billable, field 72 is datafilled with the country

code of the international DA or inward number. In other cases, if no alternate route was used, the field is datafilled with nulls (FFFF).

**Table 2-58 Field 72 characters-values and meaning**

Character	Value	Meaning
1-3	000-999	Alternate route number
4	C	SIGN character (HEX C)

**Field 73 International service difficulty**

This field describes the type of difficulty that occurred on a call. This field is used in module code 035.

**Table 2-59 Field 73 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
2-3	00	Not used
	01	Wrong number
	02	Cut off
	03	Poor transmission
	04-99	Unassigned
4	C	SIGN character (HEX C)

**Field 74 Multiplier factor**

This field is used by countries whose currency is such that a large number of currency units are necessary for changes. The multiplier factor recorded is taken from the rating tables.

**Table 2-60 Field 74 characters-values and meaning**

Character	Value	Meaning
1-5		Multiplier factor
6	C	SIGN character (HEX C)

**Field 75 Base charge, tax, surcharge, amount deposited**

This field is used to record the base rated amount for a call and includes the surcharge. The tax, surcharge, and amount deposited fields are not supported at this time. They are null-filled (FFFFFF).

**Table 2-61 Field 75 characters-values and meaning**

Character	Value	Meaning
1-5		Base charge, tax, surcharge, or amount deposited
6	C	SIGN character (HEX C)

**Field 76 Type of name**

This field records the type of name indicator, calling party, or called party for module party name. Module code 038 uses this field.

**Table 2-62 Field 76 characters-values and meaning**

Character	Value	Meaning
1	1	Number identity
	2	Originating ANI (source)
	3	Terminating (destination)
	4	Originating CPN (calling party number)
2	C	SIGN character (HEX C)

**Field 77 Service program logic identification**

This field records a service logic identification.

**Table 2-63 Field 77 characters-values and meaning**

Character	Value	Meaning
1-9		Service program logic identification
10	C	SIGN character (HEX C)

**Field 78 Digits identifier**

Module code 040 uses this field.

**Table 2-64 Field 78 characters-values and meaning**

Character	Value	Meaning
1-3	000	Unused
	001	Authorized code
	002	Account code
	003	Access code
	004	Digits dialed
	007	Originating private digits
	008	Terminating private digits
	009	Open alternate billing digits
	010	Subscriber ID digits
	4	C

**Field 81 NPA-NXX identification**

Some off-net PVN calls use this field to identify the office at which the call hops off the PVN network. If the service control point response message includes a hop-off office number in the billing indicators information, it is placed in the NPA-NXX field. If the hop-off office number is not in the service control point response message, the NPA-NXX field contains hexadecimal F characters.

**Table 2-65 Field 81 characters-meaning**

Character	Value	Meaning
1	0	Constant
2-7		NPA-NXX (hop-off office code)
8	C	SIGN character (HEX C)

**Field 83 Trunk group number**

This field includes the number associated with the trunk group datafilled in table TRKNAME. The originating records contain the outgoing trunk group, and the terminating records have the incoming trunk group.

The first character contains the coding of the route selected to the IC/INC.

- Values 1 and 2 in the first character are not used at an signaling system 7 (SS7) equal access end office (EAEO), consider them reserved
- Values 0-3 are identical for both originating and terminating purposes.
- Values 4 and 5 are unique to originating billing.

**Table 2-66 Field 83 characters-values and meaning**

Character(s)	Value	Meaning
1	0	Default
	1	Non-SS7 direct trunk group number (TGN)
	2	Non-SS7 common TGN (TGN used to route from EAEO to access tandem (AT))
	3	SS7 direct TGN
	4	SS7 AT TGN (TGN used to route from AT to IC/INC)
	5	SS7 end office (EO) TGN (TGN used to route from EAEO to AT with SS7 to multifrequency (MF) interworking)
	6	SS7 from IC to AT and non-SS7 from AT to EO (terminating only)
	9	Signaling type not specified for this trunk group
2-5	nnnn	Trunk group number
6	C	SIGN character (HEX C)

### Field 85 Dialing indicator

This field indicates whether the caller is pre subscribed to the interexchange carrier (IC) used for the call.

This field indicates three things to an accounting office, whether the:

1. end user dialed 10xxx (also known as carrier access code, or CAC) to select a particular interexchange carrier/international carrier (IC/INC) for the call
2. station used is pre-subscribed to the IC/INC transporting the call
3. IC/INC involved in the call has a service arrangement with the BCC to receive a special key pulse signal that indicates whether the station is pre-subscribed to it

CAC indicates the dialing pattern the customer used to access a particular IC/INC. The dialing pattern of the CAC is currently 10xxx for feature group D

(FGD), and 950-xxxx for feature group B (FGB). Within the CAC, the x's, which range from 0-9, represent a carrier identification code (CIC). The CIC is placed into the IC/INC identity code field (field 57) of the BAF record. The CIC identifies the IC/INC the customer selected for the call.

The customer dials the CAC only to access a particular IC/INC. FGD customers need not dial this code to access a pre-subscribed IC/INC. However, the CAC may have to be dialed on intra-LATA and cut-through calls.

For FGD, the CAC alone may not be enough to properly route a call. Other network access digits, such as 1+ or 0+, may have to be dialed after the CAC to access various switching network functions. For FGB calls, these network access digits may have to be dialed prior to the dialing of the FGB CAC.

Values 1, 2, and 4-7 of field 85 are associated with FGD service, while value 3 is associated with FGB service.

**Table 2-67 Field 85 characters-values and meaning**

Character	Value	Meaning
1	0	No indication that CAC was dialed - cannot determine pre-subscription status - no pre-subscription indication forwarded to IC/INC
	1	1+ dialed (CAC was not dialed) - carrier not subscribed to service - customer pre-subscribed to carrier
	2	10XXX dialed (CAC was dialed) - carrier not subscribed to service - customer not pre-subscribed to carrier
	3	950-WXXX dialed
	4	1+ dialed (CAC not dialed) - carrier subscribed to service - customer pre-subscribed to carrier
5	5	10XXX dialed (CAC was dialed) - carrier not subscribed to service - customer pre-subscribed to carrier - customer pre-subscribed indicator sent to carrier
	- continued -	

**Table 2-67 Field 85 characters-values and meaning**

Character	Value	Meaning
	6	10XXX dialed (CAC was dialed) - carrier subscribed to service - customer pre-subscribed to carrier
	7	10XXX dialed (CAC was dialed) - carrier not subscribed to service - customer pre-subscribed to carrier
	8	800+ and 9000+ dialed (CAC not dialed) - carrier not subscribed to service - customer not pre-subscribed to carrier
2	C	SIGN character (HEX C)
- end -		

**Field 87 Business customer identification**

This field contains a business customer identification number if the response message from the service control point contains this number.

**Table 2-68 Field 87 characters-meaning**

Character(s)	Character(s)	Meaning
1		Context identifier
	0	Default
2-11		10-digit business customer number
12	C	SIGN character (HEX C)

**Field 88 Module code**

This field identifies a module of data fields that can be appended to the record.

**Table 2-69 Field 88 characters-values and meaning**

Character(s)	Value	Meaning
1-3	000	Last module in record
	019	Originating billing/services information
- continued -		

Table 2-69 Field 88 characters-values and meaning

Character(s)	Value	Meaning
1-3	020	Carrier access - terminating
	021	Carrier access - originating
	022	Long duration
	023	WATS
	024	Public switched data service (PSDS)
	025	Circuit seizure/release
	026	PVN
	027	Business customer ID
	028	Additional digits dialed
	029	Alternate billing number
	030	Translation settable
	031	Feature type indicator
	032	Operator information
	033	Intl call completion service
	034	ONPE busy line verification service/toll break in service
	035	Intl credit recording service
	036	ONPE charges
	037	ONPE line number
	038	Party name
	039	Service logic program identification
040	Digits	
042	Call record sequence	
044	IC/INC carrier code	
045	OPNE intercept service	
046	Alternate billing number for open numbering	
- continued -		

Table 2-69 Field 88 characters-values and meaning

Character(s)	Value	Meaning
1-3	047	Network facility access information
	049	Calling name/number delivery
	050	Person handling
	051	Call completion service
	052	Alternate billing service
	053	IC/INC call delivery service
	054	IC/INC information
	055	Listing services service
	056	Busy line verification service
	057	General assistance service
	058	Credit recording service
	059	Exchange access service processing time
	060	Charges
	061	Bimodality alternate billing service
	062	Notify/operator assist calling card with DDD
	065	Blue box fraud
	066	Intercept service
	068	Called DN descriptor
	069	Frame relay service
	070	ISDN core
	071	ISDN core module (abbreviated)
	072	Daily aggregate of service event (DASE) module
	073	Terminating user service module
	074	Basic business group
	075	EKTS capabilities
	- continued -	

Table 2-69 Field 88 characters-values and meaning

Character(s)	Value	Meaning
1-3	076	Call pickup
	093	Notify recall information
	095	Ticket number
	097	Custom QMS services
	098	Carrier connect date and time
	100	Business group features
	101	Tandem digits dialed
	102	Authorization code
	103	Account code/CDAR
	104	Trunk identification
	115	Time to answer
	116	Redirection
	120	Customer information
	121	E008 OCR information
	122	Country direct service
	123	Record matching information
	125	Interconnection timing module
	130	Termination attributes
	150	Connection type and identification
	151	E.164 Call completion service
	156	E.164 Busy line verification service
	158	E.164 Credit recording service
	164	E.164/X.12 number
180	ISDN channel identifier	
181	ISDN trunk identifier	
- continued -		

Table 2-69 Field 88 characters-values and meaning

Character(s)	Value	Meaning
1-3	184	Service node ID
	185	Service ID
	186	Service node formatted - small
	187	Service node formatted - large
	194	Calling/called name and the memo
	199	Extension module
	204	Indicator module
	219	Additional originating billing/Services information
	290	Resource timing
	301	Account code billing
	304	Out of band indicator
	306	Originating line information parameter
	307	Line number
	308	Enhanced 800 service
	310	Operator keying action
	311	Origination call type
	312	Hotel information
	313	Overseas calling card billing
	314	Overwritten number-EBDIC
	315	Overwritten number
	316	Local determination
	338	Service provider information
	502	VCN originating
	503	VCN terminating
504	Time change information	
- continued -		

**Table 2-69 Field 88 characters-values and meaning**

Character(s)	Value	Meaning
1-3	507	Redirecting information identification
	508	VPN billing details
	509	Originating and terminating feature codes
	510	Metering module
	513	Trunk name identifier
	611	Generic context identifier
	612	Generic context identifier
	719	Local number portability basic
	720	Local number portability extended
	911	Business group information
	912	Private called number information carrier
4	C	SIGN character (HEX C)
- end -		

*Note:* Module code 022 (long duration call) is not appended for A records.

### Field 89 Translation-settable field

This field identifies a call attribute.-

**Table 2-70 Field 89 characters-values and meaning**

Character	Value	Meaning
1-3		Translation settable field
	000	All services
	001	Speech
	002	64 k data
	003	Audio 3 kHz
	004	64 k tone and announcement
- continued -		

**Table 2-70 Field 89 characters-values and meaning**

Character	Value	Meaning
1-3	005	Multirate
	032	Teleservice
	033	Teletex
	034	Fax 4.1
	035	Vidoetex
	036	Videotele
	037	Fax 2.3
	038	Tele 7
	039	Euroft
4	C	SIGN character (HEX C)
- end -		

**Field 91 Service difficulty**

Service difficulty is recorded in OSS credit records to indicate the type of problem encountered by the customer.

**Table 2-71 Field 91 characters-values and meaning**

Character	Value	Meaning
1	0	Not used
	n	Charge adjust as defined by the operating company
2	C	SIGN character (HEX C)

**Field 92 Number of occurrences/minutes**

This field shows either the number of occurrences of trouble, or the number of minutes of credit for poor transmission.

**Table 2-72 Field 92 characters-meaning**

Character	Value	Meaning
1-3		3-digit number
4	C	SIGN character (HEX C)

**Field 95 Amount of credit**

This field is recorded for OSS coin refund credit requests. It indicates the amount to refund because of a service difficulty at a coin telephone.

**Table 2-73 Field 95 characters-meaning**

Character	Value	Meaning
1-3		Dollars
4-5		Cents
6	C	SIGN character (HEX C)

**Field 105 IP service code**

This field indicates that a service code is sent to IP during connection.

**Table 2-74 Field 105 characters-meaning**

Character	Value	Meaning
1-5		Digits of service code
6	C	SIGN character (HEX C)

**Field 108 Minutes of credit**

This field indicates the number of minutes of credit due because of poor transmission or disputed charges.

**Table 2-75 Field 108 characters-meaning**

Character	Value	Meaning
1-3		Minutes
4	C	SIGN character (HEX C)

**Field 117 Billing type identification**

This field records the type of alternate billing that a customer requests. Special billing number refers to a calling card number that is not a line number. The special auto collect case records a value of four.

A null value (FFFF) in this field indicates that the billing type cannot be determined.

**Table 2-76 Field 117 characters-values and meaning**

Character	Value	Meaning
1		Billing type identification indicator
	1	Calling card
	2	Special billing number
	3	Third number
	4	Collect
2	C	SIGN character (HEX C)

### Field 120 Generic identification

This field contains the generic issue number of the AMA system, and may be used to alert a downstream processing program of a new generic program installed in the AMA sensor or recording system.

**Table 2-77 Field 120 characters-meaning**

Character	Value	Meaning
1-2		Generic issue number
3-4		Point issue level
5		Overwrite level
6	C	SIGN character (HEX C)

### Field 126 Digits dialed, additional digits dialed, or authorization number

This field contains the PVN number of an off-net number dialed by the PVN station.

It can also contain the authorization number. A value of 80002 in the generic context identifier, field 237, indicates the digits string, field 126, contains an authorization number. The authorization number is a variable size number.

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Digits string 1	
Chars 1-15	Contract subscriber number
Char 16	SIGN character (HEX C)
Digits string 1	Generic context identifier 80001, extended operator keying action
Char 1	1=Calculate estimate charges not keyed 2=Calculate estimate charges keyed
Chars 2-15	Future use
Char 16	SIGN character (HEX C)
Digits string 1	Generic context identifier 80002, authorization number
Chars 1-15	(Characters 6-7 of table 237 indicate how many digits pertain to the authorization number. Unused characters are left-padded with zeros.)
Char 16	SIGN character (HEX C)
Digits string 2 (MC612 only)	Generic context identifier 80003
Chars 1-9	Message area
Chars 10-12	LMN number
Chars 13-15	Not used
Char 16	SIGN character (HEX C)
Digits string 1	Generic context identifier 80004
Char 1	Data call identifier  0-Voice call  1-Not used  2-A data call for which modem pooling was not used  3-A data call for which modem pooling was used
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Char 1	4-Not used #A-This feature (F6686) is active
Char 2	Routing Information 0-None 1-Digits missing 2-ARS selected route 3-Digits missing and ARS selected route 4-Expensive route 5-Digits missing and expensive route 6-ARS selected route and expensive route 7-Digits missing and ARS selected route and expensive route 8-9-Not used
Chars 3-7	Network identifier (0-32767)
Chars 8-10	Network class of service (0-255)
Char 11	ANI fail indicator 0-ANI successful 1-ANI failure 2-9-Not used
Char 12	Sequential call indicator 0-Not used 1-Initial call 2-Sequential call
Char 12	3-9-Not used
Chars 13-15	Not used
Char 16	SIGN character (HEX C)
- continued -	

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Char 1	Generic context identifier 80005  Payphone indicator  0-No payphone or unknown  1-Originator used payphone  2-Terminator used payphone  3-Both originator and terminator used payphone  4-9-Not used
Char 2	Mobile phone indicator  0-No mobile phone or unknown  1-Originator used mobile phone  2-Terminator used mobile phone  3-Both originator and terminator used mobile phone  3-Both originator and terminator used mobile phone  4-9-Not used
Char 3	Personal handy-phone system indicator  0-No personal handy-phone or unknown  1-Originator used personal handy-phone  2-Terminator used personal handy-phone  3-Both originator & terminator used personal handy-phone  4-9-Not used
Char 4	ISDN access indicator  1-Originating and terminating access are non-ISDN  2-Originating access non-ISDN and terminating access ISDN  3-Originating access is ISDN and terminating access non-ISDN  4-Originating and terminating access ISDN
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Char 4	5-Originating access non-ISDN and Terminating access unknown 6-Originating access ISDN and terminating access unknown 7-9-Not used
Char 5	No charge Indicator 0-Charge 1-No charge 2-9-Not used
Chars 6-7	Bearer capability 00-Not used 01-Speech 02-64 k data 03-64 k X.25 04-56 k data 05-Data unit 06-64 k restricted 07-3.1 kHz audio 08-7 kHz audio 09-Voice data 10-64 kHz adapted data 11-32 kHz speech 12-99 not used Not used
Chars 8-15	Not used
Char 16	SIGN character (HEX C)

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Digits string 1	Generic context identifier 80006
Char 1	Carrier type, has one of the following values: 0 to 2-values are reserved for future use. 3-billing record has originating local exchange carrier information. 4-billing record has terminating local exchange carrier information. 5-billing record has chosen interexchange carrier information. 6-billing record has interexchange carrier information. 7-billing record has unknown information. 8 or 9-values are reserved for future use. Transit carrier information transmission (TCIT) indicator; records the TCIT indicator as received in the optional ISUP carrier information parameter; has one of the following values:
Char 2	0-Data not transferred between carriers. 1-Data transferred in forward direction. 2-Data transferred in backward direction. 3-Data transferred in both directions. 4 to 9-Values not used.
Char 3	Message direction, indicates direction of ISUP signaling message received by switch; has one of the following values: 0-switch received message in forward direction 1-reserved for future use 2-switch received message in backward direction 3-reserved for future use 4 to 9-values not used
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Chars 4-9	Carrier ID code: contains carrier ID, as received in optional ISUP carrier information parameter; consists of up to six digits, right justified; digits not used are replaced with A's.  This character range consists of up to six digits, right justified. Digits not used replaced with A's.
Chars 10-15	Character range contains the point of interconnection (POI) - charge area information as received in the optional ISUP carrier information parameter. This character range consists of up to six digits, right justified. Digits that are not used are replaced with A's.
Char 16	SIGN character (HEX C)  <b>Note:</b> The AMA billing record can contain multiple instances of module code 611 (80006). The number of instances corresponds to the number of carrier information subparameters received from ISUP signaling.
Digits string 1 (MC612 only)	Generic context identifier 80007
Char 1	Unit charge identification  0-2-Not used  3-Spare  4-100 Yen rate  5-10 Yen rate  6-No indication  7-Unknown  8-9-Not used
Char 2	Charge information type  0-2-Not used  3-Spare
Char 3	4-Flexible billing rate payphone  5-Flexible billing rate basic  6-No flexible rate information
- continued -	

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Char 3	7-Unknown 8-9-Not used
Chars 4-15	Not used
Char 16	SIGN character (HEX C)
Digits string 2 (MC612 only)	
Chars 1-14	Charge rate digits message area
Char 15	Not used
Char 16	SIGN character (HEX C)
Digits string 1 (MC 611)	Generic context identifier 80008
Char 1	Additional user type name  0-1-Not used 2-This character is a spare. 3-Party's category is additional party's category 3 (mobile). 4-Party's category is additional party's category 2 (mobile). 5-Party's category is additional party's category 1 (mobile). 6-Party's category is additional party's category 1 (fixed). 7-Party's category is unknown. 8 or 9-Reserved for future use.
Char 2	Message type code  Message type code. This character indicates the type of message to which the additional party's category information is attached. It has one of the following values:  0-value is not used.  1-additional party's category information is attached to the IAM
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Char 2	2-additional party's category information attached to address complete message (ACM)  3-additional party's category information attached to forward charge (CHG) message  4-additional party's category information attached to backward CHG message  5-additional party's category information attached to answer message (ANM)  6 to 9-Values are reserved for future use.
Chars 3-4	Additional party's category indicator. This character range records the value of the additional party's category field for this party's category as received in the additional party's category parameter.  Hex 00 to FF
Chars 5-15	Not used
Char 16	SIGN character (HEX C)  <b>Note:</b> The AMA billing record can contain multiple instances of module code 611 (8008). The number of instances corresponds to the number of carrier information subparameters received from ISUP signaling.
Digits string 1	Generic context identifier 80009
Char 1	Signalling type  0-Unknown  1-ISDN  2-ISUP  3-9-Not used
Char 2	Message type  0-Not used  1-IAM  2-ACM  3-ANM
- continued -	

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Char 2	4-REL 5-CPG 6-9-Not used
Chars 3-5	Length count 0-No user data 1-129-User data byte count 130-999-Not used
Char 6	Information digits 0-No information 1-Request blocked 2-Request delivered 3-Explicit rejection 4-Request not delivered 5-9-Not used
Chars 7-15	Not used
Char 16	SIGN character (HEX C)
Digits string 1	Generic context identifier 80010
Chars 1-15	Currency units (0-9999999)
Char 16	SIGN character (HEX C)
Digits string 1 (MC612 VPN only)	Ext terminating open digits 1 80011
Chars 1-15	First 15 digits of the called party number
Char 16	SIGN character (HEX C)
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
(MC612 VPN only) Digits string 2 Chars 1-15 Char 16	Ext terminating open digits 2 80011  The 16th-30th digits of the called party number SIGN character (HEX C)
Digits string 1 (MC612 IN only) Chars 1-15 Char 16	Ext terminating open digits 1 80012  First 15 digits of the called party number SIGN character (HEX C)
Digits string 2 (MC612 IN only) Chars1-15 Char 16	Ext terminating open digits 2 80012  The 16th-30th digits of the called party number SIGN character (HEX C)
Digits string 1 (MC612) Chars 1-2 Chars 3-4 Chars 5-15 Char 16	Generic context identifier 800015  Digits type identifier. Character range indicates purpose of digits contained in digits one and digits two strings. It has one of the following values:  00-contract subscriber number  01-IP number  02 to 99-reserved for future use  Number of digits stored. Character range specifies the number of significant digits stored in the digits one and digits two strings. This two-digit character string consists of an integer between 0 and 26.  Digits one. Character range contains first 11 digits of the contract subscriber number or IP. Used digits are right justified. Digits not used are replaced with 0's.  SIGN character (HEX C)

**Table 2-78 Field 126 characters-meaning**

Character(s)	Meaning
Digits string 2 (MC612)	<p>Chars1-15</p> <p>Digits two. Character range contains the next 15 digits of the contract subscriber number or IP number. Used digits are right justified. Digits that are not used are replaced with 0's.</p> <p>Char 16</p> <p>SIGN character (HEX C)</p>
Digits string 1 (MC 611)	<p>Generic context identifier 800016</p> <p>Chars 1-2</p> <p>Charge area indicator. Character indicates the purpose of digits in digits string. Character has one of the following values:</p> <p>00-Digits string contains the message area (MA) code.</p> <p>01-Digits string contains the charge area (CA) code.</p> <p>Chars 3-8</p> <p>02-99-reserved for future use.</p> <p>Digits: Character range contains MA or CA code; range can consist of up to six digits, right justified. Digits not used are replaced with A's.</p> <p>Char 9</p> <p>Message type code: Character indicates the type of message to which the charge area information is attached. Character has one of the following values:</p> <p>0-This value is not used.</p> <p>1-Charge area information attached to IAM.</p> <p>2-Charge area information attached to ACM.</p> <p>3-Charge area information attached to forward CHG message.</p> <p>4-Charge area information attached to backward CHG message.</p> <p>5-Charge area information attached to ANM.</p> <p>6 - 9-Values are reserved for future use.</p> <p>Chars 10-15</p> <p>Character range not used</p> <p>Char 16</p> <p>SIGN character (HEX C)</p> <p><b>Note:</b> The AMA billing record can contain multiple instances of module code 611 (80016). The number of instances corresponds to the number of carrier information subparameters received from ISUP signaling.</p>
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Digits string 1 (MC 612)	Generic context identifier 80020
Char 1	<p>Unit charge indication. Character has one of the following values:</p> <p>0-Unit charge is 100 Yen.</p> <p>1-Unit charge is 10 Yen.</p> <p>2-Unit charge is not indicated.</p> <p>3 to 8-Values are reserved for future use.</p> <p>9-Value indicates that character 1 is not used.</p>
Char 2	<p>Charging information identifier. Character identifies the type of service to which the charge rate information applies. It has one of the following values:</p> <p>0 or 1-Values are reserved.</p> <p>2-Call is a basic FCS call.</p> <p>3-Call is an uncharged period for information (UPI) FCS call.</p> <p>4-Call is a DA FCS call.</p> <p>5-Call is a charge rate transmission (mobile FCS or IAA) call.</p> <p>6-Value is reserved for future use.</p>
Char 3	<p>Message type code. This character indicates the type of message to which the charging information is attached. It has one of the following values:</p> <p>0-Value is not used.</p> <p>1-Charging information is attached to the IAM.</p> <p>2-Charging information is attached to the ACM.</p> <p>3-Charging information is attached to the forward CHG message.</p> <p>4-Charging information is attached to the backward CHG message.</p> <p>5-Charging information is attached to the ANM.</p> <p>6 to 9-Values are reserved for future use.</p>
Chars 4-15	These characters are not used.
- continued -	

**Table 2-78 Field 126 characters-meaning**

Character(s)	Meaning
Char 16	Sign character (HEX C)
Digits string 2	
Char 1	<p>Charging rate information category or UPI charge method. The value of this character is based on the charging information identifier, as follows:</p> <p>Charging information identifier = basic FCS</p> <p>9-Value indicates that character 1 is not used.</p> <p>Charging information identifier = UPI FCS</p> <p>0 or 1-Reserved for future use.</p> <p>2-No indication of the UPI charge method.</p> <p>3-UPI charge method is UPI rate for charged information.</p> <p>4-UPI charge method is UPI units for charged information.</p> <p>5 to 8-Values are reserved for future use</p> <p>9-Value indicates that character 1 is not used.</p> <p>Charging information identifier = DA FCS</p> <p>9-This value indicates that character 1 is not used.</p> <p>Charging information identifier = charge rate transmission (Mobile FCS and IAA)</p> <p>0-Category of charging rate information is flexible charging rate information (payphone).</p> <p>1-Category of charging rate information is flexible charging rate information (basic).</p> <p>2-There is no flexible charging rate information.</p> <p>3 to 8-Values are reserved for future use.</p> <p>9-Value indicates that character 1 is not used.</p>
Chars 2-3	<p>Initial charge unit or DA CHG message count or message billing index (MBI). The value of these characters is based on the following two fields:</p> <p>Charging information identifier</p>
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Chars 2-3	<p>Charging rate information category or UPI charge method</p> <p>The value of these characters is as follows:</p> <p>Charging information identifier = charge rate transmission (mobile FCS &amp; IAA) and charging rate information category or UPI charge method = flexible charging rate information (basic)</p> <p>00 to 99-This value indicates the initial charge unit for a call.</p> <p>Charging Information Identifier = basic FCS</p> <p>00 to 99-This value indicates the initial charge unit for a call.</p> <p>Charging information identifier = basic FCS</p> <p>00 to 15-This value indicates the MBI.</p> <p>Charging Information Identifier = UPI FCS and Charging Rate Information Category or UPI Charge Method = UPI rate for charged information</p>
Chars 4-15	<p>00 to 15-This value indicates the MBI.</p> <p>Charging Information Identifier = DA FCS</p> <p>00 to 99-This value indicates the number of CHG messages received for a DA call.</p> <p>Charge interval or UPI timer or UPI charge. The value of these characters is based on the following two fields:</p> <p>1-Charging information identifier</p> <p>2-Charging rate information category or UPI charge method</p> <p>The value of these characters is:</p> <p>Charging information identifier = Charge rate transmission (mobile FCS &amp; IAA), and Charging rate information category or UPI Charge method = flexible charging rate information (basic)</p> <p>First charge interval: 005 to 999-the day time charge information</p> <p>Second charge interval: 005 to 999-the night time charge information</p> <p>Third charge interval: 005 to 999-the Midnight 1 charge information</p> <p>Fourth charge interval: 005 to 999-the Midnight 2 charge information</p>
- continued -	

**Table 2-78 Field 126 characters-meaning**

Character(s)	Meaning
Chars 4-15	<p>Charging Information Identifier = basic FCS</p> <p>First charge interval: 005 to 999- the day time charge information</p> <p>Second charge interval: 005 to 999- the night time charge information</p> <p>Third charge interval: 005 to 999-the Midnight 1 charge information</p> <p>Fourth charge interval: 005 to 999-the Midnight 2 charge information.</p> <p>Charging information identifier = UPI FCS and charging rate information category, or UPI Charge method = UPI rate for charged information</p> <p>Rate for charged information</p> <p>005 to 999- the rate used for charged information.</p> <p>UPI timer</p> <p>005 to 999- the duration of the uncharged period</p> <p>Charging information identifier = UPI FCS and charging rate information category or UPI Charge method = UPI units for charged information</p> <p>Units for charged information:</p> <p>0000 to 9999-indicates the units used for charged information.</p> <p>UPI timer:</p> <p>005 to 999-indicates the duration of the uncharged period.</p>
Char 16	<p>SIGN character (HEX C)</p> <p><b>Note:</b> The AMA billing record can contain multiple instances of module code 612 (80020). The number of instances corresponds to the number of carrier information subparameters received from ISUP signaling.</p>
Digits string 1 (MC612)	<p>Generic Context Identifier 80023</p>
Char 1	<p>Carrier type. This character has one of the following values:</p> <p>0 to 2-These characters are reserved for future use.</p> <p>3-contains originating local-exchange carrier information</p> <p>4-contains terminating local-exchange carrier information</p>
<p>- continued -</p>	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Char 1	5-contains chosen interexchange carrier information 7-contains unknown information 8 or 9-reserved for future use
Char 2	TCIT indicator. This character records the TCIT value as received in the carrier information parameter. It has one of the following values: 0-Data is not transferred between carriers. 1-Data is transferred in the forward direction. 2-Data is transferred in the backward direction. 3-Data is transferred in both directions. 4 to 9-These characters are not used.
Char 3	Message direction. This character indicates the direction of the message received from ISUP signaling. It has one of the following values: 0-The switch received the message in the forward direction. 1-This character is reserved. 2-The switch received the message in the backward direction. 3-This character is reserved. 4 to 9-These values are not used.
Chars 4-9	Carrier ID code. This character range contains the carrier identification code as received in the carrier information parameter. The range can consist of up to six digits, right justified. Digits not used are replaced with A's.
Chars 10-15	POI-charge area information. This character range contains the POI-charge area information as received in the carrier information parameter.
Char 16	SIGN character (HEX C)  <b>Note:</b> The AMA billing record can contain multiple instances of module code 612 (80023). The number of instances corresponds to the number of carrier information subparameters received from ISUP signaling.
- continued -	

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Digits string 2 (MC612)	
Chars 1-2	Exit POI-connection point. This character range has one of the following values:  00-There is no connection-point type information.  01-The carrier information contains connection-point Type 1 information.  02-The carrier information contains connection-point Type 2 information.
Chars 3 -4	Entry POI-connection point. This character range has one of the following values:  00-There is no connection-point type information.  01-The carrier information contains connection-point Type 1 information.  02-The carrier information contains connection-point Type 2 information.  03 to 99-These characters are reserved for future use.
Chars 5-15	These characters are not used.
Char 16	SIGN character (HEX C)
Digits string 1 (MC 611)	Generic context identifier 80024
Chars 1-12	Service identifier. This character range represents the type of feature accessed. It is in hexadecimal format. Each hexadecimal number corresponds to an extended binary-coded decimal interchange code (EBCDIC) value.  The following hexadecimal numbers have a corresponding EBCDIC value:  hexadecimal 81-EBCDIC a  hexadecimal 82-EBCDIC b  hexadecimal 83-EBCDIC c  hexadecimal 84-EBCDIC d  hexadecimal 85-EBCDIC e  hexadecimal 86-EBCDIC f  hexadecimal 87-EBCDIC g
- continued -	

Table 2-78 Field 126 characters-meaning

Character(s)	Meaning
Chars 1-12	hexadecimal 88-EBCDIC h
	hexadecimal 89-EBCDIC i
	hexadecimal 91-EBCDIC j
	hexadecimal 92-EBCDIC k
	hexadecimal 93-EBCDIC l
	hexadecimal 94-EBCDIC m
	hexadecimal 95-EBCDIC n
	hexadecimal 96-EBCDIC o
	hexadecimal 97-EBCDIC p
	hexadecimal 98-EBCDIC q
	hexadecimal 99-EBCDIC r
	hexadecimal A2-EBCDIC s
	hexadecimal A3-EBCDIC t
	hexadecimal A4-EBCDIC u
	hexadecimal A5-EBCDIC v
	hexadecimal A6-EBCDIC w
	hexadecimal A7-EBCDIC x
	hexadecimal A8-EBCDIC y
	hexadecimal A9-EBCDIC z
	hexadecimal F0-EBCDIC 0
	hexadecimal F1- EBCDIC 1
	hexadecimal F2- EBCDIC 2
	hexadecimal F3- EBCDIC 3
	hexadecimal F4-EBCDIC 4
	hexadecimal F5-EBCDIC 5
- continued -	

**Table 2-78 Field 126 characters-meaning**

<b>Character(s)</b>	<b>Meaning</b>
Chars 1-12	hexadecimal F6-EBCDIC 6 hexadecimal F7-EBCDIC 7 hexadecimal F8-EBCDIC 8 hexadecimal F9-EBCDIC 9
Chars 13-14	Service event. This character range indicates a service activity.  This character range has up to two digits, right justified. It has one of the following values:  00-The service is not identified.  01-Operating company personnel provisioned the service on a line.  02-Operating company personnel removed the service from a line.  03-Operating company personnel programmed the service.  04-The subscriber programmed the service.  05-The subscriber interrogated the service.  06-The subscriber used the service.  07-The subscriber activated the service.  08-Operating company personnel activated the service.  09-The subscriber deactivated the service.  10-Operating company personnel deactivated the service.
15 0	This character is not used.
16 C	SIGN character (HEX C).
- end -	

**Field 128 Overflow peg count**

This field reports a peg count. The particular count reported is specified by the structure or module.

**Table 2-79 Field 128 characters-meaning**

Character	Value	Meaning
1-5		Peg count
6	C	SIGN character (HEX C)

**Field 130 Usage count**

This field reports the use of a particular service.

**Table 2-80 Field 130 characters-meaning**

Character	Value	Meaning
1-5		Usage count
6	C	SIGN character (HEX C)

**Field 138 Alternate billing number**

This field indicates the number to which the call is billed.

**Table 2-81 Field 138 characters-meaning**

Character	Value	Meaning
1	0	Always 0
2-11		Alternate billing number
12	C	SIGN character (HEX C)

**Field 139 Rate period segment count**

This field counts the jacket segments sent and received from the beginning of the recording period to the generation of the record.

**Table 2-82**

Character	Value	Meaning
1-7		7- digit number
8	C	SIGN character (HEX C)

**Field 140 AMA sequence number**

This number uniquely identifies the set of AMA data output by an individual sensor. It is changed each time this set of data is changed.

**Table 2-83 Field 140 characters-meaning**

Character	Value	Meaning
1	0	Padding (0)
2-5		4-digit sequence number (0000 - 9999)
6	C	SIGN character (HEX C)

**Field 152 Context ID**

This field identifies the call code, service feature code, and message billing index.

**Table 2-84 Field 152 characters-values and meaning**

Character	Value	Meaning
1-3		Context ID
	001	Call type code
	002	Service feature code
	003	Message billing indicator (MBI)
	004	call type code in SCP response
	005	Service feature in SCP response
	006	RAO number
	007	LATA number
	008	Originating listing services
	800-899	Unassigned
4	C	SIGN character (HEX C)

**Field 155 Source of charge number**

This field provides module reusability. An application may need to use the module to hold an entity other than those specified. Do this by setting the first character as appropriate. For example:

- 0 = default
- 1 = calling line identifier
- 2 = supplementary charge number

**Table 2-85 Field 155 characters-meaning**

Character	Value	Meaning
1		Source of supplementary charge number
	0	Default
	1	Calling line identifier
	2	Entry identifier
	3	Diversion identifier
	4	Calling card ID
2	C	SIGN character (HEX C)

**Field 158 Coins collected**

This field identifies the number of five-cent deposits.

**Table 2-86 Field 158 characters-meaning**

Character	Value	Meaning
1-3		Number of collected five-cent deposits
4	C	SIGN character (HEX C)

**Field 159 Coin deposit trouble indicator**

This field identifies any errors detected on coin deposited calls.

**Table 2-87 Field 159 characters-values and meaning**

Character	Value	Meaning
1		Coin deposit trouble indicator
	0	No coin-tone detection errors
- continued -		

**Table 2-87 Field 159 characters-values and meaning**

Character	Value	Meaning
	1	Coin-tone detection errors present
2-3	nn	Number of coin-deposit intervals in which the local office was unable to monitor and record collected sent-paid deposits
4	C	SIGN character (HEX C)

**Field 165 Country code or data network identification code**

This field identifies the country code digits dialed. They are included as part of the called number.

**Table 2-88 Field 165 characters-values and meaning**

Character	Value	Meaning
1		Numbering plan indicator
	1	E.164 number with 1-digit country code
	2	E.164 number with 2-digit country code
	3	E.164 number with 3-digit country code
	4	X.121 number (not supported in TOPS)
2-5		Country code or data network identification code
6	C	SIGN character (HEX C)

**Field 168 Connection type and identification**

This field identifies the type of entity being identified.

**Table 2-89 Field 168 characters-values and meaning**

Character	Value	Meaning
1-2		Connection type/identification
	01	Type A
	02	Type B
	03	Type D
	04	Cellular mobile
		- continued -

**Table 2-89 Field 168 characters-values and meaning**

Character	Value	Meaning
1-2	05	Local transport
3-7		Identification code
8	C	SIGN character (HEX C)
- end-		

**Field 169 Call redirection or call deflection indicator**

This field indicates if a call was redirected or deflected, and the reason.

**Table 2-90 Field 169 characters-values and meaning**

Character	Value	Meaning
1		Redirection or deflection indicator
	1	Redirected
	2	Deflected
2		Notification indicator
	1	Notification provided
	2	Notification not provided
3-5		Reason indicator
	005	CFB
	006	CFU
	007	CFD
	008	CFDG
	009	Call pickup
	010	AC night service
	011	ACD night service
	012	UCD night service
	013	ACD immediate overflow
- continued -		

**Table 2-90 Field 169 characters-values and meaning**

Character	Value	Meaning
3-5	014	UCD immediate overflow
	015	ACD controlled interflow
	016	Unknown
6	C	SIGN character (HEX C)
- end -		

**Field 170 Originating network element identifier**

This field identifies the first network element associated with the packet record.

**Table 2-91 Field 170 characters-values and meaning**

Character	Value	Meaning
1		Network element
	0	Unused
	1	PPSN Node
	2	ISDN Node
2-7		6-digit number
8	C	SIGN character (HEX C)

**Field 171 Terminating network element identifier**

This field identifies the last network element associated with the packet record.

**Table 2-92 Field 171 characters-values and meaning**

Character	Value	Meaning
1		Network element
	0	Unused
	1	PPSN node
	2	ISDN node
2-7		6-digit number
8	C	SIGN character (HEX C)

**Field 172 Originating data numbering plan area**

This field, used with the originating data central office-end point number field, has the calling network terminal number (NTN) created for a virtual circuit.

**Table 2-93 Field 172 characters-values and meaning**

Character	Value	Meaning
1		Data numbering plan area
4	C	SIGN character (HEX C)

**Field 173 Originating data central office - end point number**

This field, used with the originating data numbering plan area, contains the calling NTN created for a virtual circuit.

**Table 2-94 Field 173 characters-values and meaning**

Character	Value	Meaning
1-3		Data central office (NXX)
4-7		End point number
8	C	SIGN character (HEX C)

**Field 174 Terminating data numbering plan area**

This field, used with the terminating data central office-end number field, contains the called NTN created for a virtual circuit.

**Table 2-95 Field 174 characters-values and meaning**

Character	Value	Meaning
1-3		Data numbering plan area
4	C	SIGN character (HEX C)

**Field 175 Terminating data central office-end point number**

This field, used with the terminating data numbering plan area field, contains the called NTN created for a virtual circuit.

**Table 2-96 Field 175 characters-values and meaning**

Character	Value	Meaning
1-3		Data central office (NXX)
		- continued -

**Table 2-96 Field 175 characters-values and meaning**

Character	Value	Meaning
4-7		End point number
8	C	SIGN character (HEX C)
		- end -

**Field 176 Network user identification**

This field records the network user identification (NUI) information in the AMA record to provide an alternate billing number to which the usage for the call may be accounted.

**Table 2-97 Field 176 characters-values and meaning**

Character	Value	Meaning
1		Network validation
	0	Not used
	1	Originating network validation
	2	Terminating network validation
	3	First transit network validation
2		NUI override Indicator
	0	NUI override not requested
	1	NUI override requested, but not in effect
	2	NUI override requested and in effect
3		Calling card subaccount number present
	0	Not used
	1	Calling card subaccount number present
	2	Error code present
	3	Calling card service denial Indicator present
	4	PIN service denial indicator present
	5	PIN restricted
		- continued -

Table 2-97 Field 176 characters-values and meaning

Character	Value	Meaning
	6	Problem type
4-5		Subaccount number and denial reason indicator
	When character 3=0	
	00	Not used (also when characters 1-3=0)
	When character 3=1	
	00-99	Calling card subaccount number
	When character 3=2	
	01	Unexcepted component sequence
	02	Unexpected data value
	03	Unavailable network resource
	04	Missing record
	05	Reply overdue
	06	Data unavailable
	When character 3=3	
	01	No PIN assigned
	03	Service denial on calling card account number
	When character 3=4	
	02	Service denial on PIN due to threshold exceeded
	03	Service denial on PIN due to nonpayment
	04	Denial due to service restriction
	When character 3=5	
	02	PIN restricted
	When character 3=6	
	00	Not used (also characters 1-3=0)
	01	General
- continued -		

**Table 2-97 Field 176 characters-values and meaning**

Character	Value	Meaning
	02	Invoke
	03	Return result
	04	Return error
	05	Transaction portion
6-15		Billing number
16	C	SIGN character (HEX C)
- end -		

**Field 177 Termination cause indicator**

This field contains the clearing cause of a packet virtual call (both successful and unsuccessful virtual call attempts). It is the same clearing cause sent in the clear request packet to the data terminal equipment.

**Table 2-98 Field 177 characters-values and meaning**

Character	Value	Meaning
1		Call clearing entity
	1	Call cleared by originating party
	2	Call cleared by terminating party
	3	Call cleared by a network
2-3		Call clearing cause
	00	Data terminal equipment clearing
	01	Number busy
	03	Invalid call
	05	Network congestion
	09	Out of order
	11	Access barred
	13	Not obtained
- continued -		

**Table 2-98 Field 177 characters-values and meaning**

Character	Value	Meaning
	17	Remote procedure error
	19	Local procedure error
	21	Registered private operating agency out of order
	25	Reverse-charging acceptance not subscribed
	33	Incompatible destination
	41	Fast select not subscribed
4	C	SIGN character (HEX C)
- end -		

**Field 178 Originating (local service) type**

This field indicates the protocol in use at the calling interface for intra-network virtual call attempts. This field refers to the protocol at the data terminal equipment interface directly served by the public packet switching network generating the record.

**Table 2-99 Field 178 characters-values and meaning**

Character	Value	Meaning
1		Access type
	0	Not specified
	1	Dial-up access
	2	Direct access
2-3		Protocol used
	00	Unspecified
	02	2780/3780/bi-synchronous (BSC)
	11	Asynchronous
	12	X.25
	13	BSC
- continued -		

**Table 2-99 Field 178 characters-values and meaning**

Character	Value	Meaning
	15	Synchronous data link control (SDLC)
	19	Link access procedure balanced (LAPB)
4	C	SIGN character (HEX C)
		- end -

**Field 179 Terminating service type**

This field indicates the protocol used at the calling interface for intra-network virtual call attempts. It is not used in inter-network packet calls.

**Table 2-100 Field 179 characters-values and meaning**

Character	Value	Meaning
1		Access type
	0	Not specified
	1	Dial-up access
	2	Direct access
2-3		Protocol used
	01	Unspecified
	02	2780/3780 bi-synchronous (BSC)
	12	X.25 (dedicated)/X.32 (dial-up)
	11	Asynchronous (X.28, X.29)
	12	X.25 (dedicated)/X.32 (dial-up)
	13	3270 bi-synchronous (BSC)
	15	Synchronous data link control (SDLC)
	19	LAPB (link access procedure balanced)
4	C	SIGN character (HEX C)

**Field 180 Priority**

This field indicates the priority of service granted on the call where priority classes are supported. If a default priority is used, this is defined as the normal

value. Other priority choices offered (if any) are mapped into the values low (less than normal), high (greater than normal), and urgent (greater than high).

**Table 2-101 Field 180 characters-values and meaning**

Character	Value	Meaning
1	1-4	Service priority
2	C	SIGN character (HEX C)

### Field 181 Segment size

This field specifies the size of the segments counted in the rate period segment count field and/or the counts of segments field.

**Table 2-102 Field 181 characters-values and meaning**

Character	Value	Meaning
1		Segment size
	1	16 octets
	2	32 octets
	3	64 octets
	4	128 octets
	5	256 octets
	6	512 octets
	7	1024 octets
	8	2048 octets
9	4096 octets	
2	C	SIGN character (HEX C)

### Field 182 Fast select

This field indicates whether the fast select facility is called for on a packet virtual call. The facility may be signaled in either the call request or call accept

(or call clear) packet in the call setup. The field does not indicate which setup message contains the message.

**Table 2-103 Field 182 characters-values and meaning**

Character	Value	Meaning
1		Fast select facility usage
	0	Feature not used
	1	Feature used
2	C	SIGN character (HEX C)

### Field 183 Tariff utility

This field contains information passed between two networks during an internetwork call. It is used to pass information among networks to permit or facilitate billing and other arrangements negotiated between participating networks.

**Table 2-104 Field 183 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2-3		Primary subclass
4		Secondary subclass
5		0 or 1
6-7		Primary subclass
8		Secondary subclass
9		0 or 1
10	C	SIGN character (HEX C)

**Field 184 Originating DNIC or ISDN network ID code**

This field records a DNIC or an ISDN Network Identification code (INIC), depending on the type of address (X.121. or E.164 respectively) contained in an originating call.

**Table 2-105 Field 184 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2-5		Originating DNIC or ISDN network ID code
6	C	SIGN character (HEX C)

**Field 185 Terminating DNIC or ISDN network ID code**

This field records a DNIC or an ISDN Network Identification code (INIC), depending on the type of address (X.121. or E.164 respectively) contained in an terminating call

**Table 2-106 Field 185 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2-5		Terminating DNIC or ISDN network ID code
6	C	SIGN character (HEX C)

**Field 186 Call identifier billing**

Each detailed internetwork packet virtual call attempt record must include the call identifier utility passed by the connecting network. This identifier should be significant to the connecting networks and remain unchanged across the network. The entire identifier is converted to an 8-digit decimal number, and is populated in this field, right-justified and padded with zeros, as necessary.

**Table 2-107 Field 186 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2-9		8-digit number
10	C	SIGN character (HEX C)

**Field 188 Chargeable data numbering plan area**

This field is used with the chargeable data central office-end point number field (field 189). Field 188 contains the number assigned to the data interface being recorded. For the North American numbering plan (NANP) numbers, this field contains the interface location's 3-digit data numbering plan area (FNPA). The chargeable data central office-end point number field contains the 7-digit number assigned by the Bellcore client company (BCC). For non-NANP numbers, this and the 189 field, are considered a contiguous 10-digit field.

**Table 2-108 Field 188 characters-values and meaning**

Character	Value	Meaning
1-3		Data numbering plan area
4	C	SIGN character (HEX C)

**Field 189 Chargeable data central office-end point number**

This field is used with the chargeable data numbering plan area.

**Table 2-109 Field 189 characters-values and meaning**

Character	Value	Meaning
1-3		Service area
4-7		End point number
8	C	SIGN character (HEX C)

**Field 194 X.75 interface identifier**

this field identifies the X.75 interface being recorded. The value of this field is assigned by a local exchange carrier through translation procedures at the time of provisioning.

**Table 2-110 Field 194 characters-values and meaning**

Character	Value	Meaning
1-11		11-digit number
12	C	SIGN character (HEX C)

**Field 195 ISDN channel identifier**

In the ISDN environment, this field identifies the B- and D-channels associated with the ISDN call.

**Table 2-111 Field 195 characters-values and meaning**

Character	Value	Meaning
1		Constant
2-3		Interface identifier
4-5		Channel number
6	C	SIGN character (HEX C)

**Field 197 Originating local access transport area (LATA)**

This field is used to define the LATA from which the call originated.

**Table 2-112 Field 197 characters-values and meaning**

Character	Value	Meaning
1-3		Originating LATA
4	C	SIGN character (HEX C)

**Field 200 Operator number**

This field indicates the number of the operator handling the call.

**Table 2-113 Field 200 characters-values and meaning**

Character	Value	Meaning
1	0	Not used (no operators)
	1	Operator identified
	2	Two or more operators involved, last one involved in is the slot
2-3	nn	Operator services office
4-7	nnnn	Operator number
8	C	SIGN character (HEX C)

**Field 201 Operator service feature**

This field indicates the type of service provided by the operator.

**Table 2-114 Field 201 characters-values and meaning**

Character	Value	Meaning
1		Reserved
2-3	00	IC transfer
	01	Dialing instructions
	02	Emergency assistance
	03	Rate information
	04	Coin line identification
	05	Trouble reporting
	06	Credit recording
	10	Remote operator number identification
	11	DA
	18	DA call completion
		<b>Note:</b> Only values 10, 11, and 18 are supported for TOPS.
4	C	SIGN character (HEX C)

**Field 202 Carrier identification**

This field identifies the carrier requesting inward type service.

**Table 2-115 Field 202 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
2		Type of business
	0	Internal line of business
	1	External line of business
		- continued -

**Table 2-115 Field 202 characters-values and meaning**

Character	Value	Meaning
3-5	nnn	Carrier identification  If 0 is in character 2 position, this will be the line of business number  If 1 is in character 2 position, this will be carrier identification
6	C	SIGN character (HEX C)
		- end -

**Field 204 Charge adjust indicator**

This field indicates if minutes or charges are adjusted.

**Table 2-116 Field 204 characters-values and meaning**

Character	Value	Meaning
1	0	No indicator provided
	1	Minute(s) adjusted
	2	Charge(s) adjusted
2	C	SIGN character (HEX C)

**Field 207 Access method indicator**

This field indicates the type of network facility access (NFA) connection that took place previous to the event recorded in the corresponding AMA record.

**Table 2-117 Field 207 characters-values and meaning**

Character	Value	Meaning
1		Access method
	0	No previous IP connection
	1	Implicit access
	2	Explicit access
	3	Remote access
	4	Non-subscribed access
2	C	SIGN character (HEX C)

**Field 208 Conversion required**

This field indicates that conversion is set to 2 (true) if DP to DTMF conversion is performed for the subscriber at any point in the call.

**Table 2-118 Field 208 characters-values and meaning**

Character	Value	Meaning
1		Conversion indication
	1	No conversion required (false)
	2	DP/DTMF conversion performed (true)
2	C	SIGN character (HEX C)

*Note:* Field 208 is set to 2 (true) if any DP to DTMF conversion is performed for the subscriber. This include the time that the subscriber is connected to the NFA trunk, and any call extended for the subscriber by an explicit access with extended DP to DTMF conversion. Refer to *Translations Guide* for information on field 208.

**Field 209 Inward service type**

This field indicates the type of inward service used.

**Table 2-119 Field 209 characters-values and meaning**

Character	Value	Meaning
1-3		Type of service provided
	001	Dialing instruction, operator code 121
	002	Emergency assistance
	003	Completion assistance
	004	Verification request (busy line verification)
	005	Operator (emergency) interrupt
	006	Operator-assisted calling card verification
	007	Automated calling card validation, operator code 1161, 1162
	008	Directory assistance, operator code 131
	009	Rate information
4	C	SIGN character (HEX C)

**Field 237 Generic context identifier**

The following table shows the values currently defined for the generic context identifier field. Note that the value 80002 authorization number follows in field 126. The authorization number is a variable size number. Characters 6 and 7 of field 237 specify the size of the authorization number that appears in field 126.

**Table 2-120 Field 237 characters-values and meaning**

Character	Value	Meaning
1-5		Parse rules and type of data for next field(s)
	00001	Continuous digit string for MDR
	00002	Chargeable party identifier for ATM
	00003	Default ATM address
	00004	Invalid ATM address
	00005	ATM E.164 address end system information
	80001	extended operator keying action
	80002	Authorization number
	80003	Independent common carrier proprietary data group (equivalent to parts of SMDR record 'DE')
	80004	Independent common carrier proprietary data group (equivalent to parts of SMDR records 'DE' and 'D1/D3')
	80005	Independent common carrier proprietary data group (equivalent to parts of SMDR records 'DE' and 'DD')
	80006	Independent common carrier proprietary data group (equivalent to parts of SMDR records 'DF 05')
	80007	Independent common carrier proprietary data group (equivalent to parts of SMDR records 'DF 06')
	80008	Independent common carrier proprietary data group (equivalent to parts of SMDR records 'DF 07')
	80009	Independent common carrier proprietary data group (equivalent to parts of SMDR records 'DF 02')
	80010	Independent common carrier proprietary data group, stores charge amount for IN calls
- continued -		

Table 2-120 Field 237 characters-values and meaning

Character	Value	Meaning
1-5	80015, 80016 80020, 80023, 80024  9001	These characters specify the parsing rules and type of data for the next field.  TSID/TTG information
6-7		Significant digits in the digit string field(s)  <b>Note:</b> The hexadecimal C's are not included in the calculation of the significant digits in the digit string field(s) of module code 611T or 612  .  Signifies the size of field 126 when dealing with a variable size number, for example, a context identifier 80002, authorization number.  08 Information digit count  30 The value if characters 1-5 is 80015, the value of characters 6 to 7 is 30.  09 The value if characters 1-5 is 80016, the value of characters 6 to 7 is 09.  30 The value if characters 1-5 is 80020, the value of characters 6 to 7 is 30.  19 The value if characters 1-5 is 80023, the value of characters 6 to 7 is 19.  15 The value if characters 1-5 is 80024.
8	C	SIGN character (HEX C)  <b>Note:</b> The hexadecimal C's are not included in the calculation of the significant digits in the digits string field(s).
- end -		

**Field 243 Incoming/outgoing facility type**

This field identifies the incoming or outgoing facility type.

**Table 2-121 Field 243 characters-values and meaning**

Character	Value	Meaning
1-3	001	Line
	002	Attendant console
	011	FX
	021	CCSA
	032	Tandem tie trunk (TDMTT)
	085	Electronic tandem switch (ETS)
	099	Unknown
4	C	SIGN character (HEX C)

**Field 244 Incoming/outgoing trunk facility identification**

This field identifies either the incoming or outgoing trunk ID if one exists. When a trunk is represented, characters 2 through 5 indicates the trunk group (the ADNUM value from table CLLI), and 6 through 9 indicates the particular trunk within the group.

**Table 2-122 Field 244 characters-values and meaning**

Character	Value	Meaning
1		Routing indicator
	0	Constant
	1	Direct - Incoming different network (LSPI-SO) interconnecting at far end
	2	Direct - Outgoing/different network (LSPI-SO) interconnecting at far end
2-5		DMS trunk group ID number
6-9		DMS trunk group member number
10	C	SIGN character (HEX C)

**Field 271 Out of band indicator**

This field indicates whether the enhanced 800 service number dialed is out of the subscriber's calling band.

**Table 2-123 Field 271 characters-values and meaning**

Character	Value	Meaning
1	0	Not out of band
	1	Out of band
2	C	SIGN character (HEX C)

**Field 276 Station signaling indicator**

This field indicates whether a call originates from dial pulse or dual-tone multi frequency equipment. Value nine is recorded for all other calls.

**Table 2-124 Field 276 characters-values and meaning**

Character	Value	Meaning
1		Station signaling indicator
	1	Dial pulse
	2	Dual-tone multi frequency
	9	Unknown
2		SIGN character (HEX C)

**Field 277 Treatment indicator**

This field indicates if the third number or collect billing number is marked for operator or special treatment. This information is obtained from the line information database (LIDB) of the billed number.

A value of nine is recorded in this field for collect or third number billing when non-database response is received. It is filled with null values (hex FF) for calling card billing.

**Table 2-125 Field 277 characters-values and meaning**

Character	Value	Meaning
1		Treatment indicator
	1	Automated treatment
- continued -		

**Table 2-125 Field 277 characters-values and meaning**

Character	Value	Meaning
1	2	Operator treatment-operator handling (line limitations)
	3	Special treatment-operator handling (at customer request)
	4	Special treatment-handicapped 1
	5	Special treatment-handicapped 2
	6	LIDB spare
	7	LIDB spare
	9	Unknown
2	C	SIGN character (HEX C)
- end -		

**Field 278 Called number/service access number input**

This field indicates if a customer dialed a called number/service access number and if it was dialed correctly (that is, did the properly dialed number identify the service, billing and/or handling option the customer requested).

The following values and meanings are recorded in character 1:

- Value 1 is recorded when none of the following values are recorded.
- Value 2 is recorded for all operator handled calls.
- Value 3 is recorded for all plus dialed calls when the operator changes the called number. The operator changes the called number by keying one of the following keys:
  - Forward function
  - Verify function
  - Verify start function

- Overseas function
- Out-going trunk function
- Value 4 is recorded for all sequence calls (including calling card sequence calls, multiple DA requests and services following the keying of GEN AMA).

**Table 2-126 Field 278 characters-values and meaning**

Character	Value	Meaning
1		Called number indicator
	1	Called number or correct service access number dialed by customer
	2	Operator needed to input called number or service type (customer dialed 0-)
	3	Operator needed to input correct service type (customer dialed incorrectly)
	4	Subsequent request
	9	Unknown
2	C	SIGN character (HEX C)

**Field 279 Calling number source**

This field identifies if the calling number was identified using ANI or ONI.

**Table 2-127 Field 279 characters-values and meaning**

Character	Value	Meaning
1		Calling number surge indicator
	1	Automatic number identification (ANI) used
	2	Operator number identification (ONI) used
	3	ANI failure, ONI used
	9	Unknown
2	C	SIGN character (HEX C)

**Field 280 Completion indicator**

This field identifies the status of a call completion call. Call completion service is that which is provided to complete a call of either of the two following types:

1. A 0+ subscriber-dialed call requiring service by an operator or automated system. It is then released by the operator and completed through normal call processing.
2. A 0- call that receives service by an operator who then completes it.

**Table 2-128 Field 280 characters-values and meaning**

Character	Value	Meaning
1-3		Completion indicator
	001	Completed: answered
	002	Not completed: billing failure
	003	Not completed: setup restrictions table
	004	Not completed: person requested on person-to-person call not available
	005	Not completed: no circuits
	006	Not completed: ringing
	007	Not completed: busy
	008	Not completed: no answer supervision returned
	009	AIN Pre-final route record-final call disposition
	010	AIN Pre-final route record-final call disposition not completed
	011	AIN SCP requested release time (disconnect message received)
	014	AIN Pre-final route record-NEL follows
	015	Not completed: call sent to treatment
	016	Not completed: other treatment
	017	Not completed: abnormal
999	Unknown	
4	C	SIGN character (HEX C)

**Field 281 Rate indicator**

This field indicates the rate class of a call.

**Table 2-129 Field 281 characters-values and meaning**

Character	Value	Meaning
1		Rate indicator
	1	RAO-determined rates
	2	Operator-invoked customer dialed rates
	3	Operator-invoked non-revenue/no-AMA call
	4	Free-call-table-invoked free call
	5	DDD CAMA ONI Call operator identified only
	6	Reconnect following credit AMA enhancement
7	Operator-invoked manual rate enhancement	
2	C	SIGN character (HEX C)

**Field 282 OSS call completion service conditions**

This field records the reason that a call was routed to TOPS.

**Table 2-130 Field 282 characters-values and meaning**

Character	Value	Meaning
1		Assistance type
	1	Normal OSS completion assistance
	2	Special OSS completion assistance
	3	Automated OSS completion assistance
2		Satellite avoidance
	1	Satellite avoidance not requested
	2	Satellite avoidance requested
3		NPA point
	1	Call to an NPA point
	2	Call to a non-NPA point
- continued -		

Table 2-130 Field 282 characters-values and meaning

Character	Value	Meaning
4		Dialable point
	1	Call to a dialable point
	2	Call to a non-dialable point
5		Subsequent treatment
	1	All other types of OSS calls
	2	Call subsequent to customer trouble reporting
	3	Call subsequent to message delivery service
	4	Call subsequent to non-published number callback service
	5	Emergency call
	6	Call subsequent to person call back service
	7	Call subsequent to directory assistance request
	8	Call subsequent to intercept call completion service
9	Unknown	
6		Enterprise calling
	1	Not an enterprise or zenith call
	2	Valid enterprise or zenith call
	3	Invalid enterprise or zenith call
	4	Called party pays-database derived-local
	5	Called party pays-database derived-toll
	6	Called party pays-database derived-all
7	Requested party pays only the DACC surcharge	
7		RLT indication
	0	Normal completion
	3	OSS RLT completion
8	C	SIGN character (HEX C)
- end-		

**Field 283 Service identification**

This field identifies the customer-requested service. This data field is used in conjunction with module codes 045, 055 and 057. Different values are supported for each of these modules.

For intercept services, the recorded value is always 015, intercept, unless overridden by table AMASRVID. The customer can datafill table AMASRVID for values 900-998.

**Table 2-131 Field 283 characters-values and meaning**

Character	Value	Meaning
1-3		Service identification indicator
	001	Directory assistance
	002	Customer name and address
	003	Address provision
	004	Name and telephone number provision
	005	Zip code provision
	006	Area business listing
	007	Dialing instruction
	008	Rate information
	009	Trouble reporting
	010	Area code
	011	Remote ONI (RONI)
	012	Customized announcement
	013	Automated split referral
	014	Operator-handled split referral
	015	Intercept
	016	Intercept messaging
	017-899	Reserved
	900-998	Operating company-definable
- continued -		

**Table 2-131 Field 283 characters-values and meaning**

Character	Value	Meaning
1-3	999	Unknown
4	C	SIGN character (HEX C)
- end -		

**Field 284 Means of information input**

This field identifies the method a subscriber uses to request information from a listing service.

Value 1 is recorded if a DA or intercept service call is handled by an operator. If an intercept service call is not handled by an operator (auto intercept), value 9 is recorded. The intercepted number is provided through signaling for auto intercept handled calls; therefore, it cannot be determined if the means of input was dual-tone multi frequency (DTMF) or dial pulse.

**Table 2-132 Field 284 characters-values and meaning**

Character	Value	Meaning
1		Means of information input indicator
	1	Verbal to operator
	2	DTMF
	3	Verbal to voice recognition system
	9	Unknown
2	C	SIGN character (HEX C)

**Field 285 Means of LSDB Access**

This field indicates whether the LSDB queried is directly connected to TOPS or is connected by a data network connection. TOPS can interface to a maximum of two LSDBs, and only by a direct connection.

**Table 2-133 Field 285 characters-values and meaning**

Character	Value	Meaning
1		Listing services database access
	1	Direct connection
- continued -		

**Table 2-133 Field 285 characters-values and meaning**

Character	Value	Meaning
1	2	Data network
	9	Unknown
2	C	SIGN character (HEX C)

**Field 286 Line information database response**

This field contains the indication received from the billed party's line information database (LIDB) if the billing option is calling card, collect, or third party. Currently, character 1 always contains value 4. Originating line number screening (OLNS) is not supported by TOPS. If a data base query on a calling card returns a personal identification number (PIN) failure, a value of 06 is recorded in characters 2 and 3 (as opposed to value 12).

**Table 2-134 Field 286 characters-values and meaning**

Character	Value	Meaning
1		OLNS originating station billing restriction
	1	Allowed
	2	Not allowed
	3	Always accept
	4	OLNS query not made
	5	OLNS response not received
	6	Return error or reject response received
2-3	9	Unknown
		Billing number screening (BNS) response
	01	Accept
	02	Reject
	03	Verify
	04	Verify with operator
	05	PIN match
		- continued -

**Table 2-134 Field 286 characters-values and meaning**

Character	Value	Meaning
2-3	06	PIN mismatch
	07	Calling card account number service denial
	08	PIN service denial
	09	Restricted PIN
	10	BNS/CCN query not made
	11	BNS/CCN response not received
	12	Return error or reject response received
	99	Unknown
4	C	SIGN character (HEX C)
- end -		

### **Field 287 Listing response, means of report provision, means of information input**

Field 287 can be used in conjunction with module codes 045, 055, 056, or 057. Values recorded in this data field represent different information depending on the module with which it is used.

When used with module code 045, this field indicates whether TOPS provided the listing information verbally, by announcement, or by both.

**Table 2-135 Field 287 characters-values and meaning**

Character	Value	Meaning
1		Listing response
	1	Verbal
	2	Recorded announcement
	3	Combination of announcement and verbal response
	4	Response not provided
	5	Customized announcement
	6	No announcement required
- continued -		

**Table 2-135 Field 287 characters-values and meaning**

Character	Value	Meaning
	9	Unknown
2	C	SIGN character (HEX C)
- end -		

**Field 288 Listing status**

This field indicates the status of the listing service query requested by the customer. The values in this field depend upon the listing service vendor specified in table SERVICES. Values are only indicated in this field for CCI (as specified in table SERVICES) when the information is sent to TOPS.

**Table 2-136 Field 288 characters-values and meaning**

Character	Value	Meaning
1		Listing found
	1	Listing found
	2	Listing not found
	3	LSDB query not made
	9	Unknown
2		Local listing
	1	Listing found in local directory
	2	Listing not found in local directory
	9	Unknown
3		Listing published
	1	Listing published
	2	Listing nonpublished
	3	Non-list
	4	Special nonpublished listing
	5	Emergency nonpublished listing
	9	Unknown
- continued -		

**Table 2-136 Field 288 characters-values and meaning**

Character	Value	Meaning
4		Existing listing
	1	Existing listing
	2	New listing
	9	Unknown
5		Listing posted
	1	Listing posted
	2	Listing preposted
	9	Unknown
6		Listing free
	1	Listing not marked free by LSDB
	2	Listing marked free by LSDB
	9	Unknown
7		Listing marked by operator method
	1	Listing not marked free by operator methods
	2	Listing marked free by operator methods
	3	Listing marked miscellaneous allowance
	9	Unknown
8		Reserved (0)
9		Reserved (0)
10	C	SIGN character (HEX C)
		- end -

**Field 289 Calling card subaccount number**

This field identifies the user of a calling card by a subaccount number, if more than one user exists for that card. A null value (hex FFFF) in this field indicates

that the billing type is not calling card. If the database does not send a valid value, 000 is recorded in this field for calling card.

**Table 2-137 Field 289 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
2-3	00-99	Subaccount number
4	C	SIGN character (HEX C)

**Field 290 Means of input/response**

This field indicates whether a customer entered, or responded verbally, or by keying in the information using DTMF digits.

A null value (FFFF) in this field indicates that the means of input/response is not provided.

**Table 2-138 Field 290 characters-values and meaning**

Character	Value	Meaning
1		Means of alternate billing option request
	1	DTMF
	2	Verbal to operator
	3	Preset
	4	Verbal to voice recognition system
	9	Unknown
2		Means of billing number input
	1	DTMF
	2	Verbal to operator
	3	Derived
	4	Verbal to voice recognition system
	5	Verbal to operator called party
	9	Unknown
		- continued -

**Table 2-138 Field 290 characters-values and meaning**

Character	Value	Meaning
3		Means of billed party response
	1	DTMF
	2	Verbal to operator
	3	None
	4	Verbal to voice recognition system
	9	Unknown
4	C	SIGN character (HEX C)

**Field 291 Operator service system action**

This data field is used in conjunction with module code 052, alternate billing, and module code 061, bimodality alternate billing. When used with module code 052, this field identifies the action TOPS takes upon the return of the database responses. When used with module code 061, this field identifies the action TOPS takes upon return of the billing validation authority (BVA) responses.

**Table 2-139 Field 291 characters-values and meaning**

Character	Value	Meaning
1		Operator services system action
	1	Automatically accepted
	2	Automatically accepted because of operator methods
	3	Verified-accepted
	4	Verified-rejected
	5	Provided restricted billing treatment
	6	Transferred to IC operator services system
	7	Provided intercept service
	8	Provided information to requesting OSS for inward service
9	Disconnected	
2	C	SIGN character (HEX C)

**Field 292 Source of IC/INC code**

This field indicates how the IC/INC code was determined on exchange access calls.

**Table 2-140 Field 292 characters-values and meaning**

Character	Value	Meaning
1		Source of IC/INC code
	1	End office signaling: dialed by customer
	2	End office signaling: pre subscribed to the line
	3	LIDB: preferred IC/INC
	4	LIDB: alternate preferred IC/INC
	5	Calling customer: volunteered without prompt
	6	Calling customer: response to prompt
	7	Calling customer: requested from list
	8	Billed customer: verbally
9	Unknown	
2	C	SIGN character (HEX C)

**Field 293 IC/INC checks**

This field indicates the status services provided by the operating company on behalf of the IC/INC. TOPS only supports the IC/INC agreement check, as indicated by character 1 of this field. If table TOPEACAR, field OPSERV is datafilled as SERV, character 1 of this field has a value of 1, indicating that the operating company provides operator services for the IC/INC. If table TOPEACAR, field OPSERV is datafilled as NOSERV, a value of 2 is recorded. Refer to the *Translations Manual* for a complete description of table TOPEACAR.

**Table 2-141 Field 293 characters-values and meaning**

Character	Value	Meaning
1		IC/INC agreement check
	1	Provide service
	2	Transfer
		- continued -

Table 2-141 Field 293 characters-values and meaning

Character	Value	Meaning
1	3	No agreement
	4	Not made
	5	Unknown
2		Service from calling NPA-NXX check
	1	Pass
	2	Fail
	3	Not made
9		Unknown
	3	Service to called NPA-NXX or country code
	1	Pass
	2	Fail
3	3	Not made
	9	Unknown
	4	IC/INC denial check
	1	Pass
4	2	Fail
	3	Not made
	9	Unknown
	5	Customer account status check
5	1	Pass
	2	Fail
	3	Not made
	9	Unknown
6	C	SIGN character (HEX C)
- end -		

**Field 294 IC/INC agreement table**

This field indicates whether the operating company provides operator services on behalf of the IC/INC. If table TOPEACAR, field OPSERV is datafilled as OPSERV, a 1 is recorded in character 1 of this field to indicate that the operating company does provide the services. If table TOPEACAR, field SERV is datafilled as NOSERV, a value of 2 is recorded. See the *Translations Manual* for a complete description of table TOPEACAR.

**Table 2-142 Field 294 characters-values and meaning**

Character	Value	Meaning
1		IC/INC agreement check
	1	Provide service
	2	Transfer
	3	No agreement
	4	Not made
	5	Unknown
2	C	SIGN character (HEX C)

**Field 295 Method of signaling to IC/INC**

This field indicates how call information is passed to the IC/INC.

**Table 2-143 Field 295 characters-values and meaning**

Character	Value	Meaning
1-3		Method of signaling
	001	Relayed by MF signaling without billing number (Type-A)
	002	Relayed by operator without billing number
	003	Relayed by MF signaling with billing number (Type-A)
	004	Relayed by operator with billing number
	005	Relayed by MF signaling (Type-B)
	006	Relayed by MF signaling (Type-C) with ANI
	007	Relayed by MF signaling (Type-C) without ANI
	008	Relayed by feature group D MF signaling with ANI
- continued -		

**Table 2-143 Field 295 characters-values and meaning**

Character	Value	Meaning
1-3	009	Relayed by feature group D MF signaling without ANI
	010	Relayed by traffic services position system (TSPS) MF signaling
	011	Relayed by CCS with billing number (type-A and without AN=I
	012	Relayed by CCS without billing number (type-A) and without ANI
	013	Relayed by common channel signaling (type-B)
4	C	SIGN character (HEX C)
- end -		

**Field 296 Operator identifications**

This field indicates the operator services system (OSS) identification, and identifies the operators (maximum of two) involved with the call.

The operator number recorded in the AMA record is the actual number that the operator uses to log in at the operator position. The team number is the one identified in table TOPSPOS, field TEAM. Refer to the *Translations Manual* for a complete description of table TOPSPOS.

Character 1 indicates the number of operators involved in the call.

Characters 2, 3, and 4-7 record the team and operator numbers of the first operator involved in the call.

Characters 8-13 record the team and operator numbers of the last operator involved in the call.

If there is only one operator involved in the call, characters 2 and 3 record the operator team number, and 4-7 the operator number. Also, 8 and 9 record a nil operator team value (00), and 10-13 record the nil operator value (9999). If no operators are involved, the nil operator team number (00) and operator number (9999) are recorded for both the first and last operator. That is, 00 is recorded in characters 2, 3, 8, 9 and 9999 is recorded in characters 4-7 and 10-13.

**Table 2-144 Field 296 characters-values and meaning**

Character	Value	Meaning
		Operator indicator
1	0	Operator not identified

**Table 2-144 Field 296 characters-values and meaning**

Character	Value	Meaning
1	1	Operator identified
	2	Two or more operators involved; last operator involved is included
2-3	nn	Operator services office (team)
4-7	nnnn	Operator number
8-9	nn	Operator services office (team)
10-13	nnnn	Operator number
14	C	SIGN character (HEX C)

**Field 297 LSDB BOC identification, source of request, country/company identification**

This data field is used with structure code 00751 and module codes 055, 057, and 058. It identifies a corporate entity as internal or external line of business, and records an identification code with that entity. The value recorded in this field varies per the module or structure code.

**Table 2-145 Field 297 characters-values and meaning**

Character	Value	Meaning
1		Type of service
	1	Internal line of business
	2	External line of business
2-5	nnnn	IC, INC, BOC, or NBEC identification code
6	C	SIGN character (HEX C)

**Field 298 BLV/interrupt result**

This field indicates the results of a busy line verification, and whether the operator had to interrupt the call. Although the operator obtains the

information recorded in character 1, there is currently no way for the operator to relay this information to TOPS for the AMA record.

**Table 2-146 Field 298 characters-values and meaning**

Character	Value	Meaning
1		BLV Result
	1	Line busy-conversation
	2	Line busy-off-hook
	3	Line out of order
	4	Line on-hook
	5	Report not provided
2	9	Unknown
		Interrupt request
	1	Operator interrupt requested
	2	Interrupt not requested
3	9	Unknown
		Interrupt provision
	1	Operator interrupt provided
	2	Interrupt not provided
4	C	SIGN character (HEX C)

### Field 299 Database queried field

This field indicates which data base was queried to provide a specific service.

**Table 2-147 Field 299 characters-values and meaning**

Character	Value	Meaning
1-3		Database queried
	001	Operating company's operator reference data base (ORDB)
	002	Operating company's LSDB
- continued -		

**Table 2-147 Field 299 characters-values and meaning**

Character	Value	Meaning
1-3	003	Operating company's rating data base
	004-020	Reserved
	021-099	Other operating company-owned data bases
	100-9998	Other owner's databases
	999	Unknown
4	C	SIGN character (HEX C)
- end -		

**Field 330 CLASS functions**

This field indicates the type of Custom local area signaling service (CLASS) service provided.

**Table 2-148 Field 330 characters-values and meaning**

Character	Value	Meaning
1-3		CLASS functions
	00	N/A
	01	Activate
	02	Inactive
	03	Delete
	04	Create active
	05	Create inactive
06	Session abort	
4	C	SIGN character (HEX C)

**Field 331 Feature status**

This field indicates the feature status of selective call forwarding (SCF), selective call rejection (SCR), and distinctive ringing/call waiting (DRCW).

**Table 2-149 Field 331 characters-values and meaning**

Character	Value	Meaning
1-3		CLASS screening list feature status
	000	N/A
	001	SCF active
	002	SCR active
	003	SCF and SCR active
	004	DRCW active
	005	SCF and DRCW active
	006	SCR and DRCW active
	007	SCF, SCR, and DRCW active
4	C	SIGN character (HEX C)

**Field 338 Facility release cause**

This field 338 records the reason for terminating a call.

**Table 2-150 Field 338 characters-values and meaning**

Character	Value	Meaning
1		Source of termination signal
	0	Character not used
	1	Calling party
	2	Called party
	3	Originating party
	9	Unknown
2		Context of termination cause
	0	Character not used
- continued -		

**Table 2-150 Field 338 characters-values and meaning**

Character	Value	Meaning
2	1	Completed
	2	Not completed
	9	Unknown
3-5		Termination cause
	001	Busy
	002	No circuits
	003	Ringing
	500-995	Mapped termination reason
	999	Unknown
6	C	SIGN character (HEX C)
- end -		

**Field 339 Call characteristic**

The field records the characteristics of the call important for billing.

**Table 2-151 Field 339 characters-values and meaning**

Character	Value	Meaning
1-3		Call characteristic
	001	Intra-site
	002	Intra-citywide
	003	Least cost routing
	004	Treated locally
	005	Treated externally
	006	IN standard announcement
	007	Special announcement
	008	IN return error
- continued -		

**Table 2-151 Field 339 characters-values and meaning**

Character	Value	Meaning
1-3	009	IN reject
	999	Unknown
4	C	SIGN character (HEX)
- end -		

**Field 340 Location value**

The field provides the location value.

**Table 2-152 Field 340 characters-values and meaning**

Character	Value	Meaning
1-5		Originating site ID, terminating site ID, originating billing aggregate group, terminating billing aggregate group
6	C	SIGN character (HEX C)

**Field 341 Originating feature code**

This field defines the originating feature codes.

**Table 2-153 Field 341 characters values and meaning**

Character	Value	Meaning
1-3	000	Default - when no other codes apply
	001	Three-way calling - applied to the originating station of the second leg of a three-leg call
	002	Six-way conference/meet-me conference - applied to a station accessing a conference circuit
	003	Call park retrieval - applied to the originating station that retrieves a call that was parked
	005	Preset conference - applied to each leg of a pre-set conference call
	999	Unknown
4	C	SIGN character (HEX C)

**Field 342-Terminating feature code**

This field defines the terminating feature codes.

**Table 2-154 Field 342 characters-values and meaning**

Character	Value	Meaning
1-3		Terminating feature code
	000	Default - when no other codes apply
	001	Call forwarding - applied to the first leg of a call from the originator to the station forwarding the call
	002	Six-way conference/meet-me conference - applied to a station accessing a conference circuit
	003	Call back queueing - applied to a party that initiates the call back queueing feature to access the first available trunk when an all-busy trunk indication was received
	004	Multiple answer - applied to a call that goes out over a trunk that uses audio tone detector
	005	Flexible station controlled conference - applied to each leg of a conference call that was set up by an originating station that invoked the station controlled conference feature
	008	Preset conference - applied to each leg of a preset conference call
	999	Unknown
4	C	SIGN character (HEX C)

**Field 391 Account code billing indicator**

This field defines the account code billing indicator. Module code 301 uses this field.

**Table 2-155 Field 391 characters-values and meaning**

Character	Value	Meaning
1	1	Account code billing
2	C	SIGN character (HEX C)

**Field 392 Account code billing number**

This field defines the account code billing number. Module code 301 uses this field.

**Table 2-156 Field 392 characters-values and meaning**

Character	Value	Meaning
1		Reserved (0)
2-5		Account code
6	C	SIGN character (HEX C)

**Field 400 Format identifier**

This field indicates the format of the telephone credit card used for an alternate billed call. Calls not billed to a telephone credit card record the null value FF in this field.

**Table 2-157 Field 400 characters-values and meaning**

Character	Value	Meaning
1		Format identifier
	0	Reserve
	1	19-digit Consultative Committee on International Telegraphy and Telephony (CCITT) telephone credit card format
	2	10-digit calling card format
2	C	SIGN character (HEX C)

**Field 401 Billable digits 1**

This field contains the first 11 digits of the billing number for collect, third number, and calling card calls.

**Table 2-158 Field 401 characters-values and meaning**

Character	Value	Meaning
1-11		First 11 digits of the billing number
12	C	SIGN character (HEX C)

**Field 402 Billable digits 2**

This field contains the remaining billing digits not recorded in billing digits 1 (if there are more than 11 billing digits). The values recorded in this field are right-justified and padded with zeros (0s). If the complete billing number can

be recorded in billing digits 1, this field is filled with the null value hex FFFFFFFF.

**Table 2-159 Field 402 characters-values and meaning**

Characters	Value	Meaning
1-9		Digits 12 through 19 of the billing number
10	C	SIGN character (HEX C)

**Field 403 Chargeable operator holding time, accumulated operator work time, or small interval elapsed time**

This data field records a measurement of time. It is used with several structure codes and modules, and the time measurements recorded varies per module or structure code. The accumulated operator work time is recorded to seconds, not tenths of seconds.

**Table 2-160 Field 403 characters-values and meaning**

Character	Value	Meaning
1-2		Minutes
3-4		Seconds
5		Tenths of a second
6	C	SIGN character (HEX C)

**Field 407-Basic business group call type**

This data field identifies the type of basic business group call and its control status.

The term control refers to a stimulated facility group for circuit-mode calls, and to a set of criteria, based on logical channels, throughput, and traffic rate measurement for market, mode calls.

**Table 2-161 Field 407 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2		Basic business group call type
	1	Intercom use
- continued -		

**Table 2-161 Field 407 characters-values and meaning**

Character	Value	Meaning
2	2	Public network access: originating outgoing
	3	Public network access: incoming terminating
	4	Public network access: incoming terminating
	5	Private network access: incoming terminating
	6	Miscellaneous internal connection
3		Control status
	0	Not applicable
	1	Within control limit
	2	Control overflow, routed
4	C	SIGN character (HEX C)
- end -		

**Field 409-ISDN signaling or supplementary service capability**

This field is used to record the set of possible supplementary services delivered to the called user.

**Table 2-162 Field 409 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2	0	Constant
3		Calling party subaddress delivery
	1	Feature not used or not recorded
	2	Feature used
4		Multiline hunt group features
	1	Feature not used or not recorded
	2	Activation of stop hunt
	3	Deactivation of stop hunt
- continued -		

**Table 2-162 Field 409 characters-values and meaning**

Character	Value	Meaning
4	4	Activation of make busy
	5	Deactivation of make busy
5		Additional call offering
	1	Feature not used or not recorded
	2	Feature, used, offered
	3	Feature used, accepted
6		Redirecting party subaddress delivery indicator
	1	Feature not used or not recorded
	2	Feature used - one event
	3	Feature used -two events
7-15	0	(constant)
16	C	SIGN character (HEX C)

**Field 410 Network interworking**

This field indicates the presence and type of network.

**Table 2-163 Field 410 characters-values and meaning**

Character	Value	Meaning
1		Interworking conditions
	0	No interworking encountered
	1	Interworking, unspecified
	2	Networking interworking encountered (call is not end-to-end [for example, originating SPCS to terminating SPCS])
	3	Terminating access interworking encountered for alerting and for the connection (for example, no called equipment is ISDN)
	4	Terminating access interworking encountered for the connection, but not for alerting (for example, answering equipment is non-ISDN)
	9	Unknown
2	C	SIGN character (HEX C)

**Field 411 Release cause indicator**

This field indicates the reason the call was released.

**Table 2-164 Field 411 characters-values and meaning**

Character	Value	Meaning
1	0	0 (constant)
2		Cause category
	0	ITU standard
	2	National
	3	Network specific
3-5		Cause indication (ITU Standard)
	001	Unallocated (unassigned) number
	002	No route to specified transit network
	003	No route to destination
	006	Channel unacceptable
	007	Call awarded and being delivered in an established channel
	016	Normal call clearing
	017	User busy
	018	No user responding
	019	User alerting: No answer
	021	Call rejected
	022	Number changed
	027	Destination out of order address
	029	Facility rejected
	031	Normal, unspecified
	034	Circuit/channel congestion
	035	Requested VPCI/VCI not available
	036	VPCI/VCI assignment failure
- continued -		

Table 2-164 Field 411 characters-values and meaning

Character	Value	Meaning
3-5	037	User cell rate unavailable
	041	Temporary failure
	042	Switching equipment congestion
	043	Access information discarded
	044	Requested channel not available
	045	No VPCI/VCI available
	047	Resource unavailable, unspecified
	049	Quality of service unavailable
	050	Requested facility not subscribed
	057	Bearer capability not authorized
	058	Bearer capability not presently available
	063	Service or option not available, unspecified
	065	Bearer capability not implemented
	069	Requested facility not implemented
	073	Unsupported combination of traffic parameters
	078	AAL parameter cannot be supported
	081	Invalid call reference value
	082	Identified channel does not exist
	088	Incompatible destination
	089	Invalid end point reference
091	Invalid transit network selection	
092	Too many pending add party requests	
096	Mandatory information element missing	
097	Message type nonexistent or not implemented	
099	Information element nonexistent or not implemented	
- continued -		

Table 2-164 Field 411 characters-values and meaning

Character	Value	Meaning
3-5	100	invalid information element contents
	101	Message not compatible with call state
	102	Recovery on timer expiration
	104	Incorrect message length
	111	Protocol error - Unspecified
	127	Interworking - Unspecified
3-5		Cause indication (national)
	004	Call is proceeding
	008	Prefix 0 dialed in error
	009	Prefix 1 dialed in error
	010	Prefix 1 not dialed
	051	Bearer capability incompatible with service request
	053	Service operation violated
3-5		Cause indication (network specific)
	008	Call is proceeding
	013	Service denied
	023	User rejects all calls with calling line identification restriction
	028	Special intercept announcement
	029	Special intercept announcement-undefined code
	030	Special intercept announcement: Number unassigned
	031	Special intercept announcement: Call blocked due to group restriction
	101	Protocol error-threshold exceeded
6	C	SIGN character (HEX C)
- end -		

**Field 412-Bearer capabilities**

This field gives the bearer's technical description.

**Table 2-165 Field 412 characters-values and meaning**

Character	Value	Meaning
1		Bearer call type
	1	Voice/voiceband data
	2	Circuit-mode data
	3	Packet-mode data
2-3		Bearer capability
	01	Circuit mode: speech
	02	Circuit mode: 3.1 kHz audio
	03	Circuit mode: unrestricted 64 kbps digital information transfer
	04	Circuit mode: unrestricted 64 kbps digital information transfer rate adapted from 56 kbps
	05	Packet mode: unrestricted digital information transfer
	07	Circuit mode: unrestricted digital information transfer data a rate greater than 64 kbps
99	Bearer capability not recorded	
4	C	SIGN character (HEX C)

**Field 413 Signaling or supplementary service capabilities usage**

This field indicates the special services used.

**Table 2-166 Field 413 characters-values and meaning**

Character	Value	Meaning
1	0	(constant)
		Calling number identification (CNI) delivery
	1	Neither network-provided nor user-provided number delivered
	2	Network-provided number delivered, user-provided number not delivered
	3	Network-provided number not delivered, user-provided number delivered
4	Both network-provided and user-provided numbers delivered	
2	1 or 2	Calling party subaddress delivery
3	1 or 2	Called party subaddress delivery
4	1 or 2	Low layer compatibility information delivery
5	1 or 2	High layer compatibility information delivery
6	1 or 3	User-to-user information/fast select
7	1-4	Automatic callback-activation
8	1-5	Automatic callback-resolution
9	1-2	ISDN flexible calling
10-15	1 or 2	Reserved
16	C	SIGN character (HEX C)

**Field 415 CLASS feature code**

This field indicates any special CLASS features associated with the call.

**Table 2-167 Field 415 characters-values and meaning**

Character	Value	Meaning
1-3		CLASS feature code
	032	Auto recall (AR) reactivation-delayed processing
	033	Auto callback (AC) reactivation-delayed processing
- continued -		

**Table 2-167 Field 415 characters-values and meaning**

<b>Character</b>	<b>Value</b>	<b>Meaning</b>
	034	AR reactivation-busy ringback
	035	AC reactivation-busy ringback
	036	AR reactivation-timeout
	037	AC reactivation-timeout
	038	AR reactivation-deactivation
	039	AC reactivation-deactivation
	052	Selective call forwarding (SCF)
	060	AR immediate processing
	061	AC immediate processing
	062	AR delayed processing
	063	AC delayed processing
	064	AR busy ringback
	065	AC busy ringback
	066	AR timeout
	067	AC timeout
	068	AR deactivation
	069	AC deactivation
	070	Customer originated trace (COT) activation
	072	Selective call rejection (SCR)
	073	Distinctive ringing/call waiting (DRCW)
	075	Calling number delivery blocking (CNDB) and Calling name/number delivery blocking (CNNB) activation
	076	Single activation SCF (SASCF)
	079	Selective call acceptance (SCA)
	080	Calling number delivery
- continued -		

**Table 2-167 Field 415 characters-values and meaning**

Character	Value	Meaning
	081	Dialable digits delivery
	082	Name display
	083	Name display blocking
	084	Bulk calling line identification
	087	Calling number and calling name delivery
	088	Dialable number and calling name delivery
	089	DSCWID option
	095	AR two-level activation-first level completion
4	C	SIGN character (HEX C)
- end -		

**Field 417 Cause of overflow**

This value in the cause of overflow field indicates the reason for each overflow in the E008 call.

**Table 2-168 Field 417 characters-values and meaning**

Character	Value	Meaning
1	0	Filler character
2	1	Did not overflow to second routing number
	2	Overflowed to second routing number due to busy indication
	3	Overflowed to second routing number due to time-out before answer indication
	4	Overflowed to ORBT treatment after exhausting route list
3	1	Did not overflow to third routing number
	2	Overflowed to third routing number due to busy indication
- continued -		

**Table 2-168 Field 417 characters-values and meaning**

Character	Value	Meaning
3	3	Overflowed to third routing number due to time-out before answer indication
	4	Overflowed to ORBT treatment after exhausting route list
4	1	Did not overflow to fourth routing number
	2	Overflowed to fourth routing number due to busy indication
	3	Overflowed to fourth routing number due to time-out before answer indication
	4	Overflowed to ORBT treatment after exhausting route list
5	1	Did not overflow past fourth route
	4	Overflowed to ORBT treatment after exhausting route list
6	C	SIGN character (HEX C)
- end -		

**Field 418 Type of announcement**

The type of announcement field in E008 OCR information module code indicates the type of announcement to which the call was routed.

**Table 2-169 Field 418 characters-values and meaning**

Character	Value	Meaning
1	1	The last component was not an announcement
	2	The last component was a standard announcement
	3	The last component was a special announcement (see note)
	4	The last component was a customized announcement (see note)
2	C	SIGN character (HEX C)
<b>Note:</b> The AR0635 feature implements routing to standard announcements only.		

**Field 421 Originating line parameter**

This field records originating line information and, for TOPS, calls using 2-digit special line traffic (SLT) ANI signaling, the 2-digit ANI code. For originating line information, this field records the type of service on the line. For 2-digit SLT ANI ID recording, this field records the 2-digit SLT ANI code.

Field 421 is a 4-character field, which consists of a leading zero, a 2-digit code, and a sign character (hex C).

**Table 2-170 Field 421 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
2-3	24	800 service
	52	OUTWATS service
	93	Access to PVN
	nn	2-digit ANI code
4	C	SIGN character (HEX C)

**Field 423 Line number type**

This field indicates the type of line number, directory assistance (DA) or intercept, recorded in the module code 307, line number.

**Table 2-171 Field 423 characters-values and meaning**

Character	Value	Meaning
1-3		Line number type
	001	Unused
	002	DA requested
	003	Intercept number
	004	Forwarded
	005	Incoming terminating number
	006	ANI delivered
4	C	SIGN character (HEX C)

**Field 426 Voice mailbox port identification**

This field records the identification of the voice mailbox port.

**Table 2-172 Field 426 characters-values and meaning**

Character	Value	Meaning
1-3		Port ID
4	C	SIGN character (HEX C)

**Field 430 Operator notification**

This field records operator notification for a call receiving call completion service.

**Table 2-173 Field 430 characters-values and meaning**

Character	Value	Meaning
1		Operator notification
	1	Operator notification not provided
	2	Operator notification provided
2	C	SIGN character (HEX C)

**Field 431 Keying actions**

This field records TOPS operator keying actions that overwrite the special billing number.

**Table 2-174 431 characters-values and meaning**

Character	Value	Meaning
1	1	No connect key not keyed
	2	No connect key keyed
2	1	Forward number not keyed
	2	Forward number keyed
3	1	Back number not keyed
	2	Back number keyed
4	1	Transfer not keyed
- continued -		

**Table 2-174 431 characters-values and meaning**

Character	Value	Meaning
4	2	Transfer keyed
5	1	Cancel timing not keyed
	2	Cancel timing keyed
6	1	Cancel call not keyed
	2	Cancel call keyed
7	1	Release back not keyed
	2	Release back keyed
8	1	Trouble not keyed
	2	Trouble keyed
9	1	Caller ID blocking not keyed
	2	Caller ID blocking keyed
10	C	SIGN character (HEX C)
- end -		

**Field 432 Origination call type**

This field records the originating call types. Call types 000 through 058 are TOPS call types, defined in the *Translations Manual*, and set through datafill.

**Table 2-175 Field 432 characters-values and meaning**

Character	Value	Meaning
1-3		Origination call type
	000	Unused
	001	0
	002	0+
	003	1+
	004	Centralized AMA (CAMA)
	005	Remote CAMA
- continued -		

Table 2-175 Field 432 characters-values and meaning

Character	Value	Meaning
1-3	006	Delay
	007	121
	008	131
	009	141
	010	151
	011	161
	012	171
	013	181
	014	191
	015	555
	016	1150
	017	1151
	018	1152
	019	1153
	020	1154
	021	1155
	023	1157
	024	1158
	025	1159
	026	1160
027	1161	
028	1162	
029	Toll station	
030	Toll subscriber station	
031	Attendant pay station	
- continued -		

Table 2-175 Field 432 characters-values and meaning

Character	Value	Meaning
1-3	032	Alarm
	033	Intercept
	034	211
	035	311
	036	411
	037	511
	038	661
	039	711
	040	811
	041	911
	042	Mobile
	043	999
	044	Home 555
	045	Foreign 555
	046	Spare 1
	047	Spare 2
	048	Spare 3
	049	Spare 4
	050	Spare 5
	051	Overseas operating center 141
	052	Overseas operating center 151
	053	Overseas operating center overseas
	054	Overseas operating center manual
	055	Overseas operating center 801
	056	Overseas operating center delay
	- continued -	

**Table 2-175 Field 432 characters-values and meaning**

Character	Value	Meaning
1-3	057	Overseas operating center data base
	058	Service interception
	059-064	Reserved
	065	Special LRN originating call type
	066-099	Reserved
	100-998	BOC-definable
	999	Unknown
4	C	SIGN character (HEX C)
- end -		

**Field 433 Guest name**

This field records the hotel guest's name in the call record for a hotel call. The characters in this field are left-justified and padded with blanks. If the guest's name is not available, this field is filled with blanks.

**Table 2-176 Field 433 characters-values and meaning**

Character	Value	Meaning
1-6		Hotel guest name (extended binary-coded decimal interchange code (EBCDIC))
7	C	SIGN character (HEX C)

**Field 433 Room number**

This field records the hotel guest's room number in the call record for a hotel call. The characters in this field are left-justified and padded with blanks. If the guest's room number is not available, the field is filled with blanks.

**Table 2-177 Field 433 characters-values and meaning**

Character	Value	Meaning
1-6		Hotel guest's room number (EBCDIC)
7	C	SIGN character (HEX C)

**Field 434 Overseas calling card number**

This field records the overseas format calling card number. This field records 20 EBCDIC characters, which are left-justified and padded with blanks.

*Note:* The TOPS positions support American standard code for information interchange (ASCII) characters only. Some ASCII characters have no EBCDIC equivalents. For these EBCDIC characters, EBCDIC asterisks are recorded instead.

**Table 2-178 Field 434 characters-values and meaning**

Character	Value	Meaning
1	1-20	The overseas format calling card number in EBCDIC
2	C	SIGN character (HEX C)

**Field 435 Overwritten number type**

This field records the type of number that was overwritten.

- Value 1 is recorded for all 10-digit format calling cards.
- Value 2 is recorded for all CCITT format calling cards.
- Value 3 is recorded for an overseas format calling card.
- Value 4 is recorded for all special billing numbers (that is, a third number that is not a line number).
- Value 5 is recorded for all third numbers.
- Value 6 is recorded for all types of forward numbers.

**Table 2-179 Field 435 characters-values and meaning**

Character	Value	Meaning
1	1	Calling card (10-digit format)
	2	Calling card (19-digit format)
	3	Calling card (overseas format)
	4	Special billing number
	5	Third number
	6	Forward number
2	C	SIGN character (HEX C)

**Field 436 Local determination indicator**

This field records whether or not translations determined that the called number was a local call.

**Table 2-180 Field 436 characters-values and meaning**

Character	Value	Meaning
1	1	Not determined local by translations
	2	Determined local by translations
2	C	SIGN character (HEX C)

**Field 444 Direction**

This field indicates whether the carrier connect time captured is for an incoming or outgoing seizure.

**Table 2-181 Field 436 characters-values and meaning**

Character	Value	Meaning
1		Message direction
	1	Message sent (outgoing seizure)
	2	Message received (incoming seizure)
	9	Not known
2	C	SIGN character (HEX C)

**Field 456 Business group scope**

This field identifies whether the call is local or national.

**Table 2-182 Field 456 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
	1	Local
	2	National
2	C	SIGN character (HEX C)

**Field 457 Business group identifier**

This field contains the business group identifier.

**Table 2-183 Field 457 characters-values and meaning**

Character	Value	Meaning
1	0 - 4,194,303	
8	C	SIGN character (HEX C)

**Field 458 Type of VCN call**

This field contains the type of VCN call made. The allowable values are 000 to 020.

**Table 2-184 Field 458 characters-values and meaning**

Character	Value	Meaning
1	000	Padding
2	001	CDL_CD L call type
3	002	CDL_NDL call type
4	C	SIGN character (HEX C)

**Field 459 VCN voice/data identifier**

This field identifies whether the call is voice or data.

**Table 2-185 Field 459 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
2	1	Voice
3	2	Data
4	C	SIGN character (HEX C)

**Field 460 VCN call egress identifier**

This field contains the type of terminating VCN VFG from which the call overflowed.

**Table 2-186 Field 460 characters-values and meaning**

Character	Value	Meaning
1	0	Padding
	1	OMAMA call overflow
2	C	SIGN character (HEX C)

**Field 470 Audit flag**

The information in this field informs off-line LEC accounting systems about the integrity of tracer records.

**Table 2-187 Field 470 characters-values and meaning**

Character	Value	Meaning
1		Audit flag
2	C	SIGN character (HEX C)

**Field 491 Notify period duration**

This field indicates the notify period duration last keyed by the operator.

**Table 2-188 Field 491 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2-3	00-99	Notify minutes
4	C	SIGN character (HEX C)

**Field 492 Type of text**

This field indicates the whether the type of text content is A or B Party or a memo.

**Table 2-189 Field 492 characters-values and meaning**

Character	Value	Meaning
1-3	000	A Party
- continued -		

**Table 2-189 Field 492 characters-values and meaning**

Character	Value	Meaning
1-3	001	B Party
	002	Memo1
	003	Memo2
4		SIGN character (HEX C)
		- end -

**Field 493 Text**

This field indicates the text size.

**Table 2-190 Field 493 characters-values and meaning**

Character	Value	Meaning
32		32 EBCDIC characters

**Field 494 Transit code**

This field indicates a call from a foreign operator.

The ticket number format is DDXXXXXX for most calls and AAADDXXXXXX for transit calls. The ticket number XXXXXX has a range from 000001 to 999999. The day indicator DD has a range from 01 to 31. For transit calls three alpha characters, AAA, are used for the country of call origin.

**Table 2-191 Field 494 characters-values and meaning**

Character	Value	Meaning
3	AAA	3 EBCDIC characters

**Field 495 Day of the month**

This field indicates the day of the month the ticket number was recorded.

The ticket number format is DDXXXXXX for most calls and AAADDXXXXXX for transit calls. The ticket number XXXXXX has a range from 000001 to 999999. The day indicator DD has a range from 01 to 31. For

transit calls three alpha characters, AAA, are used for the country of call origin.

**Table 2-192 Field 495 characters-values and meaning**

Character	Value	Meaning
1	0	0 (constant)
2-3	01-31	Day of the month
4	C	SIGN character (HEX C)

**Field 496 Ticket number**

This field indicates the ticket number assigned by an operator.

The ticket number format is DDXXXXXX for most calls and AAADDXXXXXX for transit calls. The ticket number XXXXXX has a range from 000001 to 999999. The day indicator DD has a range from 01 to 31. For transit calls three alpha characters, AAA, are used for the country of call origin.

**Table 2-193 Field 496 characters-values and meaning**

Character	Value	Meaning
1	0	0 (constant)
2-7	000001 - 999999	Day of the month
4		SIGN character (HEX C)

**Field 500 Originating open digits 1**

This field records the first 11 digits of the calling party number. The digits recorded in field 500 are right-justified and padded with zeros. The total number of digits recorded in this field is indicated in the preceding field 55, 'significant digits in next field'. If the calling party number is greater than 11 digits, the first 11 digits are recorded in this field, and up to nine overflow digits are recorded in field 501.

**Table 2-194 Field 500 characters-values and meaning**

Character	Value	Meaning
1-11	1-11	First 11 digits of the calling party number
12	C	SIGN character (HEX C)

**Field 501 Originating open digits 2**

Field 501 records the originating open digits 2 (up to 9 digits). It contains the remaining digits of the calling number not recorded in origination open digits 1 (if there are more than 11 digits). The values recorded in this field are right justified and padded with 0's. If the calling number is 11 digits or less, this field is filled with null values (hex F).

**Table 2-195 Field 501 characters-values and meaning**

Character	Value	Meaning
1-9		The 12th through 20th digits of the calling party number
10	C	SIGN character (HEX C)

**Field 502 Terminating open digits 1**

This field records the first 11 digits of the called party number. They are right-justified and padded with zeros. The total number of digits recorded is indicated in the preceding field 55, Significant digits in next field. If the called party number is greater than 11 digits, the first 11 digits are recorded here, and up to 9 overflow digits are recorded in field 503.

**Table 2-196 Field 502 characters-values and meaning**

Character	Value	Meaning
1-11		First 11 digits of the called party number
12	C	SIGN character (HEX C)

**Field 503 Terminating open digits 2**

Field 503 records the terminating open digits 2. This field contains the remaining digits of the called numbers not recorded in terminating open digits 1 (if there are more than 11 digits). It can record up to 9 digits. The values recorded here are right justified and padded with 0's. If the called number is 11 digits or less, this field is filled with null values (hex F).

**Table 2-197 Field 503 characters-values and meaning**

Character	Value	Meaning
1-9		The 12th through 20th digits of the called party number
10	C	SIGN character (HEX C)

**Field 504 Originating charge information**

This field records the originating charge information for the originating number. The information comes from the initial address field of the initial

address, and the calling party information messages, which are specific to telephone user part signaling. If the information is not available, this field is filled with the null character hex F), followed by the sign character (hex C).

**Table 2-198 Field 504 characters-values and meaning**

Character	Value	Meaning
1-3		Originating charge information derived from the signaling (CCITT parameter)
4	C	SIGN character (HEX C)

**Field 505 Domestic/international indicator**

This field records the domestic/international indicator, which indicates if the call is domestic or international.

**Table 2-199 Field 505 characters-values and meaning**

Character	Value	Meaning
1	1	Domestic
	2	International
	9	Unknown
2	C	SIGN character (HEX C)

**Field 580 Meter count information**

A four-character field defines the module code appended to the call record.

**Table 2-200 Field 580 characters-values and meaning**

Character	Value	Meaning
1		Meter count information
	0	0-Call successful, metered (default)
	1	1-Metering lost, call successful
	2	2-Metering lost, call failure International
2	C	SIGN character (HEX C)

**Field 581 Meter count**

A ten-character field reports the total meter count of the call.

**Table 2-201 Field 581 characters-values and meaning**

Character	Value	Meaning
1-8	(00000000-99999999)	Meter count
9	0	Overflow Indicator (on call pulse count) no overflow
	1	Overflow occurred
10	C	SIGN character (HEX C)

**Field 582 Tariff**

A four-character field reports the tariff applied to the call.

**Table 2-202 Field 582 characters-value and meaning**

Character	Value	Meaning
1-3		Tariff
	000-255	Tariff number
	FFF	Default (not available)
4	C	SIGN character (HEX C)

**Field 583 Cost of calls**

A ten-character field reports the total cost of the call (excluding service feature usage/activation/deactivation), as based on the current value of the new office parameter METER\_PULSE\_MONETARY\_RATE.

**Table 2-203 Field 583 characters-values and meaning**

Character	Value	Meaning
1-7	00000000	Unit cost
	-99999999	Number of units of currency
		Hundredths unit cost
8-9	00-99	Number in hundredths of currency unit
10	C	SIGN character (HEX C)

**Field 584 Calling party category**

A six-character field defines the calling party category value, based on the market-specific values for the associated source type.

**Table 2-204 Field 584 characters-values and meaning**

Character	Character	Meaning
1	0	CPC type (indicates source of CPC) Unknown
	1	CAS (GL03 release)
	2	TUP
	3	ISUP
	4	Line
2-4	000-255	Calling party category Codes for China CTUP
	010	Ordinary (toll-toll, toll-local)
	011	Priority (local-local, toll-local)
	013	Test call
	016	Ordinary, no charge
	017	Ordinary, periodic
	018	Ordinary, subscriber meter, immediate
	019	Ordinary, printer
024	Priority, periodic	
5		Unassigned
6	C	SIGN character (HEX C)

**Field 585 Trunk CLLI identifier**

A name of up to 16 alphanumeric characters (32 EBCDIC characters) indicating common language location identifier (CLLI) of the incoming or outgoing trunk involved in the call. It is left justified and padded with 40s.

**Table 2-205 Field 585 characters-values and meaning**

Character	Value	Meaning
1-32		EBCDIC representation of CLLI name

**Field 610 BAF**

This field is included in module code 204.

**Table 2-206 Field 610 characters-values and meaning**

Character	Value	Meaning
1-3	001	Not final route (AIN query encountered on structure's terminating number)
	002	O_Called_Party_Busy or O_Called_No_Answer trigger/event encountered, or Network_Busy_NEL event encountered
4	C	SIGN character (HEX C)

**Field 613 Service node data identifier**

This field is included in module codes 186 and 187.

**Table 2-207 Field 613 characters-values and meaning**

Character	Value	Meaning
1		Data context
	0	Unused
	1	BCD
	2	EBCDIC
	3	Hexadecimal
	4	ASCII
	5-9	Reserved
2	C	SIGN character (HEX C)

**Field 614 Service node data - small**

This field is included in module code 186.

**Table 2-208 Field 614 characters-values and meaning**

Character	Value	Meaning
1-39		Data from service node
40	C	SIGN character (HEX C)

**Field 615 Service node data - large**

This field is included in module code 187.

**Table 2-209 Field 615 characters-values and meaning**

Character	Value	Meaning
1-139		Data from service node
140	C	SIGN character (HEX C)

**Field 638 Service provider type**

This field identifies the switching entity that provides local service.

**Table 2-210 Field 638 characters-values and meaning**

Character	Value	Meaning
1-3		Service provider identity
	001	Account owner
	002	Billing service provider
	003	Facility owner
	004	Switch owner
	005	Far-end switch owner
	006	Trunk group account owner
	007	Account owner network view
	999	Unknown
4	C	SIGN character (HEX C)

**Field 639 Service provider identity**

This field identifies the switching entity that provides local service.

**Table 2-211 Field 639 characters-values and meaning**

Character	Value	Meaning
1-4		Four character SPID (EBCDIC field)

*Note:* The 4 bytes of this field are expressed as 8 equivalent BCD characters when this field is referenced in structures and modules.

**Field 675 Modified service or equipment indicator**

This field is populated in SC0772 to record the service or equipment indicator returned by the line information database (LIDB) in an originating line number screening (OLNS) response.

**Table 2-212 Field 675 characters-values and meaning**

Character	Value	Meaning
1-3		Service or equipment indicator
	000	Not available due to LIDB data screening
	001	POTS line (business/residential)
	002	LEC public-standard interface-postpay overtime
	003	POTS line-residential-message rate 1
	004	POTS line-residential- message rate 2
	005	LEC semi-public
	006	POTS line - business-flat rate
	007	POTS line - business_message rate 1
	008	Coinless (non-IPP)
	009	Coinless (IPP)
	010	LEC prepaid telecommunications card station
	011	POTS line-business-message rate 2
	012	LEC public-standard interface-prepay overtime
	013	LEC public-alternate interface
	014	IC public-standard interface
	015	IC public-alternate interface
	016	POTS line-residential- flat rate
	017	Voice quote-without tax
	018	Voice quote-with tax
	019	IPP-standard interface
	020	IPP-alternate interface
- continued -		

**Table 2-212 Field 675 characters-values and meaning**

<b>Character</b>	<b>Value</b>	<b>Meaning</b>
1-3	021	Hospital
	022	Prison (non-IPP)
	023	Auto quote-without tax
	024	Auto quote-with tax
	025	Dormitory line
	026	Centrex line
	027	PBX line
	028	Prison (IPP)
	029	WATS Line
	030	Cellular
	031	Pager
	032	Personal communications service (PCS)
	033	Feature group A
	034	Mobile
	035	LEC public-special billing-post-pay overtime
	036	LEC public-special billing-pre-pay overtime
	037	Public-incompatible network interface
	038	Cellular-rate 1
	039	Cellular-rate 2
	040	POTS line-business single line
041	POTS line-business multi-line	
042	Public postpay overtime	
	256	Reserved
	999	Unknown
4	C	SIGN character (HEX C)
- end -		

**Field 677-Modified treatment indicator**

This field is populated in SC0772 to record the treatment indicator returned by the line information database (LIDB) in an originating line number screening (OLNS) response.

**Table 2-213 Field 677 characters-values and meaning**

Character	Value	Meaning
1-3		Originating treatment indicator
	000	Not available due to LIDB data screening
	001	Automated treatment-provide alerting tone only
	002	Automated treatment-provide alerting tone and prompting announcement 1
	003	Operator treatment-operator handling (station limitations)
	004	Special treatment-operator handling (at customer request)
	005	Special treatment-handicapped
	006	Special treatment-deaf
	007	Automated treatment provide alerting tone and prompting announcement 2
	008	Automated treatment-provide alerting tone and prompting announcement 3
	009	Special treatment-operator handling (high fraud)
	010	Automated treatment-provide alerting tone only-no operator access
	011	Automated treatment-provide alerting tone and prompting announcement 4-no operator access
	012	Automated treatment-provide alerting tone and prompting announcement 5 - no operator access
	013	Automated treatment-provide alerting tone and prompting announcement 6-no operator access
	014	Automated treatment-provide alerting tone and prompting announcement 7
	015	Automated treatment-provide alerting tone and prompting announcement 8
	016	Automated treatment-provide alerting tone and prompting announcement 9
	017	Automated treatment-provide alerting tone and prompting announcement 10-no operator access
- continued -		

**Table 2-213 Field 677 characters-values and meaning**

Character	Value	Meaning
1-3	018	Automated treatment-provide alerting tone and prompting announcement 11-no operator access
	019	Automated treatment-provide alerting tone and prompting announcement 12-no operator access
	020	Automated treatment-special handling 1
	021	Automated treatment-special handling 2
	022	Automated treatment-special handling 3
	023	Automated treatment-special handling 4
	024	Automated treatment-special handling 5
	025	Automated treatment-provide alerting tone and prompting announcement 13
	026	Automated treatment-provide alerting tone and prompting announcement 14 no operator access
	256	Response Information not received
999	Unknown	
4	C	SIGN character (HEX C)
- end -		

**Field 678 Additional service information**

This field is populated in SC0772 to record the additional service information returned by the line information database (LIDB) in an originating line number screening (OLNS) response.

**Table 2-214 Field 678 characters-values and meaning**

Character	Value	Meaning
1-3		Additional service information
	001	Foreign language identifier
	002	Generic name
	003	Foreign language identifier and generic name
- continued -		

**Table 2-214 Field 678 characters-values and meaning**

Character	Value	Meaning
1-3	004	Alphanumeric string
	005	Foreign language identifier and alphanumeric string
	006	Generic name and alphanumeric string
	007	Foreign language identifier, generic name, and alphanumeric string
	997	No additional information returned
	998	Response information not received
	999	Unknown
4	C	SIGN Character (HEX C)
- end -		

**Field 679 Originating billing/services indicator**

Table 679 is populated in module 019 originating billing/services information to indicate the originating billing/services information returned by the LIDB in an OLSN response message.

**Table 2-215 Field 679 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2		Originating collect billing indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Allowed from this line for domestic calls only
	3	Not allowed from this line
	9	Not available
3		Originating third number billing indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
- continued -		

**Table 2-215 Field 679 characters-values and meaning**

<b>Character</b>	<b>Value</b>	<b>Meaning</b>
3	2	Allowed from this line for domestic calls only
	3	Not allowed from this line
	5	Allowed with operator or automated verification
	9	Not available
4		Originating local, non-toll call indicator
	00	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not allowed from this line
	9	Not available
5-6		Originating credit card indicator
	00	Not available due to LIDB data screening
	01	Allowed from this line
	02	Allowed from this line for domestic calls only
	03	Not allowed from this line
	04	Card issuer restrictions associated with this line for local calls only
	05	Card issuer restrictions associated with this line for intraLATA, non-local calls only
	06	Card Issuer restrictions associated with this line
	07	Non-domestic calls not allowed from this line and card Issuer restrictions for local calls only
	08	Non-domestic calls not allowed from this line and card Issuer restrictions for intraLATA, non-local calls only
	09	Non-domestic calls not allowed from this line and card Issuer restrictions associated with this line
99	Not available	
7		Originating free DA indicator
- continued -		

Table 2-215 Field 679 characters-values and meaning

Character	Value	Meaning
7	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not allowed from this line
	9	Not available
8		Originating special BNS indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not allowed from this line
	9	Not available
9		Originating sent-paid indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Allowed from this line from domestic calls only
	3	Allowed from this line for intraLATA calls only, due to nonpayment
	4	Allowed from this line for intraLATA calls only, at customer request
	5	Not allowed from this line
	9	Not available
10		Originating DACC indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line (for toll and non-toll calls)
	2	Not allowed from this line (for toll and non-toll calls)
	3	Allowed from this line with billing restrictions (for toll and non-toll calls)
	4	Allowed from this line for local, non-toll calls only
	5	Allowed with billing restrictions, no sent-paid
	9	Not available
- continued -		

**Table 2-215 Field 679 characters-values and meaning**

Character	Value	Meaning
11		Originating billing/service spare indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not allowed from this line
	9	Not available
12	C	SiGN character (HEX C)
- end -		

**Field 680 Additional originating billing/services indicator**

This table is used with module code 219 to record originating billing/services information returned by the LIDB in an OLSN response message.

**Table 2-216 Field 680 characters-values and meaning**

Character	Value	Meaning
1	0	Constant
2		Originating third number billing indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not Allowed from this line
	3	Allowed with operator verification
3	4	Allowed with operator or automated verification
	9	Not available
		Originating credit card indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
3	2	Not allowed from this line
	3	Card issuer restrictions associated with this line
- continued -		

**Table 2-216 Field 680 characters-values and meaning**

Character	Value	Meaning
	9	Not available
4		Originating special BNS indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not allowed from this line
	9	Not available
5		Originating sent-paid indicator
	0	Not available due to LIDB data screening
	1	Allowed from this line
	2	Not Allowed from this line
	9	Not available
6	0	Constant
7	0	Constant
8	C	SIGN character (HEX C)
- end -		

**Field 730 Party identifier**

This field identifies the party with which the module is associated, for example, terminating or originating.

**Table 2-217 Field 730 characters-values and meaning**

Character	Value	Meaning
1-3		Party identifier
	001	Calling party data
	002	Called party data
	003	3rd number billing or line-based calling card data
	004	Aggregate/Feature record DN data (not used by TOPS)
- continued -		

**Table 2-217 Field 730 characters-values and meaning**

<b>Character</b>	<b>Value</b>	<b>Meaning</b>
1-3	005	Detailed/feature record directory number data
	006	Third party verification
	007	Busy line verification
	008	Redirecting
	009	Requested party DN data
	010	Incoming trunk group
	011	Outgoing trunk group
	101	Calling party-native
	102	Called party-native
	110	Incoming trunk group-native
	201	Called party-unbundle
	202	Calling party-unbundled
	210	Incoming trunk group-unbundled
	301	Calling party-resold
	302	Called party-resold
	310	Incoming trunk group-resold
	999	Unknown
4	C	SIGN character (HEX C)
- end -		

**Field 731 Location routing number**

This field identifies the switching entity that provides service to the party. The source of the LRN may be SCP response, switch datafill, or incoming signaling. The LRN used is the one designated for JIP population.

**Table 2-218 Field 731 characters-values and meaning**

Character	Value	Meaning
1	0	Constant (0)
2-11		Location routing number (LRN) or #FFFFFFFFFFFF depending on query status Indicator in field 734
12	C	SIGN character (HEX C)

**Field 732 Service provider identity**

This field identifies the switching entity that provides local service. For future use.

**Table 2-219 Field 732 characters-values and meaning**

Character	Value	Meaning
1	0	Constant (0)
2-9		Service provider identity
10	C	SIGN character (HEX C)

**Field 733 Location**

This field identifies the location of the party's switch.

**Table 2-220 Field 732 characters-values and meaning**

Character	Value	Meaning
1-3		Location type
	001	V and H coordinates
	002	5-digit U.S. zip code
	003	9-digit U.S. zip code
	004	Canadian postal code
	005	Longitude and latitude
		- continued -

**Table 2-220 Field 732 characters-values and meaning**

Character	Value	Meaning
	099	Unknown
4-15		Location digits
16	C	SIGN character (HEX C)
		- end -

**Field 734 Supporting information**

This field Identifies the source of the LRN (for example, SCP or switch datafill), and provides information about query status.

**Table 2-221 Field 734 characters-values and meaning**

Character	Value	Meaning
1		LRN Source indicator
	1	LNP database
	2	Switch system data
	3	Incoming signaling
	4	Switch LRN/GUBB LNP database
	9	Unknown
2-3		Query status indicator
	01	Successful query
	02	Timeout
	03	AIN continue or authorize_termination message received as response
	04	Protocol error received in response message
	05	Non-protocol error received in response message
	06	Query rejected
	07	Last resort routing
	09	LRN information obtained without query
	11	Successful QoR
		- continued -

**Table 2-221 Field 734 characters-values and meaning**

Character	Value	Meaning
2-3	12	QoR initiated
	13	QoR received
	14	PORC last resort-donor
	15	PORC last resort-surrogate donor
	99	Query unsuccessful, reason unknown
4-6	000	Reserved for future use (constant-000)
7	0	Reserved for LNP service provider (constant-0)
8	C	SIGN character (HEX C)
- end -		

**Field 801 Number of LSDB accesses**

This field indicates the number of times the LSDB was accessed for a single request.

**Table 2-222 Field 801 characters-their values and meaning**

Character	Value	Meaning
1	1-4	Number of routing numbers
2	C	SIGN character (HEX C)

**Field 802 Sequence call counter, request counter, number of occurrences, application identifier**

This field records the number of times various events occur. The values recorded in this field represent different information when used in conjunction with different modules. The field is set to the null value (hex FFFF) for third number and collect billing.

The application identifier, used with module code 123, specifies the application associated with the billing record, with respect to record matching.

**Table 2-223 Field 802 characters-values and meaning**

Character	Value	Meaning
1-3	000	Unspecified application
- continued -		

**Table 2-223 Field 802 characters-values and meaning**

Character	Value	Meaning
1-3	001	TOPS RLT
	002-999	3-digit application identifier
4	C	SIGN character (HEX C)
- end -		

**Field 803 Count of available and unavailable calling information**

This field records a count of bulk calling line ID (BCLID) calls where BCLID was available, and a count of BCLID calls where BCLID was not available.

**Table 2-224 Field 803 characters-values and meaning**

Character	Value	Meaning
1-5		5-digit number
6	C	SIGN character (HEX C)

**Field 804 Call record sequence number billing identifier**

The call record sequence number billing identifier (CRSN) field is appended for all AMA records produced as a result of call traffic. The CRSN stays with the record throughout record storage and transmission to the downstream billing system. This provision, combined with the file sequence number, offers added security and integrity controls.

The billing identifier is stored here by TOPS RLT (TOP09 and up) for use by downstream processing to provide record matching.

**Table 2-225 Field 804 characters-values and meaning**

Character	Value	Meaning
1-7	nnnnnnn	Call record sequence number
	0000000 - 2097151	21 bit record matching key
8	C	SIGN character (HEX C)

**Field 911 Business group information**

This field records whether or not the called number was determined to be a local call by translations.

**Table 2-226 Field 911 characters-values and meaning**

Character	Value	Meaning
1-7	nnnnnnn	Multi business group identifier
8	C	SIGN character (HEX C)

**Field 912 Private called number information**

This field records whether or not the called number was determined to be a local call by translations.

**Table 2-227 Field 912 characters-values and meaning**

Character	Value	Meaning
1-7	nnnnnnn	Multi business group identifier
8	C	SIGN character (HEX C)

**Field A.130 Auditability flag**

The auditability flag indicates that a particular call record is or is not valid for an audit study.

**Table 2-228 Field A.130 characters-values and meaning**

Character	Value	Meaning
1	0	All data are valid for audit
	1	Some store program control system (SPCS) data are not valid for audit
2	C	SIGN character (HEX C)

**Field A.131 Count of records transmitter sent to disk**

This field is the count of billable calls records, for complete and incomplete calls, transmitted to the AMAT disk.

**Table 2-229 Field A.131 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Field A.132 Count of records transmitter lost on disk**

This field is the count of all records lost when being written to disk.

**Table 2-230 Field A.132 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Field A.133 Count of records transmitter sent to data link**

This field is the count of the transmitter primary or secondary records written to the data link, and acknowledged by the collector.

**Table 2-231 Field A.133 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Field A.134 Count of records collector received from data link**

This field is the count of the primary or secondary records received over the data link by the collector.

**Table 2-232 Field A.134 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Field A.135 Count of records written to magnetic tape**

This field is the count of the primary or secondary records transmitted to magnetic tape.

**Table 2-233 Field A.135 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Field A.136 Count of records lost at the collector**

This field is the count of the primary or secondary records the collector knowingly lost.

**Table 2-234 Field A.136 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Field A.137 Count of records lost at the transmitter**

This field contains the number of records that the transmitter lost and consequently did not transmit.

**Table 2-235 Field A.137 characters-values and meaning**

Character	Value	Meaning
1-7		7-digit number
8	C	SIGN character (HEX C)

**Fields B.1 through B.5**

These fields are used whenever a number requiring no further explanation is to be recorded.

**Table 2-236 Fields B.1 through B.5 characters-values and meaning**

Field	Character	Value	Meaning
B.1	1		1-digit number
	2	C	SIGN character (HEX C)
B.2	1-3		3-digit number
	2	C	SIGN character (HEX C)
B.3	1-5		5-digit number
	2	C	SIGN character (HEX C)
B.4	1-7		7-digit number
	2	C	SIGN character (HEX C)
B.5	1-9		9-digit number
	2	C	SIGN character (HEX C)

**Field C.1 File sequence number**

Specifies the data set numbers, incremented sequentially, over transfer in and transfer out tracers.

**Table 2-237 Field C.1 characters-values and meaning**

Character	Value	Meaning
1-3		Sequence number
4	C	SIGN character (HEX C)

**Field C.2-Count of records**

This field specifies the number of records recorded.

**Table 2-238 Field C.3 characters-values and meaning**

Character	Value	Meaning
1-7		Number of records
8	C	SIGN character (HEX C)

**Field C.3-Count of file blocks**

This field specifies the number of file or data blocks recorded.

**Table 2-239 Field C.2 characters-values and meaning**

Character	Value	Meaning
1-5		Number of blocks
6	C	SIGN character (HEX C)

**High runner call data compression**

To minimize processing time, transmission time, and mass storage requirements, certain Bellcore AMA call codes are currently recorded with shortened structure codes, when certain conditions are satisfied. These shortened structure codes omit fields relating to those conditions. These frequently-used call types generated with shortened record formats are known as high runner call data compression (HRCDC) structure codes.

The DMS provides two types of HRCDC. The first applies solely to message rate calls typically recorded without full details. These are:

- 002:** Message rate, timed, with MBI
- 003:** Detailed message rate, untimed, with MBI
- 004:** Message rate, untimed, with MBI

Under certain AMA recording conditions, pertinent to the message rate feature, the structure codes associated with each of these call codes omit either the called number (call code 002), the elapsed time (call code 003), or both (004). These records are recorded without full details. When LCDR or a study has been assigned to a line from which calls are originated that qualify for HRCDC recording, call codes 002, 003, and 004 are still generated but with AMA structures that use full details (structure codes x0020 or x0021).

The second type of HRCDC provided by the DMS involves the selection of high runner structure codes (HRSC). If certain criteria are met, high runner structure codes omit the following fields:

- Field 7 - Timing indicator
- Field 10 - Service observed, traffic sampled
- Field 11 - Operator action
- Field 8 - Study indicator

When all four of the previously listed fields are zero, they can be eliminated, since zero fields are of no use and a high runner structure code can be selected. When fields 7, 10, and 11 are zero, the study indicator field can be eliminated if only the network completion flag is set (value 0200000C). The network completion flag indicates whether or not unanswered calls are being recorded in an office. This flag is not used when fields 7, 10, and 11 are zero, and all other characters in field 8 are zero. All four fields in this case can be eliminated, and a high runner structure code can be selected.

The criteria for selecting a high runner structure code are summarized in table 2-233.

**Table 2-240 Criteria for selecting high runner structure code**

Field 7	Field 10	Field 11	Field 8	HRSC (YES/NO)
00000C	00C	0C	0000000C	Yes
00000C	00C	0C	0200000C	Yes
*** Any other non-zero combination ***				No

The following call codes can be recorded with high runner structure codes:

- 001:** Detailed message rate, timed, with MBI
- 002:** Message rate, timed, with MBI
- 003:** Detailed message rate, untimed, with MBI
- 005:** Detailed message rate, timed, no MBI

**006:** Station paid

**007:** WATS, station detail

**011:** FX, automatic flexible routing

**021:** CCSA sampling

**068:** WATS billing number

**088:** Nondirectory assistance 555 call

**132:** Feature group A, terminating

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## 3 Structure codes

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This chapter contains a list of each field contained in each record structure, identified by structure code. The call codes that use each record structure are also listed. Each data field and the values supported for each field are explained in chapter 3.

As of BCS35, the following structure codes are obsoleted: 002, 016, 021, 080, 086, 087, 101, 115, 120, 125, 141, 179, 191, 194, 362, 363, 366, 367, 368, 369, 627, 633, 647, 654, 657, and 665. They were used for billing unanswered and long duration calls. Billing for unanswered calls is now done by attaching module 025 to the answered structure code normally produced by those calls. Billing for long duration calls is now handled by attaching module 022 to the answered structured code normally produced by those calls.

This change only affects local/toll AMA billing. It does not affect TOPS or packet billing. Refer to the descriptions of module codes 022 and 025 for more information.

## Structure code 0001

**Table 3-1 Structure code 0001 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study Indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
<b>Call codes:</b> 005, 006, 011, 021, 041, 045, 048, 067, 069, 074, 085, 088, 126, 127, 128, 132, 159-167, 174, 175, 184, 270-282, 721, and 800-999		

## Structure code 0015

**Table 3-2 Structure code 0015 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexidecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Elapsed time	19	10
Wide area telephone service (WATS) indicator	28	2
WATS band or message billing index (MBI)	29	4
<b>Call codes:</b> 002, and 800-999		

## Structure code 0019

**Table 3-3 Structure code 0019 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
WATS indicator	28	2
WATS band or MBI	29	4
<b>Call codes:</b> 004 and 800-999		

## Structure code 0020

**Table 3-4 Structure code 0020 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
WATS indicator	28	2
- continued -		

### 3-6 Structure codes

**Table 3-4 Structure code 0020 fields**

Information	Field number	Number of characters
WATS band or MBI	29	4
<b>Call codes:</b> 001, 002, 003, 004, 007, 030, 068 and 800-999		
- end -		

### Structure code 0024

**Table 3-5 Structure code 0024 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
- continued -		

**Table 3-5 Structure code 0024 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
WATS indicator	28	2
WATS band or MBI	29	4
<b>Call codes:</b> 003 and 800-999		
- end -		

**Structure code 0025****Table 3-6 Structure code 0025 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
- continued -		

### 3-8 Structure codes

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**Table 3-6 Structure code 0025 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Elapsed time	19	10
Significant digits in next field	55	4
Tandem digits dialed 1	32	12
Tandem digits dialed 2	33	14
<b>Call codes:</b> 032 and 800-999		
- end -		

### Structure code 0028

**Table 3-7 Structure code 028 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-7 Structure code 028 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
<b>Call codes:</b> 009, 033 and 800-999		
- end -		

**Structure code 0068****Table 3-8 Structure code 0068 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

### 3-10 Structure codes

**Table 3-8 Structure code 0068 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Circuit date	6	6
Circuit time	26	8
<b>Call codes:</b> 009, 033 and 800-999		
- end -		

### Structure code 0076

**Table 3-9 Structure code 0076 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	8
Sensor identification	3	8
- continued -		

**Table 3-9 Structure code 0076 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Elapsed time	19	10
Number of trunk legs used	B.1	2
<b>Call codes:</b> 012, 026 and 800-999		
- end -		

**Structure code 0079****Table 3-10 Structure code 0079 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
- continued -		

**Table 3-10 Structure code 0079 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Elapsed time	19	10
<b>Call codes:</b> 008, 036, 131 and 800-999		
- end -		

**Structure code 0096****Table 3-11 Structure code 0096 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
- continued -		

**Table 3-11 Structure code 0096 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Service feature	12	4
Activating NPA	13	4
Activating number	14	8
Forward to overseas indicator	15	2
Forward to NPA	16	6
Forward to number	17	8
Activation or deactivation time	18	8
Elapsed time	19	10
Present or activation date	6	6
Present or deactivation time	18	8
<b>Call codes:</b> 031 and 800-999		
- end -		

## Structure code 0106

**Table 3-12 Structure code 0106 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	8
Timing indicator	7	6
Study Indicator	8	8
Service observed, traffic sampled	10	2
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10
Originating charge information	504	4
Time	18	8
Elapsed time	19	10
Service feature	12	4
Station signaling indicator	276	2
Screening code	34	4
Called number/service access number input	278	2
Calling number source	279	2
<b>Call codes: 192</b>		

## Structure code 0107

**Table 3-13 Structure code 0107 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study Indicator	8	8
Service observed, traffic sampled	10	2
Time	18	8
Elapsed time	19	10
Country/company identification	297	6
Called number/service access number input	278	2

## Structure code 0110

**Table 3-14 Structure code 0110 fields**

Information	Field number	Number or characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
- continued -		

### 3-16 Structure codes

**Table 3-14 Structure code 0110 fields**

<b>Information</b>	<b>Field number</b>	<b>Number or characters</b>
Call type codes	1	4
Sensor type	2	2
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
CLASS feature code	415	4
Date	6	6
Time	18	8
Originating NPA	13	4
Directory number	14	8
Count of available calling Information	803	6
Count of unavailable calling Information	803	6
<b>Call codes: 264</b>		
- end -		

### Structure code 0128

**Table 3-15 Structure code 0128 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
- continued -		

**Table 3-15 Structure code 0128 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Present date	6	6
Present time	18	8
<b>Call codes:</b> 009 and 800-999		
- end -		

**Structure code 0140****Table 3-16 Structure code 0140 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
- continued -		

**Table 3-16 Structure code 0140 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas NPA dialing indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
Interexchange carrier/International carrier (IC/INC) prefix	57	6
Carrier connect date	6	6
Carrier connect time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
- continued -		

**Table 3-16 Structure code 0140 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Routing indicator	59	2
Dialing indicator	85	2
IC/INC automatic number identification (ANI) indicator	60	2
Coins collected	158	4
Coin deposit trouble indicator	159	4
<b>Call codes: 136</b>		
- end -		

**Structure code 0190****Table 3-17 Structure code 0190 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Connect date	6	6
Timing indicator	7	6
Study indicator	8	8
Called-party off-hook indicator	9	2
Service observed, traffic sampled	10	2
- continued -		

**Table 3-17 Structure code 0190 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
Data capabilities indicator	41	4
Information transfer rate indicator	42	4
Terminating company	56	4
<b>Call codes:</b> 072, 148, and 800-999		
- end -		

**Structure code 0220****Table 3-18 Structure code 0220 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
- continued -		

**Table 3-18 Structure code 0220 fields**

Information	Field number	Number of characters
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Completion indicator	280	4
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Terminating overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
Service logic program identification	77	10
<b>Call codes:</b> 001-007, 011, 021, 032, 033, 041, 045, 047, 063-069, 072, 074, 085, 088, 110, 111, 114, 117, 132, 134, 159, and 800-999		
- end -		

## Structure code 0221

**Table 3-19 Structure code 0221 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

**Table 3-19 Structure code 0221 fields**

Information	Field number	Number of characters
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Completion indicator	280	4
Service feature	12	4
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
Service logic program identification	77	10
<b>Call codes:</b> 001-007, 011, 021, 032, 033, 041, 045, 047, 063, 064, 067-069, 072, 074, 085, 088, 110, 111, 114, 117, 132, 134, 159, and 800-999		
- end -		

**Structure code 0360**

**Table 3-20 Structure code 0360 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

**Table 3-20 Structure code 0360 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Dialed NPA	13	4
Dialed number	14	8
Terminating overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
IC/INC prefix	57	6
Carrier connect date	6	6
Carrier connect time	18	8
- continued -		

### 3-24 Structure codes

**Table 3-20 Structure code 0360 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
ANI indicator	60	2
Customer's revenue accounting office (RAO) number	46	4
Originating local access and transport area (LATA)	197	4
<b>Call codes:</b> 141 and 800-999		
- end -		

### Structure code 0361

**Table 3-21 Structure code 0361 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
- continued -		

**Table 3-21 Structure code 0361 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Dialed NPA	13	4
Dialed number	14	8
Terminating overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
IC/INC prefix	57	6
Carrier connect date	6	6
Carrier connect time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
ANI indicator	60	2
Customer's RAO number	46	4
Originating LATA	197	4
- continued -		

**Table 3-21 Structure code 0361 fields**

Information	Field number	Number of characters
Alternate billing number	138	12
<b>Call codes:</b> 141 and 800-999		
Note that structure codes 00362 and 00363 have been removed. See the description of module codes 022 and 025 for an explanation		
- end -		

## Structure code 0364

**Table 3-22 Structure code 0364 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
- continued -		

**Table 3-22 Structure code 0364 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Originating number	14	8
Dialed NPA	13	4
Dialed number	14	8
Terminating overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Customer's RAO number	46	4
Originating LATA	197	4
<b>Call codes:</b> 142 and 800-999		
- end -		

**Structure code 0365****Table 3-23 Structure code 0365 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-23 Structure code 0365 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Dialed NPA	13	4
Dialed number	14	8
Terminating overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Customer's RAO number	46	4
Alternate billing number	138	12
<b>Call codes:</b> 143 and 800		
-end-		

## Structure code 0500

**Table 3-24 Structure code 0500 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Answer indicator	9	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
<b>Call codes:</b> 005, 006, 011, 021, 088, 126, 127, 128, 132, 550, 721, and 800-999		

## Structure code 0501

**Table 3-25 Structure code 0501 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Answer indicator	9	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Terminating overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
WATS indicator	28	2
WATS band or MBI	29	4
<b>Call codes:</b> 007, 068, and 800-999		

## Structure code 0502

**Table 3-26 Structure code 0502 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Answer indicator	9	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
Elapsed time	19	10
WATS band or MBI	29	4
<b>Call codes:</b> 001 and 800-999		

## Structure code 0503

**Table 3-27 Structure code 0503 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Answer indicator	9	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Connect time	18	8
Elapsed time	19	10
WATS band or MBI	29	4
<b>Call codes:</b> 002 and 800-999		

## Structure code 0504

**Table 3-28 Structure code 00504 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

**Table 3-28 Structure code 00504 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Answer indicator	9	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Connect time	18	8
WATS band or MBI	29	4
<b>Call codes:</b> 003 and 800-999		
- end -		

**Structure code 0510****Table 3-29 Structure code 0510 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

3-34 Structure codes

**Table 3-29 Structure code 0510 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Called party off-hook indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10
Originating charge information	504	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	10
Connect time	18	8
Elapsed time	19	10
Call codes: 006, 008, 011, 021, 032, 033, 036, 041, 067, 074, 085, 088, 142, 159-167, 800-999		
- end -		

The SOC options required for production of structure codes 00510, 00511, 00513 and 00514 are shown below.

	BILL0013 SOC option off	BILL0013 SOC option on
BILL0009 SOC option off	structure code 00510	structure code 00513
BILL0009 SOC option on	structure code 00511	structure code 00514

## Structure code 0511

**Table 3-30 Structure code 0511 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
- continued -		

**Table 3-30 Structure code 0511 fields**

Information	Field number	Number of characters
Service feature	12	4
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10
Originating charge information	504	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	18
Connect time	18	8
Elapsed time	19	8
Completion indicator	280	4
Module code	88	4
<b>Call codes:</b> 006, 142, 160, 162, and 800-999		
- end -		

The SOC options required for production of structure codes 00510, 00511, 00513 and 00514 are shown here.

**Table 3-31**

	BILL0013 SOC option off	BILL0013 SOC option on
BILL0009 SOC option off	structure code 00510	structure code 00513
BILL0009 SOC option on	structure code 00511	structure code 00514

## Structure code 0512

**Table 3-32 Structure code 0512 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10
Originating charge information	504	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	18
- continued -		

**Table 3-32 Structure code 0512 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Connect time	18	8
Elapsed time	19	8
Originating preselect carrier ID	6	6
Outgoing preselect carrier ID	6	6
Significant digits in next field	55	4
Overflow dialed digits	33	14
Sent service digits	14	8
Originating preselect carrier ID	6	6
Terminating preselect carrier ID	6	6
<b>Call codes:</b> 006, 008, 011, 021, 032, 033, 036, 041, 067, 074, 085, 088, 142, 159-167, 800-999		
- end -		

## Structure code 0513

**Table 3-33 Structure code 0513 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
- continued -		

**Table 3-33 Structure code 0513 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10
Originating charge information	504	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Ext terminating open digits 1	126	16
Ext terminating open digits 2	126	16
Connect time	18	8
Elapsed time	19	8
<b>Call codes:</b>		
006, 008, 011, 021, 032, 033, 036, 041, 067, 074, 085, 088, 142, 159-167, and 800-999		
- end -		

The SOC options required for production of structure codes 00510, 00511, 00513 and 00514 are shown below.

**Table 3-34**

	BILL0013 SOC option off	BILL0013 SOC option on
BILL0009 SOC option off	structure code 00510	structure code 00513
BILL0009 SOC option on	structure code 00511	structure code 00514

### Structure code 0514

**Table 3-35 Structure code 00514 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
- continued -		

**Table 3-35 Structure code 00514 fields**

Information	Field number	Number of characters
Operator action	11	2
Service feature	12	4
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10
Originating charge information	504	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Ext terminating open digits 1	126	16
Ext terminating open digits 2	126	16
Connect time	18	8
Elapsed time	19	8
Completion indicator	280	4
Module code	88	4
<b>Call codes:</b> 006, 142, 160, 162, and 800-999		
- end -		

The SOC options required for production of structure codes 00510, 00511, 00513 and 00514 are shown below.

**Table 3-36**

	BILL0013 SOC option off	BILL0013 SOC option on
BILL0009 SOC option off	structure code 00510	structure code 00513
BILL0009 SOC option on	structure code 00511	structure code 00514

## Structure code 0614

**Table 3-37 Structure code 0614 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Service feature	12	4
Activating NPA	13	4
Activating number	14	8
Forward to overseas indicator	15	2
Forward to NPA	16	6
Forward to number	17	8
Activation or deactivation time	18	8
<b>Call codes:</b> 031 and 800-999		

## Structure code 0625

**Table 3-38 Structure code 0625 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating to NPA	16	6
Terminating	17	8
Connect time	18	8
Elapsed time	19	10
IC/INC prefix	57	6
- continued -		

**Table 3-38 Structure code 0625 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Carrier connect date	6	6
Carrier connect time	18	8
Elapsed time from carrier connect	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
ANI indicator	60	2
<b>Call codes:</b> 065, 066, 110, 119, 134, 251, 720, 722, and 800-999		
- end -		

**Structure code 0629****Table 3-39 Structure code 0629 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
- continued -		

**Table 3-39 Structure code 0629 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Carrier connect time	18	8
Elapsed time from carrier connect	19	10
Carrier connect time	6	6
Carrier connect time	18	8
Elapsed time from carrier connect	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
ANI indicator	60	2
WATS indicator	28	2
WATS band or MBI	29	4
<b>Call codes:</b> 111, 114, and 800-999		
- end -		

## Structure code 0645

**Table 3-40 Structure code 0645 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Called party off-hook indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Carrier connect time	18	8
Elapsed time from carrier connect	19	10
IC/INC prefix	57	6
- continued -		

**Table 3-40 Structure code 0645 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Carrier connect date	6	6
Carrier connect time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing and pre-subscription indicator	85	2
ANI/CPN indicator	60	2
Data capabilities indicator	41	4
Information transfer rate indicator	42	4
Terminating company	56	4
<b>Call codes:</b> 117, 149, 150, and 800-999		
- end -		

**Structure code 0653****Table 3-41 Structure code 0653 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
- continued -		

**Table 3-41 Structure code 0653 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Carrier connect time	18	8
Elapsed time	19	10
IC/INC prefix	57	6
Carrier connect date	6	6
Carrier connect time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
<b>Call codes:</b> 063, 064, 119, 135, and 800-999		
- end -		

## Structure code 0655

**Table 3-42 Structure code 0655 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Time	18	6
IC/INC prefix	57	6
Overflow peg count	128	16
IC/INC prefix	57	6
Overflow peg count	128	6
IC/INC prefix	57	6
Overflow peg count	128	6
IC/INC prefix	57	6
Overflow peg count	128	6
<b>Call codes: 120</b>		

## Structure code 0656

**Table 3-43 Structure code 0656 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Carrier connect time	18	8
Elapsed time	19	10
IC/INC prefix	57	6
Carrier connect date	6	6
Connect time	18	8
- continued -		

**Table 3-43 Structure code 0656 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Service indicator	41	4
Data rate indicator	42	4
<b>Call codes:</b> 121 and 800-999		
- end -		

**Structure code 0664****Table 3-44 Structure code 0664 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
- continued -		

**Table 3-44 Structure code 0664 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Terminating NPA	16	6
Terminating number	17	8
Carrier connect time	18	8
Elapsed time	19	10
IC/INC prefix	57	6
Trunk group number	83	6
Routing indicator	59	2
<b>Call codes:</b> 119,and 800-999		
- end -		

**Structure code 0670****Table 3-45 Structure code 0670 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
- continued -		

**Table 3-45 Structure code 0670 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Originating sensor identifier	170	8
Terminating sensor identifier	171	8
Originating NPA	172	4
Originating CO-EPN	173	8
Terminating NPA	174	4
Terminating CO-EPN	175	8
Network user interface	176	16
Carrier connect time	18	8
Elapsed time	19	10
Charging and packet indicator	64	4
Terminating cause indicator	177	4
Rate period 1 segment count	139	8
Rate period 2 segment count	139	8
Rate period 3 segment count	139	8
Rate period 4 segment count	139	8
Originating service type	178	4
Terminating service type	179	4
Priority	180	2
Segment size	181	2
Fast select	182	2
<b>Call codes:</b> 180 and 800-999		
- end -		

## Structure code 0671

**Table 3-46 Structure code 0671 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Originating sensor identifier	170	8
Terminating sensor identifier	171	8
Originating NPA	172	4
Originating CO-EPN	173	8
Terminating NPA	174	4
Terminating CO-EPN	175	8
Network user interface	176	16
Carrier connect time	18	8
Elapsed time	19	10
Charging and packet indicator	64	4
Terminating cause indicator	177	4
Rate period 1 segment count	139	8
- continued -		

**Table 3-46 Structure code 0671 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Rate period 2 segment count	139	8
Rate period 3 segment count	139	8
Rate period 4 segment count	139	8
Originating service type	178	4
Terminating service type	179	4
Priority	180	2
Segment size	181	2
Fast select	182	2
Present date	6	6
Present time	18	8
<b>Call codes:</b> 181 and 800-999		
- end -		

**Structure code 0685****Table 3-47 Structure code 0685 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-47 Structure code 0685 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date of answer	6	6
Timing indicator	7	6
Study indicator	8	8
Originating sensor identifier	170	8
Terminating sensor identifier	171	8
Originating NPA	172	4
Originating CO-EPN	173	8
Terminating NPA	174	4
Terminating CO-EPN	175	8
Network user interface	176	16
Carrier connect time	18	8
Elapsed time	19	10
Charging and packet indicator	64	4
Terminating cause indicator	177	4
Rate period 1 segment count	139	8
Rate period 2 segment count	139	8
Rate period 3 segment count	139	8
Rate period 4 segment count	139	8
Priority	180	2
Segment size	181	2
Fast select	182	2
Originating DNIC	184	6
Significant digits no 1	55	4
Terminating DNIC	185	6
Significant digits no 2	55	4
- continued -		

**Table 3-47 Structure code 0685 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Incoming X.75 interface ID	194	12
Outgoing X.75 interface ID	194	12
Transit network 1	62	6
Transit network 2	62	6
Transit network 3	62	6
Transit network 4	62	6
Local service type	178	4
Tariff utility	183	10
Call identifier billing	186	10
<b>Call codes:</b> 180 and 800-999		
- end -		

**Structure code 0686****Table 3-48 Structure code 0686 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date of answer	6	6
- continued -		

**Table 3-48 Structure code 0686 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Timing indicator	7	6
Study indicator	8	8
Originating sensor identifier	170	8
Terminating sensor identifier	171	8
Originating NPA	172	4
Originating CO-EPN	173	8
Terminating NPA	174	4
Terminating CO-EPN	175	8
Network user interface	176	16
Carrier connect time	18	8
Elapsed time	19	10
Charging and packet indicator	64	4
Terminating cause indicator	177	4
Rate period 1 segment count	139	8
Rate period 2 segment count	139	8
Rate period 3 segment count	139	8
Rate period 4 segment count	139	8
Priority	180	2
Segment size	181	2
Fast select	182	2
Present date	6	6
Present time	18	8
Originating DNIC	184	6
Significant digits no 1	55	4
Terminating DNIC	185	6
- continued -		

**Table 3-48 Structure code 0686 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Significant digits no 2	55	4
Incoming X.75 interface ID	194	12
Outgoing X.75 interface ID	194	12
Transit network 1	62	6
Transit network 2	62	6
Transit network 3	62	6
Transit network 4	62	6
Local service type	178	4
Tariff utility	183	10
Call identifier billing	186	10
<b>Call codes:</b> 180 and 800-999		
- end -		

**Structure code 0690****Table 3-49 Structure code 0690 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-49 Structure code 0690 fields**

Information	Field number	Number of characters
Present date	6	6
Originating NPA	13	4
Originating number	14	8
Present time	18	8
<b>Call codes:</b> 045, 183, and 194		
- end -		

**Structure code 0692****Table 3-50 Structure code 0692 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Study indicator	8	6
Terminating cause indicator	177	4
Rate period 1 segment count	139	8
Rate period 2 segment count	139	8
Rate period 3 segment count	139	8
Rate period 4 segment count	139	8
- continued -		

**Table 3-50 Structure code 0692 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Charging and packet indicator	64	4
Segment size	181	2
Present date	6	6
Present time	18	8
Chargeable interface DNIC	184	6
Significant digits number 3	55	4
Chargeable NPA	172	4
Chargeable CO-EPN	173	8
Chargeable PVC identifier	195	6
Chargeable logical channel number	223	6
<b>Call codes:</b> 89 and 181		
- end -		

**Structure code 0700****Table 3-51 Structure code 0700 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-51 Structure code 0700 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
Operator work time	19	10
<b>Call codes:</b> 006, 009, 015, and 074		
- end -		

## Structure code 0701

**Table 3-52 Structure code 0701 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
- continued -		

**Table 3-52 Structure code 0701 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Operator work time	19	10
Charge indicator	22	2
Amount of charge	23	6
Operator work time	19	10
<b>Call codes:</b> 010, 016, 019, 024, 027, 035, 043, 044, 057, and 058		
- end -		

**Structure code 0702****Table 3-53 Structure code 0702 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
- continued -		

**Table 3-53 Structure code 0702 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Screening code	34	4
Operator work time	19	10
<b>Call codes:</b> 009 and 015		
- end -		

**Structure code 0704****Table 3-54 Structure code 0704 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
- continued -		

**Table 3-54 Structure code 0704 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
Operator work time	19	10
<b>Call codes:</b> 010, 016, 019, 024, 027, 035, 043, 044, 057, and 058		
- end -		

## Structure code 0705

**Table 3-55 Structure code 0705 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
- continued -		

**Table 3-55 Structure code 0705 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
Station signalling and announcement subsystem (SSAS) code	35	4
Operator work time	19	10
<b>Call codes:</b> 010, 016, 024, 027, 035, 043, 044, 057, and 058		
- end -		

**Structure code 0708****Table 3-56 Structure code 0708 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
- continued -		

**Table 3-56 Structure code 0708 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
SSAS code	35	4
Operator work time	19	10
<b>Call codes:</b> 010, 016, 024, 027, 035, 043, 044, 057, and 058		
- end -		

**Structure code 0709****Table 3-57 Structure code 0709 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

3-70 Structure codes

**Table 3-57 Structure code 0709 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
SSAS code	35	4
SSAS indicator	37	2
- continued -		

**Table 3-57 Structure code 0709 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Coin credit indicator	36	2
Walkaway or deposited amount	38	6
Operator work time	19	10
<b>Call codes:</b> 010, 016, 024, 027, 035, 043, and 044		
- end -		

**Structure code 0711****Table 3-58 Structure code 0711 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
- continued -		

**Table 3-58 Structure code 0711 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
Screening code	24	4
SSAS code	35	4
SSAS indicator	37	2
Coin credit indicator	36	2
Walkaway or deposited amount	38	6
Operator work time	19	10
<b>Call codes:</b> 010, 016, 024, 027, 035, 043, and 044		
- end -		

**Structure code 0712****Table 3-59 Structure code 0712 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

**Table 3-59 Structure code 0712 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
- continued -		

**Table 3-59 Structure code 0712 fields**

Information	Field number	Number of characters
Operator work time	19	10
<b>Call codes:</b> 014 and 017		
- end -		

**Structure code 0713****Table 3-60 Structure code 0713 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
- continued -		

**Table 3-60 Structure code 0713 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Screening code	34	4
Operator work time	19	10
<b>Call codes:</b> 014 and 017		
- end -		

**Structure code 0715****Table 3-61 Structure code 0715 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
- continued -		

**Table 3-61 Structure code 0715 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Charge indicator	22	2
Amount of charge	23	6
SSAS code	35	4
Operator work time	19	10
<b>Call codes:</b> 014 and 017		

## Structure code 0717

**Table 3-62 Structure code 0717 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
- continued -		

**Table 3-62 Structure code 0717 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
SSAS code	35	4
Operator work time	19	8
<b>Call codes:</b> 014 and 017		
- end -		

**Structure code 0718****Table 3-63 Structure code 0718 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
- continued -		

**Table 3-63 Structure code 0718 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Billing number	25	12
Dialing rate	49	2
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Operator work time	19	10
<b>Call codes: 015</b>		
- end -		

## Structure code 0719

**Table 3-64 Structure code 0719 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
- continued -		

**Table 3-64 Structure code 0719 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Billing number	25	12
Dialing rate	49	2
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Screening code	34	4
Operator work time	19	10
<b>Call codes: 015</b>		
- end -		

**Structure code 0721****Table 3-65 Structure code 0721 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
- continued -		

**Table 3-65 Structure code 0721 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Billing number	25	12
Dialing rate	49	2
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Charge indicator	22	2
Amount of charge	23	6
SSAS code	35	4
Operator work time	19	10
<b>Call codes: 015</b>		
- end -		

## Structure code 0723

**Table 3-66 Structure code 0723 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
- continued -		

3-84 Structure codes

**Table 3-66 Structure code 0723 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Billing number	25	12
Dialing rate	49	2
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
SSAS code	35	4
Operator work time	19	10
<b>Call codes: 015</b>		
- end -		

**Structure code 0724**

**Table 3-67 Structure code 0724 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
- continued -		

**Table 3-67 Structure code 0724 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Answer time	18	8
Operator number	200	8
Elapsed time	19	10
<b>Call codes: 009</b>		
- end -		

**Structure code 0725****Table 3-68 Structure code 0725 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
- continued -		

**Table 3-68 Structure code 0725 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Answer time	18	8
Operator number	200	8
Screening code	34	4
Operator work time	19	10
<b>Call codes: 009</b>		
- end -		

**Structure code 0727****Table 3-69 Structure code 0727 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
- continued -		

**Table 3-69 Structure code 0727 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
SSAS code	35	4
- continued -		

**Table 3-69 Structure code 0727 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
SSAS indicator	37	2
Coin credit indicator	36	2
Walkaway or deposited amount	38	6
Operator work time	19	10
Present date	6	6
Present time	18	8
<b>Call codes:</b> 006 and 074		
- end -		

**Structure code 0728****Table 3-70 Structure code 0728 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
- continued -		

**Table 3-70 Structure code 0728 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
RAO number	46	4
Billing number content	47	2
Billing validation file	48	2
Calling card failure	24	4
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
SSAS code	35	4
Operator work time	19	10
Present date	6	6
Present time	18	8
<b>Call codes:</b> 014 and 017		
- end -		

## Structure code 0729

**Table 3-71 Structure code 0729 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
- continued -		

**Table 3-71 Structure code 0729 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Billing number	25	12
Dialing rate	49	2
RAO number	46	4
Billing number constant	47	2
Billing validation file	48	2
Calling card failure	24	4
Charge indicator	22	2
Amount of charge	23	6
Screening code	34	4
SSAS code	35	4
Operator work time	19	10
Present date	6	6
Present time	18	10
<b>Call codes: 015</b>		
- end -		

**Structure code 0730****Table 3-72 Structure code 0730 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type	1	4
Sensor type	2	4
- continued -		

**Table 3-72 Structure code 0730 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Originating NPA	13	4
Originating number	14	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
Operator work time	19	10
Operator service feature	201	4
Carrier identification	202	6
<b>Call codes: 250</b>		
- end -		

**Structure code 0731****Table 3-73 Structure code 0731 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
- continued -		

Table 3-73 Structure code 0731 fields

Information	Field number	Number of characters
Call type	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Service difficulty time	18	8
Service observed, traffic sampled	10	2
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Operator number	200	8
Service difficulty	91	2
Number of occurrences	92	4
Charge adjust indicator	204	2
Amount of credit	95	6
Minutes of credit	108	4
Operator work time	19	10
<b>Call codes: 107</b>		
- end -		

## Structure code 0732

**Table 3-74 Structure code 0732 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Service difficulty time	18	8
Service observed, traffic sampled	10	2
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Operator number	200	8
Service difficulty	91	2
Number of occurrences	92	4
Charge adjust indicator	204	2
Amount of credit	95	6
Minutes of credit	108	4
Operator work time	19	10
- continued -		

**Table 3-74 Structure code 0732 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
RAO number	46	4
Billing number constant	47	2
Billing validation file	48	2
Calling card failure	24	4
<b>Call codes: 107</b>		
- end -		

**Structure code 0733****Table 3-75 Structure code 0733 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Service difficulty time	18	8
Service observed, traffic sampled	10	2
Operator work time	19	10
Carrier identification	202	6
Operator number	200	8
<b>Call codes: 108</b>		

## Structure code 0734

**Table 3-76 Structure code 0734 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Answer indicator	9	2
Service observed, traffic sampled	10	2
Operator action	11	2
Service feature	12	4
Originating NPA	13	4
Originating number	14	8
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Answer time	18	8
Elapsed time	19	10
Operator number	200	8
- continued -		

**Table 3-76 Structure code 0734 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Operator work time	19	10
IC/INC prefix	57	6
Carrier connect date	6	6
Carrier connect time	18	8
Elapsed time from carrier connect	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
ANI indicator	60	2
<b>Call codes: 251</b>		
- end -		

**Structure code 0751****Table 3-77 Structure code 0751 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-77 Structure code 0751 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Service observed, traffic sampled	10	2
Answer time	18	8
Elapsed time	19	10
Operator identifications	296	14
Accumulated operator work time	403	6
Source of request	297	6
Called number/service access number input	278	2
<b>Call codes:</b> 191, 193, 195, 197, and 199		
- end -		

**Structure code 0752**

**Table 3-78 Structure code 0752 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
- continued -		

**Table 3-78 Structure code 0752 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Service observed, traffic sampled	10	2
Originating NPA	13	4
Originating number	14	8
Answer time	18	8
Elapsed time	19	10
Operator identifications	296	14
Accumulated operator work time	403	6
Service feature	12	4
Station signaling indicator	276	2
Screening code	34	4
Called number/service access number input	278	2
Calling number source	279	2
<b>Call codes:</b> 189, 190, 192, 194, 196, and 198		
- end -		

**Structure code 0772****Table 3-79 Structure code 0772 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
- continued -		

**Table 3-79 Structure code 0772 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Timing indicator	7	6
Study indicator	8	8
Service observed, traffic sampled	10	2
Originating NPA	13	4
Originating number	14	8
Answer time	18	8
Elapsed time	19	10
Operator identifications	296	14
Accumulated operator work time	403	6
Modified service or equipment indicator	675	4
Station signaling indicator	276	2
Modified treatment indicator	677	4
Called number/service access number input	278	2
Calling number source	279	2
Additional service information	678	4
- end -		

## Structure code 01030 (CLASS features)

**Table 3-80 Structure code 01030 fields (CLASS features)**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Class feature code	415	4
Activating NPA	13	4
Activating number	14	8
Overseas indicator	15	2
Far-end NPA	16	6
Far-end number	17	8
Answer time	18	8
Elapsed time	19	10
Class function	330	4
Feature status	331	4
Screen list size for selective call forwarding (SCF)	802	4
Screen list size for selective call rejection (SCR)	802	4
screen list size for distinctive ringing/call waiting (DRCW)	802	4
<b>Call codes: 330</b>		

## Structure code 047xx

**Table 3-81 Structure code 047xx fields**

Information	Field number	Number of characters
Record descriptor word	000	8
IC/INC prefix	57	6
Event date	6	6
Event time	18	8
Elapsed time from carrier connect	19	8
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
ANI indicator	60	2
<b>Note:</b> Fields appended to the corresponding 007xx structure codes.		
<b>Call codes:</b> For each 047xx structure code, the list of call codes is the same as for the corresponding 007xx structure code.		

## Structure code 09000

**Table 3-82 Structure code 09000 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
- continued -		

**Table 3-82 Structure code 09000 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Recording office type	4	4
Recording office identification	5	8
Time before change	18	8
Time after change	18	8
Date before change	6	6
Date after change	6	6
<b>Call codes: 042</b>		
- end -		

**Structure code 09003****Table 3-83 Structure code 09003 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Time	18	8
NPA	13	4
Directory number	14	8
Usage count	130	6
- continued -		

**Table 3-83 Structure code 09003 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
NPA	13	4
Directory number	14	8
Usage count	130	6
NPA	13	4
Directory number	14	8
Usage count	130	6
NPA	13	4
Directory number	14	8
Usage count	130	6
<b>Call codes: 037 and 071</b>		
- end -		

**Structure code 09013****Table 3-84 Structure code 09013 fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
- continued -		

**Table 3-84 Structure code 09013 fields**

Information	Field number	Number of characters
Time	18	8
Recorder generic issue	120	6
Type of tracer	40	4
Sequence number	c.1	4
<b>Call codes: 092</b>		
- end -		

**Structure code 09014****Table 3-85 Structure code 09014 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Time	18	8
Recorder generic issue	120	6
Type of tracer	40	4
Sequence number	c.1	4
Record count	c.2	8
- continued -		

**Table 3-85 Structure code 09014 fields**

Information	Field number	Number of characters
Block count	c.3	6
<b>Call codes: 092</b>		
- end -		

## Structure code 09042

**Table 3-86 Structure code 09042 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Time	18	8
AMA sequence number	140	6
Recorder generic issue	120	6
Type of tracer	40	4
Auditability flag	a.130	2
- continued -		
<b>Note:</b> This record is only generated by the DPP for use by the RAO.		

**Table 3-86 Structure code 09042 fields**

Information	Field number	Number of characters
Count of records AMA teleprocessing system (AMATPS) sent to disk	a.131	8
Count of records AMA transmitter (AMAT) lost when writing to disk	a.132	8
Count of records AMATPS sent to data link	a.133	8
Count of records collector received from data link	a.134	8
Count of records written to magnetic tape	a.135	8
Count of records lost at collector	a.136	8
<b>Call codes:</b> 090		
- end -		
<b>Note:</b> This record is only generated by the DPP for use by the RAO.		

**Structure code 09043****Table 3-87 Structure code 09043 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
- continued -		
<b>Note:</b> This record is only generated by the DPP for use by the RAO.		

**Table 3-87 Structure code 09043 fields**

Information	Field number	Number of characters
Time	18	8
AMA sequence number	140	6
Recorder generic issue	120	6
Type of tracer	40	4
Auditability flag	a.130	2
Count of records AMATPS sent to data link	a.133	8
Count of records AMAT lost when writing to disk	a.132	8
Count of records collector received from data link	a.134	8
Count of records written to magnetic tape	a.135	8
Count of records lost at collector	a.136	8
<b>Call codes: 090</b>		
- end -		
<b>Note:</b> This record is only generated by the DPP for use by the RAO.		

**Structure code 09046 (non-LAMA offices, DMS-200)****Table 3-88 Structure code 09046 fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
Sensor identification	3	8
Recording office type	4	4
- continued -		

**Table 3-88 Structure code 09046 fields**

Information	Field number	Number of characters
Recording office identification	5	8
Date	6	6
Time	18	8
Recorder generic issue	120	2
Type of tracer	40	4
Auditability flag	a.130	2
AMAPEG data	BCORIGS, AMINPROG, BCTRMT, BCNOTRMT, BCANS, BCRCSTPD, BCLTSTPD, BCEDSTPD, BCNASTPD, BCRC411, BCLT411, BCED411, BCNA411, BCRC555, BCLT555, BCED555, BCNA555, BCRCTRCR, BCLTTRCR, BCRCOTHR, BCLTOTH, BCEDOTH, BCNAOTH, BCRCLON, BCLTLONG	
<b>Call codes: 090</b>		
- end -		

**Structure code 09049 (LAMA offices, DMS-100)****Table 3-89 Structure code xxxxx fields**

Information	Field number	Number of characters
Record descriptor word	000	8
Hexadecimal identifier	00	2
Structure code	0	6
Call type codes	1	4
Sensor type	2	4
- continued -		

3-110 Structure codes

**Table 3-89 Structure code xxxxx fields**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Sensor identification	3	8
Recording office type	4	4
Recording office identification	5	8
Date	6	6
Time	18	6
Recorder generic issue	120	6
Type of tracer	40	4
Auditability flag	a.130	2
AMAPEG data	Same as structure code 9046, plus: BCRCMR, BCLTMR, BCEDMR, BCNAMR, BCRCIWAT, BCLTIWAT, BCEDIWAT, BCNAIWAT, BCRCOWAT, BCLTOWAT, BCEDOWAT, BCNAOWAT	
<b>Call codes: 090</b>		
- end -		

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## 4 Module codes

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This section contains a list of several modules that can be appended to automatic message accounting (AMA) records, and the fields contained in each module. Modules are identified by module codes, which appear as the first field in a module. Modules included in an AMA record are concatenated as needed. The order of the modules is not important, but the module with module code 000 must appear last. A module cannot be used twice in the same record, except those specially noted as replicative. No limit exists on the number of modules that can be concatenated; however, a maximum record size exists.

Module codes 000-899 are administered by Bellcore. Module codes 900-999 are reserved for operating company use.

### Explanation of module codes

The following list explains several module codes that can be appended to AMA records:

- **000–Last module in record** indicates the final module attached to a structure code. It must always be the last module in the record.
- **019–Originating billing/services** gets appended when an originating line number screening (OLNS) query is launched for a toll and assist (TA) call, and you receive a successful response from the OLNS database.
- **020–Carrier access–terminating** contains the fields usually needed to identify terminating interLATA carrier/international carrier (IC/INC) access. It includes the carrier identification and the elapsed time of the carrier's access to the local access and transport area (LATA) network.
- **021–Carrier access–originating** contains the fields usually needed to identify originating IC/INC access.

It includes the carrier identification and the elapsed time of the carrier's access to the LATA network.

A private virtual network (PVN) AMA record contains this module whenever the call is routed using an IC/INC. PVN calls either routed to an IC/INC through an outward wide area telephone service (OUTWATS) facility, or where the carrier (in the carrier identification field) returned

from the service control point is other than  
SSP\_SPECIAL\_CARRIER\_ID: 110 are considered to be routed through  
an IC/INC.

PVN calls routed over dedicated facilities do not contain this module code in AMA records. The IC/INC prefix is a field in module code 021. Module code 021 is appended to the AMA billing record generated for PVN calls that complete to an IC. The IC/INC prefix field is changed to include 4-digit CICs by defining characters 1-4 as the IC/INC Identification.

- **022–Long duration** contains fields for time stamping a long duration call record. Present date and time refer to the moment when the long duration call record is output or to the moment of disconnect. This module is included in all long duration AMA records (continuation records only) for calls that conform to the standard definition of long duration.

*Note:* Module code 022 is not appended for A records.

- **023–WATS** contains fields for special information needed on a WATS call. The WATS indicator field is not included.

For PVN AMA records, this module is included if the response message from the service control point (call treatment indicator field) specifies to complete the call using an OUTWATS facility. The WATS band field records the WATS band number associated with the OUTWATS facility.

- **024–PSDS** contains the special information needed for billing for public switched digital service (PSDS).
- **025–Circuit release** indicates circuit holding time when needed (for point-to-point (PTP) studies, for example). It is not for use with neither carrier access nor with operator services system call records.

Module code 025 is used with records for unanswered intra-LATA calls (if unanswered call recording was active). The answer indicator field contains a 1, indicating an unanswered call for such records. The elapsed time field is set to 0, and the date and time indicate the time of trunk seizure. The circuit date and time indicate the trunk release time.

This module is also used with records for answered intra-LATA calls (if PTP study is on). The answer indicator field contains a 0 (indicating an answered call) for such records. The fields in this module have a different meaning than when the module is used for unanswered calls. The elapsed time field is set to the correct value for this call. The date and time fields indicate the start of conversation time. The circuit date and time indicate time of the trunk seizure.

For all AMA records, this module code is included for unanswered calls routed through the operating company, if unanswered call recording is in effect. This does not apply to equal access or TOPS calls.

- **026–PVN** is included in all PVN AMA records. The PVN number, or off-net number dialed by the PVN station, is in the digits dialed field (field 126), which can hold up to 15 digits. If fewer than 15 digits are dialed, leading zeros fill up the field. The number of significant digits recorded is indicated in the preceding field, Significant digits in next field, (field 55).

The NPA–NXX field is used on some off-net PVN calls to identify the office at which the call hops off the PVN network. If the response message from the service control point includes a hop-off office number in the billing indicators information, the hop-off office number is included in the NPA–NXX field; otherwise, the NPA–NXX field is filled with HEX F characters.

- **027–Business customer ID** is included in a PVN AMA record if the response message from the service control point contains a customer identification number.
- **028–Additional digits dialed** is included in a PVN AMA record if the response message from the service control point contains an authorization code or a personal identification number (PIN).
- **029–Alternate billing number** is included in a PVN AMA record if the response message from the service control point contains a billing number.
- **030–Translation settable** is a replicative module which records the call type or service feature code returned by the off-board processor, or message billing indicator (MBI) information encountered in service switching point (SSP) translations. It may appear up to three times in the same AMA record. Module code 030 is comprised of fields module code, context ID, and translation settable. The following codes are possible for the context ID field: 001 - call type code, 002 - service feature code, 003 - MBI.
- **031–Feature type indicator** contains a set of flags (contained in the feature type indicator transaction capability application part (TCAP) parameter for all 800+Enhancement (800+E) calls) indicating feature use.
- **032–Operator information** indicates that the call received some type of operator handling. It is used with structure codes x0106–Intl originating and x0107–Intl terminating when the operator identification and accumulated operator work time are to be recorded.
- **033–Intl call completion service** is recorded when a call completion service is attempted. It is for a called number using the open numbering dialing plan.

When it is not possible to complete an overseas call using a direct route, the alternate route number (ARN) used by the operator is recorded in field 72. In this case, the number is taken from the field AMA entry in Table IALTRTE and is determined from the ARN used in call processing.

When a call is floated to an international directory assistance (DA) or inward operator is floated, and the call is billable, field 72 is datafilled with the country code of the international DA or inward number. In other cases, if no alternate route was used, the field is datafilled with nulls.

- **034–ONPE busy line verification service/toll break in–service** indicates that the subscriber requested busy line verification service. After attempting a call and encountering a busy signal or some type of error condition, the calling party may contact the operator and request ONPE busy line verification service/toll break in service. This allows the operator to verify the actual status of the called line and report that condition to the customer. This service requires special trancing.
- **035–Intl credit recording Service** indicates credit recording service. It is included if the overseas operator center (OOC) obtains enough information to generate a credit record. It is appended when the charge adjust key (KP CHG ADJ) is successfully entered and the type of adjustment is STANDARD.
- **036–ONPE charges** indicates call completion service. It is used to indicate the charges for a call. It should be included in the AMA record for calls that are rated on a real time basis. The following calls are rated on a real time basis:
  - sent paid coin calls
  - sent paid hotel calls
  - time and charge calls
  - attendant pay station calls
- **037–ONPE line number** records the requested number for directory assistance (DA) or intercept (INTC) service. The information recorded is the line number returned from the listing services database (LSDB) for a DA or INTC query. If the requested number is non–published, this module is not appended.

This module is also recorded on DA or INTC service calls where the operator dials a forward number. Forward numbers are input when a call is being transferred to another DA or INTC center, or for emergency situations. If a forward number is present, the module is appended.

- **038–Party name** records the name of a party associated with a call. It is included if either the calling name or called name are available to be recorded, and tuple RECORD\_PARTY\_NAME is set to Y in table TOPAMAOP. Two modules are included if both names are present.
- **039–Service logic program identification** a replicative module which records the SLP IDs received in the response message from the off-board processor. Note that the first SLP ID received from the off-board processor

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is recorded in the base AIN structure. Subsequent SP: IDs are recorded here. Module 039 may appear up to five times in the same AMA record.

*Note:* Refer to the *Translations Guide* for information on module code 039.

- **040–Digits module** records AMA digits returned by the service control point (SCP). The AMA parameter AMADigitsDialedWC is recorded here. Module code 040 may appear up to six times in the same AMA record. It can be used to record the alternate billing number, originating private number, and so forth. The following codes are possible for the digits ID field:
  - 000 not used
  - 001 authorization code
  - 002 account code
  - 003 access code
  - 004 digits dialed
  - 005 outpulse number
- **042–Call record sequence** indicates that a unique call record sequence number can be appended to the AMA record. If the office is datafilled so that table AMAOPTS has option CRSEQNUM, then for all AMA records generated by traffic, the call record sequence number is recorded in module code 042 and appended to the AMA record. The appending of this module to the AMA record structure takes place during the actual formatting of the AMA record.
- **044–IC/INC carrier code** is for interLATA carrier codes. It is contained in AMA records to indicate that an IC/INC call involved an operator or was direct dialed.
- **045–ONPE intercept service** is included for any call that receives intercept service. TOPS can only record one of these modules per AMA record. If more than one database access is made on a call, the last access is recorded.
- **046–Alternate billing number for open numbering** indicates that the obtained calling line identification (CLI) can be provided within the AMA record on calls whose physical originating port is a trunk. This module is also used to include an indicator of the identification of the point of entry of the call within the AMA record.
- **047–Network facility access (NFA) information** is appended to AMA records generated to record an NFA trunk connection, as well as AMA records generated to record calls extended by an NFA trunk connection. This record is appended to both of the AMA records with call codes 174 and 175 and to any existing AMA records generated following a call dialed

by the intelligent peripheral (IP). Feature AN0435 (NFA: AMA Modifications) eliminates all situations where two instances of module code 047 would be appended to a single AMA record. With feature AN0435, only one module code 047 is appended to an AMA record. This feature eliminates all scenarios in which two 047 modules are appended to any given AMA record. This is made possible by the new definition associated with the access method field. Feature AN0435 alters the use of the CONV\_REQ field in the 047 module. Previously, this field was set to 2 (true) if DP to DTMF conversion is performed while the subscriber is connected to the NFA trunk, and set to 1 (false) if DP to DTMF conversion is not performed while the subscriber is connected to the NFA trunk. With this feature, the CONV\_REQ field is set to 2 (true) if DP to DTMF conversion is performed at any time for the subscriber. This includes the time the subscriber is connected to the NFA trunk, as well as any call extended for the subscriber by an explicit access with extended DP to DTMF conversion.

*Note:* Refer to the *Translations Guide* for information on feature AN0435, module code 047, and the call codes associated with the module code.

- **049–Calling name/number delivery module** is created for use with custom local area signaling services (CLASS) subscriber usage sensitive pricing (SUSP) display features. It is appended when a line has the calling number delivery (CND) and calling name delivery (CNAMD) features assigned to it as SUSP, or the dialable directory number (DDN) and CNAMD features assigned to it as SUSP. Module code 049 provides the peg count of the number of name-only deliveries and the peg counts of the number of number-only deliveries.
- **050–Person handling** indicates calls that are class charged as person. For example; person paid, person collect, person special calling, person special called, person call back, person call back paid, and person call back special calling.
- **051–Call completion service** records call information where call completion service is requested. It is for a called number using the North American dialing plan.
- **052–Alternate billing service** is appended to AMA records to indicate that a caller requested alternate billing (calling card, special billing number, third number, or collect), and that the method of billing is verified using the LIDB.

Keying the following class charges cause this module to be appended:

- station collect
- person collect
- station special calling

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- person special calling
  - station special called
  - perspecial called
  - person call back special calling
  - **053–IC/INC call delivery service** indicates whether a call was successfully transferred to an interexchange carrier (IC) or an international carrier (INC). This module is appended to the AMA record for carrier calls signaled over intertoll (IT) trunk groups if the calling party goes on-hook after the seizure attempt, but before the seizure acknowledgment wink is received. If the same call is signaled over an access tandem to carrier (ATC) trunk group, module code 054 is appended to the AMA record. Calls are considered successful if a forward connection is attempted. This module is appended to the AMA record for calls that are transferred and those serviced by the operating company on behalf of the carrier.
  - **054–IC/INC information** is contained in AMA records to indicate that an IC/INC call was not successfully delivered to the carrier.
  - **055–Listing service** indicates that a subscriber made a listing service request. An AMA record can only contain one module code 055. For multiple listing service requests for each call session, this module records the last data base access.
  - **056–Busy line verification service** is included in the AMA record if the verification of a line is requested, whether or not the verification is successful.
  - **057–General assistance service** is included in the AMA record for general assistance services (dialing instructions, rate information, trouble reporting). It is appended to the AMA record independent of whether the response to the service request is completed.
  - **058–Credit recording service** permits subscribers to access operators to request credit on a call that encountered network trouble. Module code 058 is appended to AMA records if TOPS obtains enough information to generate a credit record. Module code 058 is appended after the operator initiates the charge adjust function. Refer to *TOPS MP Operator Guide*, 297–2281–300 and *TOPS–04 Operator Guide*, 297–2271–300 for descriptions of handling charge adjusts using the TOPS multipurpose and TOPS–04 positions, respectively.
  - **059–Exchange access service processing time** is appended to AMA records to indicate the duration of service processing time provided by an operating company on behalf of an IC/INC. Values are recorded for both manual and automated operator processes. The values recorded do not include the time a call spends in queue.

Values are recorded for the last carrier associated with a call. If it is transferred to another carrier, the operator must key GEN AMA prior to the

transfer to generate an AMA record for the first carrier. If GEN AMA is keyed with the same carrier, the AMA record reflects the time up to the keying of GEN AMA. In this scenario, timing for the current call is reset and restarted.

Table TOPAMAOP, Field AMAOPT, tuple

EA\_SERV\_PROCESSING\_TIME is used to indicate if this module should be appended to the AMA record.

- **060–Charges** is appended to AMA records to indicate calls rated on a real time basis.
- **061–Bimodality alternate billing service** is appended to AMA records to indicate that alternate billing was requested and that the billing validation administration (BVA) was used to validate the billing number. This module does not appear in the AMA record for calls billed to the calling number.
- **062–Notify/opr assist calling card w/DDD** is appended to AMA records to indicate whether the call completion call is receiving a non-standard notify.
- **065–Blue box fraud** records the terminating number of a blue box fraud (BBF) call. One occurrence of this module is produced for each BBF call. Up to 16 occurrences of this module can be appended to a call record to record up to 16 BBF calls in a BBF call session.
- **066–Intercept service** is appended to a call record to indicate intercept service.
- **068–Called directory number (DN) descriptor** is appended to a call record produced for a normal ACB/AR activation.
  - A 001 value in the called DN description indicates the called DN is private and the call was set up using automatic call back (ACB)/automatic recall (AR).
  - A 006 value in the called DN description indicates the call was set up in the ACB/AR and the called DN is non-private. The fifth BCD character of the study indicator field can also be used to convey the ACB/AR and privacy information for a call.
  - A value of 2 in the fifth character indicates a call to a non-private DN set up using a ACB/AR.
  - A value of 3 in the fifth character indicates a call to a private DN set up using a ACB/AR.

The determination of which method to use is based on the setting of AMA options ACBAR\_MOD\_CODE and ACBAR\_STDY\_IND.

- **069–Frame relay service** records relay segment counts and frame counts. It appends to the existing record structure 00693 (PVC intra-network) with the new frame relay call code 089 to provide the formatted vehicle needed to record frame relay information.

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- **070– ISDN core** is appended to AMA records to provide integrated services digital network (ISDN) basic rate access (BRA) information.
  - **071–ISDN core module (abbreviated)** is appended to defined record structures for detailed billed calls, when no signaling or supplementary services are used. If none of the existing record structures apply, then it is appended to the ISDN special structure (structure code 0690) with call code 045.
  - **072–Daily aggregate service event module** records the use of all intra-network signaling capabilities, except calling number identification (CNI) delivery, and appropriate supplementary service capabilities.
  - **073–Terminating user service module** is used in association with an existing terminating call record, or if no existing record applies, an ISDN special structure (structure code 0690), to record the usage of signaling or supplementary services to a called user. Call code 184 is used in conjunction with structure 0690.
  - **074–Basic business group** identifies the BBG-I call type, BBG customer billing number, and the associated virtual facility group (VFG) used in the call.
  - **075–EKTS capabilities module** makes detailed records of the features provided with the electronic key telephone service (EKTS) capability.
  - **076–Call pickup module** makes detailed records of the features provided within the call pickup capability
  - **093–Notify recall information** records the notify recall information. If RECORD\_NOTIFY\_RECALL parameter in table TOPAMAOP is Y, module code 093 may be appended to the AMA record. This module is only available in global operator services (GOS).
  - **095–Ticket number** records the ticket number data, including the transit code, day of the month and the ticket number. If parameter RECORD\_TICKET\_NUMBER in table TOPAMAOP is Y, module code 095 may be appended to the AMA record.
  - **097–Custom QMS services** records only the custom quality management system (QMS) services. If RECORD\_QMS\_SERVICE parameter in table TOPAMAOP is Y, module code 097 may be appended to the AMA record. This module is only available in GOS.
  - **098–Carrier connect date and time** records the carrier connect date and time for answered calls. Table AMATKOPT, option, CCTSIZE activates the recording capability. The AMA billing record can contain multiple instances of module code 098, with a maximum of two for each call, and one for each trunk.
  - **100–Business features group** identifies the business customer and incoming/outgoing facility types.

- **101–Tandem digits dialed** provides the total tandem digits dialed of a possible 24–digit number.
- **102–Authorization code** provides authorization code information. The provision of authorization code recording is achieved by datafilling the option AUTHAMA in table CUSTSMR. To maintain the functionality as provided by option MDRRAO, if MDRRAO is datafilled, the AUTHAMA option is forced. The reverse is not true, however. CUSTSMR tuples with MDRRAO datafilled automatically have AUTHAMA appended to them during a BCS upgrade. The areas covered by AUTHAMA are auth code first, auth code last, DISA, and MONA. All recording of authorization codes for such calls must use the AUTHAMA option. Note that there is no impact on the existing VPN recording of authorization code (modules 028/029). If the setup is such that VPN auth code recording and AUTHAMA are triggered, both module 102 and module(s) 028(029) are appended. Note also that this feature does not affect when the end user requires an authorization code but only affects the recording of such in AMA. Also, if the office has CDAR, the RECORD\_CDAR tuple within table AMAOPTS must also be ON for recording of account code within AMA. In addition, this capability requires the use of members from the CRS\_SUBRU\_POOL2 recording unit pool. Enabling this capability may require additional provisioning of office parameter CRS\_SUBRU\_POOL2\_SIZE in table OFCENG.
- **103–Account code/CDAR module** records account codes collected by a switch–based feature. Previously, the first character of the structure code field indicated that customer-dialed account recording (CDAR) information was appended to the record. Now module code 103 is appended to the base structure, and the structure code field is not marked.
- **104–Trunk identification module** is appended to AMA records if trunk information is needed for calls routed through a DMS–200 toll office. This module records the trunk group number, trunk member number, and trunk direction.
- **111–CLASS SUSP display**
- **115–Time to answer** appends module code 115 to the AMA record for calls where one is already produced. For calls where an AMA record is not triggered due to other causes, this feature generates a record using the structure code x0510 or x0511, and module code 115 is appended to it. Module 115 contains the ringing start date and time, and the terminating party's DN.
- **116–Redirection** is appended to an existing AMA record for redirected calls. For calls that are redirected before they are answered, this module code contains the re-direction reason and redirected-to number. The redirection information is captured in an AMA record associated with the first leg of the call, based on datafill against the redirecting customer group.

- **120–Customer identification** is used for customer group identification of an originator belonging to a designated Meridian Digital Centrex (MDC) customer group. All call code–structure code combinations that can be generated by a member of an MDC customer group are eligible for having module code 120 appended to their AMA records. Option AMACUST must be added to table CUSTSMR against the desired customer group. The customer identification is taken from the GROUPID field in table CUSTENG.
- **121–E008 OCR information** consists of three data fields, each an EBAF field. This module is included in the E008 AMA record for every call where the dialed E008 number subscribes to call overflow feature.
- **123–Record matching information** is appended to AMA records if downstream record matching is necessary. Record matching is accomplished by recording a unique number, the billing identifier, in the module code. An application identifier field is also used to allow multiple applications to use record matching within the same billing record.
- **125–Interconnection timing module** carries a measurement of a line's circuit usage time during a call. This is the call's alerting time plus its conversation time. The module can be optionally appended to any record which already has module 338. Modules 338 and 125 can also be generated for calls incoming on PBX trunks. The module records the:
  - date and time when call alerting is initiated
  - elapsed time between the initiation of call alerting and call disconnect
  - party identifier
  - call completion indicator
- **130–Termination attributes** is used to define the terminating properties of the VPN call. It is appended to the structure code 0510 and appears after the VPN base module code. Tables 338 and 339 have been enhanced to capture 'reject call' information. These calls route to a treatment or announcement, or send a backwards release due to an error condition. The production of module 130 for a reject call is a result of the progression of the call to the point that call processing has determined that billing is applied. Field 338 contains a new range, the 'Mapped Termination Reason', values 500-995, and is interpreted depending upon the value given in the call characteristic field (field 339). This new range does not apply to any other of the defined call characteristics. These dependencies are:
  - the DMS treatment as applied to the call. This is a direct mapping of the internal representation of the treatment offset by 500 (call characteristics 004, 008, and 009).
  - the International Telegraph and Telephone Consultative Committee (CCITT) release reason as given in a backwards release message. This

is a direct mapping of the CCITT defined cause value offset by 500 (call characteristic 005).

- a numerical indication of the announcement given in a transaction capabilities application part (TCAP) message from a SCP to a SSP. This is a mapping of the GIN cause value equated by the announcement and not a direct mapping of the internal value of the announcement (call characteristics 006 and 007).

- **150–Connection type and identification** is used in listing services records and in call completion records marked 'subsequent to DA'. If this module is desired for the incoming trunk group, it is added to any record with structure code 752 and call code 194 (originating, listing services), or structure code 752 and call code 192 (originating, call completion). This module is only in enhanced Bellcore AMA format (EBAF) phase 2. It is only generated for calls arriving on TOPS trunks that have the CONNTYPE field in table TRKGRP set to TYPE\_A, TYPE\_B, TYPE\_D, CELL\_MOBILE, or LOCAL\_TRANS. These fields correspond to the connection type field in the AMA record. The connection identification field of module 150 is populated, based on the datafill in the CARTYPE field of TOPS trunk groups. If CARTYPE = NBEC, the connection identification is filled with the NBEC code taken from table NBECODE, provided the calling number is datafilled there, or from the NBECID field of TOPS trunk groups in table TRKGRP. If CARTYPE = IEC, this module's the connection identification field is filled with the carrier number from table TOPEATRK.
- **151–E164 call completion service module** is produced in place of module code 051 when the international number dialed is greater than 12 digits.
- **156–E164 busy line verification service module** is produced when the busy line verification (BLV) number dialed is greater than 10 digits. Module code 056, busy line verification service module, is used when the number being verified is 10 digits or less. TOPS does not currently support this module.
- **158–E164 credit recording service module** is produced when the international number dialed is greater than 12 digits, and a charge has taken place. It is appended in place of module code 058, credit recording service module which is used when the terminating number is 12 digits or less.
- **164–E.164/X.121 number module** is produced when the international number dialed is greater than 12 digits.
- **180–ISDN channel identifier** is appended for both basic rate interface (BRI) and primary rate interface (PRI) originations. A call is considered billable if the originator is either a BRI or PRI agent, and it would normally generate a billing record.
- **181–ISDN trunk identifier** is appended for terminating calls which terminate into the end office over a trunk. It records the trunk Identification

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of the incoming trunk. The call is considered billable if it is terminating to a BRI or PRI agent and would normally generate a terminating type billing record.

- **184–Service node ID** records information pertinent to the processing involved with a service node.
- **185–Service ID** records the network service ID of the OSSAIN service provided.
- **186–Service node formatted – small** - records custom billing data from a service node or an OPP-compatible position.
- **187–Service node formatted - large** - records custom billing data from a service node or an OPP-compatible position.
- **194–Calling/Called names and the memo** records the type of text and the text. This module is only available in GOS. It can contain a maximum of 64 ASCII characters, because the internal storage used for memo only holds 32 ASCII characters to preserve storage. On the AMA record, memo is broken into two 32 EBCDIC character records. If the memo is only 32 characters long, only one module code 194 is appended to the AMA record. If the memo contains 33–64 characters, two module code 194s are appended to the AMA record.
- **199– Extension module** is appended by the DMS-100 SSP to the base AMA structure on instruction from the SCP through the FurnishChargingInformation operation.
- **204–Indicator module** indicates a condition about the call or call portion represented in the structure.
- **219–Additional originating billing/services information** is appended to structure code 0772 is launched on a DA call, and the RECORD\_ORG\_BILLING\_SERVICE parameter in table TOPAMAOP is set to Y (yes), and we receive a successful response from the OLNS database.
- **290–Resource timing module** is appended when the service switching point (SSP) receives an AMA measures parameter from the service control point (SCP) with a value of "ConnectTime RecorderDestinitionSSP".
- **301–Account code billing** records the subscriber-defined 2- to 4-digit account code in a successful account code billing (ACB) call. It is appended to the AMA billing record after the subscriber completes the ACB call. A new parameter, ACCOUNT\_CODE\_BILLING\_ENABLE, was added to the existing table TOPSPARM to allow the customer to enable or disable ACB at any time. The new parameter's default value is Y.
- **304–Out of band indicator** indicates whether the 800 call is out of band.
- **306–Originating line information parameter** records originating line information including a 2-digit service code or a 2-digit automatic number

identification (ANI) code. The 2–digit service code provides information on the type of service an originating line provides. The 2–digit ANI code provides information on the characteristics of the originating line or call.

- **307–Line number** records the line number returned from the line services data base (LSDB) for DA or intercept service requests.

Table TOPAMAOP, Field AMAOP, tuple RECORD\_REQUESTED\_NUMBER\_FOR\_DA governs the addition of this module to the TOPS AMA record.

Module code 307 is changed by AINSSP: AIN AMA. The following codes now apply:

- 001 - DA requested
- 002 - intercept number
- 003 - forwarded
- 004 - incoming terminated number
- 005 - calling party ID
- 006 - ANI delivered

*Note:* For more information about module code 307, see the *Translations Guide*.

- **309–Enhanced 800 service** records the destination overseas indicator, destination numbering plan area (NPA), and destination number for a TOPS operator–assisted enhanced 800 call.
- **310–Operator keying action** records various operator keying actions for all TOPS operator–assisted calls.
- **311–Origination call type** records the origination call type for all TOPS calls that produce a TOPS structure code.
- **312–Hotel information** records the hotel guest's name and room number for all TOPS hotel calls.
- **313–Overseas calling card number** records information for TOPS calls alternately billed to an overseas format calling card.
- **314–Overwritten number–EBCDIC** records numbers overwritten by the TOPS operator by keying actions for calls billed to an overseas format calling card (EBCDIC). This module is appended for all operator–assisted TOPS calls when tuple RECORD\_OVERWRITTEN\_NUM in table TOPAMAOP is set to Y, and the keying action [KP SPL + digits + START] overwrites the special number with a new number.

This module records all overwritten special billing numbers that are overseas format calling cards. All other overwritten numbers are recorded in module 315, overwritten number.

A maximum of nine overwrites is supported.

- **315–Overwritten number** records numbers the TOPS operator overwrote by keying actions. This module is appended for all operator–assisted TOPS calls when tuple RECORD\_OVERWRITTEN\_NUM in table TOPAMAOP is set to Y, and any of the following keying actions overwrites the forward or special number with a new number:
  - KP FWD + digits + START
  - KP OVERSEAS + digits + START
  - KP SPL + digits + START
  - OGT (when field BILLNUM is set to Y)
  - ORDB (when the forward number is entered by ORDB)

This module records all overwritten forward and special billing numbers except for special numbers that are overseas format calling cards, which are recorded in module 314, overwritten number–EBCDIC.

A maximum number of nine overwrites is supported.

- **316–Local determination** records whether or not translations determined the called number to be a local call.
- **338–Service provider information module** records a line's local service provider identification. The module records the:
  - party identifier
  - type of service provider
  - service provider ID
- **502– Originating VCN module** consists of eight fields, module code, business group identifier, VCN call type, voice/data identifier, significant digits in next field, originating private number, significant digits in next field, and terminating private number.
- **503– Terminating VCN module** consists of three fields, module code, business group identifier, and VCN call egress identifier.
- **504–Time change information** records details of any time change that took place over the course of a call. This module is then appended to the call–generated AMA record (as opposed to the record generated by the use of the TIMECHANGE tuple in table AMAOPTS). The time change module is replicative up to a maximum of three.

To trigger this AMA detail, the following office datafill is required: set the AMAOPTS tuple CALL\_TIMECHG to ON. In order to do this, the TIMECHANGE tuple must be OFF, and also the UNIVERSAL\_AMA\_BILLING office parameter in table OFCENG must be set to Y.

- **507–Redirecting information identification** provides a count of the redirecting identification delivery/non-delivery events that occur from the interaction with a basic business group (BBG).
- **508–VPN billing details** is used for the basic SCP based VPN billing. It contains information about the originating and terminating site IDs, and originating and terminating billing aggregate group.
- **509–Originating and terminating feature codes** records the origination and termination feature codes (field 341 and 342). It is appended to a call when the FTRCODE tuple in table AMAOPTS is set to ON. It records the last feature active for both the originator and the terminator.
- **510–Metering module** is produced when metering data is present and a new office parameter (100i) METER\_PULSE\_MONETARY\_RATE is generated to calculate COST OF CALL field.
- **512–Calling party category** is produced if new office parameter, GLOBAL\_CR\_CLG\_PTY\_CAT is on, which determines whether this module is attached to the record.
- **513–Trunk name identifier** is produced if table AMATRKOPT, trk A is datafilled with TRKINFO option. This tuple identifies the trunk as one that must be attached to the call record.
- **611–Generic context identifier: One digit string** is a generic module whose contents are interpreted based on the context identifier. It contains the authorization number returned for the call on the initial LIDB query.
- **612–Generic module codes: One and two digit string** is a generic module whose contents are interpreted based on the context identifier. Module code 612 contains the authorization number returned for the call on the initial LIDB query. An extension of field 126, digits string 2, is added for module code 612 only.
- **719–Local number portability basic** is appended to an existing AMA record when portability information is present. Module code 719 replicates module code 720. When office parameter option LNP\_MODULE\_719 in table AMAOPTS is 'OFF' (that is, default value), local number portability (LNP) module 720 should be appended.
- **720–LNP extended** is appended to an existing AMA record when portability information is present. This module supports correct distance calculation for billing the carrier for calls to or from the carrier when the originator or terminator is not native to a switch. LNP query database dips are also identified for billing.
- **911–Business group information** is appended to billing records generated for calls that use the public trunks (MBG trunks) to carry business calls. These records can either be generated as a consequence of

the FACTYPE option in table BGDATA, or they can be generated by the LCDR or AMATEST option on the originating line.

- **912–Private called number information** is appended to billing records generated for calls that use the public trunks (MBG trunks) to carry business calls. These records can either be generated as a consequence of the FACTYPE option in table BGDATA, or they can be generated by the LCDR or AMATEST option on the originating line. The translations that resulted in this call must have been such that a generic address parameter is used in the ISUP protocol for this call.

## Module code fields

This section contains a display of the contents of each module code. A data field number, and number of characters are provided for each. Chapter 2 explains each data field, and the values supported.

### Module code 000–Last module in record

Table 4-1 Module code 000–fields and values

Information	Field number	Number of characters
Module code	88	4

### Module code 019–Originating billing/services information

Table 4-2 Module code 019–fields and values

Information	Field number	Number of characters
Module code	88	4
Originating billing/service indicator	679	12

### Module code 020–Carrier access–terminating

Table 4-3 Module code 020–fields and values

Information	Field number	Number of characters
Module code	88	4
IC/INC prefix	57	6
- continued -		

**Table 4-3 Module code 020—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Carrier access date	6	6
Carrier access time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
- end -		

**Module code 021—Carrier access—originating**

**Table 4-4 Module code 021—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
IC/INC prefix	57	6
Carrier access date	6	6
Carrier access time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Routing indicator	59	2
Dialing indicator	85	2
IC/INC ANI indicator	60	2

---

### Module code 022–Long duration call

Table 4-5 Module code 022–fields and values

Information	Field number	Number of characters
Module code	88	4
Present date	6	6
Present time	18	8

### Module code 023–Wide area telecommunications service (WATS)

Table 4-6 Module code 023–fields and values

Information	Field number	Number of characters
Module code	88	4
WATS indicator	28	2
WATS band or MBG	29	4
WATS administration	30	6

### Module code 024– Public switched digital service (PSDS)

Table 4-7 Module code 024–fields and values

Information	Field number	Number of characters
Module code	88	4
Service indicator	41	4
Data rate indicator	42	4
Terminating company	56	4

**Module code 025–Circuit release**

**Table 4-8 Module code 025–fields and values**

Information	Field number	Number of characters
Module code	88	4
Circuit release date	6	6
Circuit release time	18	6

**Module code 026– Private virtual network (PVN) dialed number**

**Table 4-9 Module code 026–fields and values**

Information	Field number	Number of characters
Module code	88	4
Significant digits in next field	55	4
Digits dialed or additional digits dialed	126	16
NPA–NXX (hop–off office)	81	8

**Module code 027–Business customer ID**

**Table 4-10 Module code 027–fields and values**

Information	Field number	Number of characters
Module code	88	4
Business customer identification	87	12

**Module code 028–Additional digits dialed**

**Table 4-11 Module code 028–fields and values**

Information	Field number	Number of characters
Module code	88	4
Significant digits in next field	55	4
Additional digits dialed (AUTH/PIN)	126	16

---

### Module code 029–Alternate billing number

Table 4-12 Module code 029–fields and values

Information	Field number	Number of characters
Module code	88	4
Alternate billing number	138	12

### Module code 030–Translation settable

Table 4-13 Module code 030–fields and values

Information	Field number	Number of characters
Module code	88	4
Context ID	152	4
Translation settable field	89	4

### Module code 031–Feature type indicator

Table 4-14 Module code 031–fields and values

Information	Field number	Number of characters
Module code	88	4
Feature type indicator	71	14

### Module code 032–Operator information

Table 4-15 Module code 032–fields and values

Information	Field number	Number of characters
Module code	88	4
Operator identifications	296	14
Accumulated operator work time	403	6

**Module code 033—Intl call completion service**

**Table 4-16 Module code 033—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	10
Completion indicator	280	4
Rate indicator	281	2
OSS call completion service conditions	282	8
Alternate route number	72	4

**Module code 034—ONPE busy line verification service/toll break in service**

**Table 4-17 Module code 034—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Domestic/international indicator	505	2
Significant digits in next field	55	4
Verified open digits 1	502	12
Verified open digits 2	503	10
Means of report provision	287	2
BLV interrupt (BLV/interrupt result)	298	4

---

**Module code 035–Intl credit recording service**
**Table 4-18 Module code 035–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Service difficulty date	6	6
Service difficulty time	18	8
Domestic/international indicator	505	2
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	10
Country/Company identification	297	6
Intl service difficulty	73	4
Number of occurrences	802	4
Charge adjust indicator	204	2
Amount of credit	95	6
Credit multiplier factor	74	6
Minutes of credit	108	4

**Module code 036–ONPE charges**
**Table 4-19 Module code 036–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Charge indicator	22	2
Base charge	75	6
Tax	75	6
Surcharge	75	6
- continued -		

**Table 4-19 Module code 036—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Amount deposited	75	6
Multiplier factor	74	6
Coin credit indicator	36	23
- end -		

**Module code 037—ONPE line number**

**Table 4-20 Module code 037—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Line number type	423	4
Domestic/international indicator	505	2
Significant digits in the next field	55	4
Line number open digits 1	502	12
Line number open digits 2	503	10

**Module code 038—Party name**

**Table 4-21 Module code 038—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Type of name	76	2
Party name	434	20(EBCDIC)

---

### Module code 039–Service logic program identification

Table 4-22 Module code 039–fields and values

Information	Field number	Number of characters
Module code	88	4
Service logic program identification	77	10

### Module code 040–Digits module

Table 4-23 Module code 040–fields and values

Information	Field number	Number of characters
Module code	88	4
Digits Identifier	78	4
Significant digits next field	55	4
Digits dialed 1	32	12
Digits dialed 2	33	14

### Module code 042–Call record sequence

Table 4-24 Module code 042–fields and values

Information	Field number	Number of characters
Module code	88	4
Call record sequence	804	8

### Module code 044–IC/INC carrier codes

Table 4-25 Module code 044–fields and values

Information	Field number	Number of characters
Module code	88	4
IC/INC prefix	57	6

**Module code 045–ONPE intercept**

**Table 4-26 Module code 045–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Service identification	283	4
Means of LSDB access	285	2
Listing response	287	2
Significant digits in the next field	55	4
Billable digits	401	12
Billable digits 2	402	10
Domestic/international indicator	505	2
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	10

**Module code 046–Alternate billing number for open numbering**

**Table 4-27 Module code 046–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Source of charge number	155	2
Significant digits in next field	55	4
Originating open digits 1	500	12
Originating open digits 2	501	10

---

### Module code 047–Network facility access information

Table 4-28 Module code 047–fields and values

Information	Field number	Number of characters
Module code	88	4
IP service code	108	6
Access method	207	2
Subscriber ID	27	12
Conversion required	208	2

*Note:* Refer to the *Translations Guide* for information on module code 047 and its field numbers.

### Module code 049–Calling name/number delivery module

Table 4-29 Module code 049–fields and values

Information	Field number	Number of characters
Module code	88	4
Count of name-only deliveries	803	6
Count of number-only deliveries	803	6

### Module code 050–Person handling

Table 4-30 Module code 050–fields and values

Information	Field number	Number of characters
Module code	88	4
Chargeable operator holding time	403	6

**Module code 051–Call completion service**

**Table 4-31 Module code 051–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Overseas NPA dialing indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
Completion indicator	280	4
Rate indicator	281	2
Operator services system (OSS) call completion service conditions	282	8

**Module code 052–Alternate billing service**

**Table 4-32 Module code 052–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Billing type identification	117	2
Format identifier	400	2
Significant digits	55	4
Billable digits 1	401	12
Billable digits 2	402	10
Revenue accounting office (RAO) number	46	4
Calling card subaccount number	289	4
Billing number treatment number	277	2
LIDB response	286	4
Operator services system action	291	2
- continued -		

**Table 4-32 Module code 052—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Means of input/response	290	4
Sequence call counter	802	4
- end -		

**Module code 053—IC/INC call delivery service****Table 4-33 Module code 053—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
IC/INC carrier prefix	57	6
Carrier connect date	6	6
Carrier connect time	18	8
Carrier elapsed time	19	10
IC/INC call event status	58	4
Trunk group number	83	6
Source of IC/INC code	202	2
IC/INC agreement table	294	2
Method of signaling	295	4

**Module code 054—IC/INC information****Table 4-34 Module code 054—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
IC/INC carrier prefix	57	6
Source of IC/INC code	292	2
IC/INC checks	293	6

**Module code 055–Listing service**

**Table 4-35 Module code 055–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Service identification	283	4
Means of information input	284	2
Means of LSDB access	285	2
LSDB's BOC identification	297	6
LSDB accesses	801	2
Listing response	287	2
Listing status	288	10
Request counter	802	4

**Module code 056–Busy line verification service**

**Table 4-36 Module code 056–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
NPA verified	16	6
Number verified	17	8
Means of report provision	287	2
BLV interrupt result	298	4

**Module code 057–General assistance service**

**Table 4-37 Module code 057–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
- continued -		

**Table 4-37 Module code 057—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service identification	283	4
Database queried	299	4
Means of information input	287	2
Request count	802	4
Company identification	297	6
- end -		

**Module code 058—Credit recording service****Table 4-38 Module code 058—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Service difficulty date	6	6
Service difficulty time	18	8
Overseas NPA dialing indicator	15	2
Terminating NPA	16	6
Terminating number	17	6
Company identification	297	6
Service difficulty	91	2
Number of occurrences	802	4
Charge adjust indicator	204	2
Amount of credit	95	4
Minutes of credit	108	4

**Module code 059—Exchange access service processing time**

**Table 4-39 Module code 059—fields and values**

Information	Field number	Number of characters
Module code	88	4
Date	6	6
Time	18	8
Small interval elapsed time	108	4

**Module code 060—Charges**

**Table 4-40 Module code 060—fields and values**

Information	Field number	Number of characters
Module code	88	4
Charge indicator	22	2
Amount of charge	23	6
Amount deposited	38	6
Coin credit indicator	36	2

**Module code 061—Bimodality alternate billing service**

**Table 4-41 Module code 061—fields and values**

Information	Field number	Number of characters
Module code	88	4
Billing type identification	117	2
RAO number	46	4
Billing number	25	12
Billing validation file	48	2
Calling card failure	24	4
- continued -		

**Table 4-41 Module code 061–fields and values**

Information	Field number	Number of characters
Operator services system action	291	2
Means of input/response	290	4
Sequence call counter	802	4
- end -		

**Module code 062–Notify/opr assist calling card w/DDD****Table 4-42 Module code 062–fields and values**

Information	Field number	Number of characters
Module code	88	4
Rate indicator	281	2
Operator notification	430	2

**Module code 065–Blue box fraud****Table 4-43 Module code 065–fields and values**

Information	Field number	Number of characters
Module code	88	4
Overseas indicator	15	2
Terminating NPA	16	6
Terminating number	17	8

**Module code 066–Intercept service****Table 4-44 Module code 066–fields and values**

Information	Field number	Number of characters
Module code	88	4
- continued -		

**Table 4-44 Module code 066—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service identification	283	4
Means of LSDB access	285	2
Listing response	287	2
Billing number	25	12
Overseas NPA dialing indicator	15	2
Terminating NPA	16	6
Terminating number	17	8
- end -		

**Module code 068—Called DN descriptor**

**Table 4-45 Module code 068—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Called DN description	70	4

**Module code 069—Frame relay service**

**Table 4-46 Module code 069—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Terminating NPA	174	4
Terminating number	175	6
Transmit segment count	806	12
Receive segment count	806	12
Transmit frame count	806	12
- continued -		

**Table 4-46 Module code 069—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Receive frame count	806	12
Terminating cause indicator	177	4
- end -		

**Module code 070—ISDN core****Table 4-47 Module code 070—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Bearer capabilities	412	4
Network interworking	410	2
Signaling or supplementary service capabilities usage	413	16
Release cause indicator	411	6

**Module code 071—ISDN core module (abbreviated)****Table 4-48 Module code 071—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Bearer capabilities	412	4
Network interworking	410	2
Release cause indicator	411	6

**Module code 072–Daily aggregate service event module**

**Table 4-49 Module code 072–fields and value**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
ISDN signaling or supplementary service capability identification	414	4
Five-digit number (Intrastate count)	803	6
Five-digit number (Interstate count)	803	6
Charging indicator	64	4
Interexchange carrier	57	6
Bearer capability/call type	412	4

**Module code 073–Terminating user service module**

**Table 4-50 Module code 073–fields and value**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
ISDN signaling or supplementary service capability	409	16
Interexchange carrier	57	6
Bearer capability/call type	412	4

**Module code 074–Basic business group module**

**Table 4-51 Module code 074–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
BBG call type	407	4
BBG billing NPA	188	4
- continued -		

**Table 4-51 Module code 074—fields and values**

Information	Field number	Number of characters
BBG billing CO - end point number	189	8
Virtual facility group (VFG)	83	6
- end -		

**Module code 075—EKTS capabilities module****Table 4-52 Module code 075—fields and values**

Information	Field number	Number of characters
Module code	88	4
Activation of EKTS capability	408	8
Bridge connect time	18	8
Bridge elapsed time	19	10

**Module code 076—Call pickup module****Table 4-53 Module code 076—fields and values**

Information	Field number	Number of characters
Module code	88	4
Activation of call pickup capability	406	2
Bridge connect time	18	8
Bridge elapsed time	19	10

**Module code 093—Notify recall information****Table 4-54 Module code 093—fields and values**

Information	Field number	Number of characters
Module code	88	4
- continued -		

**Table 4-54 Module code 093—fields and values**

Information	Field number	Number of characters
Notify period duration	491	4
Number of periods monitored	803	6
- end -		

**Module code 095—Ticket number**

**Table 4-55 Module code 095—fields and values**

Information	Field number	Number of characters
Module code	88	4
Transit code	494	12 Or 3
Day of the month	495	4
Ticket number	496	8 or 4

**Module code 097—Custom QMS services**

**Table 4-56 Module code 097—fields and value**

Information	Field number	Number of characters
Module code	88	4
System (QMS) service	283	4

**Module code 098—Carrier connect date and time**

**Table 4-57 Module code 098—fields and values**

Information	Field number	Number of characters
Module code	88	4
Carrier connect date	6	6
Carrier connect time	18	8
Message direction	444	2

---

## Module code 100–Business group features

**Table 4-58 Module code 100–fields and values**

Information	Field number	Number of characters
Module code	88	4
Business customer identification	87	12
Call completion code	235*	2
Business feature code	236*	2
Automatic route selection pattern	248*	2
Facility restriction level	249*	2
Incoming facility type	243	4
Incoming trunk facility identification	244	10
Outgoing facility type	243	4
Outgoing trunk facility identification	244	10
End of dialing time	*	8
Queue elapsed time	*	4

**Note:** \*These fields are not supported for this module. The value for all characters in these fields is F.

## Module code 101–Tandem digits dialed

**Table 4-59 Module code 101–fields and values**

Information	Field number	Number of characters
Module code	88	4
Significant digits in next field	55	4
Tandem digits dialed 1	32	12
Tandem digits dialed 2	33	14

**Module code 102—Authorization code**

**Table 4-60 Module code 102—fields and values**

Information	Field number	Number of characters
Module code	88	4
Significant digits in next field	55	4
Authorization code	126	16

**Module code 103—Account code/CDAR module**

**Table 4-61 Module code 103—fields and values**

Information	Field number	Number of characters
Module code	88	4
Significant digits next field	55	4
Account code/CDAR	126	16

**Module code 104—Trunk identification module**

**Table 4-62 Module code 104—fields and value**

Information	Field number	Number of characters
Module code	88	4
Trunk identification number	244	10

**Module code 111—CLASS SUSP display**

**Table 4-63 Module code 111—fields and values**

Information	Field number	Number of characters
Module code	88	4
CLASS feature code	415	4
Count of available calling information	803	6
Count of unavailable calling information	803	6

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### Module code 115–Time to answer

**Table 4-64 Module code 115–fields and values**

Information	Field number	Number of characters
Module code	88	4
Context identifier	152	4
Significant digits in next field	55	4
Terminating open digits 1	502	12
Terminating open digits 2	503	10
Date	6	6
Time	18	8

### Module code 116–Redirection

**Table 4-65 Module code 116–fields and values**

Information	Field number	Number of characters
Module code	88	4
Call redirection or call deflection indicator	169	6
Significant digits in next field	55	4
Digits dialed or additional digits dialed 1	126	16
Digits dialed or additional digits dialed 2	126	16

### Module code 120–Customer identification

**Table 4-66 Module code 120–fields and values**

Information	Field number	Number of characters
Module code	88	4
Customer identification	31	6

**Module code 121–E008 OCR information**

**Table 4-67 Module code 121–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Number of destinations	801	2
Cause of overflow	417	6
Type of announcement	418	2

**Module code 123–Record matching information**

**Table 4-68 Module code 123–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
3–digit number (application identifier)	802	4
7–digit number (billing identifier)	804	8

**Module code 125–Interconnection timing module**

**Table 4-69 Module code 125–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Connect date	6	6
Connect time	18	8
Carrier elapsed time	19	10
Party identifier	730	4
Completion indicator	280	4

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**Module code 130–Termination attributes**
**Table 4-70 Module code 130–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Facility release cause	338	6
Call characteristic	339	4

**Module code 150–Connection type and identification**
**Table 4-71 Module code 150–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Connection type and identification	168	8
Trunk group number	83	6

**Module code 151–E.164 call completion service module**
**Table 4-72 Module code 151–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Country code	165	6
Significant digits in next field	55	4
Terminating number	126	16
Completion indicator	280	4
Rate indicator	281	2
OSS call completion service conditions	282	8

**Module code 156–E.164 busy line verification service module**

**Table 4-73 Module code 151–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Country code	165	6
Significant digits in next field	55	4
Digits	126	16
Response method	298	4
BLV/interrupt result	298	4

**Module code 158–E.164 credit recording service module**

**Table 4-74 Module code 158–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	
Service difficulty date	6	6
Service difficulty time	18	8
Country code	165	6
Significant digits in next field	55	4
Digits	126	16
Company identification	297	6
Service difficulty	91	2
Number of occurrences	802	4
Charge adjust indicator	204	4
Amount of credit	95	6
Minutes of credit	108	4

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**Module code 164–E.164/X.121 number module**
**Table 4-75 Module code 164–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Number identity	76	2
Country code or data network identification code	165	6
Significant digits in the next field	55	4
Digits	126	16

**Module code 180–ISDN channel identifier****Table 4-76 Module code 180–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
ISDN channel identifier	195	6

**Module code 181–Incoming trunk identification module****Table 4-77 Module code 181–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Trunk identification	244	10

**Module code 184–Service node ID****Table 4-78 Module code 184–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Service node ID	105	6
- continued -		

**Table 4-78 Module code 184—fields and values**

Information	Field number	Number of characters
Sequence number	140	6
Service provider elapsed time	403	6
Transactions	130	6
- end -		

**Module code 185-Service ID**

**Table 4-79 Module code 185—fields and values**

Information	Field number	Number of characters
Module code	88	4
Network service ID	105	6

**Module code 186-Service node formatted – small**

**Table 4-80 Module code 186—fields and values**

Information	Field number	Number of characters
Module code	88	4
Service node ID	105	6
Service node data identifier	613	2
Service node data – small	614	40

**Module code 187-Service node formatted – large**

**Table 4-81 Module code 187—fields and values**

Information	Field number	Number of characters
Module code	88	4
Service node ID	105	6
- continued -		

**Table 4-81 Module code 187–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Service node data identifier	613	2
Service node data – large	615	140
	- end -	

**Module code 194–Calling/called names and the memo****Table 4-82 Module code 194–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Type of text	492	4
Text	493	128 or 327

**Module code 199–Extension module****Table 4-83 Module code 199–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Data descriptor	698	4
Network operator data	699	40

**Module code 204–Indicator module****Table 4-84 Module code 204–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Indicator identification	610	4

**Module code 219—Additional originating billing/services information**

**Table 4-85 Module code 219—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Context ID	152	4
Additional originating billing/service indicator	680	8

**Module code 290—Resource timing module**

**Table 4-86 Module code 290—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Service logic identifier	77	10
Trigger sequence number	802	4
Start date	6	6
Timing indicator	7	6
Start time	18	6
Elapsed time	19	10
Resource type	608	4
Destination address NPA	13	4
Destination address	14	8

**Module code 301—Account code billing**

**Table 4-87 Module code 301—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
- continued -		

**Table 4-87 Module code 301—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Account code billing indicator	391	2
Account code billing number	392	6
- end -		

**Module code 304—Out of band indicator****Table 4-88 Module code 304—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Out of band indicator	271	2

**Module code 306—Originating line information parameter****Table 4-89 Module code 306—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Originating line information parameter	421	4

**Module code 307—Line number****Table 4-90 Module code 307—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Line number type	423	4
Numbering plan area	16	6
Line number	17	6

**Module code 309–Enhanced 800 service**

**Table 4-91 Module code 309–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Destination overseas indicator	15	2
Destination NPA	16	6
Destination number	17	8
RAO number	46	4

**Module code 310–Operator keying action**

**Table 4-92 Module code 310–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Keying actions	431	10

**Module code 311–Origination call type**

**Table 4-93 Module code 311–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Originating call type	432	4

**Module code 312–Hotel information**

**Table 4-94 Module code 312–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Guest name	433	6 (EBCDIC)
Room number	433	6 (EBCDIC)

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**Module code 313—Overseas calling card billing**
**Table 4-95 Module code 313—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Overseas calling card number	434	20 (EBCDIC)
Operator services system action	291	4
Means of input/response	290	4

**Module code 314—Overwritten number—EBCDIC**
**Table 4-96 Module code 314—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Overwritten number	434	20 (EBCDIC)
Overwritten number type	435	2
Overwritten number sequence	801	2

**Module code 315—Overwritten number**
**Table 4-97 Module code 315—fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Significant digits in next two fields	55	4
Billable digits 1	401	12
Billable digits 2	402	10
Overwritten number type	435	2
Overwritten number sequence	801	2

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**Module code 316–Local determination**
**Table 4-98 Module code 316–fields and values**

Information	Field number	Number of characters
Module code	88	4
Local determination indicator	436	2

**Module code 338–Service provider information module**
**Table 4-99 Module code 338–fields and values**

Information	Field number	Number of characters
Module code	88	4
Party identifier	730	4
Type of service provider	638	4
Service provider ID	639	4

**Module code 502– Originating VCN module**
**Table 4-100 Module code 502–fields and values**

Information	Field number	Number of characters
Module code	88	4
Business group scope	456	2
Business group identifier	457	8
Type of VCN call	458	4
VCN voice/data identifier	459	2 or 4
Significant digits in the next field	5	4
Originating private number	126	16
Significant numbers in next field	55	4
Terminating private number	1126	10

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### Module code 503– VCN Terminating module

**Table 4-101 Module code 503–fields and values**

Information	Field number	Number of characters
Module code	88	4
Business group scope	450	2
Business group identifier	457	8
VCN call egress identifier	460	2

### Module code 504–Time change information

**Table 4-102 Module code 504–fields and values**

Information	Field number	Number of characters
Module code	8	4
Time before change	18	8
Time after change	18	8
Date before change	6	6
Date after change	6	6

### Module code 507–Redirecting identification information

**Table 4-103 Module code 504–fields and values**

Information	Field number	Number of characters
Module code	88	4
Count of redirecting information delivered on all calls	803	6
Count of unavailable and private redirecting information not delivered for all calls	803	6

**Module code 508–VPN billing details**

**Table 4-104 Module code 508–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Originating site ID	340	6
Terminating site ID	340	6
Originating billing aggregate group	340	6
Term billing aggregate group	340	6

**Module code 509–Originating and terminating feature code**

**Table 4-105 Module code 509–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Originating feature code	341	4
Terminating feature code	332	4

**Module code 510–Metering module**

**Table 4-106 Module code 510–fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Meter count information	580	2
Meter count	580	2
TARIFF	581	10
Cost of call	583	10

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**Module code 512–Calling party category**
**Table 4-107 Module code 512–fields and values**

Information	Field number	Number of characters
Module code	88	4
Calling party category	584	6

**Module code 513–Trunk name identifier****Table 4-108 Module code 513–fields and values**

Information	Field number	Number of characters
Module code	88	4
Trunk CLLI identifier	585	32
Trunk identification number	244	10

**Module code 611–Generic context identifier: one digits string format****Table 4-109 Module code 611 - fields and values**

Information	Field number	Number of characters
Module code	88	4
Generic context identifier	237	8
Digits string 1	126	16

**Module code 612–Generic context identifier: one and two digits string format****Table 4-110 Module code 612 - fields and values**

Information	Field number	Number of characters
Module code	88	4
Generic context identifier	237	8
- continued -		

**Table 4-110 Module code 612 - fields and values**

Information	Field number	Number of characters
Digits string 1	126	16
Digits string 2 (MC612 only)	126	16
- end -		

**Module code 719—Local number portability (LNP) basic**

**Table 4-111 Module code 719—fields and values**

Information	Field number	Number of characters
Module code	88	4
Party identifier	730	4
Location routing number (LRN)	731	12
Supporting information	734	8

**Module code 720—LNP extended**

**Table 4-112 Module code 720—fields and values**

Information	Field number	Number of characters
Module code	88	4
Party identifier	730	4
Location routing number (LRN)	731	12
Service provider identity	732	10
Location	733	10
Supporting information	734	8

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**Module code 911–Business group information****Table 4-113 Module code 911 - fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Business group information	911	7

**Module code 912–Private called number information****Table 4-114 Module code 912 - fields and values**

<b>Information</b>	<b>Field number</b>	<b>Number of characters</b>
Module code	88	4
Private called number information	912	7



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## 5 Call codes

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### Explanation of call codes

Different types of calls correspond to different call codes. Numerous structure codes are associated with each call code. The structure codes supported for each call code are listed in chapter 3 and in chapter 7.

The following list explains the call codes supported by the DMS.

- **001–Detailed message rate, timed, message billing index (MBI)** record is generated for a local message rate call or a measured service call. The call is timed, and includes both originating and terminating numbers. If applicable, a MBI is included to indicate rate treatment.
- **002–Message rate, timed, MBI** record is generated for a local message rate call or a measured service call. Call code 002 is used for calls that do not require full call details for billing. The call is timed but the terminating number is not included. If applicable, an MBI is included to indicate rate treatment.
- **003–Detailed message rate, untimed, MBI** record is generated for a local message rate call. It is used for calls that are not timed, and include both originating and terminating numbers. If applicable, an MBI is included in the AMA record to indicate rate treatment.
- **004–Message rate, untimed, MBI** record is generated for a local message rate call. It is used for calls that do not require full details for timing or billing. The AMA record does not include timing information or the terminating number. If applicable, an MBI is included in the AMA record to indicate rate treatment.
- **005–Detailed message rate, timed, no MBI** record is generated for a local message rate call or a measured service call. The AMA record includes timing information and both originating and terminating numbers. An MBI is not included in the AMA record.
- **006–Station paid** record provides full call details for a direct-dialed station paid toll call (both 7- and 10-digit toll), including a toll directory assistance call (NPA-555-1212). This AMA record also provides details for a local coin call where AMA data are generated for studies.

The TERM NPA field contains the NPA datafiled for field CONNGNPA in table AMATKOPT, if a seven-digit or less office code was dialed, the terminating agent is a trunk, and the TERMNPA option applies to the trunk. This applies to all records which have a TERM NPA field.

- **007–WATS–station billing number** record provides identification of the calling station on a call routed over a WATS facility. Only measured time service is provided currently by the DMS. This call code is only supported for Meridian Digital Centrex (MDC).
- **008–INWATS terminating entry** record provides details on calls terminated to an inward wide area telephone service (INWATS) line. Terminating entry refers to the process of generating AMA data for incoming calls at the called point, as distinguished from the normal procedure of generating billing information at the originating point. The originating number fields of this record contain the terminating number.
- **009–Directory assistance (411)** record is generated for a call to local directory assistance.
- **011–Foreign exchange, automatic flexible routing** record provides details for a foreign exchange, automatic flexible routing call. This call code is supported for MDC and virtual facility groups (VFGs).
- **021–Common control switching arrangement (CCSA) sampling** record provides details for a call routed over a CCSA facility or originated from a facility designated as a CCSA facility. This call code is only supported for MDC.
- **026–Conference trunk usage** record indicates that a statistical entry has been made in the AMA record describing conference trunk usage. The AMA record contains the calling number and elapsed time.
- **031–Call forwarding activation and deactivation** record indicates that call forwarding has been activated, is still activated, or was deactivated. The activating number field (ACT NO) of this record contains the telephone number of the telephone from which the call was forwarded. The forward-to number is entered in the FWD NO field of the AMA record generated.

*Note:* LNP module codes 719 and 720 can never be appended to CC 031.

- **032–Tandem tie trunk** record is generated for calls routed over tandem tie trunks. From 1 to 24 digits can be recorded in the AMA record. This call code is only supported for MDC.
- **033–Directory assistance (555)** record is generated for calls to seven-digit 555–1212 directory assistance.
- **034–Signaling irregularities** record includes the details of a short supervisory transition (SST) that has occurred.

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- **036–Subscriber line usage study (SLUS), terminating entry** record provides details on calls terminated to a line with a SLUS. In effect it refers to the process of generating AMA data for incoming calls at the called point. AMA data is normally generated at the originating point.
  - **037–SLUS, overflow counts** record is generated periodically for terminating SLUS overflow counts. These counts are the number of calls directed to a line assigned for a terminating SLUS study that were diverted because of a line busy condition.
  - **041–Local coin** record is generated to indicate a local coin call as opposed to a toll coin call. Local coin calls are recorded only for study purposes.
  - **042–Time change** record is generated when a clock (time or date) change occurs in the AMA recording system.
  - **045–ISDN user service** (integrated services digital network) record is generated if a non-billable call uses signaling capabilities that the telephone company wants to record for the originator.
  - **047–AIN default** record is used in either structure code 0220 or 0221 when the SCP value cannot be determined. The call code supplied in the billing indicator parameter of the response message are recorded in module code 030 not the call code value supplied by the SCP.
  - **048–Usage sensitivity feature call** record provides the three-way calling (3WC) feature on a pay-per-use basis. The U3WC user is charged each time the 3WC feature is requested instead of being charged a flat rate independent of the number of 3WC activations.

*Note:* Reference Service Request BY77891 - LNP AMA - Module codes 719/720, 043, and 000 are appended on a U3WC record. This module code restriction will be lifted as of the NA011 software release.

- **049–Usage sensitive feature-activation** record is generated whenever an end-user activates pay-per-use CWTC, and the conference is established between the three parties.
- **063–Cellular mobile carrier (CMC) originating-type 1 or 2B** record is generated for all calls originating to a CMC where a wink from the CMC has been received.
- **064–CMC originating-type 2A** record is generated for an originating call to a CMC.
- **065–CMC terminating-type 1 or 2B** record is generated for a call terminating from a CMC where a seizure was detected on the incoming CMC trunk.
- **066–CMC terminating-type 2A** record is generated for an terminating call from a CMC.

- **067–Flat rate** record provides AMA details for a call in a customer's flat rate area. This call does not require AMA data for billing, but data is provided as required for studies.
- **068–WATS billing number** record is generated for customer–dialed, automatic number identification (ANI) outward WATS calls. The originating number field contains a WATS billing number assigned by the local operating company. If there is no special billing number, the originating number field contains the directory number of the originating station.
- **071–INWATS overflow counts** record is generated at the terminating end of INWATS calls. This AMA record contains a count of the number of INWATS calls blocked and includes blocked INWATS VFGs. The count is taken from the INWATS overflow register software (ORS).
- **074–Free call** record identifies a call to a free number; it is recorded for studies only.
- **085–Electronic tandem switching** record is recorded for an electronic tandem–switched (ETS) call routed over normal ETS trunks. This call code is supported for MDC and VFGs.
- **088–Non–directory assistance (555)** record is generated for calls routed to DA 555–xxxx other than 555–1212. This call code requires AMA pre–translation.
- **089–Frame relay** record indicates frame relay service. The condition is Intra–network permanent virtual circuit (PVC).
- **090–Sensor tracer** record indicates a statistical entry containing attempt and completion data provided by a particular sensor.
- **092–Sensor/revenue accounting office (RAO) tracer** record indicates that the tracer record was recorded at the sensor with no reformatting done before arrival at the RAO.
- **110–InterLATA station paid** record is generated for direct–dialed, station–paid toll calls routed over an interLATA (local area transport area) carrier. It contains carrier information for applying access charges.
- **111–InterLATA WATS, station detail** record is generated when an interLATA carrier/international carrier (IC/INC) is used for an OUTWATS call originated from an MDC station. The record contains carrier information for applying access charges.
- **114–InterLATA WATS, billing number** record provides interLATA carrier connect details for interLATA calls, in addition to the details provided by call code 068.
- **117–InterLATA datapath** record provides details for datapath calls originated from a data unit and routed over an IC/INC. It contains carrier information for applying access charges.

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- **119–Terminating access** record is generated for terminating access records. InterLATA directory assistance calls are recorded as this call type. It contains carrier information for applying access charges.

The TERM NPA field contains the NPA datafilled for field CONNGNPA in table AMATKOPT if; a seven–digit or less office code was dialed, the terminating agent is a trunk, and the TERMNPA option applies to the trunk. This activity applies to all records which have a TERM NPA field.

- **120–Originating exchange overflow counts** record provides a count of calls that cannot be delivered to an interLATA carrier (IC) because outgoing trunks to that particular IC are not available. A record may contain up to four IC.
- **121–Datapath terminating access** record is generated when a Datapath call enters the terminating exchange from an interLATA carrier. It requires AMA pre-translation.
- **126–Originating intraswitch call** a line or trunk's table LSPINFO datafill may indicate to force originating billing for calls originating from the line or trunk. If activated, this causes an originating LSPI record with call type code 126 to be generated, if no other originating record is generated, for any call from the line or trunk. The record uses structure code 0001, or structure code 0500 if high runner conditions are met. The LSPI module, and possibly the circuit usage module, are attached to the record.
- **127–Forced local service provider identification (LSPI) recording** this call type code forces AMA recording where no available billing record normally generated for a call, yet there is a need to record the trunk-related LSPI information. The record uses structure code 0001, or structure code 0500 if high runner conditions are met. The LSPI module, and possibly the circuit usage module, are attached to the record.
- **128–Terminating intraswitch call** a line's table LSPINFO datafill may indicate to force terminating billing for calls terminating to the line. If activated, this causes a terminating record with call type code 128 to be generated, if no other terminating record is generated, for any call to the line. The record uses structure code 0001, or structure code 0500 if high runner conditions are met. The LSPI module, and possibly the circuit usage module, are attached to the record.
- **131–Originating feature group A (FGA)** provides line–side access to an end office switch with an associated 7–digit number. An originating FGA call is a call where a customer enters digits to the operating company. Minutes of use for an originating FGA call start when the FGA carrier answers and end when the call is disconnected.
- **132–Terminating FGA** is a call originated by a carrier in order to complete a subscriber's long distance call. Minutes of use for a terminating FGA call start when the called party answers and end when the call is disconnected.

- **134–Originating feature group B (FGB)** provides a trunk–side connection to operating company switches, with a 950–WXXX (where W is either 0 or 1) access code for originating FGB calls. Originating calls are identified as interLATA access requests by the 950–WXXX dialing plan and are measured in the switch normally, providing originating AMA functions for the serving end office. Originating FGB calls are measured by the operating company to determine minutes of use, which begin when the carrier connects (goes off–hook) and end when the call is disconnected.

Non–operator–handled TOPS FGB calls that normally produce AMA records with call code 251; structure code 734, can produce AMA records with call code 134; structure code 625/627, when office parameter TOPS\_FGB\_CC134 is set to Y in table OFCVAR. Non–operator–handled calls routed from a pre–translator with a T or S selector can also generate call code 134, if TOP\_FGB\_CC134 and TOPS\_EA\_PROCESS\_T\_SEL are both set to Y.

For BCS33 and up, field 57–Interexchange carrier (IEC)/international carrier (INC) prefix is changed to allow four–digit carrier identification codes for carriers with four–digit FGB access codes datafilled in table FGBCIC.

- **135–Terminating FGB** provides a trunk–side connection to operating company switches. A terminating FGB call is a call where a carrier enters digits to the operating company. Terminating FGB calls are measured by the operating company to determine minutes of use. Minutes of use begin when the called party answers and end when the call is disconnected.

For BCS33 and up, Field 57–Interexchange carrier (IEC)/international carrier (INC) prefix is changed to allow four–digit carrier identification codes for carriers with four–digit FGB access codes datafilled in table FGBCIC.

- **136–Coin originated toll** record provides revenue allocation records for the local office on coin originated toll calls indicating the number of 5 cent deposits made on the call.
- **141–IC/INC number service calls** record provides information for IC/INC number service calls associated with the E800 service feature. This record contains the alternate billing number. The IC/INC Prefix field is included in the 141 call code for E800 calls. This field is changed to include 4–digit CICs by defining character 1–4 as the IC/INC Identification.
- **142–Operating company number services calls** record provides information for operating company number service calls associated with the E800 service feature. It includes the alternate billing number.
- **148–Intranetwork high bandwidth call** record is generated when an intranetwork dialable wideband service (DWS) call originates and completes at the originating switch complex within the LATA.

- **149–Originating access high bandwidth call** record is generated when an internetwork DWS call originates at the originating switch complex within the LATA originating the call.
- **150–Terminating access high bandwidth call** record is generated when an internetwork DWS call completes at the point-of-presence switch complex within the LATA terminating the call.
- **159–Message detail recording (MDR) revenue accounting office (RAO)** is only generated when MDR information is sent to the RAO by the AMA stream and no other billing applies.
- **160–On-net PVN call** record is generated for a private virtual network (PVN) call that is routed using the public network.
- **161–On-net PVN overflow call** record is generated for a PVN call routed using the public network. No virtual resource is available, so the PVN call overflows from the PVN customer's virtual facilities to the public network facility. This call code is planned for future use with the resource counters feature.
- **162–Off-net PVN call** record is generated for a PVN call (remote access) routed using the public network.
- **163–Off-net PVN overflow call** record is generated for a PVN call (remote access) routed using the public network. No virtual resource is available, so the PVN call overflows from the PVN customer's virtual facilities to the public network facility. This call code is planned for future use with the resource counters feature.
- **164–PVN call using FGA** record is generated for a PVN call routed using a private network facility. Feature group D signaling on common trunks is used.
- **165–PVN call using foreign exchange (FX)** record is generated for a PVN call that is routed using a private network. An FX trunk is used.
- **166–PVN call using OUTWATS** record is generated for a PVN call using outward WATS (OUTWATS) that is routed using a private network facility.
- **167–PVN call using tie trunks** record is generated for a PVN call routed using a private network and tie trunks.

*Note:* AMA records are generated for all originating PVN calls at the service switching point (SSP)/PVN if the billing indicators information is included in the response message from the SSP.

- **174–Network facility access explicit connection** record is generated after an explicit connection to the intelligent processor (IP) has been completed.
- **175–Network facility access assisted non-billable call** record is generated after an answered call which either would not have normally

generated any other AMA records or was dialed for the subscriber by the IP.

- **183–ISDN daily aggregate of service event deliveries per user** record is generated once a day to identify usage of a service for which a daily count of usage events is made.
- **184–ISDN terminating user service** record is generated when there is no associated terminating call record to be generated and billable terminating services need to be recorded.
- **189–Originating credit recording** record is generated for an originating call provided with a credit recording service.
- **190–Originating carrier identification processing, no service processing** record is generated for an originating call provided with carrier identification processing but no service processing.
- **191–Terminating carrier identification processing, no service processing** record is generated for a terminating call provided with carrier identification processing, but no service processing.
- **192–Originating call completion** record is generated for an originating call provided with call completion service.
- **193–Terminating call completion** record is generated for a terminating call provided with call completion service.
- **194–Originating listing services** record is generated for an originating call provided with listing services service.
- **195–Terminating listing services** record is generated for a terminating call provided with listing services service.
- **196–Originating general assistance** record is generated for an originating call provided with general assistance service.
- **197–Terminating general assistance** record is generated for a terminating call provided with general assistance service.
- **198–Originating busy line verification** record is generated for an originating call provided with busy line verification service.
- **199–Terminating busy line verification** record is generated for a terminating call provided with busy line verification service.
- **215–Terminating call provided with intercept service** record is generated for the intercept portion of an automatic intercept call completion call.
- **251–InterLATA 1+, 0+, 0– call transfer** record is recorded for 1+, 0+, and 0– call transfers to an InterLATA carrier. This record is an access record and is used to bill the carrier for use of the IC/INC operator services system. OFCENG parameter TOPS\_EA\_INTERLATA\_NONOPR\_AMA

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is used to generate the 0+ and 1+ records. Refer to the *Translations Guide* for an explanation of this office parameter.

- **264–CLASS calling information delivery** record is generated for CLASS SUSP calling information delivery calls.
- **270–Access authorization verification** record is generated when security screening is performed at the network level before an end–user gains initial access to a subscriber's network, systems, or applications.
- **271–Area number calling** record is generated when a subscriber has incoming calls to the subscriber central–number routed to various subscriber locations, based on geographical locations of the calling parties. Location is indicated by the calling user's LATA,NPA,NPA–NXX, or NXX.
- **272–Data and reports** record is generated when a subscriber receives data and/or reports on the activities in corresponding subscribed–to–feature(s).
- **273–Local polling** record is generated when a call is made to cast votes. Votes are collected when callers dial a specified seven- or ten-digit number. The votes are tallied based on the number dialed, or based on subsequent interaction between the caller and the terminating switch. Billing may be either all to the subscriber or shared by both the subscriber and the caller.
- **274–MBG – extension dialing** record is generated when business subscribers dial other subscribers in their company using fewer than seven digits, even if the calling and called user's lines are on different switches.
- **275–NPA–NXX screening** record is generated when the subscriber screens outgoing calls from the subscriber line.
- **276–Busy/overflow distribution** record is generated when incoming calls to a subscriber central–number (published number) are distributed to free agents at any of the subscriber locations (alternate numbers).
- **277–Customer defined modifications – telephone access** record is generated when a subscriber manipulates activation/deactivation, list maintenance, and time of day control parameters pertaining to subscribed–to–features. The subscriber is allowed to use a DTMF keypad to manipulate all allowed parameters through CDM–telephone access.
- **278–Customer defined modifications – terminal access** record is generated when a subscriber manipulates activation/deactivation, list maintenance, and time of day control parameters pertaining to subscribed–to–features. The subscriber is allowed to use an ASCII terminal to manipulate all allowed parameters through CDM–terminal access.
- **279–Flexible routing** record is generated when calls originating from a subscriber's line are routed using the flexible routing feature. This feature allows a subscriber to specify how outgoing calls are to be routed, either

through public, private, virtual, or mix of facilities, according to a routing preference list(s).

- **280–Selective call forwarding – busy/don't answer** record is generated when a called user forwards certain pre–selected calls if the called user line is busy or does not answer a call within 20s or X rings.
- **281–Selective call rejection/acceptance – terminating (SCR/A–T)** record is generated when a subscriber specifies that the incoming calls be either restricted or allowed, based on a screening list.
- **282–Selective toll restriction** record is generated when a subscriber screens outgoing calls from the subscriber line.
- **330–CLASS subscription usage sensitive pricing; COT, CNDB, ACB/AR** record is generated for any customer originated trace (COT), calling number delivery (CND), automatic call back (ACB), or automatic recall (AR) call.

*Note:* LNP module codes 719 and 720 can never be appended to CC 330.

- **550–Automatic meter reading (AMR)** record is generated for calls that record an AMR session from a dedicated utility telemetry (UT) trunk to a telemetry interface (TIU) on a subscriber's line.
- **720–Connecting network access record (CNAR)** record is an option combined together with field CLLI. The CLLI must be an incoming or two-way trunk group. The option will enable the CNAR record generation for the specified trunk group.

A mandatory field, LCNAR, is combined together with the option CNAR. It can be either Y or N. When this field is set to Y, the CNAR is generated only when a LNP query is performed for the call originated by the specified CLLI. If this field is set to N, the CNAR record is generated for all calls originated by the specified CLLI.

A mandatory file, BILLNO, is bond against the option CNAR. It has to be a 10-digit billing number. This BILLNO is used to populate the originating number field in the CNAR AMA record. This BILLNO is only used by the CNAR record, and it has no affect on other billing records.

- **721–Line number portability (LNP) AMA module** record is generated when AMA is not normally generated during an LNP query by calling parties served by the originating switch. The recording of this AMA is controlled by office wide options. Two options apply:
  - Recording this record for both ported and non–ported numbers.
  - or -
  - Recording this record only for ported numbers.

- **722–Last resort AMA** record is generated when 'last resort' routing to a recipient switch occurs at a donor switch, and an AMA record is not already being generated at the donor switch. This record is applicable to public trunk originating calls to a number ported from the donor switch. The recording of this AMA is controlled by an office wide AMA option.
- **950–Trunk group member usage (TGMU)** record is recorded when the call record for a call routed through a DMS–200 toll office contains trunk information.
- **800–999–Generic record** can be used for any non–TOPS calls requiring AMA records. These call codes are generated when no other billing applies using AMA pre-translation. These call codes can also replace the call code in a non–TOPS record. Refer to the *Translation Guide* for details on generating these call codes.



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## 6 Generating call codes

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In this chapter, information is provided describing how each of the call codes are generated in the DMS-100 and DMS-200 switches. A call code is a four-character representation of each of the call types that a switch is designed to serve and is recorded on the AMA tape for billing purposes. The first three characters are numerals ranging from 001 to 999, and the fourth character is a sign character that indicates that the field is complete. Each of the call codes represent a type of call. For example, call code 008 is generated for an inward wide area telephone system (INWATS) terminating entry.

### Call code hierarchy

Call types are ordered according to a hierarchical structure. An individual call may have the characteristics of more than one call type; however, only one call code record will be generated for the call. The call code record that is generated depends on where in the hierarchy the associated call type is found.

In Table 6-1, each call type is listed in the order (number) it appears in the hierarchy. In some cases (for example, equal access, interLATA, feature group D [FGD]), call types are listed in order (small case letter) under a major type. Some call types are of equal order in the hierarchy (for example, common control switching arrangement (CCSA), tandem tie trunk (TDMTT), foreign exchange (FX), electronic tandem switched [ETS]). If a call has characteristics corresponding to several different call types, only the call code record associated with the call type listed first in order in the hierarchy will be generated. For example, assume a line with call forwarding (CFW) (call code 031) capability originates a call to a line which has a subscriber usage study in effect (call code 036). According to the hierarchy, only a call code of 031 record is generated. A call code 036 record will not be generated in this case.

The private virtual network (PVN) call codes, 160-167, do not fit into this hierarchy. The AMA records for PVN calls are made at the service switching point (SSP)/PVN if the billing indicators information is included in the response message from the service control point (SCP). The call codes to be used are returned from the SCP and are not affected by this hierarchy.

**6-2 Generating call codes**

The Traffic Operator Position System (TOPS) expanded Bellcore AMA format (EBAF) phase 2 call codes, 189-199, also do not fit into this hierarchical structure. The special functionality associated with these call codes does not correspond to the definition of this hierarchy.

**Table 6-1 Call code hierarchy**

<b>Number</b>	<b>Call type</b>	<b>Call code generated</b>
1	Non-operator leas over TOPS trunk	110
2	TOPS equal access:	
a	TOPS InterLATA Carrier Service (TICS), not feature group B (FGB)-CAMABILL = Y:	
	No AMA key pressed	035
	No AMA key not pressed	036
b	TICS, FGB-CAMABILL = N	251
3	No carrier, interLATA	006
4	TOPS, routed to carrier	251
5	TOPS FGB	251
6	TOPS local directory assistance	009
7	Free number termination	074
8	Credit adjustment	107
9	Carrier/customer service	250
10	SSP (number service calls) inter-LATA carrier/international carrier (IC/INC) operating company	141 142
11	Short supervisory transition	034
12	Call forwarding (activation and deactivation)	031
13	Conference usage	026
14	Equal access, feature group A (FGA) terminating	132
15	Line usage study, terminating	036
16	Free number termination	074
- continued -		

**Table 6-1 Call code hierarchy**

<b>Number</b>	<b>Call type</b>	<b>Call code generated</b>
17	Originating Datapath:	
a	Equal access (inter-LATA)	117
b	Equal access (intra-LATA)	072
18	Equal access (inter-LATA), FGD:	
a	Datapath terminating	121
b	Terminating	119
c	Outward wide area telephone service (OUTWATS) with no special billing (SPB)	111
d	Outward wide area telephone service (OUTWATS) with no special billing (SPB)	114
e	InterLATA station paid	110
19	Equal access, FGB:	
a	Terminating FGB	135
b	Originating FGB	134
20	Cellular Mobile Carrier:	
a	Terminating-type 1 or 2B	065
b	Originating-type 1 or 2B	063
c	Terminating-type 2A	066
d	Originating-type 2A	064
21	Multi unit message rate:	
a	Detailed, timed, message billing index (MBI)	001
b	Timed, MBI	002
c	Detailed, untimed, MBI	003
d	Untimed, MBI	004
e	Timed, no MBI	005

- continued -

## 6-4 Generating call codes

**Table 6-1 Call code hierarchy**

<b>Number</b>	<b>Call type</b>	<b>Call code generated</b>
22	Coin	041
23	CCSA	021
	TDMTT	032
	FX	011
	ETS	085
24	OUTWATS, interLATA:	
a	No SPB	007
b	SPB	068
25	INWATS terminating	008
26	DA411	009
27	DA555	033
28	NONDA555	088
29	Generic records	800-999
30	Flat rate	067
	Station paid	006
31	Subscriber line usage (SLU) overflow	037
	INWATS overflow	071
	Originating LATA overflow counts (OCC) overflow	120
32	Station paid	006
33	Message detail recording revenue accounting office (MDRRAO)	159
- end -		

## Customer data schema documents

The information in this part is for datafilling translation tables directly related to generating the desired call codes. It is assumed that the user has already properly datafilled the other tables, such as table STDPRTCT. Refer to the *Translations Guide*.

To designate a call as no prefix (NP) or direct dial (DD), assign codes NP or DD to the appropriate entries in table STDPRT.

## AMA pre-translation

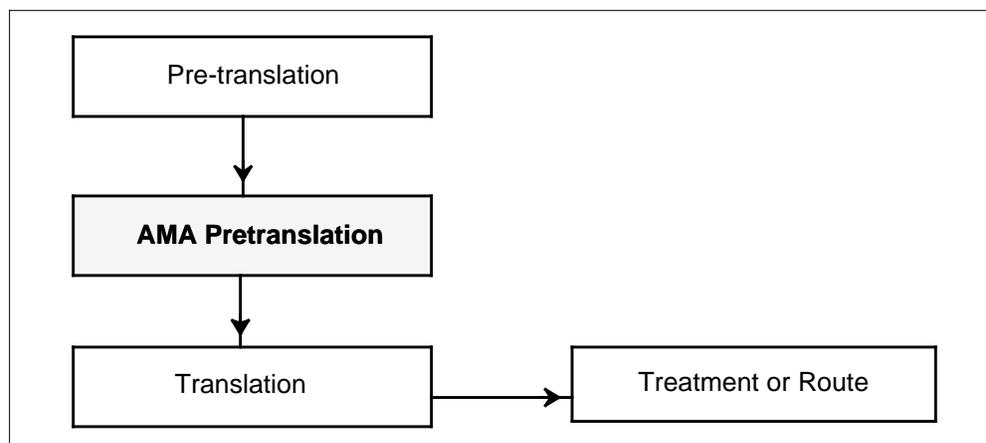
With NTX737AB, AMA records are generated for calls identified by call codes 121, 009, 033, 088, and 800-999 using AMA pre-translation. AMA pre-translation consists of an AMA pre-translator subtable (AMAPRT) indexed by the received leading digits of the called number. When the leading digits of the called number are found in the AMAPRT subtable, an AMA record is generated and identified by the call code specified in the datafill. For example, in a DMS-100 office, when an interLATA datapath call is translated using standard pre-translation (subtable AMAPRT has no entry for the called number), call code 119 (terminating access record) is generated. By datafilling subtable AMAPRT for the received leading digits of a datapath call, the operating company can force call code 121 (datapath terminating access record) to be generated.

**Note 1:** AMA pre-translation does not occur unless table LINEATTR or table TRKGRP specify a pre-translator name (field PRTNM) that indexes to table STDPRTCT. The leading digits of the call determine the index into the STDPRT and AMAPRT subtable.

**Note 2:** If subtable AMAPRT is not datafilled for the received leading digits, AMA pre-translation has no effect on the call code generated.

The AMA pre-translation stages implemented by this feature are shown below.

**Figure 6-1** AMA pre-translation stages



## AMA pre-translation datafill overview

The following call codes can be generated using AMA pre-translation:

- call code 009-411 directory assistance
- call code 033-555 directory assistance
- call code 088-non-directory assistance 555 calls
- call code 121-Datapath terminating access record
- call codes 800-999-Generic record

Call codes 009 and 033 are generated with AMA pre-translation when the DA411 and CHG411 options, the DA555 and CHG555 options, or all four options are turned ON in table AMAOPTS and the subscriber dials 411 or 555-1212. Call codes 009 and 003 are generated appropriately. With AMA pre-translation, call code 009 is generated for local directory assistance calls other than 411. Call codes 088, 121, and 800-999 are generated only for Meridian Digital Centrex (MDC) DD calls using AMA pre-translation.

**Note:** Call codes 009 and 033 are generated only for MDC DD calls using AMA pre-translation.

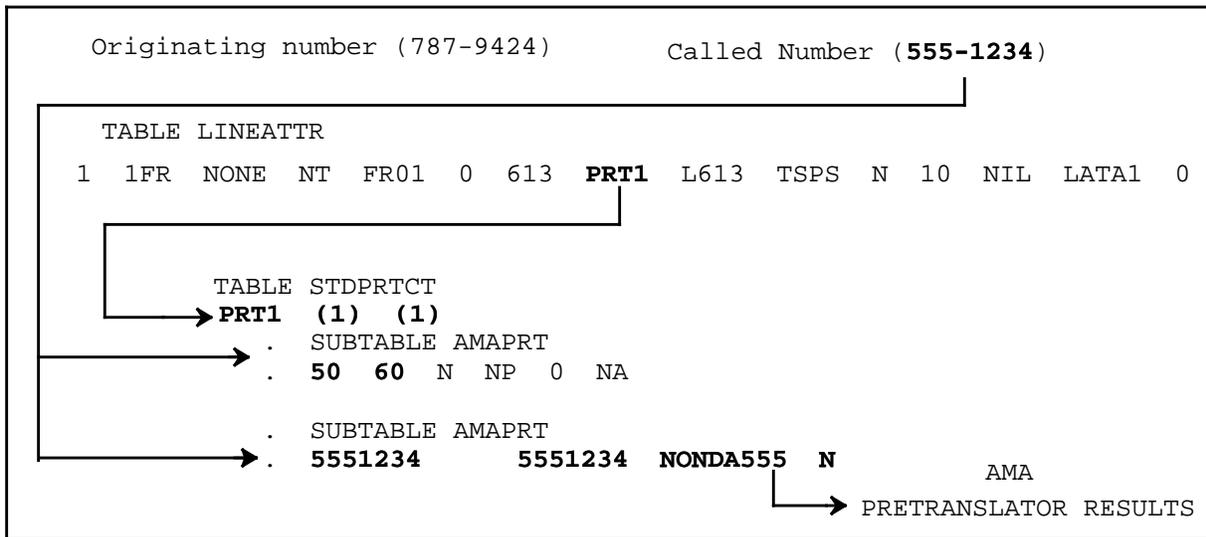
The AMA pre-translator is subtable AMAPRT of table STDPRTCT. The pre-translator name (PRTNM) assigned in table LINEATTR or table TRKGRP is used to index table STDPRTCT and must be datafilled to cause pre-translation. Refer to figure 6-1 for an explanation of pre-translator route selection.

Subtables STDPRT and AMAPRT are indexed by the leading digits of the called number. If these digits are found in subtable AMAPRT, the call code associated with the AMARSLT (subfield CALLCODE) is generated unless other call attributes (for example, equal access) override AMAPRT call code generation.

The FROMDIGS and TODIGS fields represent the block of digits translated. These fields specify the received leading digits of the called number. The AMARSLT field represents the AMA pre-translation results (call code generated).

Digits in the FROMDIGS and TODIGS fields may differ from subtable STDPRT to subtable AMAPRT. Therefore, the operating company can datafill AMA pre-translation results separately from standard pre-translation results. Figure 6-2, shows the indexing scheme for both the STDPRT and AMAPRT subtables when the originating line (787-9421) dials 555-1234. The indexing in subtable AMAPRT represents the AMA pre-translation stage. This example uses the TRAVER utility.

Figure 6-2 Table indexing for AMA pre-translation



In Figure 6-2 the datafill in subtable STDPRT shows that the call is non-billable (type of call is NP). Without the datafill in subtable AMAPRT, the call would not generate an AMA record with call code 088. However, the datafill in subtable AMAPRT indicates that call code 088 (NONDA555) is generated when the user dials 555-1234 (leading digit 5). Indexing into the STDPRTCT subtables is based on the leading digits of the called number. Any called number with leading digits 50, 51, 52, 53,...59, 60 is translated using the STDPRT subtable datafill shown in figure 6-2 (50, 60, N, NP, 0, NA). Call code 088 is generated when digits of the called number are 555-1234 specifically.

**Note:** AMA pre-translation only indicates the generation of a Bellcore AMA call code.

The AMA pre-translation uses only the pre-translator name specified in either table LINEATTR or table TRKGRP. For example, it is possible that datafill found in subtable STDPRTCT causes indexing into table STDPRT again, using a new pre-translator name. AMA pre-translation uses only the first pre-translator named to index table STDPRTCT.

**Note:** If subtable AMAPRT is not datafilled for the received leading digits, then AMA pre-translation has no effect on the call code generated.

6-8 Generating call codes

Table 6-2 on page 6-432 shows the possible AMARSLT (subfield CALLCODE) entries and the call code generated for each entry when the feature packages are present in the switch.

**Table 6-2 Call codes generated for AMARSLT datafill**

AMARSLT call code	Call code generated	Feature package required
None	Any non-TOPS call code	NTX159AA and NTX737AB
DA411	call code 009	NTX159AA
DA555	call code 033	NTX159AA
NONDA555	call code 088	NTX159AA and NTX737AB
Datapath	call code 121	NTX159AA
800-999	call code datafilled	NTX159AA and NTX737AB

*Note 1:* For the DMS-200, substitute package NTX098AA for package NTX159AA.

*Note 2:* Call codes 088 and 800-999 are generated only if the NTX737AB feature package is loaded in conjunction with the NTX159AA (or NTX098AA) feature package.

**CALLCODE is not equal to GENERIC**

Valid entries for the CALLCODE field are NONE, DA411, DA555, NONDA555, and datapath. When any of these values are entered, the table editor prompts the user to datafill the service feature present (SFPRSNT) field. The call codes generated are based on the value datafilled in CALLCODE, the digits dialed, and the call code hierarchy defined for the DMS. Refer to Table 6-1, for information on the call code hierarchy supported by the DMS.

Table 6-3 shows sample datafill for generating call codes 088, 033, 009, and 121 respectively.

**Table 6-3 Sample datafill for call codes 088, 033, 009, and 121**

FROMDIGS	TODIGS	AMARLST
5551234	5551234	NONDA555N
5551212	5551212	DA555N
411	411	DA411N
7224	7224	DatapathN
623	623	NONE OVRNONE Y 801

To replace the service feature field in the AMA record generated with a value from 800-999, datafill subfield CALLCODE with NONE and subfield OVRIDLT with any valid value (OVRNONE, OVRLOCL, OVRTOLL, or OVRDALL). The value in subfield OVRIDLT has no affect in this case, but table control requires a valid value for this field.

## **CALLCODE is equal to GENERIC**

When the CALLCODE field is equal to GENERIC, the table editor prompts the user to datafill the generic value (GENRCVAL) subfield and the OVRIDLT and OVRIDIC subfields. Valid entries for the GENRCVAL field are 800-899. These are the call codes for the AMA record generated.

Valid values for the OVRIDLT subfield are OVRNONE, OVRLOCL, OVRTOLL, and OVRDALL. Valid values for subfield OVRIDIC are Y and N. These subfields affect the call code generation hierarchy. The override options allow the operating company to:

- replace the normally generated call code for an interLATA carrier (IC) call with a generic call code
- replace the normally generated call code for a non-IC toll call with a generic call code
- suppress the normally generated billing record for a non-IC toll call
- generate a call record with a generic call code for a local call

A non-TOPS call generated record includes all other record types except for the following:

- TOPS
- tracer (090 and 092)
- overflow (037, 071, and 120)
- time change (042)
- signaling irregularities (034)

Using the override options, the generic call code can override any Bellcore non-TOPS call code. For example, an originating interLATA station-paid call normally produces call code 110 with a structure code 00625. If GENRCVAL is 855 and OVRIDIC is Y for an originating interLATA station-paid call, call code 855 with structure code 00625 is generated.

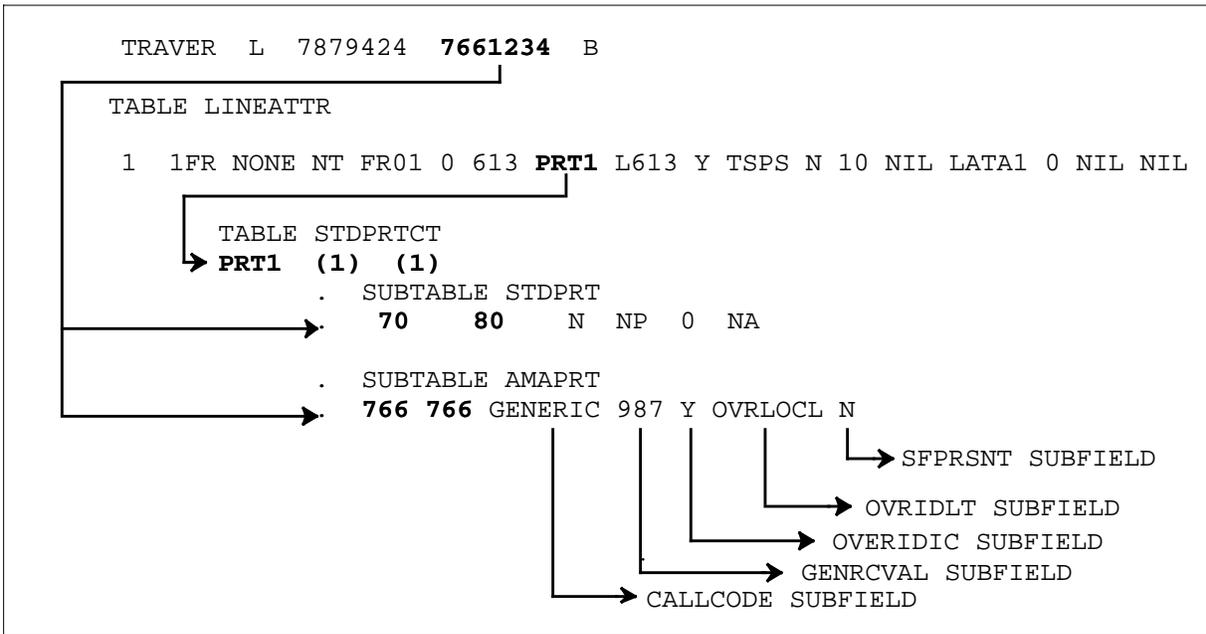
6-10 Generating call codes

When OVRIDIC is set to N, a call code hierarchy applies and generic call codes can only override call codes 006 and 067. For details about the call code hierarchy, refer to Table 6-3.

**Note:** When the CALLCODE field value is something other than GENERIC, the table editor does not prompt for values to the GENRCVAL nor to the OVRIDIC subfields.

An example of the AMAPRT datafill that specifies the generation of generic call code 987 is shown in Figure 6-3. This example uses the TRAVER utility.

Figure 6-3 TRAVER showing generic datafill in AMA pre-translator-local or IC call



**Note:** Call codes 806-999 are generated when the CALLCODE subfield is set to GENERIC and the GENRCVAL subfield is datafilled with a value from 806-999.

**Service feature (SFPRSNT) field datafill**

The operating company can populate the service feature (SERV FEAT) field of any non-TOPS call-generated AMA record with a value from 800-999. The service feature field indicates any special services associated with a call. For example, Figure 6-4, shows a Bellcore record with a service feature field value of 008. The value 008 indicates INWATS.

**Figure 6-4 Example of BC AMA record with a service feature field**

```
HEX ID:AA STRUCT CODE:00120C CALL TYPE:001C SENSOR TYPE:036C
SENSORID:000000C REC OFC TYPE:036C REC OFC ID:0000000C
DATE:70720C TIMING IND:00100C STUDY IND:0200000C ANSWER:0C
SERV OBSERVED:0C OPER ACTION:0C SERV FEAT:008C ORIG NPA:613C
ORIG NO:6211092C OVERSEAS IND:3C TERM NPA:00000C
TERM NO:7871234C CONN TIME:1136091C
ELAPSED TIME:000012390C WATS IND:0C WATS BAND IND:020C
PRESENT DATE:70307C PRESENT TIME:1704429C
```

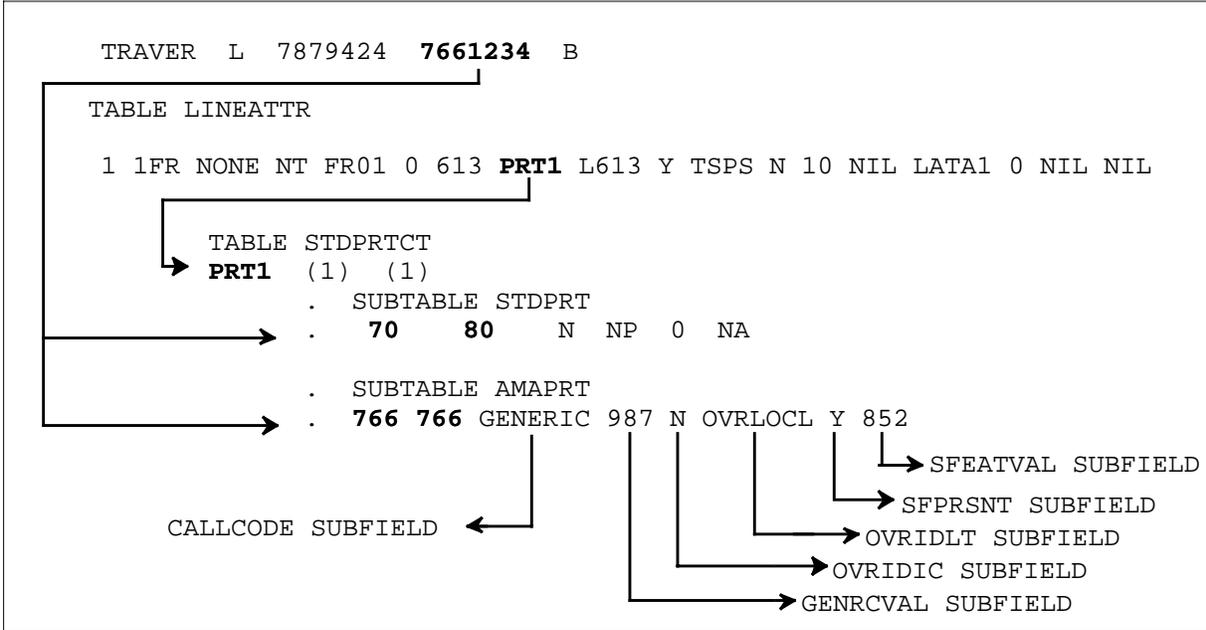
Service feature field values 800-999 are set through the SFPRSNT subfield in subtable AMAPRT.

When Y is specified in the SFPRSNT subfield, another subfield SFEATVAL must be datafilled with a value from 800-999. These are the numeric values that will appear in the SERV FEAT field of the AMA record. The value datafilled in subtable AMAPRT will override any value that may normally be generated. For example, if AMA pre-translation is used to route an INWATS call and the service feature value 999 is datafilled in the AMAPRT subtable, the SERV FEAT field of the AMA record generated will show a 999 value rather than an 008 value.

When N is datafilled for the SFPRSNT subfield, there is no effect on the SERV FEAT field in the AMA record.

An example of the AMAPRT datafill that specifies the generation of call code 987 and a service feature field value of 852 is shown in Figure 6-5. This example uses the TRAVER utility.

Figure 6-5 TRAVER example of datafill for service feature field-local call



**Note:** A value in the SFEATVAL field does not force the generation of a record structure that contains a service feature field. Only when the record structure contains a service feature field is the value of the field affected by subtable AMAPRT datafill.

### Call codes (non-TOPS)

Call codes and datafill required to generate them are described in this part. Sample TRAVER printouts are provided as well as lists associating call types with call codes and structure codes.

#### Call codes 001-005

The first five call codes (001-005) are multi-unit message rate (MUMR) calls. Perform the following steps and refer to Figure 6-6.

1. In table MRSANAME (*Translation Guide*), enter the name of a message rate serving area (MRSA).
2. In table LINEATTR (*Translations Guide*), datafill field MRSA with the same name as that entered in table MRSANAME in the previous step. For remote call forwarding (RCF), add tuple with line class code (LCC) equal to VLN and MRSA name to table LINEATTR.
3. In table MUMRTAB (*Translations Guide*), datafill field MUMRNAME with the same name as that entered in the previous two steps. Different message billing index values (field MUMRMBI) can be stored against the various combinations of digits that can be dialed by stations in the

specified MRSA. The value for MUMRMBI is used to index table MUMRMBI.

4. Datafill table MUMRMBI. Table MUMRMBI (*Translations Guide*) is used to specify the billing attributes for MUMR calls as follows:
  - a. Detailed: enable or disable the recording of call details
  - b. Timed: enable or disable the timing of MUMR calls
  - c. Record: MBI include or exclude the MBI in the billing record.

The call code to be used in the record is determined based on the combination of attributes as specified in Table 6-4.

**Table 6-4 Example of service feature call code datafill**

Call code	Detailed	Timed	Record MBI
001	Y	Y	Y
002	N	Y	Y
003	Y	N	Y
004	N	N	Y
005		(Any other combination)	

When a line with these attributes originates a local call, one of these call code records will be generated. Toll and equal access calls are unaffected by this datafill.

### Full details

Ordinarily, structure code 00020, which indicates answered call-full details, is generated only for call code 001. However, the system acknowledges the full details attribute and generates structure code 00020 for call codes 002, 003, and 004 when either or both of the following conditions exist:

- The local call detail recording (LCDR) option is present on the originating line.
- The SDY option (OBS = Y and/or LUS = Y) is present on the originating line. For service observed (OBS), OBSERVED must be ON in table AMAOPTS. For subscriber line usage studies (LUS), LUSORIG must be turned on in table AMAOPTS.

When making message rate a call that generates call code 002, 003, or 004, the presence of LCDR or SDY (OBS = Y, LUS = Y or both) option forces structure code 00020 to be produced for an answered call.

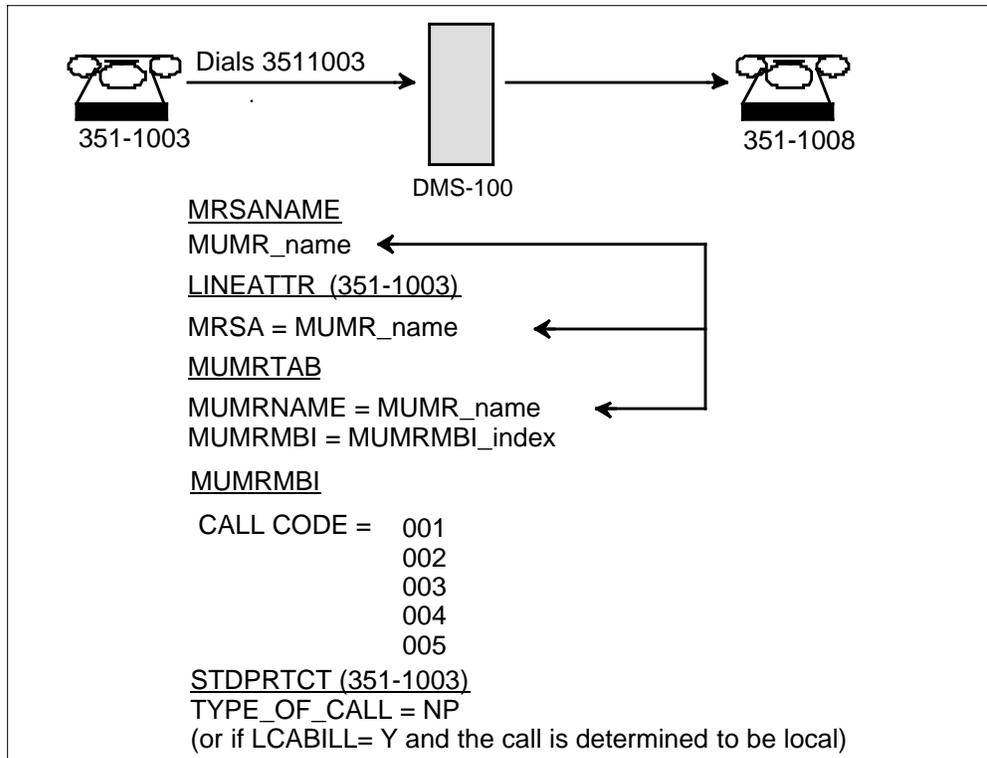
**MUMR for remote call forwarding lines**

To generate MUMR billing for remote call forwarding (RCF) lines, the following conditions must be met:

- Ensure that the RCF terminator leg of the call is NP.
- Ensure that table LINEATTR has an entry for remote call forwarding. Add a tuple with LCC equal to VLN and a valid MRSA name.
- In table CFW, ensure that the index to table LINEATTR is the index to the tuple with LCC equal to VLN.
- Datafill table MRSANAME with the MRSA specified in table LINEATTR.
- Datafill table MUMRTAB.
- Datafill table MUMRMBI.

Ensure that the lines have the same serving numbering plan area (SNPA).

**Figure 6-6 Example of call codes 001 through 005 datafill**



In the MDC environment, translations should be set up and handled in accordance with MUMR, NP, and plain ordinary telephone service (POTS) routing.

**Table 6-5 Call codes 001-005**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Detailed message rate, timed, MBI message rate	001	X0502	X0020		
Message rate, timed, MBI	002	X0503	X0015	X0016	
			X0020		
Detailed message rate, untimed, MBI	003	X0504	X0024		
			X0020		
Message rate untimed, MBI	004		X0019		
			X0020		
Detailed message rate, timed, no MBI	005	X0500	X0001		

**Example TRAVER**

>TRAVER L 3511003 3511008 B

```
TABLE LINEATTR
1 1MR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 MR1 NILSFC
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
NILDATA 0 NIL NIL 00
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 3 610 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS: NONE OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1008 L HOST 00 1 15 09
TABLE LCASCRN
619 LPOT ( 15) MNDT N
```

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```

. SUBTABLE LCASCR
. 351 351
TABLE PFXTREAT
MNDT NP Y NP UNDT
TABLE CLSVSCRC
619 SPOT NP 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6193511008

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 06:10:21 3000 INFO AMA_CALL_DATA
002          6193511003          6193511008 60101 0610137 00000071
ORIG=LEN HOST 00 0 10 06 DN 3511004
TERM=LEN HOST 00 1 15 09

```

**Call code 006-Station paid**

A 006 call code record provides full call details for a direct-dialed, station-paid toll call, including a toll directory assistance call (NPA-555-1212). Also, this AMA record provides details for a local coin call where AMA data are generated for studies. Table 6-6 shows the structure codes applicable to call code 006.

**Table 6-6 Call code 006**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Station paid	006	X0500	X0001		X0510
					X0700
					X0727

Feature package NTX901 optionally bases the local/toll status of a DD call on local call area screening allowing operating companies to translate 7-digit calls as DD toll calls in addition to the traditional 1+7- and 1+10-digit calls. Optionality is controlled through datafill of field LCABILL in table LINEATTR. Datafilling field LCABILL with 'Y' implements the new dialing plan, where local call area screening is used to determine the local/toll status

of a call. Datafilling field LCABILL with 'N' sustains the traditional dialing plan, where the local/toll status of a call is based on call type.

Under the new dialing plan (LCABILL = Y), the local/toll status of a DD call is determined by datafill in the local call area screening tables. If Subtable LCASCR associated with a DD call contains the dialed office code, the call is considered local, and no AMA record is generated, unless other billing options apply. If the dialed office code is not found in subtable LCASCR, the call is considered a DD toll call, and an AMA record with call code 006 is generated, unless other options apply.

Feature package NTX901 also allows table AMAPRT datafill to affect the call code generated for a DD call when field LCABILL=Y. Using field CALLCODE, field GENRCVAL, and field OVRIDLT in table AMAPRT, for DD calls, the operating company can overwrite call code 006 with a generic call code or suppress the normally generated AMA record.

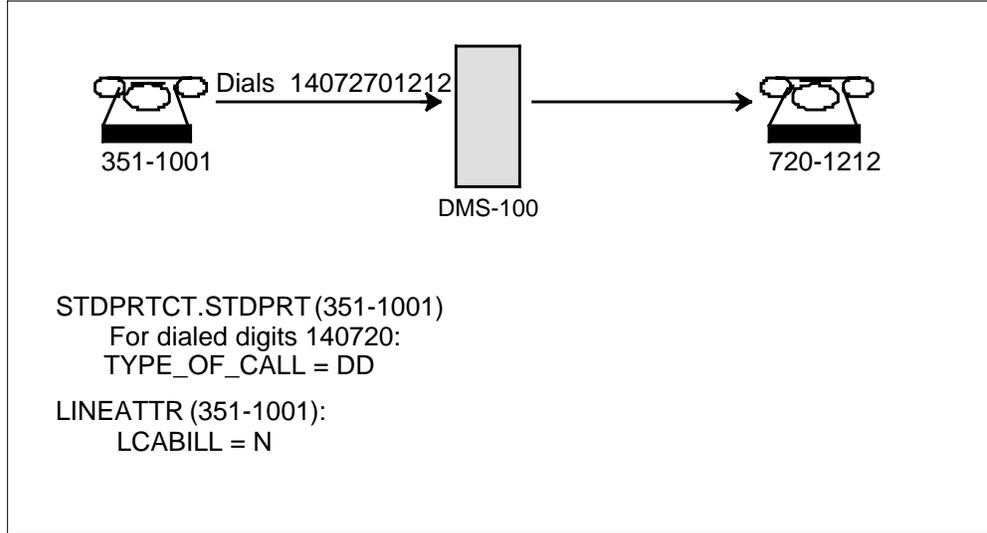
Due to the complexity of call code 006 generation, this description of call code 006 provides several examples of the conditions under which a call record with call code 006 is generated. Examples are provided for both the traditional dialing plan and the new dialing plan.

### **Traditional dialing plan**

When the traditional dialing plan is used (LCABILL = N), billing is done on the basis of call type. Datafill in subtable STDPRT associated with the pre-translator used for the originating line identifies the 1 prefix in combination with other digits dialed as a DD call. An AMA record with call code 006 is generated for DD calls.

Figure 6-7 shows the relationship of datafill to digits dialed to generate call code 006 in the traditional dialing plan.

**Figure 6-7 Example of call code 006 datafill-traditional dialing plan**



The following TRAVER output shows a 1+10-digit DD call being translated when the traditional dialing plan is in effect. The resulting call record is also shown.

**>TRAVER L 3511001 14072701212 B**

```
TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
      NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1 ) ( 1 )
. SUBTABLE STDPRT
. 14072 1407483 N DD 1 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS: NONE OVRNONE N
TABLE HNPACONT
619 256 8 ( 35 ) ( 1 ) ( 0 )
. SUBTABLE HNPACODE
. 407 407 FNPA 0
TABLE FNPACONT
407 64-( 644 ) ( 0 ) ( 10 )
. SUBTABLE FNPACODE
. 270 270 6 Y
. SUBTABLE RTEREF
. . 6 DN 407 270
. EXIT TABLE RTEREF
EXIT TABLE FNPACONT
TABLE LCASCRCN
619 LPOT ( 15 ) MNDT N
. SUBTABLE LCASCR
. 407 407
TABLE LCASCRCN
407 LPOT ( 1 ) MNDT N
. SUBTABLE LCASCR
```

```

. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
MNDT DD N DD UNDT
TABLE CLSVSCRC
619 SPOT DD 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                      4072701212

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 01:10:02 4400 INFO AMA_CALL_DATA
006          6193511001 4072701212 60101 0109549 000000
00 ORIG=LEN HOST 01 0 00 02      DN 3511001 TERM= ANS=N

```

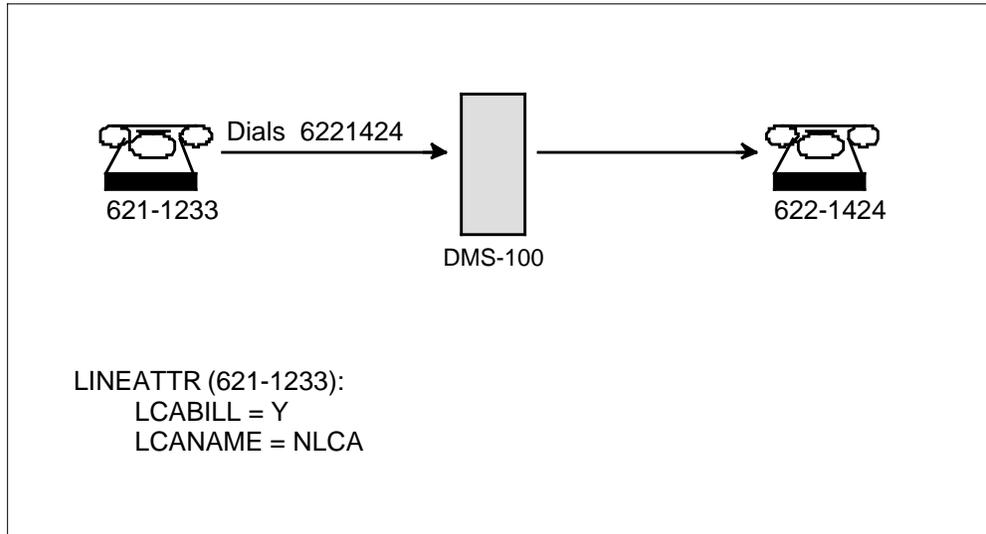
### New dialing plan

When the new dialing plan is used (LCABILL = Y), billing for DD calls is based on local call area screening. Billing can also be affected by datafill in table AMAPRT. Under the new dialing plan, an AMA record with call code 006 is generated under the following conditions:

- No valid LCANAME is specified in table LINEATTR for the originating line or in table TRKGRP for the originating trunk (PX or P2 trunks).
- The dialed office code is not in table LCASCR.

The following example shows a 7-digit call being translated as a toll call because no valid LCANAME was provided in table LINEATTR for the originating line. Figure 6-8 shows the datafill associated with this scenario. Following Figure 6-8, a TRAVER output of the call is provided as well as the resulting call record.

**Figure 6-8 Example of call code 006 datafill-new dialing plan not using LCA screening**



**TRAVER L 6211233 6221424 B**

```

TABLE LINEATTR
 0 1FR NONE NT FR01 0 613 P621 NLCA Y TSPS N 10 NIL NILSFC
    LATA1 0 NIL NIL
LCABILL ON-BILLING DONE ON BASIS OF LOCAL CALL AREA SCREENING
TOLL BILLING IN EFFECT
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE STDPRTCT
P621 ( 1 ) ( 1 )
. SUBTABLE STDPRT
. 622 632 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS: NONE OVRNONE N
TABLE HNPACONT
613 128 2 ( 34 ) ( 1 ) ( 0 )
. SUBTABLE HNPACODE
. 622 622 LRTE 2
TABLE RTEREF
. 2 S D OTDP1
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 OTDP1                                6136221424                                ST
    
```

```

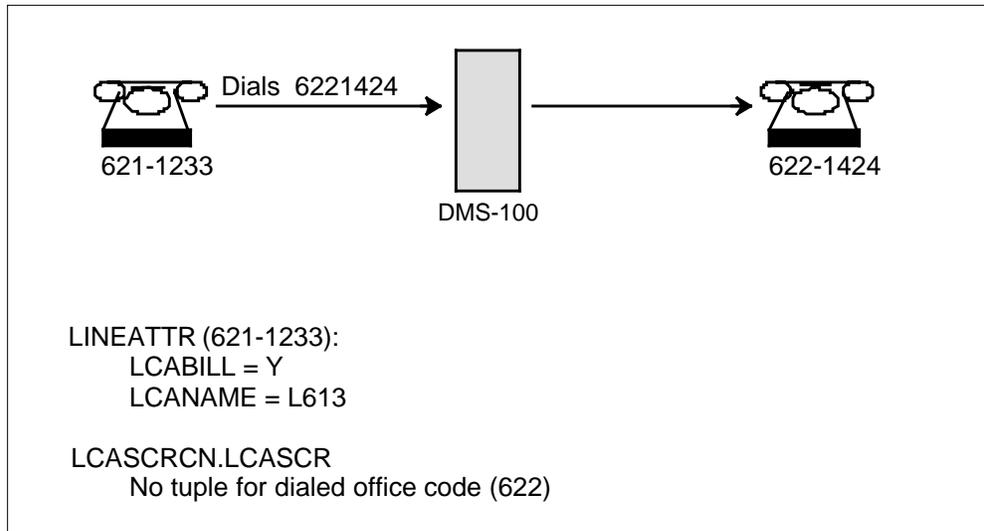
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 23:57:07 7500 INFO AMA RECORD DATA
STRUCTURE CODE= 00500CALL CODE = 006
CONNECT DATE= 60101CONNECT TIME= 2356550
ELAPSED TIME= 00000103ANSWERED= YES
CALLING DN= 6136211233
ORIG AGENT= LEN HOST 00 0 09 07  DN 6211233
CALLED DN= 6136221424
TERM AGENT= CKT                      OTDP1                2
    
```

The next example shows a 7-digit call being translated as a toll call because the dial office code is not in table LCASCR. Figure 6-9 shows the datafill associated with this scenario. The TRAVER output for this call and the resulting AMA record follows Figure 6-9.

**Figure 6-9 Example of call code 006 datafill-new dialing plan using LCA screening**



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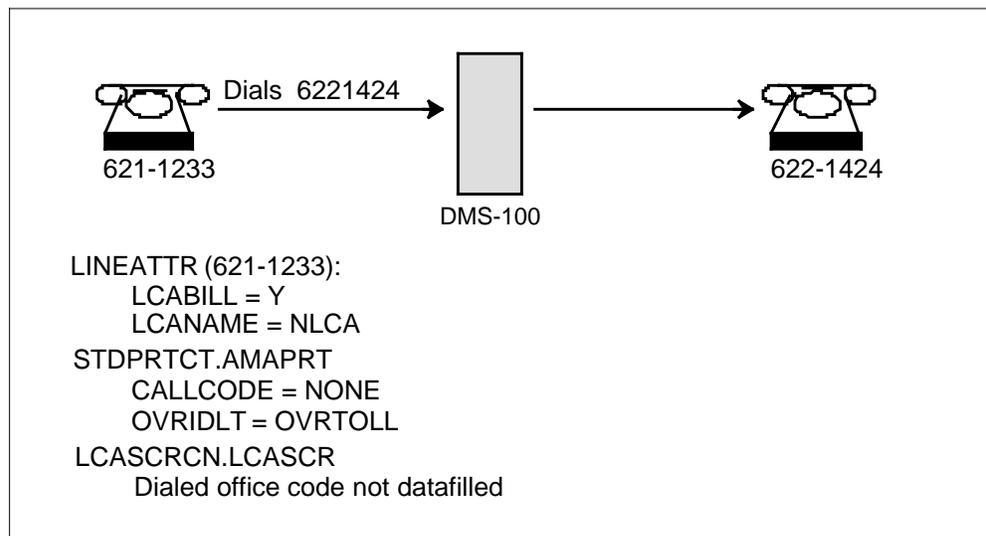
---

>TRAVER L 6211233 6221424 B

TABLE LINEATTR  
0 1FR NONE NT FR01 0 613 P621 L613 Y TSPS N 10 NIL  
NILSFC LATA1 0 NIL NIL  
LCABILL ON-BILLING DONE ON BASIS OF LOCAL CALL AREA  
SCREENING  
TOLL BILLING IN EFFECT  
TABLE DNATTRS  
TUPLE NOT FOUND  
TABLE DNGRPS  
TUPLE NOT FOUND  
TABLE STDPRTCT  
P621 ( 1 ) ( 1 )  
. SUBTABLE STDPRT  
. 622 632 N NP 0 NA  
. SUBTABLE AMAPRT  
. KEY NOT FOUND  
. DEFAULT VALUE IS: NONE OVRNONE N  
TABLE HNPACONT  
613 128 2 ( 34 ) ( 1 ) ( 0 )  
. SUBTABLE HNPACODE  
. 622 622 LRTE 2  
TABLE RTEREF  
  
. 2 S D OTDP1  
. EXIT TABLE RTEREF  
EXIT TABLE HNPACONT  
TABLE LCASCRCN  
613 L613 ( 13 ) OPTL N  
. SUBTABLE LCASCR  
. TUPLE NOT FOUND. DEFAULT IS NON\_LOCAL  
. TOLL BILLING IN EFFECT  
TABLE PFXTREAT  
OPTL NP N NP UNDT  
TABLE CLSVSCRC  
KEY NOT FOUND  
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED  
  
+++ TRAVER: SUCCESSFUL CALL TRACE +++  
  
DIGIT TRANSLATION ROUTES  
  
1 OTDP1 6136221424 ST  
  
TREATMENT ROUTES. TREATMENT IS: GNCT  
1 T120  
  
+++ TRAVER: SUCCESSFUL CALL TRACE +++  
  
AMAB117 JAN01 23:57:07 7500 INFO AMA RECORD DATA  
STRUCTURE CODE= 00500CALL CODE = 006  
CONNECT DATE= 60101CONNECT TIME= 2356550  
ELAPSED TIME= 00000103ANSWERED= YES  
CALLING DN= 6136211233  
ORIG AGENT= LEN HOST 00 0 09 07 DN 6211233  
CALLED DN= 6136221424  
TERM AGENT= CKT OTDP1 2

The final example shows how table AMAPRT datafill can suppress the generation of call code 006. In this example, a 1+10-digit DD call, which normally generates a call code 006, has its AMA record suppressed by table AMAPRT. Figure 6-10 shows the datafill associated with this scenario. Note that LCA screening is used in this example but the dialed office code is not datafilled in the screening tables. Following Figure 6-10 is the TRAVER output for this call.

**Figure 6-10 Example of call code 006 datafill-new dialing plan using AMAPRT to suppress billing**



>TRAVER L 6211233 13126221424 B

```
TABLE LINEATTR
0 1FR NONE NT FR01 0 613 P621 L613 Y TSPS N 10 NIL NILSFC
  LATA1 0 NIL NIL
LCABILL ON-BILLING DONE ON BASIS OF LOCAL CALL ARE
  SCREENING
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE STDPRTCT
P621 ( 1 ) ( 1 )
. SUBTABLE STDPRT
. 13 17 N DD 1 NA
. SUBTABLE AMAPRT
. 13 17 NONE OVRTOLL N
. TOLL BILLING WILL BE SUPPRESSED
TABLE HNPACONT
613 128 2 ( 34 ) ( 1 ) ( 0 )
. SUBTABLE HNPACODE
. 312 312 FRTE 76
. SUBTABLE RTEREF
. 76 S D DULOPOUT
. EXIT TABLE RTEREF
```

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---

```
EXIT TABLE HNPACONT
TABLE LCASCRCN
613 L613 ( 27) OPTL N
. SUBTABLE LCASCR
. TUPLE NOT FOUND. DEFAULT IS NON-LOCAL
. TOLL BILLING IN EFFECT
TABLE PFXTREAT
TUPLE NOT FOUND. DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
OVERLAP CARRIER SELECTION (OCS) APPLIES
TABLE EASAC
TUPLE NOT FOUND
TABLE LATA XLA
TUPLE NOT FOUND
ASSUMED TO BE DEFAULT INTRALATA, INTRASTATE, STD

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 DULOPOUT                3126221424                ST

TREATMENT ROUTES. TREATMENT IS: GNCT
1 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

No AMA record is produced for this call.

**Call code 007-WATS station detail**

The OUTWATS call code 007, is generated when an MDC OUTWATS call is routed using a virtual facility group (VFG) with no WATS billing number present. This call code provides details of the originating MDC station. To generate call code 007, perform the following steps and refer to Figure 6-11.

1. In table AMAOPTS (*Translations Guide*) set Field OUTWATS to ON.

The VFG data in table VFGDATA/VIRTGRPS (*Translations Guide*) should have a special billing number (SPB) assigned in the BILLNUM field. Call code 068 is generated when a special billing number is assigned to the BILLNUM field.

Figure 6-11 Example of call code 007 datafill

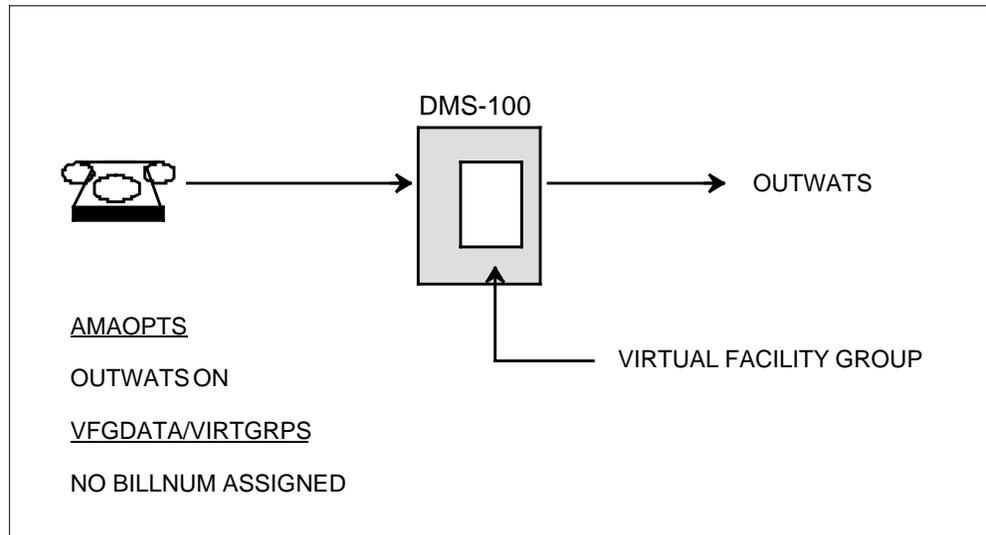


Table 6-7 Call code 007

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
OUTWATS (station detail)	007	X0501	X0020		

>TRAVER L 3516789 72014561212 B

```
TABLE IBNLINES
HOST 01 1 01 02 DT STN IBN 3516789 NTI 0 0 619 $
TABLE NCOS
NTI 0 0 0 NTIRES $
TABLE CUSTHEAD
NTI NXLA NTIXLA NXLA 0 NTIDIG
TABLE DIGCOL
NTIDIG 7 POTS N
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME NTIXLA
NTIXLA 7 NET N N 1 Y POTS N N OWT 7 7 1 IBNRTE 27
TABLE DIGCOL
POTS SPECIFIED: POTS DIGIT COLLECTION
TABLE LINEATTR
7 OWT NONE NT NSCR 0 619 OWT1 LOW9 N NONE N 0 NIL NILSFC
      NILLATA 0 NIL NIL      00
LCABILL OFF-BILLING DONE ON BASIS OF CALL TYPE
TABLE STDPRTCT
OWT1 ( 1) ( 0)
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
```

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---

```
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 201 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 LOW9 ( 15) OWAT N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
OWAT DD N DD UNDT
TABLE OWATZONE
619 2014561234 1
TABLE ZONEORDR
619 ( 0) ( 1234567) ( 8) ( 9) ( A) ( B) ( C)$
VALID ZONE 7 OUTWATS CALL
TABLE IBNRTE
27 OW N N N 7 V OWNTI4 0
EXIT TABLE IBNRTE

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 VFG: OWNTI4          2014561234

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE VIRTGRPS
OWNTI4 SIZE 4 POTS N 17 N $
TABLE LINEATTR
17 IBN NONE NT SOWT 2 619 OWT1 L351 N RTE3 N 0 NIL NILSFC
NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALL TYPE
TABLE STDPRTCT
OWT1 ( 1) ( 0)
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE   OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 201 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 L351 ( 15) OPTL N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
```

```

TABLE PFXTREAT
OPTL DD N DD UNDT
TABLE CLSVSCRC
619 SOWT DD 2 N NONE ( 1)
. SUBTABLE CLSVSCR
. 201 209 T 303
TABLE OFRT
303 N D G200ITMFTSO 10 4072701212 N
EXIT TABLE OFRT
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 G200ITMFTSO          4072701212          ST

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE TRKGRP
GRBLITMFTSI IT 0 TLD NCRT IC DD MIDL 000 NPRT NSCR 619 000 N    N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 407 407 FNPA 0
TABLE FNPACONT
407 64-( 644) ( 0) ( 10)
. SUBTABLE FNPACODE
. 270 270 6 Y
. SUBTABLE RTEREF
. . 6 DN 407 270
. EXIT TABLE RTEREF
EXIT TABLE FNPACONT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE          4072701212

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 01:49:31 2200 INFO AMA_CALL_DATA
007 6193516789          2014561212 60101 0149183 00000103
ORIG=VFG: OWNTI4, MEMBER: 0 TERM=CKT G200ITMFTSO 1 ANS=y

```

### Call code 008-INWATS

A 008 call code AMA record provides details on calls terminated to an INWATS line. The term terminating entry refers to the process of generating

AMA data for incoming calls at the calling point, rather than the normal procedure of generating billing information at the originating point. To generate call code 008, perform the following steps and refer to Figure 6-12:

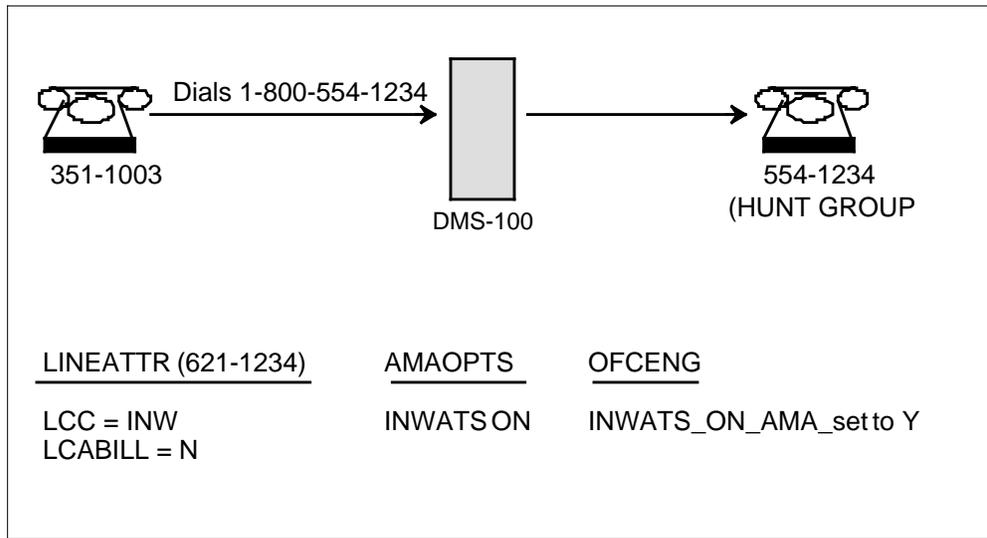
1. In table AMAOPTS (*Translations Guide*), set the field INWATS to ON.

**Note:** Normally, INWATS lines are provisioned in hunt groups.

2. In table OFCENG (*Translations Guide*), set office parameter INWATS\_ON\_AMA to Y.

All calls terminating to a line with line class code INW generate 008 AMA records when the table OFCENG parameter INWATS\_ON\_AMA and the INWATS field in table AMAOPTS are both activated.

**Figure 6-12 Example of call code 008 datafill**



**Table 6-8 Call code 008**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
INWATS	008		X0079		

>TRAVER L 3511003 18005441234 B

TABLE LINEATTR  
 1 1MR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 MR1 NILSFC  
 NILLATA 0 NIL NIL 00  
 LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE  
 TABLE STDPRTCT  
 POT1 ( 1) ( 1)  
 . SUBTABLE STDPRT  
 . 1800 1800 T DD 1 OFRT 104 11 11 NONE  
 . . TABLE OFRT  
 . . 104 N D G200ITMFTSO 0 N N  
 . . EXIT TABLE OFRT  
 . SUBTABLE AMAPRT  
 . 1800 1800 GENERIC 800 OVRTOLL N N  
 LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 G200ITMFTSO 8005441234 ST

TREATMENT ROUTES. TREATMENT IS: GNCT  
 1 NCRANN  
 2 T120  
 3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

>TRAVER TR GRBLITMFTSI 8005441234 B

TABLE TRKGRP  
 GRBLITMFTSI IT 0 TLD NCRT IC DD MIDL 000 NPRT NSCR 619 000 N N  
 TABLE HNPACONT  
 619 256 8 ( 35) ( 1) ( 0)  
 . SUBTABLE HNPACODE  
 . 800544 800545 INWO 0  
 TABLE INWORICN  
 544 13 08 2  
 TABLE INWORIBN  
 544 619 2 N  
 TABLE INWORIRT  
 2 S D G200ITMFIT2

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 G200ITMFIT2 1321234 ST

TREATMENT ROUTES. TREATMENT IS: GNCT  
 1 NCRANN  
 2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

>TRAVER TR GRBLITMFIT2 1321234 B

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---

```
TABLE TRKGRP
GRBLITMFIT2 IT 0 TLD NCRT 2W DD MIDL 619 NPRT NSCR 619 000 N N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 132 139 INWS 0
TABLE INWTERCN
13 123 675 2 3
TABLE INWTERTE
2 S D TOPSLNO
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

```
1 TOPSLNO                6751234                ST
```

```
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

**>TRAVER TR TOPSLNI 6751234 B**

```
TABLE TRKGRP
TOPSLNI IT 0 TLA NCRT IC DD MIDL 000 INC1 NSCR 619 000 N N
TABLE STDPRTCT
INC1 ( 1) ( 0)
. SUBTABLE STDPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 675 675 DN 619 675
TABLE THOUGRP
619 675 1 Y C
TABLE DN
619 675 1234 H 0 1
TABLE HUNTGRP
0 619 6751234 DNH N N N RCVD N N N N N 10
TABLE HUNTMEM
```

```
0 1 N D 6751234 N
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

## DIGIT TRANSLATION ROUTES

1 LINE 6196751234

TREATMENT ROUTES. TREATMENT IS: GNCT

1 NCRTANNC

2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 06:38:58 7000 INFO AMA\_CALL\_DATA  
 008 6196751235 6196751235 60101 0638214 00000363  
 ORIG=CKT TOPSLNI 3 TERM=LEN HOST 00 1 05 07  
 DN 6751235 ANS=Y

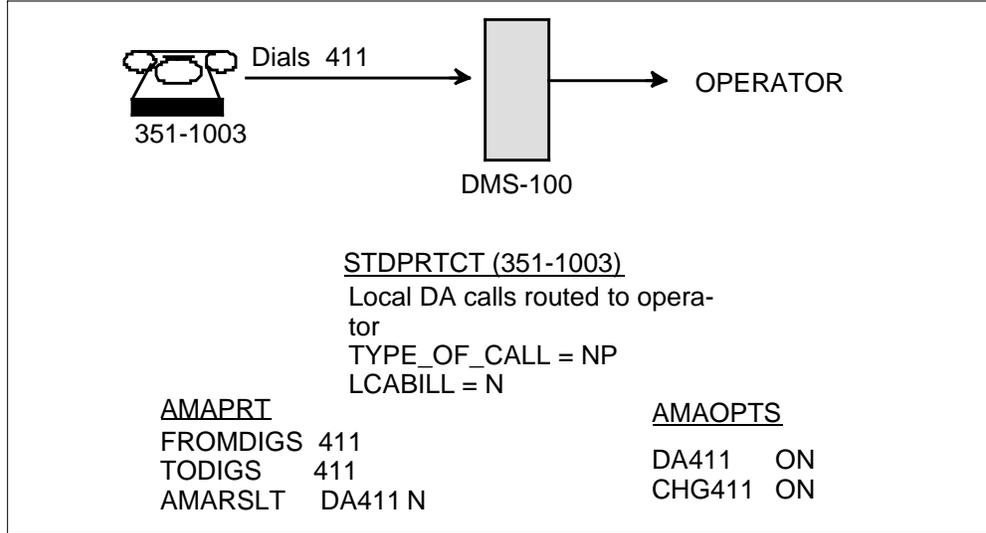
### Call code 009-Directory assistance

A 009 call code is recorded for a call to local directory assistance. A 009 call code can also be generated using AMA pre-translation. To do so, perform the following steps and refer to Figure 6-13.

1. In the STDPRTCT table (*Translations Guide*), route local directory assistance calls to an operator position.
2. In subtable AMAPRT (*Translations Guide*), datafill the FROMDIGS and TODIGS fields with the digits to be dialed (for example, 411) and the AMARSLT field with DA411 N.
3. The service feature field can be populated with a value of 800-999 when the NTX737AB feature package is available. Refer to service feature (SFPRSNT) field datafill for detailed information.
4. In table AMAOPTS (*Translations Guide*), set tuples DA411 and CHG411 to ON.

When a line originates a 411 (in this example) call (type of call is NP in subtable STDPRT), call code 009 is generated. For directory assistance 555-type calls, refer to call code 033.

**Figure 6-13 Example of using AMA pre-translation to generate call code 009**



The CAMA 411 DA calls that do not index table TOPS during translations and are forwarded to a DA center, produce call code 009, structure code 724 when the office parameter TOPS\_TANDEMED\_411\_CC009 in table OFCVAR is set to Y.

Directory assistance calls that would contain 0000411C in the terminating number field can have the terminating NPA field contain 00XXXC, where XXX is the NPA of the calling number, and have the terminating number field contain 4110000C. If no calling NPA is present, only the terminating number field is modified. Calls marked as toll free in table SERVSCRN are not affected.

**Table 6-9 Call code 009**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Directory assistance (411)	009		X0028	X0068	X0700 X0702 X0724 X0725

>TRAVER L 3511003 '411' B

```

TABLE LINEATTR
1 1MR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 MR1 NILSFC
      NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 4 610 N NP 0 NA
. SUBTABLE AMAPRT
. 411 411 DA411 N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 411 411 SCD3 21
. SUBTABLE RTEREF
. 21 N D LNTOPS2 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 LPOT ( 15) MNDT N
. SUBTABLE LCASCR
. 411 411
TABLE PFXTREAT
MNDT NP Y NP UNDT
TABLE CLSVSCRC
619 SPOT NP 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES
1 LNTOPS2          411          ST2P

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 06:58:25 0600 INFO AMA_CALL_DATA
009          6193511004          $ 60101 0657290 0000000
ORIG=CKT          TOPSLN2 1024 TERM= ANS=N

```

### Call code 011-Foreign exchange (FX) automatic flexible routing

A 011 AMA record provides details for a foreign exchange, automatic flexible routing call. This call code is only supported for MDC. Call code 011 is generated when a call is routed and terminates on an MDC outgoing or 2-way

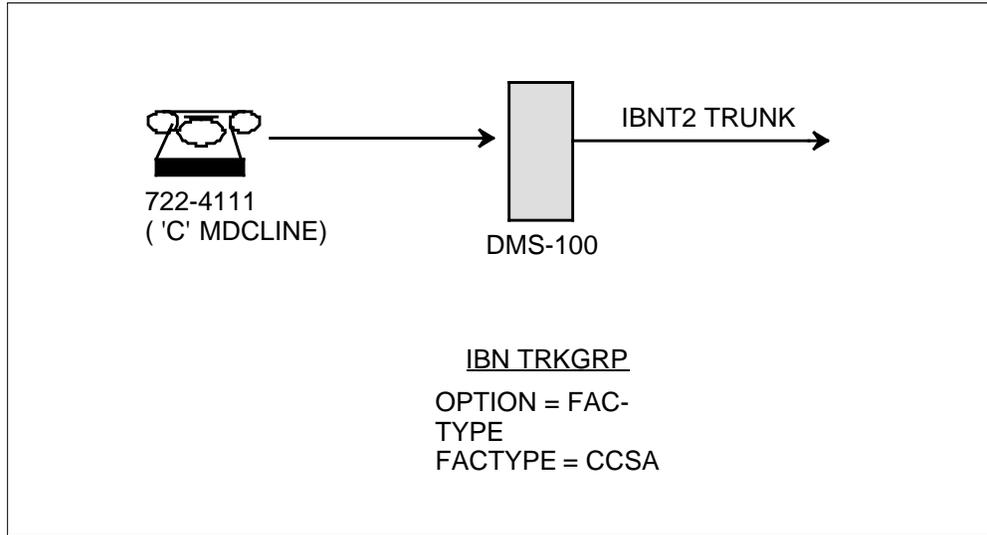
trunk group designated as an FX trunk. To generate call code 011, perform the following steps and refer to Figure 6-14:

1. In table TRKGRP (*Translations Guide*), for an MDC trunk group, datafill Field GRPTYP with value IBNTO or IBNT2.
2. In table TRKGRP, datafill subfield OPTION of GRPINFO with FACTYPE, and the FACTYPE field with the value FX.

When a call terminates on an IBNTO or IBNT2 type trunk assigned the FX special billing option, call code 011 is generated.

**Note:** It is no longer possible to produce this call code for terminations to IBNTO/IBN2 trunks if the MDRRAO feature is in effect for a particular call. This code is replaced by call code 159.

**Figure 6-14 Example of call code 011 datafill**



**Table 6-10 Call code 011**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
FX, automatic flexible routing	011	X0500	X0001		

>TRAVER L 3516789 6757701 B



```
TABLE TRKGRP
BNRIBNTI IBNTI 0 ELO NCRT BNR 0 0 6196757701 ANSDISC 2
  Y N N N N N N 0 0 N N N $
TABLE NCOS
BNR 0 0 0 BNRRES $
TABLE CUSTHEAD
BNR NXLA BNRXLA NXLA 0 BNRDIG
TABLE DIGCOL
BNRDIG 7 RPT
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME BNRXLA
BNRXLA 7 EXTN N Y 619 675 4 $
TABLE THOUGRP
619 675 7 Y C
TABLE DN
619 675 7789 L HOST 00 1 05 07

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6196757789

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 03:57:09 1500 INFO AMA_CALL_DATA
011      6193516789          2074561234 60101 0357027 00000041
ORIG=VFG: OWNTI4, MEMBER: 1 TERM=CKT  BNRIBNTO  10 ANS=Y
```

**Call code 021-Common control switching arrangement (CCSA) sampling**

A 021 AMA record provides details for a call routed over a CCSA facility or originated from a facility designated as a CCSA facility. This call code is only supported for MDC. Call code 021 can be generated by routing a call over an IBN or 2-way trunk group assigned the CCSA special billing option, by originating a non-billable (NP) call from an MDC line routed over a VFG assigned the CCSA option.

To generate call code 021, perform the following steps and refer to Figure 6-15:

1. In table TRKGRP (*Translations Guide*) for an IBN trunk group, datafill field GRPTYP with value IBNTO or IBNT2.
2. In table TRKGRP, datafill subgroup OPTION of GRPINFO with FACTYPE, and the FACTYPE field with the value CCSA.

When a call terminates on an IBNTO or IBNT2 type trunk assigned the CCSA special billing option, call code 021 is generated.

**Note:** It is no longer possible to produce this call code for terminations to IBNTO/IBN2 trunks if the MDRRAO feature is in effect for a particular call. This code is replaced by call code 159.

### Call code 021-CCSA originating line option

To generate call code 021 when originating a non-billable call from an MDC line, add the CCSA option to an MDC line using the SERVORD add option (ADO) command. When this line originates a non-billable call, call code 021 is generated. When this line originates a billable call but the call code is suppressed by table AMAPRT, call code 021 is generated.

**Figure 6-15 Example of call code 021 datafill-CCSA terminating billing option**

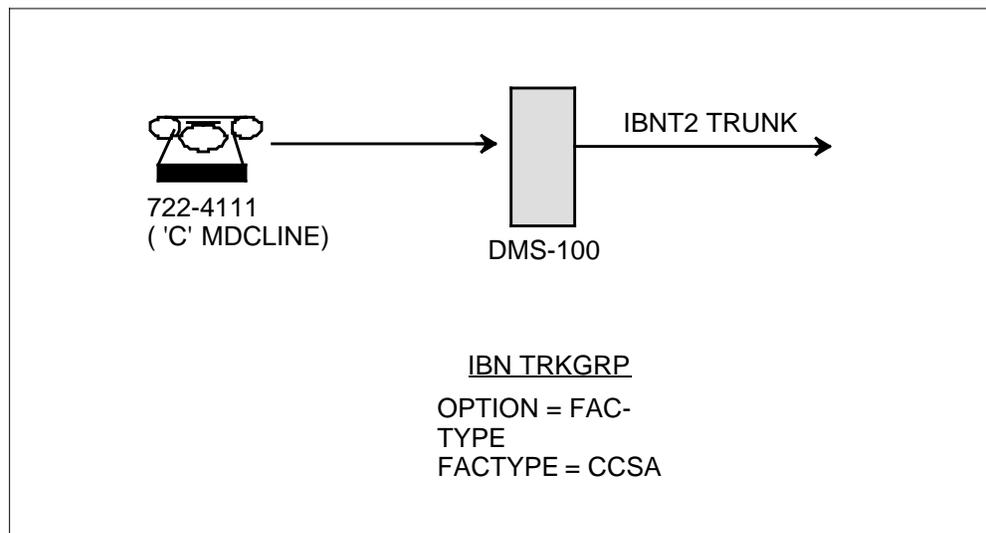
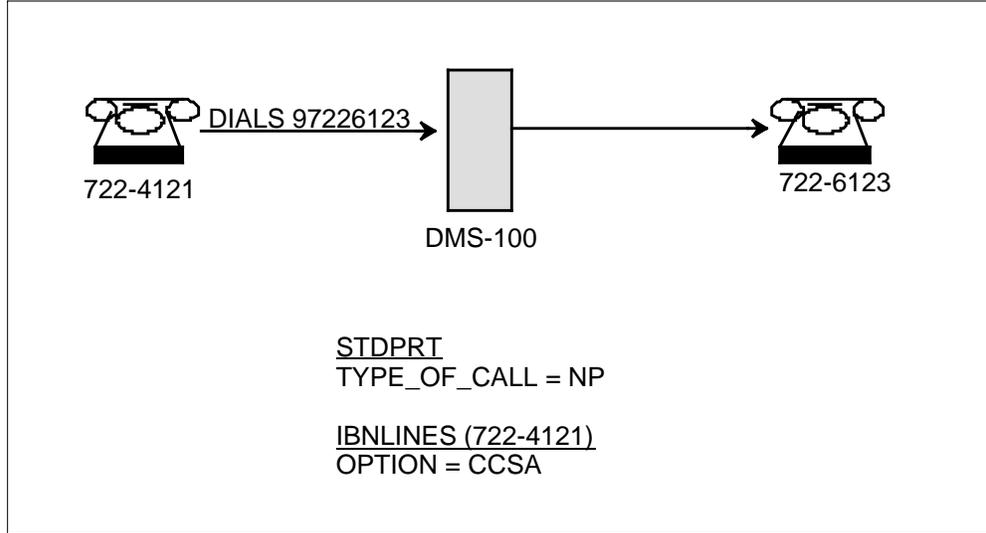


Figure 6-16 shows the relationship of datafill to digits dialed to generate call code 021 when CCSA is assigned to an MDC line originating a call.

Figure 6-16 Example of call code 021 datafill-CCSA originating line option



**Call code 021-CCSA originating line option**

To generate call code 021 when originating a non-billable call from an MDC line routed to an incoming VFG, datafill the incoming VFGMA OPTION and CCSA FACILITY in table VFGDATA/VIRTGRPS. Refer to Figure 6-17.

*Note 1:* Only one billing record is generated when a call is routed from a VFG with CCSA option assigned to a trunk with the CCSA option assigned. The trunk option overrides the VFG option.

*Note 2:* It is no longer possible to produce this call code for terminations to IBNTO/IBN2 trunks if the MDRRAO feature is in effect for a particular call. This code is replaced by call code 159.

Figure 6-17 Example of call code 021 (CCSA incoming VFG option)

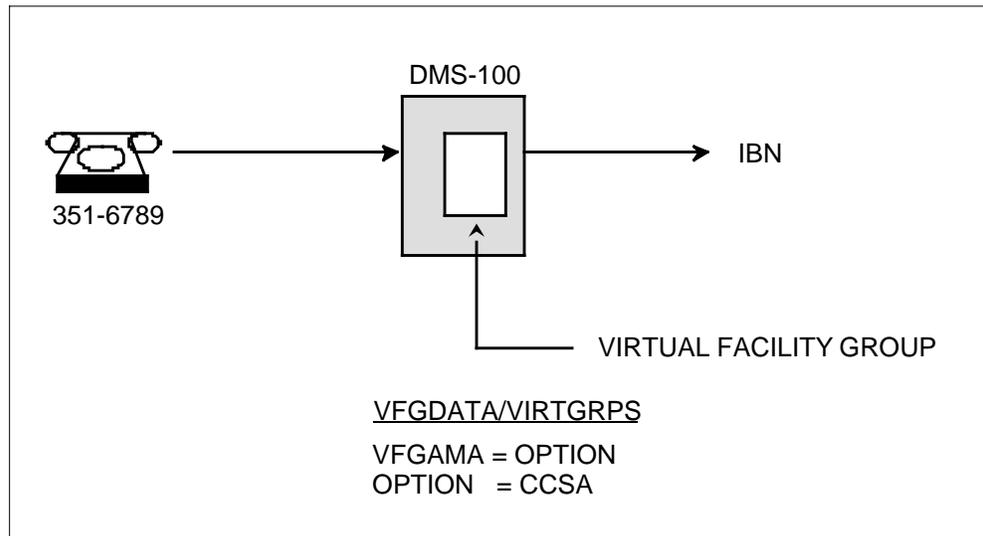


Table 6-11 Call code 021

Call type	Structure codes				
	Call code	High runner	Answer	Unanswer	Other
Common control switching arrangement (CCSA) sampling	021		X0001		

>TRAVER L 3516789 6757789 B

```

TABLE IBNLINES
HOST 01 1 01 02 DT STN IBN 3516789 NTI 0 0 619 $
TABLE NCOS
NTI 0 0 0 NTIRES $
TABLE CUSTHEAD
NTI NXLA NTIXLA NXLA 0 NTIDIG
TABLE DIGCOL
NTIDIG 7 POTS N
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME NTIXLA
NTIXLA 7 NET N N 1 Y POTS N N OWT 7 7 1 IBNRTE 27
TABLE DIGCOL
POTS SPECIFIED: POTS DIGIT COLLECTION
TABLE LINEATTR
7 OWT NONE NT NSCR 0 619 OWT1 LOW9 N NONE N 0 NIL NILSFC
      NILLATA 0 NIL NIL      00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
OWT1 ( 1 ) ( 0 )
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
  
```

6-40 Generating call codes

---

```
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 207 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 LOW9 ( 15) OWAT N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
OWAT DD N DD UNDT
TABLE OWATZONE
619 2074561234 7
TABLE ZONEORDR
619 ( 0) ( 1234567) ( 8) ( 9) ( A) ( B) ( C)$
VALID ZONE 7 OUTWATS CALL
TABLE IBNRTE
  27 OW N N N 7 V OWNTI4 0
EXIT TABLE IBNRTE

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 VFG: OWNTI4          2074561234

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE VIRTGRPS
OWNTI4 SIZE 4 POTS N 17 N $
TABLE LINEATTR
17 IBN NONE NT SOWT 2 619 OWT1 L351 N RTE3 N 0 NIL NILSFC
NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
OWT1 ( 1) ( 0)
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 207 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 L351 ( 15) OPTL N
. SUBTABLE LCASCR
```

. TUPLE NOT FOUND. DEFAULT IS NON-LOCAL  
 TABLE PFXTREAT  
 OPTL DD N DD UNDT  
 TABLE CLSVSCRC  
 619 SOWT DD 2 N NONE ( 1)  
 . SUBTABLE CLSVSCR  
 . 207 209 T 164  
 TABLE OFRT  
 164 N D BNRIBNTO 10 7789 N  
 EXIT TABLE OFRT  
 LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 BNRIBNTO 7789 ST

TREATMENT ROUTES. TREATMENT IS: GNCT  
 1 NCRTANNC  
 2 T120  
 3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE TRKGRP  
 BNRIBNTI IBNTI 0 ELO NCRT BNR 0 0 6196757701 ANSDISC 2 Y N N  
 N N N N 0 0 N N N \$  
 TABLE NCOS  
 BNR 0 0 0 BNRRES \$  
 TABLE CUSTHEAD  
 BNR NXLA BNRXLA NXLA 0 BNRDIG  
 TABLE DIGCOL  
 BNRDIG 7 RPT  
 NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.  
 CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.  
 TABLE IBNXLA: XLANAME BNRXLA  
 BNRXLA 7 EXTN N Y 619 675 4 \$  
 TABLE THOUGRP  
 619 675 7 Y C  
 TABLE DN  
 619 675 7789 L HOST 00 1 05 07

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE 6196757789

TREATMENT ROUTES. TREATMENT IS: GNCT  
 1 NCRTANNC  
 2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 04:15:14 8600 INFO AMA\_CALL\_DATA  
 021 6193516789 2074561234 60101 0415072 00000040  
 ORIG=VFG: OWNTI4, MEMBER: 0 TERM=CKT BNRIBNTO 1 ANS=Y

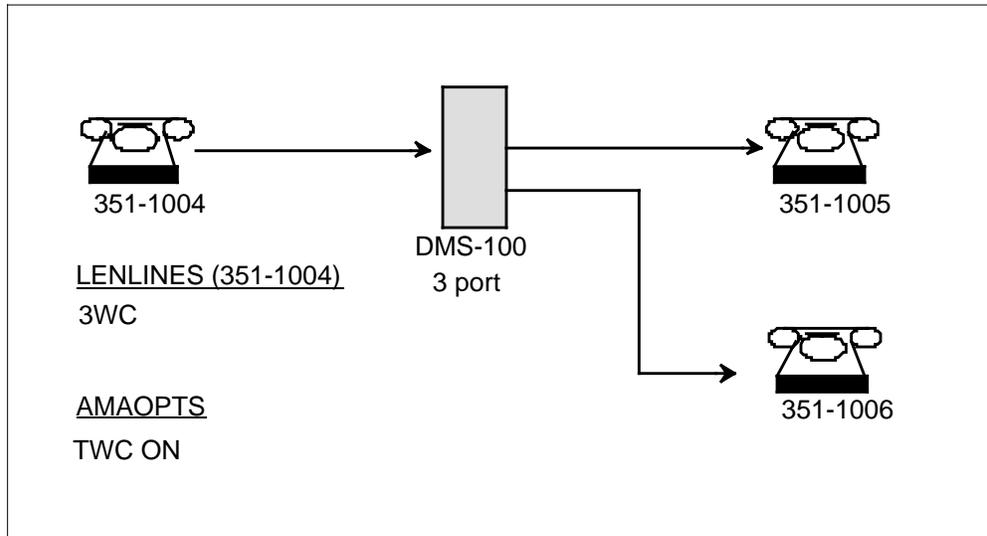
**Call code 026-Conference trunk usage**

A 026 call code indicates that a statistical entry has been made in the AMA record describing conference trunk use. The AMA record contains the calling number and the elapsed time. To generate call code 026, perform the following steps and refer to Figure 6-18:

1. Using the SERVORD ADO command, add the 3WC option to a line.
2. In table AMAOPTS (*Translations Guide*), set Field TWC to ON.

When the line originates a three-way conference call from the line assigned the 3WC option, and the conference bridge is disconnected (when any of the parties hangs up), call code 026 is generated.

**Figure 6-18 Example of call code 026 datafill**



**Table 6-12 Call code 026**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Common control	026				X0076

>TRAVER L 3511004 3511005 B

```
TABLE LINEATTR
3 1FR NONE NT NSCR 0 619 P351 L351 N RTE3 N 0 NIL NILSFC L123
0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
P351 ( 1) ( 1)
. SUBTABLE STDPRT
. 3 610 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 36) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1005 L HOST 01 1 01 02
TABLE LCASCRCN
619 L351 ( 18) OPTL N
. SUBTABLE LCASCR
. 351 351
TABLE PFXTREAT
OPTL NP Y NP UNDT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE 6193511005

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

>TRAVER L 3511004 3511006 B

TABLE LINEATTR
3 1FR NONE NT NSCR 0 619 P351 L351 N RTE3 N 0 NIL NILSFC L123
0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
P351 ( 1) ( 1)
. SUBTABLE STDPRT
. 3 610 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 36) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1006 L HOST 00 1 05 07
TABLE LCASCRCN
```

```
619 L351 ( 18) OPTL N
. SUBTABLE LCASCR
. 351 351
TABLE PFXTREAT
OPTL NP Y NP UNDT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                               6193511006

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRANNNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN02 22:31:07 8200 INFO AMA_CALL_DATA
026 6193511004          6193511006 60102 2230522 00000125
ORIG=LEN HOST 00 0 10 06 DN 3511004
TERM=LEN HOST 01 1 01 02 3511005 ANS=Y
```

### Call code 031-Call forwarding usage

A 031 call code indicates that call forwarding has been activated, is still activated, or has been deactivated. The originating number field of this record contains the telephone number of the call forwarding customer, and the terminating number field contains the call forwarding destination (forwarded-to) number. To generate call code 031, perform the following steps:

For MDC call forwarding:

1. Using the SERVORD ADO command, add the CFU option to an MDC line.
2. In table IBNXLA, assign the call forwarding programming (CFWP) feature to the translator used to route the call. Assign the digits (field DGLIDX) that will be used to activate MDC call forwarding, for example, 76.
3. In table IBNXLA, assign the call forwarding cancel (CFWC) feature to the translator used to route the call. Assign the digits (field DLGIDX) that will be used to cancel MDC call forwarding, for example, 77.
4. In table AMAOPTS (*Translations Guide*) set field CALL\_FWD\_to ON.

The call forwarding feature is activated when the subscriber dials 76 (assigned in table IBNXLA) followed by the directory number twice in one minute. The activation can then be verified by calling the base station to see if the forwarded-to station answers. The feature can also be activated when the subscriber dials 76, the forward-to number, and the forward-to party answers

the telephone. Activation can be verified by means of the CFW100 log. Call forwarding is deactivated by dialing 77 (datafilled in table IBNXLA).

For POTS customer-defined or fixed call forwarding, perform the following steps and refer to Figure 6-19:

1. Using the SERVORD ADO command, add the CFW option to a POTS line. When prompted, enter F (fixed), C (customer definable), or U (usage sensitive pricing) for the WCNTL field.
2. In table AMAOPTS (*Translations Guide*), set field CALL\_FWD to ON.

The call forwarding feature is activated when the subscriber (at the base station) dials 72# followed by the directory number twice in one minute. If the forwarded-to station answers, the DMS records the number. If the forwarded-to number does not answer, the subscriber dials the activation code again and the forwarded-to number and a confirmation tone is received. Call forwarding is deactivated by dialing 73# at the base station.

For POTS usage sensitive pricing call forwarding, perform the following steps and refer to Figure 6-19:

1. Ensure that feature package NTX045AA is present.
2. In table AMAOPTS (*Translations Guide*) set Field CALL-FWD to ON.
3. Set OFCENG parameter USP\_ENABLED to Y.
4. From a POTS line, dial 72# and the forward-to number. If the forward to party answers, call forwarding usage sensitive pricing is automatically activated. If the forward-to party does not answer, dial 72# and the forward-to number again in one minute of the first dialing. Activation can be verified by means of the CFW100 log. The subscriber deactivates the call forwarding feature by dialing 73#.



**Note:** Ensure CFW is assigned to the terminating line. This can be done through SERVORD and will create an entry in table CFW as shown below.

### **Call code 032-Tandem trunk**

A 032 call code is recorded for calls routed over tandem tie trunks. One through 24 digits can be recorded in the AMA record. This call code is only supported for MDC. Call code 032 is generated when a call is routed and terminates on an MDC outgoing or 2-way trunk group designated as a TDMTT trunk. To generate call code 032, perform the following steps and refer to Figure 6-21:

1. In table TRKGRP (*Translations Guide*) for an IBN trunk group, datafill Field GRPTYP with value IBNTO or IBNT2.
2. In table TRKGRP, datafill Subfield OPTION of GRPINFO with FAVTYPE, and the FACTYPE field with the value TDMTT.

When a call terminates on an IBNTO or IBNT2 type trunk assigned the TDMTT special billing option, call code 032 is generated.

**Note 1:** Only one billing record is generated when a call is routed from a VFG with CCSA option assigned to a trunk with the CCSA option assigned. The trunk option overrides the VFG option.

**Note 2:** It is no longer possible to produce this call code for terminations to IBNTO/IBNT2 trunks if the MDRRAO feature is in effect for a particular call. This code is replaced by call code 159.

Figure 6-21 Example of call code 032 datafill

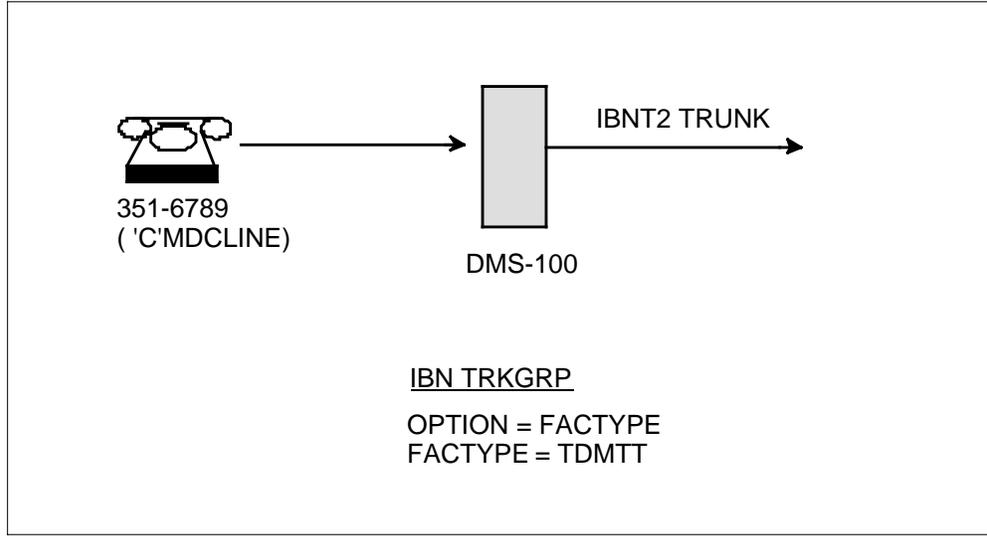


Table 6-14 Call code 032

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Tandem tie trunk (TDMTT)	032		X0025	X0025	

```

>TRAVER L 3516789 6757789 B

TABLE IBNLINES
HOST 01 1 01 02 DT STN IBN 3516789 NTI 0 0 619 $
TABLE NCOS
NTI 0 0 0 NTIRES $
TABLE CUSTHEAD
NTI NXLA NTIXLA NXLA 0 NTIDIG
TABLE DIGCOL
NTIDIG 7 POTS N
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME NTIXLA
NTIXLA 7 NET N N 1 Y POTS N N OWT 7 7 1 IBNRTE 27
TABLE DIGCOL
POTS SPECIFIED: POTS DIGIT COLLECTION
TABLE LINEATTR
7 OWT NONE NT NSCR 0 619 OWT1 LOW9 N NONE N 0 NIL NILSFC
NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
OWT1 ( 1 ) ( 0 )
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS: NONE OVRNONE N
TABLE HNPACONT
  
```

```
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 207 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 LOW9 ( 15) OWAT N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
OWAT DD N DD UNDT
TABLE OWATZONE
619 2074561234 7
TABLE ZONEORDR
619 ( 0) ( 1234567) ( 8) ( 9) ( A) ( B) ( C)$
VALID ZONE 7 OUTWATS CALL
TABLE IBNRTE
  27 OW N N N 7 V OWNTI4 0
EXIT TABLE IBNRTE

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 VFG: OWNTI4          2074561234

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE VIRTGRPS
OWNTI4 SIZE 4 POTS N 17 N $
TABLE LINEATTR
17 IBN NONE NT SOWT 2 619 OWT1 L351 N RTE3 N 0 NIL NILSFC
NILLATA 0 NIL NIL 00v LCABILL OFF-BILLING DONE ON BASIS OF
CALLTYPE
TABLE STDPRTCT
OWT1 ( 1) ( 0)
. SUBTABLE STDPRT
. 2 9 N DD 0 NAV
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE   OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 207 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 L351 ( 15) OPTL N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
```

6-50 Generating call codes

---

```
OPTL DD N DD UNDT
TABLE CLSVSCRC
619 SOWT DD 2 N NONE ( 1)
. SUBTABLE CLSVSCR
. 207 209 T 164
TABLE OFRT
164 N D BNRIBNTO 10 7789 N
EXIT TABLE OFRT
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 BNRIBNTO          7789          ST

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE TRKGRP
BNRIBNTI IBNTI 0 ELO NCRT BNR 0 0 6196757701 ANSDISC
      2 Y N N N N N N 0 0 N N N $
TABLE NCOS
BNR 0 0 0 BNRRES $
TABLE CUSTHEAD
BNR NXLA BNRXLA NXLA 0 BNRDIG
TABLE DIGCOL
BNRDIG 7 RPT
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME BNRXLA
BNRXLA 7 EXTN N Y 619 675 4 $
TABLE THOUGRP
619 675 7 Y C
TABLE DN
619 675 7789 L HOST 00 1 05 07

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE          6196757789

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 04:25:45 6100 INFO AMA_CALL_DATA
032          6193516789          2074561234 60101 0425375 00000043
ORIG=VFG: OWNTI4, MEMBER: 2 TERM=CKT  BNRIBNTO  1 ANS=Y
```

**Call code 033-555 Directory assistance**

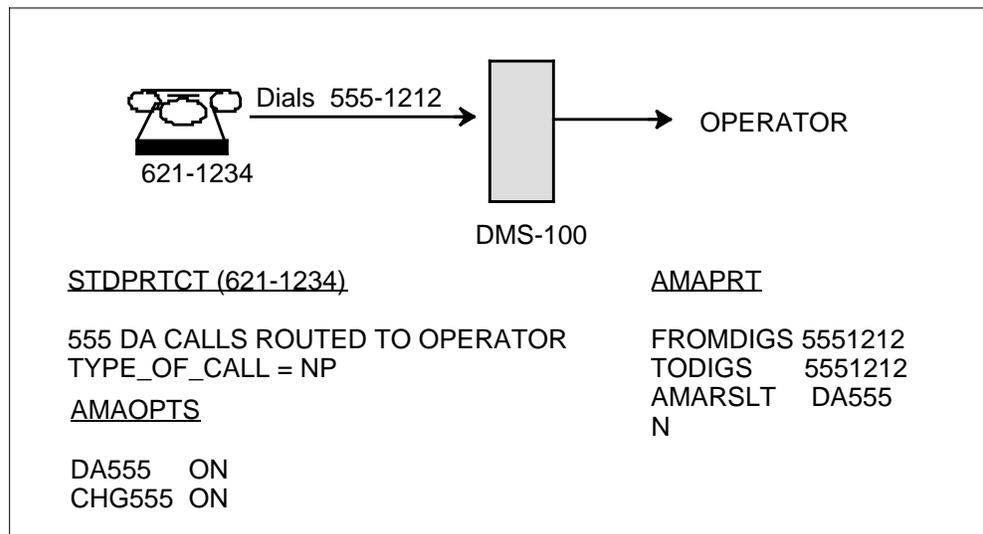
A 033 call code is recorded for calls to 7-digit 555-1212 directory assistance. Call code 033 can be generated using AMA pre-translation. To generate 033 for a 555 directory assistance call, perform the following and refer to Figure 6-22:

1. In table STDPRTCT (*Translations Guide*), route 555 directory assistance calls to an operator position.
2. In subtable AMAPRT (*Translations Guide*), datafill the FROMDIGS and TODIGS fields with 5551212 and the AMARSLT field with DA555 N.
3. The service feature field can be populated with a value of 800-999 when the NTX37AB feature package is available.
4. In table AMAOPTS (*Translations Guide*), set fields DA555 and CHG555 to ON.

When a line originates a 555-1212 call (type of call is NP in subtable STDPRT), call code 033 is generated.

*Note:* Call code 033 is not supported for TOPS.

**Figure 6-22 Example of call code 033 datafill**



**Table 6-15 Call code 033**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Directory assistance (555)	033		X0028	X0068	

>TRAVER L 6221234 15551212 B

```
TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
  NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 15551212 15551212 T NP 1 OFRT 120 8 8 NONE
. . TABLE OFRT
. . 120 N D SIDNOPMFDDO 01 N
. . EXIT TABLE OFRT
. SUBTABLE AMAPRT
. 15551212 15551212 DA555 N

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 SIDNOPMFDDO          15551212          ST2P

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 04:45:42 7100 INFO AMA_CALL_DATA
033          6193511003          6195551212 60101 0445240 00000000
ORIG=LEN HOST 01 0 08 03          DN 3511003
TERM=CKT          SIDNOPMFDDO          0 ANS
```

### Call code 034-Signaling irregularities

A 034 call code record includes the details of a short supervisory transition (SST) that has occurred. The following conditions generate call code 034:

1. A 034 call code is generated for calls originating on super CAMA (SC) trunk groups if the answer time is less than the minimum charge duration (MCD). The MCD is usually less than two seconds. In table AMAOPTS, tuple SST must be set to ON.
2. Call code 034 is generated when the originator (SC trunk group) disconnects prior to completion of MCD timing.

Signaling irregularities are also referred to as SST. A maximum of 16 SST are reported for a single call. Figure 6-23 shows the relationship of datafill and routing to generate call code 034.

Figure 6-23 Example of call code 034 datafill

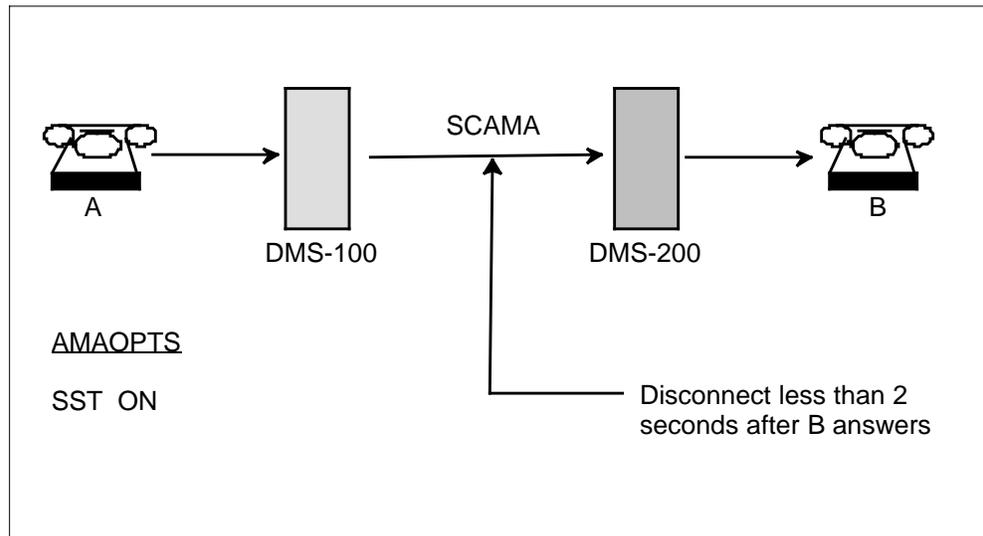


Table 6-16 Call code 034

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Signaling irregularities	034				X0002

**Note:** Use 08971234 for automatic number identification (ANI) digits (that is, KP+08971234+ST). Wink the outgoing trunk several times from the black box to produce signaling irregularities.

### Call code 036-Subscriber line usage termination

A 036 AMA record provides details on calls terminated to a line with a subscriber line usage study (SLUS) in effect. 'Terminating entry' refers to the process of generating AMA data for incoming calls at the called point. AMA data is normally generated at the originating point. For call code 036 to be generated, the proper datafill combination must exist for both the called and the calling parties; no record is generated for the call.

To generate call code 036, perform the following and refer to Figure 6-24.

1. Using the SERVORD ADO command, add the SDY feature option and enter Y in response to prompt LUS. The prompt LUS is associated with the called party.
2. In table AMAOPTS (*Translations Guide*), set the LUSTERM field to ON.

When a line originates a local call to the called party (with LUS OPTION), a 036 call code is generated.

Figure 6-24 Example of call code 036 datafill

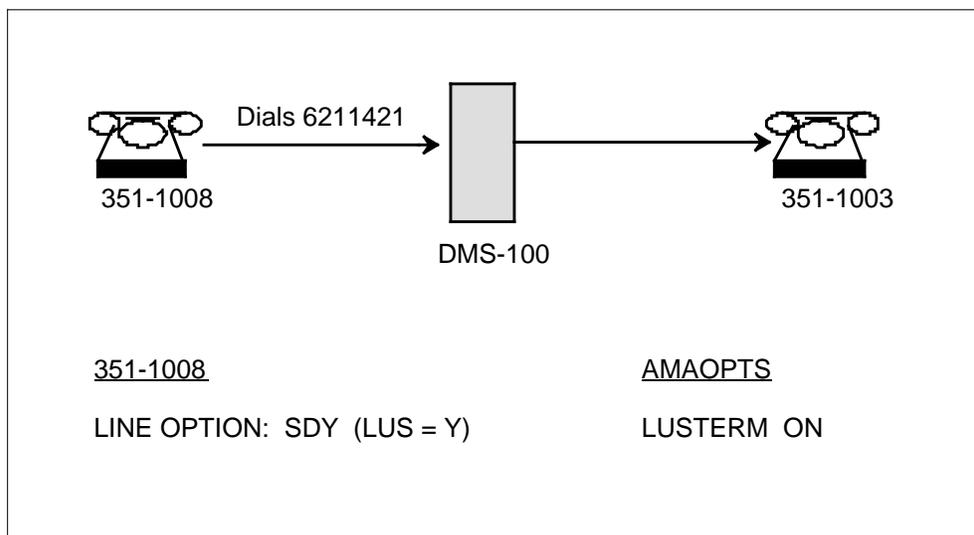


Table 6-17 Call code 036

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
SLU, terminating entry	036		X0079		

>TRAVEL 3511008 3511003 B

```

TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 3 610 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1003 L HOST 01 0 08 03
TABLE LCASCRCN
619 LPOT ( 15) MNMT N
. SUBTABLE LCASCRCN
. 351 351
TABLE PFXTREAT
MNMT NP Y NP UNMT

```

```

TABLE CLSVSCRC
619 SPOT NP 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6193511003

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRANNNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 04:58:39 8300 INFO AMA_CALL_DATA
036      F6193511003      3511003 60101 0458328 00000054
ORIG=LEN HOST 00 1 15 09      DN 3511008
TERM=LEN HOST 01 0 08 03
    
```

**Call code 037-SLUS overflow**

A 037 call code is recorded periodically for terminating SLUS overflow counts. These counts are the number of calls directed to a line assigned for a terminating SLUS study that were diverted because of a line busy condition. To generate call code 037, set field OVERFLOW to ON in table AMAOPTS (*Translations Guide*). When a call terminates to a line assigned the SDY option (LUS =Y), call code 037 is generated periodically for overflows to that line.

**Table 6-18 Call code 037**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
SLUS, overflow counts	037				X9003

*Note 1:* Set field overflow to periodic in table AMAOPTS.

*Note 2:* Ensure SDY option is assigned to the line with the LUS prompt set to Y.

*Note 3:* Make two calls to 3511007 to create an overflow.

**Call code 041-Local coin**

A 041 call code is recorded to indicate a local coin call as opposed to a toll coin call. Local coin calls are recorded only for study purposes. To generate call

code 041, set field COIN to ON in table AMAOPTS (*Translations Guide*). A local call made from a coin station generates call code 041.

**Table 6-19 Call code 041**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Local coin	041		X0001		

```

>TRAVER L 9429902 3511004 B

TABLE LINEATTR
 23 CCF NONE NT SCNH 0 619 PCNH L942 N RTE4 N 0 NIL NILSFC
  NILLATA 0 NIL NIL 00
 LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
 TABLE STDPRTCT
 PCNH ( 1 ) ( 0 )
 . SUBTABLE STDPRT
 . 3 610 P NP 0 NA RTE5
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:  NONE OVRNONE N
 TABLE POSITION
 RTE5 C T OFRT 129 T OFRT 128
 TABLE OFRT
 128 N D LNTOPS2 0 1 N
 EXIT TABLE OFRT
 TABLE OFRT
 129 N D LNTOPS2 0 N N
 EXIT TABLE OFRT
 TABLE HNPACONT
 619 256 8 ( 35 ) ( 1 ) ( 0 )
 . SUBTABLE HNPACODE
 . 351 351 DN 619 351
 TABLE THOUGRP
 619 351 1 Y C
 TABLE DN
 619 351 1004 L HOST 00 0 10 06
 TABLE LCASCRCN
 619 L942 ( 16 ) OPTL N
 . SUBTABLE LCASCR
 . 351 351
 TABLE PFXTREAT
 OPTL NP Y NP UNDT
 TABLE CLSVSCRC
 KEY NOT FOUND
 DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE 6193511004
  
```

```
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRANNNC
2 T120
3 LKOUT

POSITION ROUTES.  POSITION IS: RTE5
1 LNTOPS2

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 07:19:26 2200 INFO AMA_CALL_DATA
041      6199429902      6193511004 60101 0719163 00000084
ORIG=LEN HOST 00 1 15 29 DN 9429902
TERM=CKT LNTOPS2 1024 ANS=Y
```

### Call code 042-Time change

A 042 call code is recorded when a clock (time and/or date) change occurs in the AMA recording system. To generate call code 042, set field TIMECHANGE to ON in table AMAOPTS (*Translations Guide*). Whenever the time of day is changed on the switch, call code 042 is generated.

**Table 6-20 Call code 042**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Time change	042				X9000

### Call code 047-AIN default

Call code 047 is used in either structure code 0220 or 0221 when the SCP value cannot be determined. The call code supplied in the billing indicator parameter of the response message are recorded in module code 030 (translation settable) not the call code values supplied by the SCP.

**Table 6-21 Call code 047**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
AIN default	047				X0220, X0221

A 063 call code is recorded for all calls originating to a cellular mobile carrier (CMC) where a wink from the CMC has been received. To generate call code 063, perform the following steps:

1. Datafill trunks requiring a type-1 or -2B connection to a CMC as PX in able TRKGRP.
2. Set the CMCORIG option ON in table AMAOPTS.

3. Increase Office Parameter NUM\_OF BC\_AMA\_UNITS in table OFCENG as required. Refer to the *Office Parameters Reference Guide* for details on this office parameter. Every originating CMC call requires a BC AMA unit.
4. If unanswered call records are required, table BCCODES should be datafilled as described in the *Translations Guide*.
5. Translation and routing data fill for a CMC should be identified to that for a 2-way inter-toll trunk from an equal access end office (EAEO).

**Call code 048-Usage three-way calling (U3WC)**

Call code 048 is SOC optional. Call code 048 is used in structure code 00001. The generation of this record is triggered each time an end-user activates U3WC and a second leg is successfully established (ringback, busy-tone, or treatment).

*Note:* If the second leg yielded a treatment and is intra-office or inter-office with full ISUP connectivity, recall ringing is not performed and a LAMA record is not generated if the controller hangs up without first conferencing the treatment.

The generation of the AMA record is dependent on the value of the office parameters U3WC\_FLASH\_ONLY and U3WC\_ELAPSED\_TIME in office parameters table OFCENG as described in the *Translations Guide*.

**Table 6-22 Call code 048**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
U3WC	048				X0001

**Call code 063-CMC originating-type-1 or -2B**

A 064 call code 063 AMA record is generated for all calls originating to a cellular mobile carrier (CMC) where a wink from the CMC has been received.

**Table 6-23 Call code 063**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
CMC originating type-1 or -2B	063		X0653		

**Call code 064-Cellular mobile carrier (CMC) originating-type-2A**

A 064 call code is recorded for an originating call to a cellular mobile carrier. To generate call code 064, perform the following steps:

1. Datafill trunks requiring a type-2A connection to a CMC as CELL in Table TRKGRP.
2. Set the CMCORIG ON in table AMAOPTS.
3. Increase Office Parameter NUM\_OF\_BC\_AMA\_UNITS in table OFCENG as required. Refer to the *Office Parameters Reference Manual* for details on this office parameter. Every originating CMC call requires a BC AMA unit.
4. In unanswered call records are required, table BCCODES should be datafilled as described in the *Translations Guide*.
5. Translation and routing datafill for a CMC should be identical to that for a 2-way inter-toll trunk from an EAEO.

**Table 6-24 Call code 064**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
CMC originating type-2A	064		X0653		

**Call code 065-Cellular mobile carrier (CMC) terminating-type-1 and -2B**

A 065 call code is recorded for a call terminated to a CMC where a seizure has been detected on the incoming CMC trunk. To generate call code 065, perform the following steps:

1. Datafill trunks requiring a type 1 or 2B connection to a CMC as PX in Table TRKGRP.
2. Set the CMCTERM option ON in table AMAOPTS.
3. Increase Office Parameter NUM\_OF\_BC\_AMA\_UNITS in table OFCENG as required. Refer to the *Office Parameters Reference Manual* for details on this office parameter. Certain terminating CMC calls require BC AMA units as shown in the following list:
  - a. CELL trunk to CELL trunk1
  - b. CELL trunk to FGC/FGD carrier2
  - c. CELL trunk to FGB carrier2
  - d. CELL trunk to EO (IT trunk)1
  - e. CELL trunk to line (DMS 100/200)1
4. If unanswered call records are required, table BCCODES should be datafilled as described in the *Translations Guide*.

5. Translations and routing datafill for a CMC should be identical to that for a two-way inter-toll trunk from an EAEO.
6. For a terminating CMC call, the carrier connect time is normally the time the incoming CMC trunk is seized. If the CMCICWK option is set to ON, then the carrier connect time on a CMC to FGD carrier call is the time of the billing wink from the FGD carrier. A CMC access record is not produced unless a billing wink is received from the FGD carrier.

**Table 6-25 Call code 65**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
CMC terminating type-1 or -2B	065		X0625		

**Call code 066-Cellular mobile carrier (CMC) terminating-type-2A**

A 066 call code is recorded for a terminating call from a CMC. To generate call code 066, perform the following steps:

1. Datafill trunks requiring a type-2A connection to a CMC as CELL in table TRKGRP.
2. Set the CMCTERM option ON in table AMAOPTS.
3. Increase Office Parameter NUM\_OF\_BC\_AMA\_UNITS in table OFCENG as required. Refer to the *Office Parameters Reference Manual* for details on this office parameter. Certain terminating CMC calls require BC AMA units as shown in the following list:
  - a. CELL trunk to CELL trunk1
  - b. CELL trunk to FGC/FGD carrier2
  - c. CELL trunk to FGB carrier2
  - d. Cell trunk to EO (IT trunk)1
  - e. CELL trunk to line (DMS 100/200)1
4. If unanswered call records are required, table BCCODES should be datafilled as described in the *Translations Guide*.
5. Translations and routing datafill for a CMC should be identical to that for a 2-way inter-toll trunk from an EAEO.
6. For a terminating CMC call, the carrier connect time is normally the time the incoming CMC trunk is seized. If the CMCICWK option is set to ON, then the carrier connect time on a CMC to FGD carrier call is the time of

the billing wink from the FGD carrier. A CMC access record is not produced unless a billing wink is received from the FGD carrier.

7. For a CMC to FGD carrier call, the called number is only added when field CMCMON in table OCCINFO is set to Y for the particular carrier.

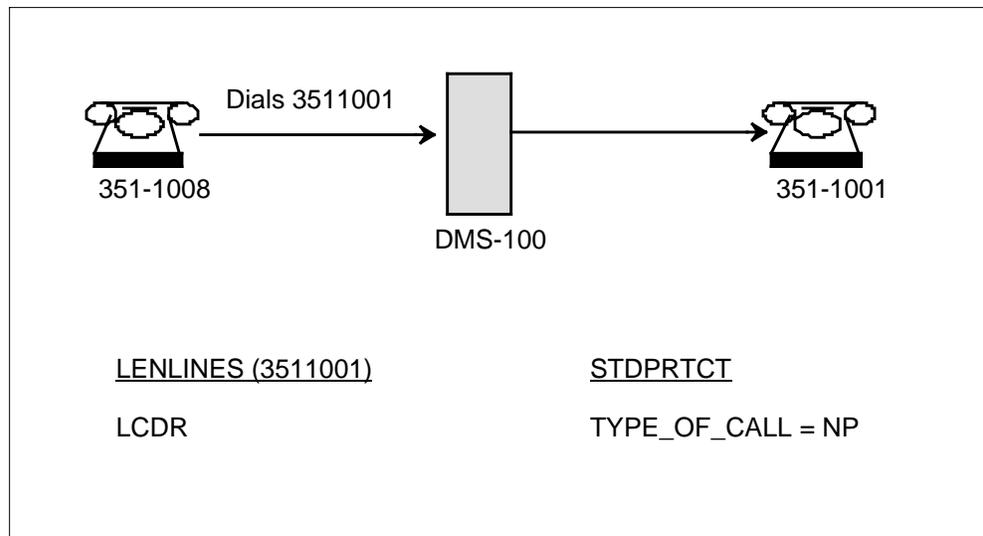
**Table 6-26 Call code 066**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
CMC terminating type 2A	066		X0625		

**Call code 067-Flat rate**

A 067 call code provides AMA details for a call in a customer's flat rate area. This call does not require AMA data for billing, but data is provided as required for studies. To generate call code 067, assign the LCDR option to a 1FR line using the SERVORD ADO command. When the line originates a local call from the line assigned the LCDR option, call code 067 is generated. When a line originates a toll call but the billing record is suppressed by table AMAPRT, call code 067 is generated. Figure 6-25 shows the relationship of datafill and routing to generate call code 067.

**Figure 6-25 Example of call code 067 datafill**



**Table 6-27 Call code 067**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Flat rate	067		X0001		

```

>TRAVER L 3511008 3511001 B

TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
  NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 3 610 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1001 L HOST 01 0 00 02
TABLE LCASCRCN
619 LPOT ( 15) MNDT N
. SUBTABLE LCASCR
. 351 351
TABLE PFXTREAT
MNDT NP Y NP UNDT
TABLE CLSVSCRC
619 SPOT NP 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6193511001

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 05:47:43 8400 INFO AMA_CALL_DATA
067      6193511008          6193511001 80520 0547371 00000052
ORIG=LEN HOST 00 1 15 09      DN 3511008
TERM=LEN HOST 01 0 00 02      DN 3

```

### Call code 068-OUTWATS

#### POTS OUTWATS line

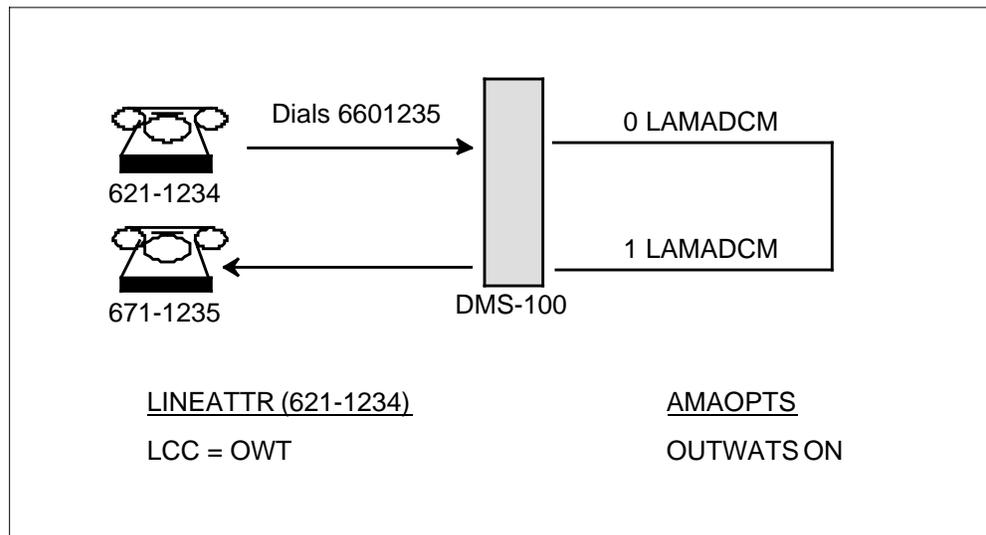
A 068 call code is recorded for customer-dialed, ANI OUTWATS calls. The originating number field contains a WATS billing number that is assigned by the operating company. Call code 068 can be generated from a POTS,

OUTWATS, or an MDC OUTWATS line. To do so, perform the following steps and refer to Figure 6-26:

1. Use the SERVORD ADO command to add the OUTWT feature option to a line with line class code equal to OWT.
2. In table LINEATTR, datafill field LCC with the value OWT.
3. In table AMAOPTS (*Translations Guide*), set field OUTWATS to ON.

When the OUTWATS line originates a call, call code 068 is generated.

**Figure 6-26 Example of call code 068 datafill**



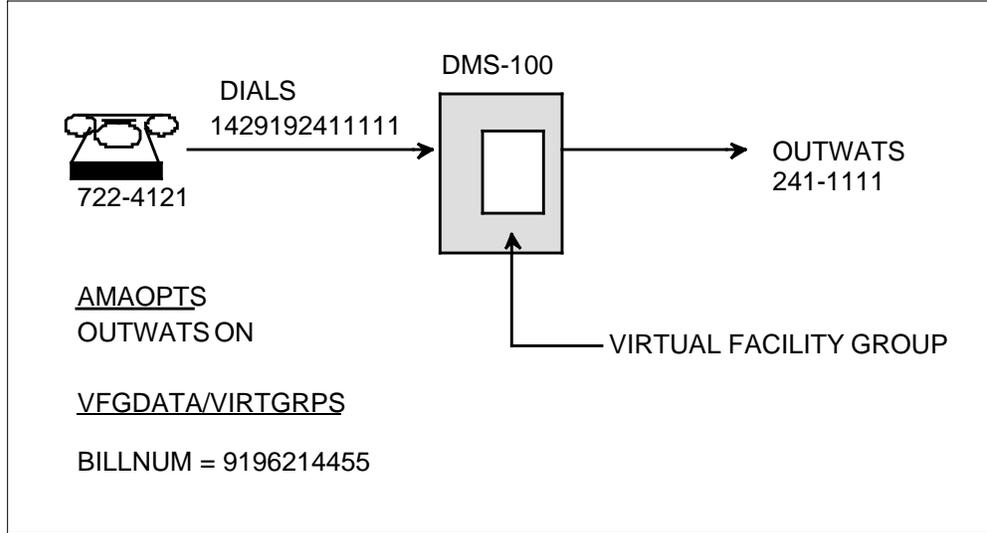
### MDC OUTWATS line

To generate call code 068 when an MDC OUTWATS call is routed using a VFG, perform the following steps:

1. In table VFGDATA/VIRTGRPS, datafill the BILLNUM field for the incoming VFG with a special billing number.
2. When an MDC OUTWATS call is routed to the incoming VFG, call code 068 is generated.

Figure 6-27 shows the relationship of datafill to routing when the MDC line originates an OUTWATS call over a VFG that generates call code 068.

**Figure 6-27 Example of call code 068 datafill-OUTWATS line**



**Table 6-28 Call code 068**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
OUTWATS (billing number)	068	X0501	X0020		

```

TABLE IBNLINES
HOST 01 1 01 02 DT STN IBN 3516789 NTI 0 0 619 $
TABLE NCOS
NTI 0 0 0 NTIRES $
TABLE CUSTHEAD
NTI NXLA NTIXLA NXLA 0 NTIDIG
TABLE DIGCOL
NTIDIG 8 POTS Y
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME NTIXLA
NTIXLA 80 ROUTE N N 2 Y 11 13 POTS Y T IBNRTE 29
TABLE DIGCOL
POTS SPECIFIED: POTS DIGIT COLLECTION
TABLE IBNRTE
  29 OW N N N 0 V OWNTI5 0
EXIT TABLE IBNRTE

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 VFG: OWNTI5          4072701212

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT
  
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE VIRTGRPS  
OWNTI5 SIZE 4 POTS 3511001 7 N \$  
TABLE LINEATTR  
7 OWT NONE NT NSCR 0 619 OWT1 LOW9 N NONE N 0 NIL NILSFC  
                  NILLATA 0 NIL NIL                  00  
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE  
TABLE STDPRTCT  
OWT1 ( 1 ) ( 0 )  
  . SUBTABLE STDPRT  
  . 4 9 N DD 0 NA  
  . SUBTABLE AMAPRT  
  . KEY NOT FOUND  
  . DEFAULT VALUE IS:      NONE      OVRNONE N  
TABLE HNPACONT  
619 256 8 ( 35 ) ( 1 ) ( 0 )  
  . SUBTABLE HNPACODE  
  . 407 407 FNPA 0  
TABLE FNPACONT  
407 64-( 644 ) ( 0 ) ( 10 )  
  . SUBTABLE FNPACODE  
  . 270 270 6 Y  
  . SUBTABLE RTEREF  
  . .      6 DN 407 270  
  . EXIT TABLE RTEREF  
EXIT TABLE FNPACONT  
THIS IS A ZONE N OUTWATS LINE  
TABLE OWATZONE  
619 4072701212 0  
TABLE ZONEORDR  
619 ( 0 ) ( 1234567 ) ( 8 ) ( 9 ) ( A ) ( B ) ( C )\$  
VALID OUTWATS CALL  
TABLE LCASCRCN  
619 LOW9 ( 15 ) OWAT N  
  . SUBTABLE LCASCR  
  . 407 407  
TABLE LCASCRCN  
KEY NOT FOUND  
LCASCRCN TUPLE MISSING

+++ TRAVER: CALL TRACE TERMINATED DUE TO DATA TROUBLE +++

DIGIT TRANSLATION ROUTES

1 LINE                          4072701212

TREATMENT ROUTES.  TREATMENT IS: GNCT  
1 NCRANN  
2 T120  
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 06:08:44 0500 INFO AMA CALL DATA  
068          6193511001          4072701212 80520 0608369 00000055  
ORIG=VFG: OWNTI5, MEMBER:      2  
TERM=LEN HOST 00 0 10 06      DN 2701212 A

**Call code 071-INWATS overflow counts**

A 071 call code is generated when incoming calls to an INWATS hunt group are blocked because all hunt group members are busy (an overflow condition). This AMA record contains a count of the number of calls to an INWATS hunt group that are blocked due to an overflow condition. The overflow count is taken from the overflows register (OFS) in the INWATS software register (INW). To generate call code 071, set the OVERFLOW field to PERIODIC in table AMAOPTS (*Translations Guide*).

**Table 6-29 Call code 071**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
OUTWATS (billing number)	071				X9003

**Call code 072-InterLATA datapath**

Call code 072 is generated whenever an IntraLATA Datapath call is originated from a data unit.

**Table 6-30 Call code 072**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Datapath	072		X0190		

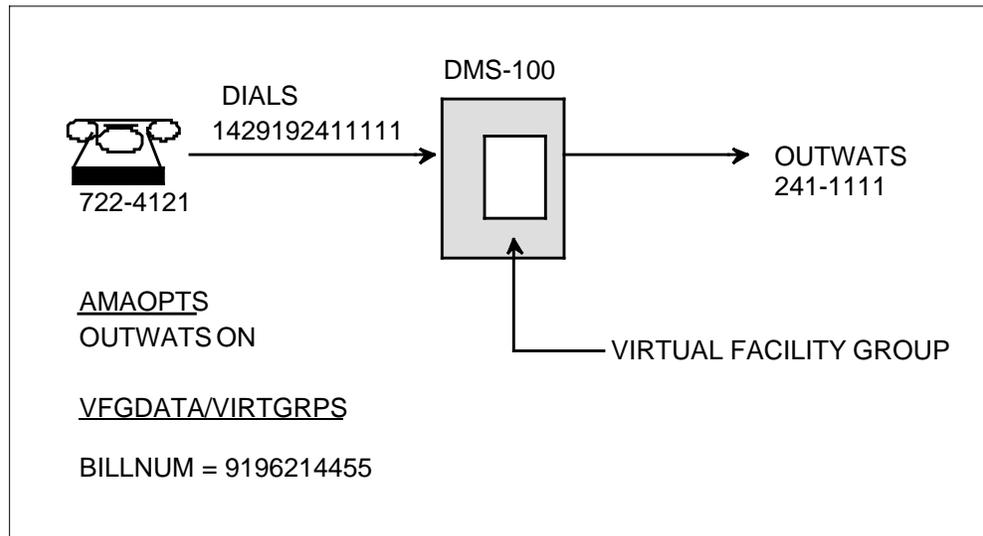
**Call code 074-Free call**

A 074 call code identifies an intra-switch call to a free number and is recorded for studies only. To generate call code 074, perform the following and refer to Figure 6-28, and Figure 6-29:

1. Using the SERVORD ADO command, add the FNT option to the terminating line.
2. In table AMAOPTS (*Translations Guide*), set field FREECALL to ON.

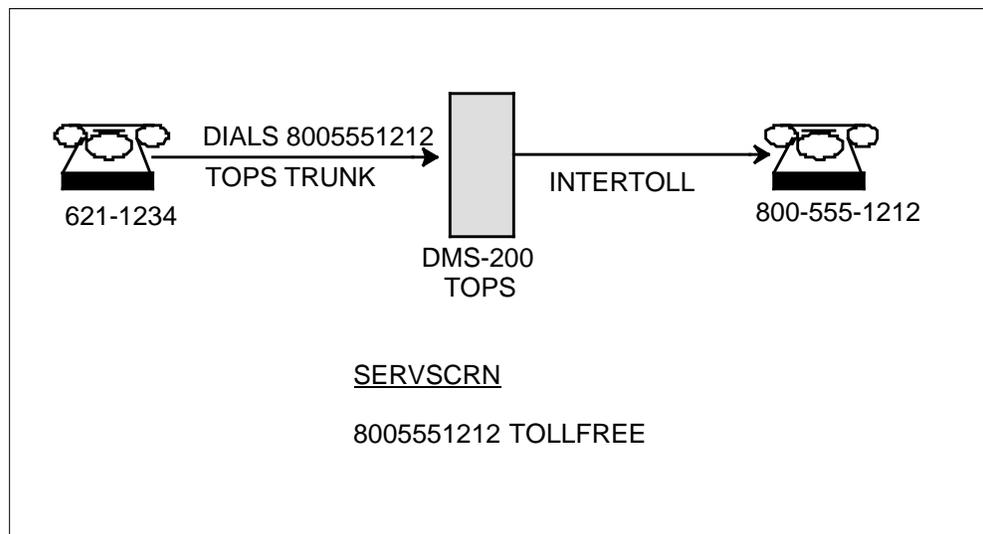
When an intra-switch call terminates to a line assigned the FNT option, call code 074 is generated. The typical application of call code 074 is in message rate offices where a message rate line calls the police, fire department, service, or similar termination.

**Figure 6-28 Example of call code 074 datafill**



For TOPS trunk calls, datafill the number as TOLLFREE in table SERVSCRN. A typical TOPS application of call code 074 is shown in Figure 6-29.

**Figure 6-29 Example of call code 074 datafill-TOPS**



**Table 6-31 Call code 074**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Free call	074		X0001		X0700, X0727

```
>TRAVER L 3511003 3511008 B

TABLE LINEATTR
 1 1MR NONE NT SPOT 0 619 POT1 LPOT RTE4 N 0 MR1 NILSFC
    NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 3 610 N NP 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1008 L HOST 00 1 15 09
TABLE LCASCRCN
619 LPOT ( 15) MNDT N
. SUBTABLE LCASCR
. 351 351
TABLE PFXTREAT
MNDT NP Y NP UNDT
TABLE CLSVSCRC
619 SPOT NP 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6193511008

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 JAN01 07:39:21 0000 INFO AMA_CALL_DATA
074 6193511004 6193511008 60101 0739124 00000059
ORIG=LEN HOST 00 0 10 06 DN 3511004
TERM=LEN HOST 00 1 15 09
```

### Call code 085-ETS, electronic tandem switch

A 085 call code is recorded for an electronic tandem switched (ETS) call routed over normal ETS trunks. This call code is only supported for MDC. Call code 085 is generated when a call is routed and terminates on an MDC

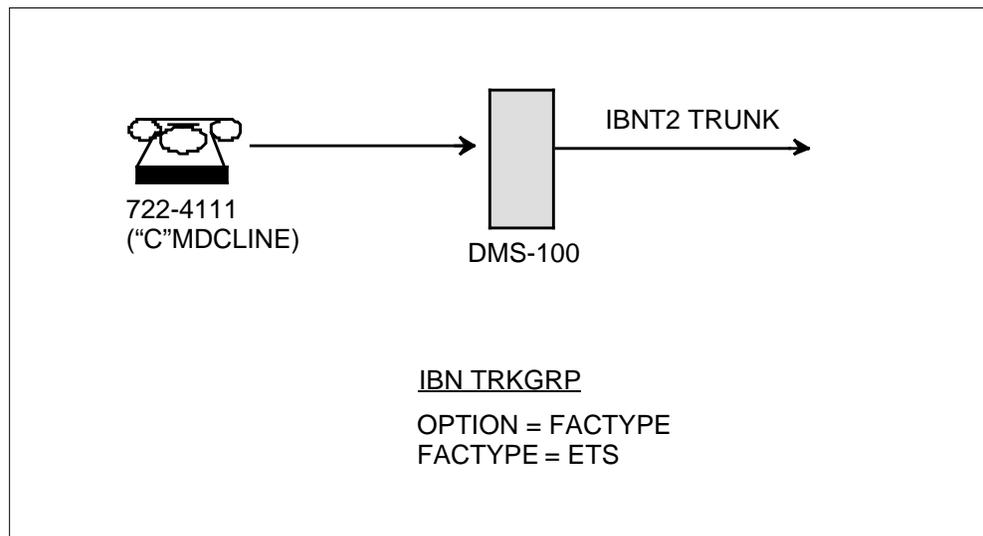
outgoing or 2-way trunk group designated as an ETS trunk. To generate call code 085, perform the following steps and refer to Figure 6-30:

1. In table TRKGRP (*Translations Guide*), for an MDC trunk group, datafill field GRPTYP with value IBNTO or IBNT2.
2. In table TRKGRP (*Translations Guide*), datafill subfield OPTION of GRPINFO with FACTYPE, and the FACTYPE filed with the value ETS.

When a call terminates on an IBNTO or IBNT2 type trunk assigned the ETS special billing option, call code 085 is generated.

**Note:** It is no longer possible to produce this call code for terminations to IBNTO/IBN2 trunks if the MDRRAO feature is in effect for a particular call. This code is replaced by call code 159.

**Figure 6-30 Example of call code 085 datafill**



**Table 6-32 Call code 85**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Electronic tandem switched call	085		X0001		

>TRAVER L 3511008 2074561234 B

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---

```
TABLE IBNLINES
HOST 01 1 01 02 DT STN IBN 3516789 NTI 0 0 619 $
TABLE NCOS
NTI 0 0 0 NTIRES $
TABLE CUSTHEAD
NTI NXLA NTIXLA NXLA 0 NTIDIG
TABLE DIGCOL
NTIDIG 7 POTS N
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME NTIXLA
NTIXLA 7 NET N N 1 Y POTS N N OWT 7 7 1 IBNRTE 27
TABLE DIGCOL
POTS SPECIFIED: POTS DIGIT COLLECTION
TABLE LINEATTR
7 OWT NONE NT NSCR 0 619 OWT1 LOW9 N NONE N 0 NIL NILSFC
  NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
  TABLE STDPRTCT
OWT1 ( 1) ( 0)
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 207 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 LOW9 ( 15) OWAT N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
OWAT DD N DD UNDT
TABLE OWATZONE
619 2074561234 7
TABLE ZONEORDR
619 ( 0) ( 1234567) ( 8) ( 9) ( A) ( B) ( C)$
VALID ZONE 7 OUTWATS CALL
TABLE IBNRTE
  27 OW N N N 7 V OWNTI4 0
EXIT TABLE IBNRTE
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 VFG: OWNTI4 2074561234

TREATMENT ROUTES. TREATMENT IS: GNCT

- 1 NCRANN
- 2 T120
- 3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

```

TABLE VIRTGRPS
OWNTI4 SIZE 4 POTS N 17 N $
TABLE LINEATTR
17 IBN NONE NT SOWT 2 619 OWT1 L351 N RTE3 N 0 NIL NILSFC
NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
OWT1 ( 1) ( 0)
. SUBTABLE STDPRT
. 2 9 N DD 0 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS: NONE OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 207 209 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 L351 ( 15) OPTL N
. SUBTABLE LCASCR
. TUPLE NOT FOUND. DEFAULT IS NON-LOCAL
TABLE PFXTREAT
OPTL DD N DD UNDT
TABLE CLSVSCRC
619 SOWT DD 2 N NONE ( 1)
. SUBTABLE CLSVSCR
. 207 209 T 164
TABLE OFRT
164 N D BNRIBNTO 10 7789 N
EXIT TABLE OFRT
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 BNRIBNTO 7789 ST

TREATMENT ROUTES. TREATMENT IS: GNCT
1 NCRANN
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TABLE TRKGRP
BNRIBNTI IBNTI 0 ELO NCRT BNR 0 0 6196757701 ANSDISC 2
Y N N N N N N 0 0 N N N $
TABLE NCOS
BNR 0 0 0 BNRRES $
TABLE CUSTHEAD
BNR NXLA BNRXLA NXLA 0 BNRDIG
TABLE DIGCOL
BNRDIG 7 RPT
NCOS PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
CUST PRELIM XLA NAME IS NIL. GO TO NEXT XLA NAME.
TABLE IBNXLA: XLANAME BNRXLA

```

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---

```
BNRXLA 7 EXTN N Y 619 675 4 $
TABLE THOUGRP
619 675 7 Y C
TABLE DN
619 675 7789 L HOST 00 1 05 07

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6196757789

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 06:16:16 0100 INFO AMA_CALL_DATA
085      6193516789      2074561234 80520 0616107 00000039
ORIG=VFG: OWNTI4, MEMBER: 3 TERM=CKT   BNRIBNTO   10 ANS=Y
```

**Call code 088-Non-directory assistance, 555**

A 088 call code is recorded for calls routed to DA 555-xxxx other than 555-1212. This call code requires AMA pre-translation. To generate call code 088 for 555 directory assistance call, perform the following:

1. In table STDPRTCT (*Translations Guide*), route 555 directory assistance calls to an operator position.
2. In subtable AMAPRT (*Translations Guide*), datafill the FROMDIGS and TODIGS fields with 5552342 and the AMARSLT filled with NONDA555 N.
3. The service feature field can be populated with a value of 800-999 when the NTX737AB feature package is available.

When a line originates a 555-2342 call (type of call is NP in subtable STDPRT), call code 088 is generated.

Figure 6-31 shows the relationship of datafill to digits dialed when AMA pre-translation is used to generate call code 088.

Figure 6-31 Example of call code 088 datafill

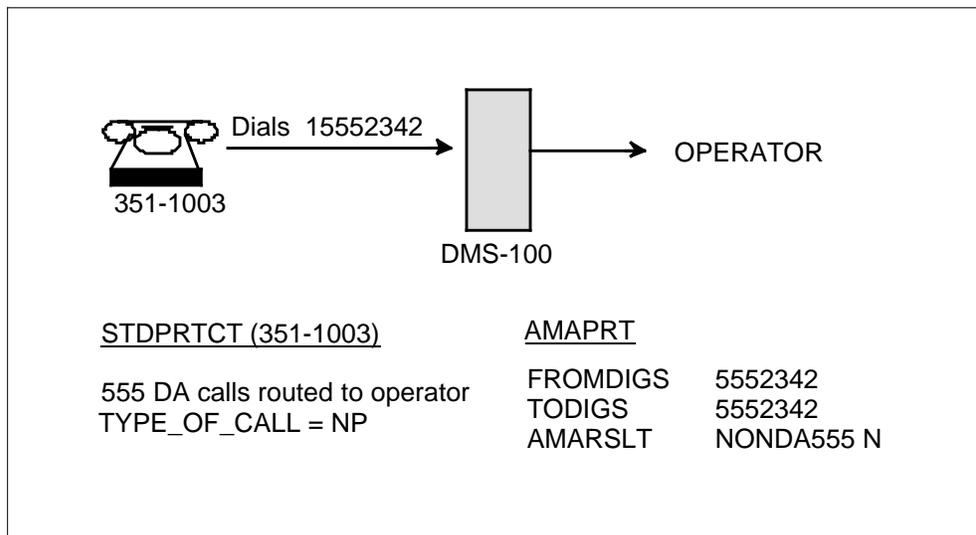


Table 6-33 Call code 088

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Non-directory assistance (555)	088	X0500	X0001		

```

>TRAVER L 3511003 15551234 B

TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
  NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1 ) ( 1 )
. SUBTABLE STDPRT
. 15551234 15551234 T NP 1 OFRT 303 8 8 NONE
. . TABLE OFRT
. . 303 N D G200ITMFTSO 10 4072701212 N
. . EXIT TABLE OFRT
. SUBTABLE AMAPRT
. 15551234 15551234 NONDA555 N

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 G200ITMFTSO          4072701212          ST

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

```

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```

TABLE TRKGRP
GRBLITMFTSI IT 0 TLD NCRT IC DD MIDL
          000 NPRT NSCR 619 000 N N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 407 407 FNPA 0
TABLE FNPACONT
407 64-( 644) ( 0) ( 10)
. SUBTABLE FNPACODE
. 270 270 6 Y
. SUBTABLE RTEREF
. . 6 DN 407 270
. EXIT TABLE RTEREF
EXIT TABLE FNPACONT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                4072701212

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 06:36:41 0800 INFO AMA_CALL_DATA
088 6193511003          6195551234 80520 0636361 00000046
ORIG=LEN HOST 01 0 08 03 DN 3511003 TERM=CKT G200ITMFTSO

```

**Call code 089-Frame relay**

A call code 089 AMA record indicates frame relay service. The condition is Intra-network permanent virtual circuit (PVC).

**Call code 090-Sensor tracer**

A 090 call code indicates a statistical entry containing attempt and completion data provided by a particular sensor. To generate call code 090 AMA assembly tracer records, set field TRACER in table AMAOPTS (*Translations Guide*) to PERIODIC.

No AMAB log is generated.

**Table 6-34 Call code 090**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Sensor tracer	090				X9046
					X9049

**Call code 092-Sensor/RAO tracer**

A 092 call code indicates that the tracer record was recorded at the sensor with no reformatting done before arrival at the revenue accounting office (RAO). Call code 092 is generated automatically at the beginning and end of AMA files.

**Table 6-35 Call code 092**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Sensor/RAO tracer	092				X9013
					X9014

**Call code 110-InterLATA station paid**

A 110 call code is recorded for direct-dialed, station-paid toll calls routed over an interLATA carrier facility. The record contains carrier information for applying access charges. Call code 110 is generated when an outgoing equal access call is made. When a call is made to a CMC, the called number is only added when field CMCMON in table OCCINFO is set to Y for the particular carrier.

**Table 6-36 Call code 110**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
InterLATA station paid	110		X0625	X0625	

>TRAVER L 3511008 101113124561234 B&

```

TABLE LINEATTR
3 1FR NONE NT S351 2 619 P351 L351 N RTE3 N 0 NIL NILSFC L123
0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
P351 ( 1 ) ( 1 )
. SUBTABLE STDPRT
. 10111 10111 EA DD 5 P P111 C111 Y OFRT 202 6 20 Y
. . TABLE OFRT
. . 202 CND EA INTNL SK 4
. . N D C111ATCEAP2 0 N N
. . S D EAPEG
. . N D GRATOPMFEAO 15 D088 N
. . CND ALWAYS SK 3
. . N D C111ATCEAP2 15 D157 N
. . S D EAPEG
. . N D GRATOPMFEAO 15 D157 N
. . EXIT TABLE OFRT
. TABLE STDPRTCT
    
```

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---

```
. P111 ( 1 ) ( 0 )
. . SUBTABLE STDPRT
. . 3 9 EA DD 0 T NA C111 N
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35 ) ( 1 ) ( 0 )
. SUBTABLE HNPACODE
. 312 319 FRTD 118
. SUBTABLE RTEREF
. 118 N D SIDNITMFITO 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 L351 ( 15 ) OPTL N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
OPTL DD N DD UNDT
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
OVERLAP CARRIER SELECTION (OCS) APPLIES
TABLE OCCINFO
C111 111 EAP Y Y N Y Y Y Y N LONG 0 FGRPC Y N N N
TABLE EASAC
TUPLE NOT FOUND
TABLE LATAXLA
L123 312 INTER INTER STD
USING EQUAL ACCESS (EA) ROUTE OFRT 202 FROM PRETRANSLATION
TABLE OFRT
  202 CND EA INTNL SK 4
    N D C111ATCEAP2 0 N N
    S D EAPEG
    N D GRATOPMFEAO 15 D088 N
    CND ALWAYS SK 3
    N D C111ATCEAP2 15 D157 N
    S D EAPEG
    N D GRATOPMFEAO 15 D157 N
EXIT TABLE OFRT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 C111ATCEAP2          3124561234          ST
```

---

```
2 EAPEG
3 GRATOPMFEAO          D088          ST2P

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCR TANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 07:14:18 8100 INFO AMA_CALL_DATA
110 6193511008          3124561234 80520 0714109 00000000
ORIG=LEN HOST 00 1 15 09 DN 3511008
TERM=CKT C111ATCEAP2 2 ANS
```

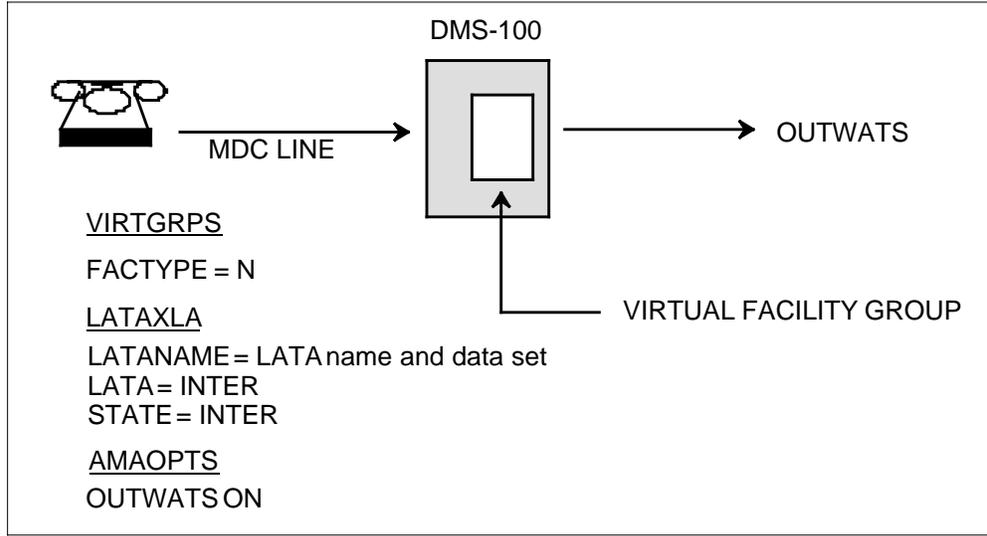
### Call code 111-InterLATA WATS station detail

A 111 call code is recorded when an IC/INC is used for an OUTWATS call originated from an MDC station. The record contains carrier information for applying access charges. To generate call code 111, perform the following steps and refer to Figure 6-32:

1. In table VIRTGRPS (*Translations Guide*), set field BILLNUM to N.
2. In table LATA XLA (*Translations Guide*), construct a tuple datafilled as follows:
  - a. LATACODE = Appropriate LATA name and digits set
  - b. LATA = INTER
  - c. STATE = INTER
3. In table AMAOPTS (*Translations Guide*), set field OUTWATS to ON.

When an MDC line originates an OUTWATS call, this call code is produced.

**Figure 6-32 Example of call code 111 datafill**



**Table 6-37 Call code 111**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
InterLATA WATS, station detail	111		X0629	X0629	

**Call code 114-InterLATA WATS billing number**

A 114 call code is recorded for OUTWATS calls routed over an IC. The AMA record provides the WATS billing number and carrier information for applying access charges. To generate call code 114, perform the following steps and refer to Figure 6-33:

1. In table VIRTGRPS (*Translations Guide*), assign a special billing number in field BILLNUM.
2. In table LATA XLA (*Translations Guide*), construct a tuple datafilled as follows:
  - a. LATACODE = Appropriate LATA name and digit set
  - b. LATA = INTER
  - c. STATE = INTER
3. In able AMAOPTS (*Translations Guide*), set field OUTWATS to ON.

When an MDC line originates an OUTWATS call, this call code is produced.

Figure 6-33 Example of call code 114 datafill

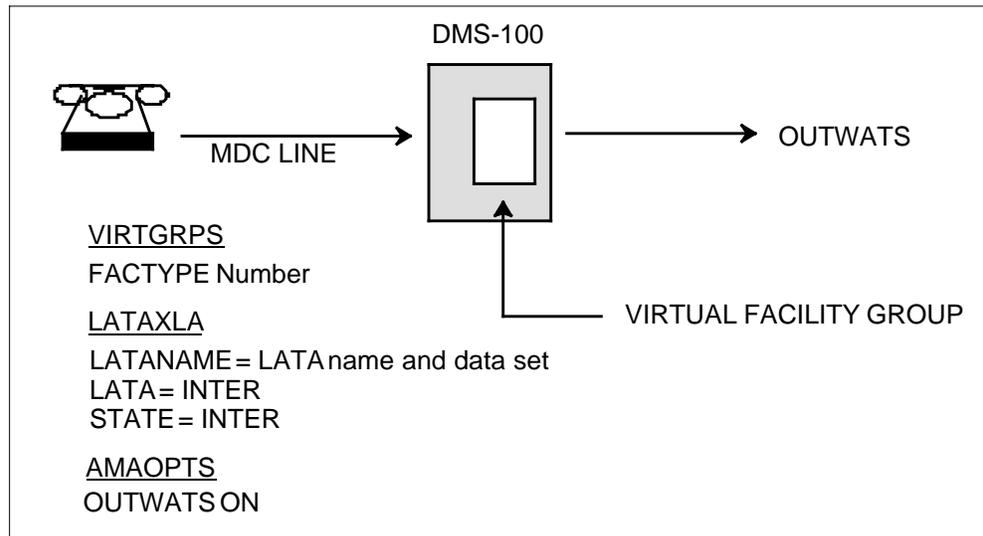


Table 6-38 Call code 114

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
InterLATA WATS, billing number	114		X0629	X0629	

**Call code 117-InterLATA datapath**

Call code 117 is generated whenever an interLATA Datapath call is originated from a data unit and routed over an IC/INC. The record contains carrier information for applying access charges.

Table 6-39 Call code 117

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
InterLATA WATS, billing number	117		X0645	X0645	

**Call code 119-Terminating access record**

A 119 call code is recorded for terminating access records. InterLATA directory assistance calls are recorded as this call type. The record contains information for applying access charges. To generate call code 119, set the OCCTERM field to ON in table AMAOPTS. Calls originating on ATC trunk

6-80 Generating call codes

groups (calls entering the LATA from interLATA carriers) will generate AMA records identified by call code 119.

Table 6-40 Call code 119

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Terminating access record	119		X0653	X0653	X0625
Terminating access record (short format)			X0664	X0664	X0627

**Traver**

+++ TRAVER: SUCCESSFUL CALL TRACE +++

```
TABLE TRKGRP
C999ATCFGCI ATC 0 TLD NCRT IC IT MIDL NPRT NSCR 619
  C999 N BELLI COMB N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 407 407 FNPA 0
TABLE FNPACONT
407 64-( 644) ( 0) ( 10)
. SUBTABLE FNPACODE
. 270 270 6 Y
. SUBTABLE RTEREF
. . 6 DN 407 270
. EXIT TABLE RTEREF
EXIT TABLE FNPACONT
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE 4072701212

TREATMENT ROUTES. TREATMENT IS: GNCT  
1 NCRTANNC  
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

```
AMAB117 MAY20 06:59:59 1100 INFO AMA_CALL_DATA
119 $ 4072701212 80520 0659491 00000094
ORIG=CKT C999ATCFGCI 1
TERM=LEN HOST 00 0 10 06 DN 2701212 ANS . 270 270 6 Y
. SUBTABLE RTEREF
. . 6 DN 407 270
. EXIT TABLE RTEREF
EXIT TABLE FNPACONT
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE 4072701212

TREATMENT ROUTES. TREATMENT IS: GNCT

1 NCRTANNC  
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 06:59:59 1100 INFO AMA\_CALL\_DATA  
119 \$ 4072701212 80520 0659491 00000094  
ORIG=CKT C999ATCFGCI 1  
TERM=LEN HOST 00 0 10 06 DN 2701212 ANS

**Call code 120-Originating LATA overflow counts**

A 120 call code provides a count of calls that cannot be delivered to an IC because outgoing trunks to that particular carrier are not available. A record may contain up to four IC. To generate call code 120, set field OCCOVFL to DEFAULT in table AMAOPTS (*Translations Guide*). This call code record is output periodically with the default being hourly.

**Table 6-41 Call code 120**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Originating LATA overflow counts output hourly	120				X0655

**Call code 121-Datapath terminating access record**

A 121 call code is generated when a datapath call enters the terminating exchange from an interLATA carrier. This call code requires AMA pre-translation. Perform the following to generate call code 121:

1. Datafill subtable AMAPRT with the datapath called number.
2. Assign the number to the FROMDIGS and TODIGS fields and assign datapath N to the AMARSLT field.
3. The service feature field can be populated with a value of 800-999 when the NTX737AB feature package is available.

When an interLATA datapath call is made, call code 121 is recorded.

**Table 6-42 Call code 121**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
DATAPATH terminating, access record	121		X0656	X0656	

**Call code 131-Originating feature group A (FGA)**

A 131 call code is generated for FGA calls. FGA provides line-side access to an end office switch with an associated 7-digit number. An originating FGA call is a call where a customer enters digits to the operating company. To generate call code 131, set field TRMBOPT to Y for the pilot of the hunt group in table HUNTGRP. A line to hunt group pilot call will cause call code 131 to be generated.

**Table 6-43 Call code 131**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Originating FGA	131		X0079		

**Call Code 132-Terminating FGA**

A 132 call code is generated for terminating FGA calls. An FGA call is a call originated by a carrier to complete a subscriber's long distance call. Minutes of use for a terminating FGA call start when the called party answers and end when the call is disconnected. Using the SERVORD ADO command, add the FGA option. A call code 132 record is generated when a terminating FGA call is answered by the called party. Call code 132 can also be generated by a call which forwards through a line which has been assigned line option TRMBOPT

**Table 6-44 Call code 132**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Terminating FGA	132	X0500	X0001		

```

TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
  NILLATA 0 NIL NIL 00
  LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 14072 1407483 N DD 1 NA
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 407 407 FNPA 0
TABLE FNPACONT
407 64-( 644) ( 0) ( 10)
. SUBTABLE FNPACODE
. 270 270 6 Y
. SUBTABLE RTEREF
. . 6 DN 407 270
. EXIT TABLE RTEREF
EXIT TABLE FNPACONT
TABLE LCASCRCN
619 LPOT ( 15) MNDDT N
. SUBTABLE LCASCR
. 407 407
TABLE LCASCRCN
407 LPOT ( 1) MNDDT N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
TABLE PFXTREAT
MNDDT DD N DD UNDDT
TABLE CLSVSCRC
619 SPOT DD 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE 4072701212

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 07:36:58 2800 INFO AMA_CALL_DATA
132 6193511001 4072701212 80520 0736443 00000119
ORIG=LEN HOST 01 0 00 02 DN 3511001
TERM=LEN HOST 00 0 10 06 DN 27

```

**Call code 134-Originating feature group B (FGB)**

A 134 call code is generated for FGB calls. FGB provides a trunk side connection to operating company switches, with a 950-10xxx access code for originating FGB calls. Originating calls are identified as interLATA access requests by the 950-10xxx dialing plan and are measured in the switch normally, providing originating AMA functions for the serving end office. Originating FGB calls are measured by the operating company to determine minutes of use. Minutes of use begin when the carrier connects (goes-off-hook) and end when the call is disconnected. To generate call code 134, assign the OCCTRFC option in the outgoing CAMA (OC) TRKGRP table (*Translations Guide*). Call code 134 is generated every time a line to OC trunk equal access call is made.

**Note:** Non-operator-handled calls can generate call code 134 if the office parameter TOPS\_FGB\_CC134 is set to Y. If a non-operator-handled call is routed using a pre-translator (selector T or S), then the office parameter TOPS\_EA\_PROCESS\_T\_SEL must also be set to Y.

For BCS33 and up, field 57-InterExchange carrier (IEC)/international carrier (INC) prefix, is changed to allow four-digit carrier identification codes for carriers with four-digit FGB access codes datafilled in table FGBCIC.

**Table 6-45 Call code 134**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
FGB, directed to carrier	134		X0625	X0625	

```
TABLE LINEATTR
 0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
      NILLATA 0 NIL NIL 00
  LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1 ) ( 1 )
. SUBTABLE STDPRT
. 9501333 9501333 FGB DD 0 C333 N
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:  NONE  OVRNONE N
TABLE HNPACONT
619 256 8 ( 35 ) ( 1 ) ( 0 )
. SUBTABLE HNPACODE
. 9501333 9501333 HRTE 105
. SUBTABLE RTEREF
. 105 N D C333OCFGB2 0 N N
. EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
619 LPOT ( 15 ) MNMT N
. SUBTABLE LCASCR
. TUPLE NOT FOUND.  DEFAULT IS NON-LOCAL
```

```

TABLE PFXTREAT
MNDT DD N DD UNDT
TABLE CLSVSCRC
619 SPOT DD 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
LATA IS NIL, THEREFORE NOT AN EQUAL ACCESS CALL

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 C333OCFGB2          9501333          ST

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 07:48:16 5200 INFO AMA_CALL_DATA
134 6193511003 6199501333 80520 0748063 00000000
ORIG=LEN HOST 01 0 08 03 DN 3511003
TERM=CKT C333OCFGB2 2 ANS
    
```

### Call code 135-Terminating FGB

A 135 call code is generated for terminating FGB calls. FGB provides a trunk-side connection to operating company switches. A terminating FGB call is a call where a carrier inputs digits to the operating company. Terminating FGB calls are measured by the operating company to determine minutes of use. Minutes of use begin when the called party answers and end when the call is disconnected. To generate call code 135, set field ENFIA\_B\_C to ON in table AMAOPTS (*Translations Guide*). When the line originates an equal access call, call code 135 is generated.

For BCS33 and up, field 57-Interexchange carrier (IEC)/International carrier (INC) prefix is changed to allow four-digit carrier identification codes for carriers with four-digit FGB access codes datafilled in table FGBCIC.

**Table 6-46 Call code 135**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
FGB, directed from carrier	135		X0653	X0653	

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```

TABLE TRKGRP
C333OCFGB2 OC 0 ELO NCRT CA MIDL WK 2W NPRT NSCR 619 NLCL CV
N N Y Y
          NILC TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1003 L HOST 01 0 08 03

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                6193511003

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 07:56:26 5600 INFO AMA_CALL_DATA
036                $                6193511003 80520 0756185 00000074
LORIG=CKT C333OCFGB2 2
TERM=LEN HOST 01 0 08 03 DN 3511003 ANS=Y

AMAB117 MAY20 07:56:26 5500 INFO AMA_CALL_DATA
135                $                6193511003 80520 0756185 00000074
ORIG=CKT C333OCFGB2 2
TERM=LEN HOST 01 0 08 03 DN 3511003

```

**Call code 141-IC/INC number service calls**

Call code 141 provides information for IC/ INC number service calls associated with the E800 service feature. This record contains the alternate billing number.

**Table 6-47 Call code 141**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
IC/INC number services calls	141				X0360
					X0361

**Call code 142-Operating company number services calls**

Call code 142 provides information for operating company number service calls associated with the E800 service feature. This record includes the alternate billing number.

**Table 6-48 Call code 142**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Operating company number services calls	142		X0364		X0510
			X0365		

**Call code 148-Intra-network high bandwidth call**

Call code 148 is generated when an intra-network DWS call originates and completes at the originating switch complex within the LATA.

**Table 6-49 Call code 148**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Intranet-work high bandwidth call	148				X0190

**Call code 149-Originating access high bandwidth call**

Call code 149 is generated when an internetwork DWS call originates at the originating switch complex within the LATA originating the call.

**Table 6-50 Call code 149**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Originating access high bandwidth call	149			X0645	

**Call code 150-Terminating access high bandwidth call**

Call code 150 is generated when an internetwork DWS call completes at the point-of-presence switch complex within the LATA terminating the call.

**Table 6-51 Call code 150**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Terminating access high bandwidth call	150				X0645

**Call code 159-Message detail recording revenue accounting office**

Call code 159 is generated by an MDC customer group that has the MDRRAO option assigned. The MDRRAO feature sends MDR information to the RAO by the AMA stream.

**Table 6-52 Call code 159**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
MDRRAO	159		X0001		

**Call codes 160-167-Private virtual network**

An AMA record is made on all originating PVN calls at the SSP/PVN if the billing indicators information is included in the response message from the SCP. The call code to be used is returned from the SCP in the billing indicators information. The possible PVN call codes are:

- call code 160 (on-net PVN call)
- call code 161 (on-net PVN overflow call)
- call code 162 (off-net PVN call)
- call code 163 (off-net PVN overflow call)
- call code 164 (PVN call using FGA)
- call code 165 (PVN call using FX)

- call code 166 (PVN call using OUTWATS)
- call code 167 (PVN call using tie trunks)

**Table 6-53 Call code 160-167**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
On-net PVN call	160		X0001		X0510
On-net PVN overflow call	161		X0001		X0510
Off-net PVN call	162		X0001		X0510
Off-net overflow PVN call	163		X0001		
PVN call using FGA	164		X0001		
PVN call using FX	165		X0001		
PVN call using OUTWATS	166		X0001		
PVN call using tie trunks	167		X0001		

#### Call code 174-Network facility access explicit connection

Call code 174 is generated after an explicit connection to the IP has been completed.

**Table 6-54 Call code 174**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
NFA AMA	174		X0001		

#### Call code 175-Network facility access assisted non-billable call

Call code 175 is generated after an answered call which either would not have normally generated any other AMA records or was dialed for the subscriber by the IP.

**Table 6-55 Call code 175**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
NFA AMA	175		X0001		

**Call code 264-CLASS SUSP, calling name**

This is a call code created for use with custom local area signaling services (CLASS) SUSP display features. To bill for calling name information delivery on a usage sensitive basis, call code 264 is generated. This provides the total daily peg count of calling information delivered and the number of private and unavailable calling information for each CLASS calling information delivery feature. To produce a record using call code 264 without module 111 appended:

1. The Bellcore AMA package must be present in the office.
2. The SUSP entry in table AMAOPTS must be set to ON.
3. A CLASS display feature with AMA must be assigned to a line.
4. The feature must be enabled in table RESOFC.
5. The feature must be activated on the subscriber's line.
6. The CID\_SUSPAUD entry in table AMAOPTS must be scheduled or the corresponding tuple can be deleted from table RESFEAT.

With module 111 appended:

1. The Bellcore AMA package must be present in the office.
2. The SUSP entry in table AMAOPTS must be set to ON.
3. Two CLASS display features with AMA must be assigned to a line.
4. The features must be enabled in table RESOFC.
5. The features must be activated on the subscriber's line.
6. The CID\_SUSPAUD entry in table AMAOPTS must be scheduled.

With module 049 appended (feature code 087):

1. The Bellcore AMA package must be present in the office.
2. The SUSP entry in table AMAOPTS must be set to ON.
3. CNAMD and CND features with AMA must be assigned to a line.
4. CNAMD and CND must be enabled in table RESOFC.
5. CNAMD and CND must be enabled on the subscriber's line.
6. The CID\_SUSPAUD entry in table AMAOPTS must be scheduled.

With module 049 appended (feature code 088):

1. The Bellcore AMA package must be present in the office.
2. The SUSP entry in table AMAOPTS must be set to ON.
3. CNAMD and DDN features with AMA must be assigned to a line.

4. CNAMD and DDN must be enabled in table RESOFC.
5. CNAMD and DDN must be enabled on the subscriber's line.
6. The CID\_SUSPAUD entry in table AMAOPTS must be scheduled.

**Table 6-56 Call code 264**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
CLASS CN	264		X0110		

**Call code 330-CLASS SUSP CNDB, COT, and ACB/AR**

A 330 call code is generated for any customer originated trace (COT), calling number delivery (CND), automatic call back (ACB), or automatic recall (AR) call. To generate call code 330, perform the following steps:

1. In table AMAOPTS (*Translations Guide*), set field SUSP to ON.
2. Using the SERVORD ADO command, add the CNDB, COT, ACB, or AR option.
3. Set BILLING\_OPTION to AMA.

When a CLASS call is made, call code 330 is generated.

**Table 6-57 Call code 330**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
CLASS COT, CNDB, ACB/AR	330		X1030		

**Call code 550-Automatic meter reading (AMR)**

A 550 call code is generated to record AMR sessions for utility companies. The AMR call originates when a utility controller (UC), located on utility company premises, dials in to a central office unit (COSU) in the DMS office. A dedicated utility telemetry (UT) trunk connects the COSU to the switch in order to collect telemetry data from telemetry interface units (TIU) on subscribers' lines.

The telemetry data session begins when the COSU goes off-hook and the UT trunk is seized. Call connect is defined as the time at which cut-through is made to the subscriber's line. Call disconnect is defined as the time at which the COSU goes on-hook to release the UT trunk. Billing is generated for the elapsed time of a telemetry call, which is the difference between the time of call connect and time of call disconnect.

To generate call code 550, the LAMA software feature must be present in the central office, office parameter LAMA\_OFFICE set to Y in table OFCOPT. The office must also use the Bellcore AMA format. This is determined by the entry BCFMT in the field FORMAT of the AMA tuple in table CRSFMT. Generation of telemetry billing records can be enabled or disabled for each UT trunk group by setting the BILLING field in table TRKGRP to Y or N.

No billing record is generated if the telemetry call duration is less than the minimum call duration for billing record generation (which is determined by parameter MINIMUM\_CHARGES\_DURATION in table OFCENG. Refer to *Office Parameters Reference Manual* for details on this office parameter. If a telemetry call is less than the minimum charge duration, a billing record can still be generated by datafilling table AMAOPTS. The steps for generating the billing record in this case are as follows:

1. In table AMAOPTS (data schema section of *Translations Guide*), specify option UNANS\_LOCAL to be ON.
2. In table BCCODES (data schema section of *Translations Guide*), specify call code 550 against the key LOCAL.

If field CALLINTR is set to Y in table TRKGRP, a telemetry call can be interrupted by a new incoming call. Interrupted telemetry calls will generate a billing record if the BILLING field is set to Y.

Every billable telemetry call requires an extension block called a primary recording unit (PRU) from CRS\_PRU\_POOL2 to generate billing records. The PRU is used on a long-term basis, that is, it is held for the duration of the telemetry call. The office parameter CRS\_PRU\_POOL2\_SIZE controls the size of the extension block pool. Refer to *Office Parameters Reference Manual* for details on this parameter.

**Table 6-58 Call code 550**

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
AMR	550				X0500

**Call codes 800-999-generic record**

The call codes 800-999 are operating company definable. Based upon the datafill in subtable AMAPRT (of table STDPRTCT), the fields FROMDIGS and TODIGS can be datafilled for any number. The datafill in the AMARSLT field of subtable AMAPRT, determines the call code generated.

When the CALLCODE field is equal to GENERIC, the table editor prompts the user to datafill the GENRCVAL (generic value) subfield and the OVRIDLT

and OVRIDIC subfields. Valid entries for the GENRCVAL field are 800-899. These are the call codes for the AMA record generated.

Valid values for the OVRIDLT subfield are OVRNONE, OVRLOCL, OVRTOLL, and OVRDALL. Valid values for subfield OVRIDIC are Y and N. These subfields affect the call code generation hierarchy. The override options allow the operating company to do the following:

- replace the normally generated call code for an IC call with a generic call code
- replace the normally generated call code for a non-IC toll call with a generic call code
- suppress the normally generated billing record for a non-IC toll call
- generate a call record with a generic call code for a local call.

A non-TOPS call generated record includes all other record types except for the following:

- TOPS
- Tracer (090, 092)
- Overflow (037, 071, 120)
- Time change (042)
- Signaling irregularities (034)

Using the override options, the generic call code can override any Bellcore non-TOPS call code. For example, an originating interLATA station paid call normally produces call code 110 with a structure code 00625. If GENRCVAL is 855 and OVRIDIC is Y for an originating interLATA station paid call, call code 855 with structure code 00625 is generated.

When OVRIDIC is set to N, a call code hierarchy applies and generic call codes can only override call codes 006 and 067. For details about the call code hierarchy, refer to Table 6-1.

**Note:** When the CALLCODE field value is something other than GENERIC, the table editor does not prompt for values to the GENRCVAL nor to the OVRIDIC subfields.

6-94 Generating call codes

The service feature field can be populated with a value of 800-999.

Table 6-59 Call code 800-999

Call type	Call code	Structure codes			
		High runner	Answer	Unanswer	Other
Generic record	800- 999		X0001 or any non-TOPS structure code		

```

TABLE LINEATTR
0 1FR NONE NT SPOT 0 619 POT1 LPOT N RTE4 N 0 NIL NILSFC
      NILLATA 0 NIL NIL 00
LCABILL OFF-BILLING DONE ON BASIS OF CALLTYPE
TABLE STDPRTCT
POT1 ( 1) ( 1)
. SUBTABLE STDPRT
. 811 811 R NP 3 NA 3511002 NONE
. SUBTABLE AMAPRT
. 811 811 GENERIC 811 N N
TABLE HNPACONT
619 256 8 ( 35) ( 1) ( 0)
. SUBTABLE HNPACODE
. 351 351 DN 619 351
TABLE THOUGRP
619 351 1 Y C
TABLE DN
619 351 1002 L HOST 00 0 00 02
TABLE LCASCRCN
619 LPOT ( 15) MNDT N
. SUBTABLE LCASCR
. 351 351
TABLE PFXTREAT
MNDT NP Y NP UNDT
TABLE CLSVSCRC
619 SPOT NP 2 N NONE ( 1)
. SUBTABLE CLSVSCR
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                               6193511002

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 NCRTANNC
2 T120
3 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

AMAB117 MAY20 08:03:31 6600 INFO AMA_CALL_DATA
811      6193511003          6193511002 80520 0803082 00000000
ORIG=LEN HOST 01 0 08 03      DN 3511003 TERM= ANS=N

```

## TOPS call code production

Producing the various call codes associated with the operator position involves operating the appropriate keys on the TOPS terminal. The keys for TOPS-04 terminals are identified in Table 6-60. In this table, each key or key sequence is identified with the associated call code for easy reference. TOPS call codes are addressed in detail in *Operator Services Translations Guide*.

**Table 6-60 TOPS keys for call codes**

Call code	Meaning	TOPS key
006	Station paid	CAMA call
009	Directory assistance (411)	411 call
010	Station paid, operator handled	STA PD
014	Station collect	STA COL
015	Station special calling	STA SPL CLG
016	Person paid	PER PD
017	Person collect	PER COL
018	Person special calling	PER SPL CLG
074	Free call	Marked Toll free in Table SERVSCRN
189	Originating credit recording service	N/A
190	Originating carrier identification processing, no service processing	N/A
191	Terminating carrier identification processing, no service processing	N/A
192	Originating call completion service	N/A
193	Terminating call completion service	N/A
194	Originating listing services	N/A
195	Terminating listing services service	N/A
196	Originating general assistance service	N/A
197	Terminating general assistance service	N/A
198	Originating busy line verification service	N/A
199	Terminating busy line verification service	N/A

**Table 6-60 TOPS keys for call codes**

Call code	Meaning	TOPS key
250	Carrier or customer service record	InterLATA call (0-)
251	InterLATA call transfer	0 -, 0+ call transfer

The following paragraphs provide additional information regarding the generation of some of the call codes listed in Table 6-60.

**Call codes 189-999**

The TOPS call codes in phases 0 and 1 reflect the class of call which corresponds to a TOPS KEY. TOPS EBAF call codes in phase 2 (189-199) reflect the service received and are not associated with the TOPS KEYS. Therefore, the TOPS KEYS cannot be used to generate call codes for these phase 2 call types.

**Call code 250**

TOPS remote operator number identification (RONI) calls record with call code 250, structure code 730.

**Call code 251, field 17**

For FGB calls identified by call code 251, structure code xx734, the terminating number (field 17) reflects 950xxx.

If the operator does not explicitly class charge a busy line verification (BLV) call, a class charge of STA PD will be assigned.

**Outgoing trunk (OGT) key**

Whenever an OGT key datafilled in table OGTSPKEY is used, the AMA field operator action will indicate operator dialed (value 1 or 3) if field BILLNUM in table OGTSPKEY is set to Y, since the number in field CLDNO in table OGTSPKEY will record in AMA as the forward number. If field BILLNUM is set to N, then field CLDNO will not record in AMA as the forward number, so AMA field operator action is not necessarily set to operator dialed. The value of AMA field operator action in this case will be set depending on the other actions of the operator (for example, it will have value operator dialed if the forward number is entered by the operator). The table outgoing trunk multi purpose key (OGTMPKEY) can be substituted for table OGTSPKEY.

## 7 Call code-structure code cross reference

This chapter provides call code to structure cross-reference information for both non-Traffic Operator Position System (TOPS) and TOPS call codes. A list of the call codes together with the associated structure codes are provided in Table 7-1. For an explanation of the structure codes, refer to Chapter 3, Structure codes. For an explanation of call codes, refer to Chapter 5. Call codes

### Call code to structure code cross reference-non-TOPS

Table 7-1 lists the non-TOPS call codes and all structure codes associated with each.

**Table 7-1 Non-TOPS call code-structure code cross reference**

Call type	Call code	Structure codes			
		High Runner	Answer	Unanswer	Other
Detailed message	001	x0502			
Message rate, timed, message billing index (MBI)	002	x0503		x0016	
Detailed message rate, untimed, MBI	003	x0504	x0024 x0020	x0087	
Message rate, untimed, MBI	004		x0019 x0020	x0086	
Detailed message rate, timed, no MBI	005	x0500	x0001		
Station paid	006	x0500	x0001		x0510
					x0700

7-2 Call code-structure code cross reference

**Table 7-1 Non-TOPS call code-structure code cross reference**

Call type	Structure codes				
	Call code	High Runner	Answer	Unanswer	Other
Outward wide area telephone service (OUTWATS) (station detail)	007	x0501	x0020		
Inward wide area telephone service (INWATS)	008		x0079		
Foreign exchange (FX), automatic flexible routing	011	x0500	x0001		
Station special calling	015				x0510 x0700 x0702 x0718 x0719 x0721 x0723
Common control switching arrangement (CCSA) sampling	021	x0500	x0001		
Person special called	023				
Conference trunk usage	026				x0076
Call forwarding	031				x0096 x0614
Tandem tie trunk (TDMTT)	032		x0025	x0025	
Directory assistance (555)	033		x0028	x0068	
Signaling irregularities	034				x0002
Subscriber line usage (SLUS), terminating entry	036		x0079		
SLUS, overflow counts	037				x9003
Local coin	041		x0001		

Table 7-1 Non-TOPS call code-structure code cross reference

Call type	Structure codes				
	Call code	High Runner	Answer	Unanswer	Other
Time change	042				x9000
AIN default	047				x0220 x0221
Cellular mobile carrier (CMC) originating Type-1 or -2B	063		x0653		
CMC originating type-2A	064		x0653		
CMC terminating type-1 or -2B	065		x0625		
CMC terminating type-2A	066		x0625		
Flat rate	067		x0001		
OUTWATS (billing number)	068	x0501	x0020		
INWATS overflow counts	071				x9003
Datapath	072		x0190		
Free call	074		x0001		x0700
Electronic tandem switched call	085		x0001		
Non-directory assistance (555)	088	x0500	x0001		
Sensor tracer	090				x9046 x9049
Sensor/revenue accounting office (RAO) tracer	092				x9013 x9014
InterLATA station paid	110		x0625	x0625	
InterLATA WATS, station detail	111		x0629	x0629	
InterLATA WATS, billing number	114		x0629	x0629	
InterLATA datapath	117		x0645	x0645	
Terminating access record	119		x0653	x0653	x0625

7-4 Call code-structure code cross reference

Table 7-1 Non-TOPS call code-structure code cross reference

Call type	Call code	Structure codes			
		High Runner	Answer	Unanswer	Other
					x0664
Terminating access record (short format)	119		x0664	x0664	
Originating LATA overflow counts (output hourly)	120				x0655
Datapath terminating access record	121		x0656	x0656	
Originating feature group A (FGA)	131		x0079		
FGA terminating	132	x0500			x0001
					x0625
Feature group B (FGB), directed to carrier	134		x0625	x0625	
FGB, directed from carrier	135		x0653	x0653	
Coin originated toll	136			x0140	
IC/INC number services calls	141				x0360
					x0361
Operating company number services calls	142		x0510	x0510	x0365
			x0364		x0369
			x0365		
Enhanced 800 call using open numbering	142		x0510	x0510	
Intra-network high bandwidth call	148				x0190
Originating access high bandwidth call	149				x0645
Terminating access high bandwidth call	150				x0645
Message detail recording RAO (MDRRAO) call	159		x0001		
On-net private virtual network (PVN) call	160		x0001		
On-net PVN call using open numbering	160		x0510	x0510	
On-net PVN overflow call	161		x0001		

**Table 7-1 Non-TOPS call code-structure code cross reference**

Call type	Structure codes				
	Call code	High Runner	Answer	Unanswer	Other
Off-net PVN call	162		x0001		
Off-net PVN call using open numbering	162		x0510	x0510	
Off-net PVN overflow call	163		x0001		
PVN call using FGA	164		x0001		
PVN call using FX	165		x0001		
PVN call using OUTWATS	166		x0001		
PVN call using tie Trunks	167		x0001		
Network facility access explicit connection	174		x0001		
Network facility access assisted non-billable call	175		x0001		
Custom local area signaling service (CLASS) calling information delivery	264		x0110		
CLASS customer originated trace (COT), calling number delivery blocking (CNDB), automatic call back (ACB)/automatic recall (AR)	330		x1030		
Automatic meter reading	550				x0500
Connecting network access record (CNAR)	720				
Generic record, trunk group member usage (TGMU)	950	x0500	x0001		
Generic record	800 to 999		x0001		or any non-TOPS structure code

### Call code to structure code cross reference-TOPS

The NTXE20AA software package implements expanded Bellcore AMA format (EBAF) for TOPS. This format uses a limited set of call codes and structure codes for recording the necessary information associated with a call. Modules with service-specific data are appended to structure codes. This

allows for a more flexible format for recording future services. This also reduces the number of call codes and structure codes used for TOPS.

A phased approach is taken toward implementing TOPS EBAF. This is to allow for an orderly transition from the previous format.

- **Phase 0:** Phase 0 obsoleted
- **Phase 1:** Phase 2 obsoleted
- **Phase 2:** completes the transition to the modular concept with the exception of 1+ non-operator handled CAMA calls. The 1+ non-operator handled CAMA calls use the same structure codes as in phase 1 without modules appended to them. Phase 2 supports two new structure codes, 00751 and 00752. Structure code 00751 is used for all calls originating from an inter-toll or (ATC) trunk group. Structure code 00752 is used for all calls originating from a RONI or TOPS trunk group. The call codes used in phase 2, unlike the call codes used in phases 0 and 1, reflect the service received on a call. In order to use TOPS globalization AMA, phase 2 must be used.

**Table 7-2 TOPS EBAF phases-compatible call codes, structure codes, and module codes**

Phase	Structure code	Call code	Module code
2	00001 00101 00625	006 110 134 189 190	000 022 050 051
	00627 00751 00752	191 192 193 194 195	052 053 054 055
		196 197 198 199 215	056 057 058 059
			060 061 062 066 104 307

In the following pages each TOPS call code is listed together with the corresponding structure codes and the condition that each structure code represents. The call code/structure code combinations are divided into the phases for which they apply.

**TOPS EBAF phase 2**

Table 7-3 provides call code to structure code cross reference information for phase 2 TOPS EBAF.

**Table 7-3 TOPS EBAF Phase 2-call code to structure code cross reference**

<b>Call code</b>	<b>Call type</b>	<b>Structure code</b>	<b>Condition</b>
006	Station paid	00001 00101	Answered 1+ CAMA, except Long, duration  Answered 1+ CAMA long duration
110	InterLATA station paid	00625 00627	Basic Long duration
134	Originating FGB	00625 00627	Basic Long duration
189	Originating with credit recording service	00752	All
190	Originating with carrier identification processing, but no service processing	00752	All
191	Terminating with carrier identification processing, but no service processing	00751	All
192	Originating with call completion study	00752	All
193	Terminating with call completion service	00752	All
194	Originating with listing services service	00752	All
195	Terminating with listing services service	00751	All
196	Originating with general assistance service	00752	All

7-8 Call code-structure code cross reference

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**Table 7-3 TOPS EBAF Phase 2-call code to structure code cross reference**

<b>Call code</b>	<b>Call type</b>	<b>Structure code</b>	<b>Condition</b>
197	Terminating with general assistance service	00751	All
198	Originating with busy line verification service	00752	All
199	Terminating with busy line verification service	00751	All
251	InterLATA 1+, 0+, 0- call transfer	00625	InterLATA call transferred to an INC on access to tandem trunks

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# List of terms

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**ACB**

Automatic call back

**Access tandem (AT)**

An access tandem is a switching system that provides a traffic concentration and distribution function for interLATA traffic originating/terminating within a local access and transport area (LATA). The access tandem provides the interLATA carrier with access to more than one end office within the LATA. The access tandem also acts as a toll tandem for intraLATA traffic. The access tandem technical functions include AMA recording, routing, and call supervision.

**Address complete message (ACM)**

A Common Channel Signaling No. 7 protocol message sent in the backward direction indicating that all the address signals required for routing the call to the called party have been received and that the call can be routed.

**Advanced intelligent network (AIN)**

A set of software feature packages that enhances switch call processing capabilities to use centralized databases. These databases determine how AIN calls should proceed for further call processing. AIN also allows operating companies to design and deploy their own features and make these features available across private and public networks.

**ACB**

Automatic call back

**ACM**

Address complete message

**ACTS**

Automatic coin telephone service

**AIN**

Advanced intelligent network

**AMA**

Automatic message accounting

**AMAT**

Automatic message accounting teleprocessor

**AMATPS**

Automatic message accounting teleprocessing system

**American standard code for information interchange (ASCII)**

Coded character set used for the interchange of information among information - processing systems, communications systems, and associated equipment. ASCII defines one format in which data is exchanged between an input/output device and the device controllers of the DMS 100 Family of switches.

**ANI**

Automatic number identification

**AR**

Automatic recall

**ASCII**

American standard code for information interchange

**AT**

Access tandem

**ATC**

Access to carrier

**Automatic coin toll service (ACTS)**

A feature that enables the operating company to handle, without operator assistance, long-distance (1+) coin calls from a coin station.

**Automatic message accounting (AMA)**

An automatic recording system that documents all the necessary billing data of subscriber-dialed long distance calls.

**Automatic message accounting transmitter (AMAT)**

A subsystem of the automatic message accounting teleprocessing system that, on request, transmits automatic message accounting data to the collector in the central office.

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**Automatic number identification (ANI)**

The number identification of the calling station. This number is used for billing records generated by an inter LATA/international carrier. ANI is used in the United States only. Contrast with operator number identification.

**Automatic recall (AR)**

The CLASS service that enables subscribers to dial a feature code to automatically set up a call to the directory number from which the last incoming call was placed. If the destination line is busy, AR monitors it until it becomes idle and can accept the call.

**BAF**

Bellcore AMA format

**BBF**

Blue box fraud

**Bellcore**

Bell Communications Research

**Bell Communications Research (Bellcore)**

A group responsible for coordinating Bell Operating Company projects and setting guidelines for a switching system.

**BC**

Bellcore

**BCD**

Binary coded decimal

**BCLID**

Bulk calling line ID

**Billed number screening (BNS)**

A common channel signaling No. 7 application process that performs a validation check on the number to which a call is billed. This check is initiated by the operator on operator-assisted and third-number billed calls.

**Binary-coded decimal (BCD)**

A numerical system in which each digit of a decimal number is expressed separately as a 4-bit binary number.

**BOC**

Bell Operating Company

**BLV**

Busy line verification

**BNS**

Billed number screening

**BVA**

Billing validation authority

**Call forwarding (CFW)**

A Meridian Digital Centrex (MDC) feature that allows a subscriber to have incoming calls to a station's directory number forwarded to a predetermined directory number. There are five types of call forwarding:

- Call forwarding universal (CFU)- permits stations to forward calls to locations inside or outside the customer group.
- Call forwarding intragroup (CFI)-permits stations to forward calls only to customer-defined locations within the customer group.
- Call forwarding fixed (CFF)—permits stations to forward calls to locations determined by the operating company.
- Call forwarding don't answer (CFD)—permits an incoming call that is not answered within a specified length of time to be forwarded to another designated station.
- Call forwarding busy (CFB)—permits all calls to a busy station to be forwarded to a designated station within the customer group.

**Calling name display (CNAMD)**

A service that allows the name of the calling party to be delivered to the called subscriber's set when that set is provisioned with a display window capable of receiving calling party identification. Also known as calling name delivery.

**Calling number delivery (CND)**

The CLASS service that shows the ten-digit (NPA-NXX-XXXX) directory number of a calling party, and the date and time of the call.

**Calling number delivery blocking (CNDB)**

The CLASS service that blocks the display of the calling party's directory number on a CND subscriber's set.

**CAMA**

Centralized AMA

**CCITT**

Consultative Committee on International Telegraphy and Telephony

**CCN**

Calling card number

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<b>CCS</b>	Common channel signalling
<b>CCSA</b>	Common control switching arrangement
<b>CDAR</b>	Customer dialed account recording
<b>Cellular mobile carrier (CMC)</b>	Provides telephone service to mobile customers by using radio cell sites connected to a CMC switching office.
<b>Centralized automatic message accounting (CAMA)</b>	A system that produces itemized billing details for subscriber-dialed long distance calls. Details are recorded at a central facility serving a number of exchanges. In exchanges not equipped for automatic number identification, calls are routed to a CAMA operator who obtains the calling number and keys it into the computer for billing. <i>See</i> local automatic message accounting.
<b>CENTREX centralized exchange</b>	Centralized PBX. A service that provides a business telephone subscriber with direct inward dialing to extensions on the same system and direct outward dialing from all extensions. CENTREX switching equipment is normally located at the central office, but may be located on the operating company client's premises.
<b>CFW</b>	Call forwarding
<b>CIC</b>	Carrier identification code
<b>CLASS</b>	Custom local area signalling service
<b>CLD</b>	Called number
<b>CMC</b>	Cellular mobile carrier
<b>CNAMD</b>	Calling name display

**CND**

Calling number delivery

**CNDB**

Calling number delivery blocking

**CNI**

Calling number identification

**Carrier identification code (CIC)**

**Common Channel Signaling no.7 (CCS7)**

Digital, message-based, network signaling CCITT standard. It separates call signaling information from voice channels so that inter-office signaling is exchanged over a separate signaling link.

**Common control switching arrangement (CCSA)**

Switching facilities connected by the telephone company to corporate tie-line networks. Switching of the leased lines in the network is accomplished by common-control central office switching equipment.

**Continuity test message (COT)**

A common channel signaling message sent in the forward direction of call setup, to inform the next office that a continuity test has been successful.

**COT**

Customer originated trace

**COT**

Continuity check message

**CPE**

Customer premises equipment

**CPN**

Calling party number

**Custom local area signaling services (CLASS)**

A set of call services that is based on the ability to supply calling line identification to the call destination, to store information on the last incoming and last outgoing call, and to monitor the status of a destination line.

**Customer originated trace (COT)**

The CLASS service that enables a subscriber to dial a feature code to generate a trace report for the last incoming call. The report, which is printed

in the central office, is intended to support a customer complaint about a malicious call.

**Customer premises equipment (CPE)**

Refers to equipment, such as ISDN terminals, that is located on the customer's premises.

**DA**

Directory assistance

**DD**

Direct dialed

**DDD**

Direct distance dialing

**DDN**

Dialable directory number

**Dialable directory number (DDN)**

CLASS software that delivers the directory number (DN) of the calling party in a dialable format (the digits the subscriber needs to dial the calling party, instead of the ten-digit format) and the date and time of the incoming call to a calling number delivery (CND) subscriber set.

**Digital Multiplex System (DMS)**

A central office switching system in which all external signals are converted to digital data and stored in assigned time slots. Switching is performed by reassigning the original time slots.

**Direct distance dialing (DDD)**

A telephone exchange service that permits a subscriber to call a number outside his local area without operator assistance.

**Directory number (DN)**

The full complement of digits required to designate a subscriber's station within one NPA—usually a three digit central office code followed by a four-digit station number.

**Distributed processing peripheral (DPP)**

A peripheral module that accepts data from the DMS-100, formats the data if necessary, and stores it on a disk. Upon request, the DPP retrieves and sends data to the host office collector.

**DMS**

Digital Multiplex System

**DN**

Directory number

**DPP**

Distributed Processing Peripheral

**DRCW**

Distinctive ringing/call forwarding

**DTMF**

Dual-tone multi-frequency

**Dual-tone multi-frequency (DTMF) dialing**

A service-related telephony feature that provides for the generation of address information from a telephone set in the form of DTMF signals by the manual depression of non-locking buttons. Contrast with dial pulse.

**DWS**

Dialable wide-band service

**E800**

Enhanced 800 service

**EA**

Equal access

**EAEO**

Equal access end office

**EBAF**

Expanded Bellcore AMA format

**EBCDIC**

Extended binary coded decimal interchange code

**End office (EO)**

A switching office arranged for terminating subscriber lines and provided with trunks for establishing connections to and from other switching offices.

**Enhanced 800 Service (E800 Service)**

A Common Channel Signaling 7 (CCS7) feature that allows interexchange carriers equal access to the Basic 800 Service. E800 Service presents network intelligence at an access tandem office or an end office (EO) using an online database query system. Also known as E800. *See also* Basic 800 Service, 800 Plus Service, 800 Service.

**EO**

End office

**Equal access (EA)**

An operating telephone company tariff offering for local access and transport area (LATA) access that is equal in type, quality, and price for all connected inter-LATA and international carriers.

**Equal access end office (EAEO)**

A central office that provides access to several long distance carriers.

**ETS**

Electronic tandem switch

**Extended binary-coded decimal interchange code (EBCDIC)**

A code that uses eight binary positions to represent each character, giving a possible maximum of 256 characters. EBCDIC defines one format in which data is recorded onto a magnetic tape unit by the device controllers of the DMS-100 Family system. It is used for recording call data recording data in the DMS-300 gateway system.

**FGA**

Feature group A

**FGB**

Feature group B

**FGC**

Feature group C

**FGD**

Feature group D

**Foreign exchange (FX)**

A service by which a telephone or PBX is served by a distant central office (CO), rather than by the CO in the immediate geographical area.

**FX**

Foreign exchange

**HDBH**

High day busy hour

**HEXID**

Hexadecimal identifier

**High day busy hour (HDBH)**

The hour, not necessarily a clock-hour, that produces the highest load during busy season.

**HRCDC**

High runner call data compression

**HOC**

Host office collector

**Host office collector (HOC)**

A data center that collects automatic message accounting data from central offices within a given region. The HOC collects the data onto tapes and passes the information to the revenue accounting office for the production of subscriber bills.

**IAI**

Initial address message with additional information

**IAM**

Initial address message

**IC**

InterLATA carrier

**IC/INC**

InterLATA carrier/international carrier

**IEC**

Interexchange carrier

**INC**

International carrier

**Initial address message (IAM)**

First message in a call (connection-oriented or connection-less). It contains information required to route the call to its destination.

**Input/output (I/O)**

Refers to a device or medium that is used to achieve a bi-directional exchange of data. Data exchange in the DMS-100 family system is performed in accordance with the input/output message system.

**Input/output controller (IOC)**

An equipment shelf that provides an interface between up to thirty-six input/output devices and the central message controller. The IOC contains a

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peripheral processor that independently performs local tasks, thus relieving the load on the central processing unit.

**Input/output device (IOD)**

A hardware device that interprets input and formats output for human users or remote computers.

**Input/output equipment (IOE) frame**

Frame housing input/output devices.

**Inward wide area telephone service (INWATS)**

A telephony service that allows a subscriber to receive telephone calls originated within specified service areas without a charge to the originating party. *See* also outward wide area telephone service; wide area telephone service; Basic 800 Service.

**INWATS**

Inward wide area telephone service

**Integrated services digital network (ISDN)**

A set of standards proposed by the International Telegraph and Telephone Consultative Committee (CCITT) to establish compatibility between the telephone network and various data terminals and devices. ISDN provides a path for transmission of voice, data, and images.

**Integrated service digital network user part (ISUP)**

Provides the signaling functions within a CCS7 network for voice and data services in an integrated services digital network (ISDN).

**IOC**

Input/output controller

**IOD**

Input/output device

**IOE**

Input/output equipment (frame)

**IP**

Intelligent peripheral

**ISDN**

Integrated services digital network

**ISUP**

ISDN user part

**IT**

Intertoll

**I/C**

InterLATA carrier

**LAMA**

Local AMA

**LATA**

Local access and transport area

**LATA equal access system (LEAS)**

A DMS-200 software package providing EA-like service to non-EAEO subscribers.

**LCA**

Line concentrating array

**LCC**

Line class code; link control card

**LCDR**

Local call detail recording

**LCO**

Local coin overtime

**LEAS**

LATA equal access service

**LIDB**

Line information data base

**Line class code (LCC)**

An alphanumeric code that identifies the class of service assigned to a line.

**Line concentrating array (LCA) shelf**

A unit of the line concentrating module. An LCM has two LCA shelves.

**Local access and transport area (LATA)**

A geographical area, called an exchange or exchange area in the MFJ, where an operating company offers telecommunication services. LATA is used in the United States only.

**Local automatic message accounting (LAMA)**

A system similar to automatic message accounting, but providing local collection and recording of billing information. LAMA consists of a combination of AMA equipment and automatic number identification equipment in the same office. Such a system can automatically process a subscriber-dialed toll call without operator assistance. Contrast with central automatic message accounting (CAMA).

**Local call detail recording (LCDR)**

A feature package that generates AMA records for calls within the flat rate area or full detail records for calls within a multi-unit message rate (MUMR) service area.

**LSDB**

Line services data base

**Maintenance and administration position (MAP)**

A group of components that provide a man-machine interface between operating company personnel and the DMS-100 family systems. A MAP consists of a visual display unit and keyboard, a voice communications module, test facilities, and MAP furniture. MAP is a trademark of Nortel Networks.

**MAP**

Maintenance and administration position

**Magnetic tape drive (MTD)**

In DMS, a device used to record DMS-100 Family data. An MTD may be mounted on either a magnetic tape center frame or an input/output equipment frame.

**Magnetic tape center (MTC)**

An equipment frame containing one or more magnetic tape drives.

**Man-machine interface (MMI)**

The series of commands and responses that are used by operating company personnel to communicate with the DMS-100 family system machines. MMI is achieved through the maintenance and administration position and other input/output devices.

**MBI**

Message billing index

**MCCS**

Mechanized credit card service

**MCD**

Minimum chargeable duration

**MDC**

Meridian Digital Centrex; message and device controller

**MDR**

Message detail recording

**MDRRAO**

Message detail recording revenue accounting office

**Mechanized calling card service (MCCS)**

A service that enables a subscriber, by using a credit card and entering the special billing information, to make chargeable long distance calls without operator assistance.

**Meridian Digital Centrex (MDC)**

A special DMS business services package that utilizes the data-handling capabilities of DMS-100 family offices. Provides a centralized telephone exchange service. Formerly known as integrated business network (IBN).

**Message billing index (MBI)**

Permits identification of a completed toll message for the purpose of billing the calling party.

**MF**

Multi-frequency

**Minimum charge duration (MCD)**

The period of long distance call-time, beginning at the point of call-completion, for which a charge is always applied, regardless of actual length of call.

**MIS**

Miscellaneous equipment (frame)

**Miscellaneous equipment (MIS) frame**

Equipment frame containing the auxiliary equipment which interfaces with DMS-100 family equipment, but is not part of the switching system. Included are such items as modems and recorded announcement machines.

**MMI**

Man-machine interface

**MR**

Message register

**MRSA**  
Message rate serving area

**MRU**  
Modular recording unit

**MTC**  
Magnetic tape center

**MTD**  
Magnetic tape drive

**MUMR**  
Multi-unit message rate

**Multi-frequency (MF)**  
A method that makes use of pairs of standard tones to transmit signaling codes, digit pulsing, and coin-control signals.

**Multi-unit message rate (MUMR) service**  
A service that permits an operating company to charge local calls on a basis other than a flat rate.

**NFA**  
Network facility access

**NP**  
No prefix

**NPA**  
Numbering plan area

**NSC**  
Number service call

**NT**  
Nortel Networks

**Numbering plan area (NPA)**  
Any of the designated geographical divisions of the U.S., Canada, Bermuda, the Caribbean, Northwestern Mexico, and Hawaii within which no two telephones will have the same seven-digit number. Each NPA is assigned a unique three-digit area code. Also known as area code.

**Number service code (NSC)**

A code that provides inward call management features requiring access to operating company databases. Call management features include enhanced 800 service and advanced intelligent network (AIN).

**OC**

Operator centralization

**OCC**

Other common carriers

**OLNS**

Originating line number screening

**OM**

Operational measurements

**ONI**

Operator number identification

**OP**

Operator trunk

**Operational measurements (OM)**

The hardware and software resources of the DMS-100 family systems that control the collection and display of measurements taken on an operating system. OM organizes the measurement data, and manages its transfer to displays and records on which maintenance, traffic, accounting, and provisioning decisions are based.

**Operator centralization (OC)**

An extension of the operator services provided by TOPS. OC enables the operating company to handle traffic in several remote toll centers as though they were operator centers.

**Operator number identification (ONI)**

The equipment used to bring an operator into the circuit to check the calling number when a subscriber has direct-dialed a long distance call that is to be charged on an itemized bill basis by CAMA equipment. Contrast with automatic number identification.

**ORDB**

Operator reference data base

**OSS**

Operator services system

**Outward wide area telephone service (OUTWATS)**

A telephony service, provided over one or more dedicated access lines to the serving central office, that permits subscribers to make calls to specified service areas on a direct dialing basis for a flat monthly charge or for a charge based on accumulated usage. Outward WATS lines have special directory numbers. *See* also inward wide area telephone service; wide area telephone service.

**OUTWATS**

Outward wide area telephone service

**PBX**

Private branch exchange

**PIC**

Point in call

**PIN**

Personal identification number

**Plain ordinary telephone system (POTS)**

POTS is an acronym used in the telephone industry to denote basic, conventional telephone services.

**Point-to-point (PTP)**

Used in calculating rate steps, refers to an operating company designated single rate step applied to calls from a specified point in the originating serving area to a specified terminating point. *See* rate step.

**PODP**

Public office dial plan trigger

**POTS**

Plain ordinary telephone service

**PRA**

Primary rate access

**Primary rate access (PRA)**

An interface to ISDN that connects an external network device such as a PBX to an ISDN switch. Access is provided by a number of bi-directional, digital channels that are time-division multiplexed. In North America, these channels are arranged as 23 B-channels and one D-channel, often referred to as 23B + D.

**Private branch exchange (PBX)**

A private telephone exchange, either automatic or attendant-operated, serving extensions in an organization and providing access to the public network.

**Private virtual network (PVN)**

A service that uses the public and private switched network to provide private network features and capabilities.

**PSDS**

Public switched data service

**PTP**

Point-to-point

**Public switched data service (PSDS)**

Any common carrier network designed to switch data, not necessarily in packet form, between public users.

**PVN**

Private virtual network

**RAO**

Revenue accounting office

**RCF**

Remote call forwarding

**RDW**

Record descriptor word

**RES**

Residential enhanced services

**Record descriptor word (RDW)**

A 4-byte word that precedes variable-blocked-spanned data records on magnetic tape, and indicates the length of the record.

**Residential enhanced services (RES)**

Software that provides a platform for the implementation of sophisticated phone services to residential subscribers and small businesses previously serviced on POTS (single-line flat rate or single-line message rate) lines. Formerly known as residential services.

**Revenue accounting office (RAO)**

A data center that produces subscriber bills from the host office's automatic message accounting data.

**RONI**

Remote operator number identification

**RU**

Recording unit

**Service control point (SCP)**

A node in a CCS7 signaling network that supports application databases. The function of an SCP is to accept a query for information, retrieve the requested information from one of its application databases, and send a response message to the originator of the request.

**Service switching point (SSP)**

A Common Channel Signaling No.7 (CCS7) signaling node which interacts with the service control point (SCP) to implement special service code features.

**Service switching point (SSP)**

A node in a Common Channel Signaling 7 (CCS7) network that routes messages between nodes. Signaling transfer points transfer messages between incoming and outgoing signaling links but, with the exception of network management (NWM) information, do not originate or terminate messages. Signaling transfer points are deployed in pairs. If one STP fails, the mate takes over, ensuring that service continues without interruption.

**SC**

SuperCAMA trunk

**SCF**

Selective call forwarding

**SCP**

Service control point

**SCR**

Selective call rejection

**Short supervisory transition (SST)**

Off-hook signals from the called party lasting for less than the minimum chargeable duration (MCD).

**Signaling System 7**

A version of signaling system #7, developed for North American use.

**SLE**

Screening list editing

<b>SLP ID</b>	Service logic program identification
<b>SLT</b>	Special line traffic
<b>SLU</b>	Subscriber line usage
<b>SLUS</b>	Subscriber line usage study
<b>SMDR</b>	Station message detail recording (system)
<b>SMS</b>	Service management system
<b>SNPA</b>	Serving numbering plan area
<b>SPB</b>	Special billing number
<b>SPCS</b>	Stored program control system
<b>SSAS</b>	Station signaling and announcement subsystem
<b>SSP</b>	Service switching point
<b>SST</b>	Short supervisory transitions
<b>SS7</b>	Signalling system #7
<b>Station message detail recording (SMDR) system</b>	In Meridian Digital Centrex, a system that provides recording facilities for the details of billable and non-billable calls for each MDC customer group.
<b>STP</b>	Service transfer point

**Subscriber line usage (SLU)**

In operational measurements, registers that monitor the peg and usage counts on any line or group of lines connected to a DMS-100 or DMS-100/200 office.

**Subscriber usage-sensitive pricing (SUSP)**

A method of charging for local calls based on the duration of the call. An example of usage-sensitive pricing is local measured service.

**SUSP**

Subscriber usage sensitive pricing

**TA**

Toll and assist

**TCAP**

Transaction capabilities application part

**TDMTT**

Tandem tie trunk

**TDP**

Trigger detection point

**Telephone user part (TUP)**

A CCITT No. 7 signaling (N7) protocol that provides signaling between a Common Channel Signaling 7 (CCS7) switching office and a designated customer setup.

**Teletypewriter (TTY)**

An electric typewriting device that generates a coded signal corresponding to each typed character. TTY also receives and converts coded signals into typewritten copy.

**TGMN**

Trunk group member number

**TGMU**

Trunk group member usage

**TGN**

Trunk group number

**TICS**

Traffic operator position system interLATA carrier service

**Time and charges (T)**

A service provided by operators whereby the duration of and charges for a long distance call are quoted to a subscriber upon request.

**Timed release disconnect (TRD)**

A telephony capability wherein a line is disconnected if the calling party fails to go on-hook within a specified time after the called party has gone on-hook.

**TNN**

Trunk network number

**TOPS**

Traffic Operator Position System

**Traffic Operator Position System (TOPS)**

A call processing system made up of a number of operator positions. Each operator position consists of a visual display unit (VDU), a controller, a keyboard, and a headset. TOPS is a trademark of Nortel Networks Corp.

**Traffic service position system (TSPS)**

A toll operator's position consisting of a push-button console.

**Transaction capability application part (TCAP)**

A service that provides a common protocol for remote operations across the Common Channel Signaling No. 7 (CCS7) network. The protocol consists of message formatting, content rules, and exchange procedures. TCAP provides the ability for the service switching point (SSP) to communicate with a service control point (SCP). TCAP is used by the ISDN layer facility message to transport service information for transaction signaling, not associated with an active call, over primary rate interface (PRI) links.

**TRD**

Timed release disconnect

**TSPS**

Traffic service position system

**TTY**

Teletype

**TUP**

Telephone user part

**T**

Time and charges

**UMCD**  
Under minimum charge duration

**US**  
United States of America

**Variable Call Detail Recording**

**VDU**  
Visual display unit

**VCDR**  
Variable call detail recording

**VFG**  
Virtual facility group

**Visual display unit (VDU)**

An electronic output device that presents data to a terminal user in the form of a television picture. In DMS, the VDU is one of the components of the maintenance and administration position, and, along with a keyboard, provides the main man-machine interface in the DMS-100 family systems.

**WATS**  
Wide area telecommunications service

**Wide area telephone service (WATS)**

A special direct distance dialing service that permits, for a flat monthly charge or a charge based on accumulated usage, either inward or outward dialing between a subscriber and specified areas. *See* also inward wide area telephone service; outward wide area telephone service.

**XFER**  
Remote data polling system

**XRU**  
Extended recording unit





DMS-100 FAMILY

# **Bellcore Format Automatic Message Accounting**

## Reference Guide

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