1A ESS Switch
Automatic Message Accounting
Feature Document

Contents Page

1. Overview 1

Definition 1

General Information 1

2. Record Formats 2

Record Formats with Data Groups 2

Unique Record Formats for Features 6

Statistical Record Formats 7

3. Interactions 8

4. Abbreviations and Acronyms 15

Tables

A. AMA Format Chart 20

B. AMA Data Groups 35

C. Type Entry Code 63 (Originating Exchange CI Overflow Record) 44

D. Type Entry Code 70 (SCF, SCR, AR, DA, COT, SASCF, TSSCF, SLE I, and Name/Number Privacy Access Records) 45

E. Type Entry Code 73 (Customer Changeable Primary Inter-LATA Carrier) 47

F. Type Entry Code 76 (SCA, CAR, and SLE II Records) 48

G. Type Entry Code Code 85 (CSR Extension Number Change) 49

H. Type Entry Code 86 (Station Feature Assignment Change) 50

I. Nine-Character Feature Field for V86 and V88 Records 51

J. Sixteen-Character Feature Field for V86 and V88 Records 54

Contents

	Page
K. Type Entry Code 87 (Station Verification)	57
L. Type Entry Code 88 (Feature Verificaion)	58
M. VZ08-800 Service Overflow Counts	
N. VZ12-Centrex/ESSX-1 Intercom and 3-Port Facilities Counts	60
O. VZ12-SMDR Format 1 Data (No ETS Account Code or WATS Reseller Authorization Code)	61
P. VZ12-SMDR Format 1 Data (ETS Account Code)	62
Q. VZ12-SMDR Format 1 Data (WATS Reseller Authorization Code)	63
R. VZ12-SMDR Format 2 Data	64
S. VZ12-SMDR Format 3 Data	65
T. VZ12-SMDR Format 4 Data	66
U. VZ12-XMDR Format 5/6 Data	67
V. VZ12-XMDR Format 5/6 Data [WATS Reseller Authorization Code (IDDD)]	68
W. VZ12-XMDR Format 5/6 Data [WATS Reseller Authorization Code (Non-IDDD)]	69
X. VZ18-800 Service Busy Counts	70
Y. VZ22-Message Service Counts	71
Z. Format for CLID (VZ30), ICLID (VZ31), or PPV (VZ32) Counts	72
AA. Format for CNAM Only (VZ33) Counts	73
AB. Format for CNAM and ICLID Combined (VZ34) Counts	74
AC. Format for CWD (VZ35) Counts	75
AD. Type Entry Code 67 (Originating Exchange 4-Digit CI Overflow	76

1. Overview

Definition

1.01 This document contains Automatic Message Accounting (AMA) record formats for single entry AMA records.

1.02 This document is reissued to add information concerning the Suppressed Ringing Feature available in the 1AE12.06 Periodic Partial Update (PPU).

1.03 This practice does not contain admonishments.

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1.08 Part 4 lists the abbreviations and acronyms with applicable terms used in this practice.

General Information

1.09 The AMA records, which contain billing and statistical information, are recorded on magnetic tape.

(a) Billing Information contains data necessary to generate revenue.

(b) Statistical information contains data that may be used to evaluate various services (for example, 800 Services) and facilities (for example, 3-port facilities).

An AMA magnetic tape must be processed to obtain billing and statistical information. Usually, a Revenue Accounting Office (RAD) processes AMA magnetic tapes.

1.10 The AMA data is recorded on tape in a Binary Coded Decimal (BCD) format. One AMA character is represented by the values of four BCD bits. Each AMA character represents either for the characters "V" through "Z", or a noncheck dummy (NCD) character. Decimal digits represent numerical data. Alphabetic characters are used for AMA tape labels, data identification, and data separation. The NCD is a filler character that is used as necessary to pad an AMA record. Each AMA record is multiple of five tape characters. The tape format and AMA characters are described in the parent document.

1.11 Predesignated AMA characters and character pairs are used for tape labels, data identification, data separation, and various codes that are used to process and interpret AMA magnetic tape data. The header, trailer, transfer, and time change labels are described in the parent document. The predesignated AMA characters are as follows:

VV = Header label

VX = Transfer label

VY = Time change label

VZ = AMA record as a statistical record. These characters are followed by two digits, which identify a particular type of statistical record.

V = Beginning of an AMA call record. This character is followed by two digits, which identify the type entry code for a particular call.

Y = Entry extender, which indicates that an AMA call record contains additional AMA data in one or more optional data groups.

ZY = Reserved for accounting center use as an error designation code This code can be inserted at the accounting center if erroneous data is detected.

YY = Used as a head check code

ZZ = Used as a dummy check code

13 = The end of an AMA tape file. These characters follow trailer and transfer labels.

2. Record Formats

2.01 The two types of AMA records are nonstatistical records and statistical records. They are as follows:

(a) Nonstatistical records provide information primarily for billing purposes. The data for nonstatistical records are usually provided by standard and optional data groups. Each data group is designed to provide specific AMA information for the majority of nonstatistical records. In certain cases, either AMA data or uses of a particular data group are unique to a particular feature. Data group record formats and feature dependent formats for nonstatistical records are described separately in this part.

(b) Statistical records primarily provide statistical information for telephone companies and/or customers. They can also provide billing information for particular services, (for example, message service). The format for each type of statistical record is unique; therefore, no data groups are applicable. Statistical record formats are described separately in this part.

Record Formats With Data Groups

2.02 Each record begins with the start of entry character "V", which is immediately followed by a 2-digit type entry code. The 2-digit type entry code determines which standard and optional data groups are applicable to a particular call. Basic AMA information is recorded in the standard data groups. Additional AMA information is recorded, if applicable, in one or more optional

data groups. Each type entry code and the applicable data groups are listed in Table A.

2.03 Each record contains an exact multiple of five AMA characters. Since each tape character contains two AMA characters (that is, A and B), the beginning of a new record (that is, character "V") can be recorded on tape as either AMA character A or B, depending on the last character for the previous record.

2.04 Usually, a single record is made for one call; however, multiple records may occur. For example, multiple records are made for a three-way call. A separate record is made for each leg of a three-way call. Multiple records may interspersed with other records on the AMA magnetic tape.

2.05 The characterics, information, and format of each AMA data group are listed in Table B. Information and entries for each data group that are not self-explanatory are described in the following paragraphs.

2.06 In data group A2, the first two characters provide basic information pertaining to the AMA record made for a particular call. If a call is traffic service observed, data group Q, which contains the trunk network number (TNN), is appended to the record regardless of whether or not the call is answered. For an unanswered call, the release time is recorded in data group A3 - which usually contains the connect time - and NCD characters are recorded in data group C - which usually contains the disconnect time. Typically, traffic service observed calls are associated with type entry codes 17 and 23; however, such calls that are unanswered are associated with type entry codes 16 and 22 since type entry codes 17 and 23 do not include data group C.

2.07 The LDTF (LASS Dual Timer) feature allows a customer to retain the current existing queue position when an AR/AC reactivation request is made. A V70 AMA record will be generated using one of the following new SFVs (Service Feature Values):

- SFV 32 or 33 - when a call completes after delayed processing following a reactivation request
- SFV 34 or 35 - when a AR/AC customer is busy after ringback following a reactivation request
- SFV 36 or 37 - when a reactivation request times out
- SFV 38 or 39 - when a reactivation request is deactivated

2.08 If a customer has purchased Enhanced INWATS (EITA) type AMA, service feature codes 00-99 are assignable by the telephone company for calls with type entry code 29 - terminating subscriber line usage studies [SLUS] or terminating INWATS. If specified, these telephone company assignable values are recorded in the feature field of data field A2 instead of the fixed value of 08 (terminating INWATS) or 00 (terminating SLUS).

2.09 For old format for number services (OFNS) in data group A2, the service feature contains the service feature identification received from the service control point (SCP).

2.10 For OFNS, type entry code 75, an terminating access records that have the charge number and/or calling party number delivered for Network Interconnect (NI) Common Channel Signaling System 7 (CCS7) calls, type entry code 66, data groups B2 and J contain the originating number and originating numbering plan area (NPA) If the complete originating telephone. number is not available on a call, the originating NPA is included in the re cord and, if possible, an NXX is supplied by the originating office. The NCD characters are recorded as the last four digits of the originating number if only the NPA and NXX codes are known. If only the NPA is available, the NCD characters are recorded as the last seven digits of the originating number.

2.11 For OFNS, data groups D and N contain the destination number and destination overseas number expander. The existing data groups D and N are labled as "destination" rather than "called." Destination field D and optionally destination field N are filled with the routing telephone number received from the SCP. This number may be the 10-digit NPA or international direct distance dialing (IDDD) number used to route the call, or it may be the service number that the originator dialed.

2.12 Data group G contains the message billing index (MB) for message rate calls with type entry codes 16, 17, 18, 22, and 23. For message rate calls without a MBI (for example, type entry code 15), the number of

message units can be calculculated using the originating and terminating office codes and the call duration. Data group G contains the OUTWATS calls with type entry code 25.

2.13 Data group I3 contains up to 24 dialed digits for calls with type entry codes 01 and 27. When 24 digits do not exist, the digits are left adjusted and the remaining digit positions are filled with NCDs. For calls with type entry code 91, any detected multifrequency digits are entered in positions 1 through 14. Unused positions 1 through 14 are filled with NCDs. Positions 15 through 23 always contain NCDs. Positon 24 contains an electronic toll fraud (ETF) termination code.

2.14 Data group 14 contains simulated facilities usage information for wide area telecommunications service (WATS) calls as follows:

(a) For OUTWATS calls, type entry codes 11 and 25, the first character indicates either full busiday or measured time service. The remaining four characters contain either the 4-digit pseudo trunk number (TN), zeroes if the pseudo TN is unavailable, or NCDs if deddicated physical trunks are used.

(b) For 800 Service calls, type entry code 29, the first character is a NCD. The remaining four characters contain the Simulated Facilities Identification Number when the WATS Administrative Feature applies, the Multi-Line Hunt Group Terminating Number if the terminating number is in a Multi-Line Hunt Group, or NCDs if the call is a line to line call and the Inward Wide Area Telecommunications Service (INWATS) AMA Recording Enhancement is not active. When IWAR is active, the remaining four characters will contain the last four digits of the terminating DN for line-to-line calls.

2.15 For OFNS in data group I28, the dialed number is a 10-character field that contains the telephone number dialed by the originator of the call. The telephone number can be 7 or 10 digits. For a 7-digit number, the dialed number field is filled with NCD characters where the NPA would normally be.

2.16 For OFNS in data group I29, the number service customer's RAO is a 3-character field that contains the RAO number of the buyer. If the RAO number is not available, the field is filled with NCD characters.

2.17 For OFNS in data group I30, the originating LATA is a 3-character field that contains the LATA of the originator of the call.

2.18 For OFNS in data group I31, call type (a new standard format item) is a 3-character field that contains the call code. The call code is assigned by the telephone company at the SCP.

2.19 For OFNS in data group I32, the structure code, a new standard format item, is a 4-character field that contains the structure code only, not the digit extender digit. The structure code is assigned by the telephone company at the service switching point (SSP), and currently will be 0360 to 0369.

2.20 Data groups I33 through I40 are only valid with the V76 record (SCA, CAR, and SLE II). Data group I33 contains the Feature Status Option II, Data group I34 contains the Screen List Size for SCA, Data group I35 contains the Screen List Size for CAR, and Data groups I36 through I40 are reserved for future use. See Table F for more information.

2.21 Data group J contains the NPA digits associated with an originating station. Data group J is necessary for a centralized automatic message accounting (CAMA) office which handles traffic from two or more NPAs. The inclusion or ommision of data group J is office dependent; however, if data group J is included for an office, it is applicable to all AMA call records. The use of data group J is indicated in AMA tape header, trailer, transfer, and time change labels by the format by the format modifier.

2.22 For OFNS and for NI CCS7 calls (V66), data group J is always included in the record. The office option for data group J does not affect the V75 or V66 record.

2.23 Data group L indicates whether or not optional data groups are appended for a particular type entry code. If optional data groups are applicable, data group L contains the entry extender character "Y."

2.24 Data group M indicates the presence of data groups N,P,Q,S or T.

2.25 Data group N is a 2-digit number expander used for all overseas calls. Up to 12 digits can be recorded using both data group D and N. If the dialed number contains less than 12 digits, any unused digit position is filled with a NCD. If the dialed number contains more than 12 digits, the additional digits are recorded in optional data group W10000.

2.26 Data group P indicates the presences of 1 or more data group U fields.

2.27 Data group Q contains the trunk network number (TNN) used for a call completed via an outgoing trunk when this AMA data function is requested via the AMA-ACT input message. The TNN is recorded for each call (via an outgoing trunk) that requires an AMA record. No option is available for TNN recording on selected trunk group basis. The TNN recording function is stopped by entering the AMA-OFF input message.

2.28 Data group S indicates the presence of 1 or more data group W fields.

2.29 Data group T contains data for any call that uses an inter-LATA carrier (IC) or international carrier (INC). Data group T is applicable to such calls with type entry codes 01, 11, 25, 48, 64, 66, 79.

2.30 When the Carrier Identifier Code (CIC) is 3 digits, Data Group T will hold the CIC and Operator Data digits. When the CIC is 4 digits, Data Group U20000 will hold the CIC (see paragraph 2.39). When the CIC value is invalid, the Carrier Identifier Field will contain all NCDs and the Operator Data field will be set to a value of 9.

2.31 The originating routing indicator identifies the type of connection the equal access end office (EAEO) has to the carrier and also identifies which trunk group number (TGN) is contained in the "TGN" field.

A value of "0" indicates that the EAEO is directly connected to the carrier via a non-CCS7 trunk and the TGN field contains this TGN.

A "1" indicates that an indirect trunk was used to the carrier and non-CCS7 signaling was used between the EAEO and access tandem (AT). In this case, the TGN field contains the TGN used between the EAEO and AT.

A "2" indicates that a direct CCS7 trunk was used between the EAEO and the carrier; the TGN field contains this TGN.

A "3" indicates that an indirect call was made to the carrier where both the trunk between the EAEO and the AT as well as the trunk between the AT and the carrier are CCS7. In this case, the TGN field contains the TGN of the trunk used between the AT and the carrier.

A "4" indicates that an indirect call was made where the EASO to the AT trunk was CCS7 and the AT to the carrier trunk was non-CCS7. In this case, the TGN field contains the TGN used between the EAEO and the AT.

2.32 The "terminating routing indicator" field identifies the type of connection used when a call arrives from a carrier. Unlike the "originating routing indicator" field, it has no effect on the TGN field which always contains the TGN of the trunk from the carrier.

2.33 Data group U2 contains a customer accounting code for any call to which the the Customer Dialed Account Recording(CDAR) feature is applicable.

2.34 Data group U4 contains the on-hook time of the short supervisory transition (SST) signal for signaling irregularities (SIG) when the ETF investigation terminates due to abandon, toll security multifrequency (MF) receiver timeout, or a subsequent SST report. Data group U4 is applicable to type entry code 91.

2.35 Data group U10 contains SIGI status information associated with ETF investigation and long duration call recording (LDCR) status information for an AMA record of a long duration call.

2.36 Data group U40 contains a 4-digit customer identification number for any call that requires customer identification.

2.37 Data group U100 is applicable to any call that does not have a minimum recordable duration and requires an AMA record. Any such call is nonchargable as indicated by the first information digit in data group A2 with a value of either 4, 5, 6, or 7. Data group U100 contains the decimal value 2 which indentifies the record for a call without a minimum recordable duration. The AMA record for such a call contains other data groups that are applicable to the type entry code for that call.

2.38 Data Group U10000 is used in conjunction with the RCAMA (Return Call AMA) feature. When an AMA record is generated from an AR/AC attempt, a value of 2 or 3 within this data group will indicate the status fo the DN (public or private) sent to the AR/AC subscriber. A value of 2 in Data Group U10000 will indicate that the call initiated via the AR/AC capability was sent to the AR/AC subscriber public; whereas, a value of 3 will indicate that the call initiated via the AR/AC capability was sent to the AR/AC subscriber private.

2.39 When the carrier identifier Code (CIC) is 4 digits (the leading digit is not zero), Data Group U20000 will contain the CIC. Data Group T will also be appended to display the Operator Data digit but the Carrier Identifier field of U20000 of Data Group T will contain NCDs. The Carrier Identifier field of U20000 is 4 characters in length. U20000 is not used when an invalid CIC is recorded.

2.40 For OFNS in data group W400, the alternate billing number is an optional 10-character field that contains the 10-digit billing number received from the SCP.

2.41 Data Group W2000 is appended when the processed record is for Advanced Services Platform/Service Switching Point (ASP/SSP) specified billing. W2000 will contain the 3 digit Call Code that has been passed by the Service Control Point (SCP). The length of W2000 is 3 characters.

2.42 Data Group W4000 is applicable to calls extended by an IP or for any call to which an ASI-Proxy subscriber has dialed an IP Explicit Access code. Data Group W4000 will contain the Service Code (up to 5 characters) and Subscriber ID (up to 10 characters) sent to the IP. For calls extended by an IP, the Data Group W4000 also indicates the "Access Method" used by the customer (1 character) and Conversion Indicator (1 character). The length of W4000 is 17 characters.

2.43 Data Group W10000 is used only on overseas calls with more than 12 dialed digits. The length of W10000 is 4 characters. The first character contains the length of the Country Code and the last three characters contain digits 13-15. An NCD character is used for non-existant digits. The first 12 digits continue to be recorded in Data Groups D and N.

Unique Record Formats for Features

2.44 Each unique record begins with the start of entry character "V", which is immediately followed by a 2-digit type entry code. The 2-digit type entry code identifies the record for a particular feature or application. The unique record formats for features are as follows:

(a) The Carrier Interconnect (CI) feature uses a type entry code 63 for the originating exchange overflow count. The originating exchange overflow record format and data are listed in Table C.

    Beginning with 1AE12.00 and later generics, the V63 record will be replaced with the V67 record. The only difference between the V63 record layout and the V67 record layout is the CIC field will be 4 characters in V67. Regardless of the size of the CIC being stored (3 digits versus 4 digits), Overflow IC record V67 will always be used. See Table AC for the layout V67.

(b) The Local Area Signaling Services (LASS) is a family of features that uses type entry code 70 and 76. Entry code 70 (Table D) refers to the usage-sensitive record output from an activation or deactivation of a LASS feature. Entry code 76 is made on daily basis for all lines that have a LASS feature active overnight.

(c) The Customer Changeable Primary Inter-LATA Carrier (CCPIC) feature uses a type entry code 73. The CCPIC record format and data are listed in Table E.

(d) The OFNS feature uses type entry code 75. This record provides SSP number service billing data for IC calls and non-IC calls.

(e) Entry code 76 (Table F) is made on a daily basis for all lines that have a LASS feature active overnight.

(f) The centrex station rearrangement (CSR) feature uses four type entry codes as follows:

(1) A CSR extension number change uses a type entry code 85. The CSR extension number change record format and data are listed in Table G.
(2) A CSR station feature assignment change uses a type entry code 86. The station feature assignment change record format and data are listed in Table H. In the 1AE7 generic program, only one "features changed" field, containing nine AMA characters, is required. The values for this 9-character field are listed in Table I. In 1AE8A and later generic programs, a second "features changed" field, containing 16 AMA characters, is required. The values for the 16-character field are listed in Table J.
(3) A CSR station verification uses a type entry code 87. The station verification record format and data are listed in Table K.
(4) A CSR station feature verification uses a type entry code 88. The station feature verification record format and data are listed in Table L. In the 1AE7 generic program, only one "features searched for" field, containing 16 AMA characters, is required. The values for the 16-character field are listed in Table J.

(g) The Caller ID Call Wait (CIDCW) feature does not affect the layout of the three existing ICLID/CNAM records. However, when the CIDCW Fast Feature bit is set, the count values will contain the accumulated totals for both on-hook and off-hook deliveries.

Statistical Record Formats

2.45 Each statistical record begins with the characters "VZ", which are immediately followed by a 2-digit code. The 2-digit code identifies a particular statistical record. The statistical records are as follow:

(a) Overflow counts of 800 Service nonhunting simulated facilities groups (SFGs) are recorded daily. An 800 Service statistical record (VZ08) contains overflow counts for up to five customer groups. The VZ08 record format and data are listed in Table M.
(b) Counts for Centrex/ESSX-1 customer intercom and 3-port facilities can be activated and deactivated on a per-customer group basis. The counts are recorded in a VZ12 statistical record as listed in Table N. Counts that are not applicable are filled with NCDs. The NPA digits for the listed directory number (LDN) are filled with NCDs. Refer to paragraph 3.14.(f) for Table O through Table W.
(c) A record is made of 800 Service data base busy counts and terminating end office busy counts for all SFGs with the Busy/Idle Status Indicator (BISI) feature. The BISI feature uses the common channel interoffice signaling (CCIS) data base, which maintains the busy/idle status of SFGs. These busy counts are recorded in a VZ18 statistical record as listed in Table X.
(d) Usage counts for message service (MS) customers are recorded daily, for each MS customer, in a VZ22 record. The record format contains usage counts for up to three MS customers as listed in Table Y.
(e) The LASS feature incudes the Bulk Calling Line Identification (BCLID) and Individual Calling Line Identification (ICLID) features. The BCLID and ICLID features provide customers with information regarding each incoming call. The BCLID feature requires an hourly AMA record. The ICLID feature requires a daily AMA record. Both records contain the total count of calling DNs sent to the customer and the total count of unavailable/private

DNs indicated as such to the customer. The BCLID counts are generated hourly and are accumulated daily. The record format and data for BCLID (VZ30) and ICLID (VZ31) are identical except for the record identifier characters "30" and "31". The record format and data for both BCLID and ICLID are listed in Table Z. For information on BCLID refer to AT&T 231-390-243.

(f) Usage counts for Pay Per View (PPV) customers are recorded daily for each PPV customer in a VZ32 record. The record format contains usage counts for up to 3 PPV customers as listed in Table Z. For more information on PPV, refer to AT&T 231-390-386.

(g) The Calling Name Delivery (CNAM) feature provides two additional LASS statistical daily AMA record types. A VZ33 record is created when the customer has only usage sensitive CNAM capabilities and one of three events occurs:

- o One of the three counts values overflows the maximum value of 255.
- o The CNAM capability is removed from the line or usage sensitive ICLID is added to the line.
- o The Time is 12:45 A.M. (Records created after processing of BCLID and ICLID records has completed.)

A VZ34 record is created when the customer has both CNAM and ICLID usage sensitive capabilities and one of three events occurs:

- o One of the four count values overflows the maximum value of 63.
- o Either the CNAM capability or the ICLID capability is removed from the line.
- o The time is 12:45 A.M. (Records are created after processing of BCLID and ICLID records has completed.)

The VZ31 record is still created for customers having only usage sensitive ICLID capabilities.

The record formats and data layouts for VZ33 and VZ34 are listed in Tables AA and BB respectively. For more information on the CNAM feature, refer to AT&T 231-390-244

(h) The Call Waiting Deluxe (CWD) feature provides one additional LASS statistical AMA record type. A VZ35 record is created when the CWD subscriber has CWD usage sensitive conference and either of the following events occur:

- o There is no room to store the line equipment number (LEN) and the corresponding count in the Call Waiting Deluxe Usage Sensitive Conference Count (CWUSCC) Table.
- o The time is 12:45 A.M. Records are generated for all LENs having an entry in the CWDUSCC Table.

The record formats and data layouts for VZ35 are listed in Table AC. For more information on the CWD Feature, refer to AT&T 231-390-082.

3. Interactions

3.01 The AMA feature interacts with numerous other features which normally require new or changed parameters and/or translations to implement. The AMA-related features are discussed in the following paragraphs.

3.02 The Busy/Idly Status Indicator (BISI) feature provides 800 Service customers with an indication of the effectiveness of their 800 Service. The BISI is part of the CCIS INWATS feature which utilizes a data base to maintain the busy/idle status of SFGs. The data base allows calls to be completed, rerouted, or blocked more efficiently before reaching the terminating end office. The 800 Service busy counts are listed in Table X. For a detailed description of BISI, refer to AT&T 231-090-276. For a detailed description of CCIS, refer to AT&T 231-090-416.

3.03 The Call Forwarding Usage Sensitive (CFUS) feature provides the telephone company the option of offering call forwarding service to individual line customers; thus, all individual lines, other than

Centrex/ESSX-1, without the call forwarding option would have access to call forwarding service. When these lines use the service, a usage AMA record will be generated. For a detailed description of CFUP, refer to AT&T 231-090-292.

3.04 Effective with the 1AE8A generic program, the optional CI feature allows the telephone customer to access particular carriers for transmission of toll calls. Calls crossing a local access and transport area (LATA) boundary are inter-LATA calls and are routed to an IC. International calls are routed to an INC. Per call AMA records are generated for all IC or INC calls originating from or terminating to an exchange. These records are used to bill access charges to the carrier for use of the local exchange. For a detailed description of the CI feature, refer to AT&T 231-090-120.

3.05 The Centrex Station Rearrangements (CSR) feature allows CSR customers to make certain changes for their extensions and features and to verify those changes. A record of each successful customer change and/or verification is recorded on AMA tape. Customers are billed for the CSR feature by either a flat rate or on a usage-sensitive basis. For a detailed description of CSR, refer to AT&T 231-390-064. The CSR feature uses four type entry codes given in paragraph 2.42(f).

3.06 The Charge Delay Timing Reduction (CHDR) feature reduces the charge delay timing on coin and certain other calls from 2 to 4 seconds to 600 to 800 ms. This feature also prevents call charging when either of the following conditions exists:

(a) A switching system transient appears to the system as the called party going off-hook.
(b) The calling party goes on-hook just as the called party goes off-hook.

Without this feature, either of these conditions could initiate call charging. Additionally, this feature provides charge delay timing on all outgoing calls.

3.07 The Customer Dialed Account Recording (CDAR) feature permits a Centrex/ESSX-1 customer to add an account number to the AMA record for any call. The account number appears in the AMA record for its associated call call and subsequently in the customer's telephone bill. The account number in no way affects the charging of the call, but rather is used by the customer in cost allocations of the customer's AMA billed services. For a detailed description of CDAR, refer to AT&T 231-090-291.

3.08 The Customer Automatic Identification (CSAID) feature provides a means for customer identification to be included in AMA records for CCSA, WATS, and any CDAR calls. Data Group U40 (Table B) is appended to the AMA record when CSAID is used. The CSAID feature is discussed in AT&T 231-090-273.

3.09 The Directory Assistance Charging (DAMA) feature provides bulk billing of calls to directory assistance using AMA type entry 30 (Table A). With DAMA, all charged calls to 411 are billed as entry type 30. Calls to 555-1212 may also be billed as type entry 30. The type entry 30 bulk bill includes the same information as an untimed message rate bill; basically, the calling number and answer time are included. The AMA records are made only for completed directory assistance calls. No abandons are recorded. Refer to AT&T 231-090-344.

3.10 The Electronic Tandem Switching (ETS) feature provides a group of Centrex/ESSX-1 features for improved tandem tie-trunk services in 1AE6 and later generic programs. The Station Message Detail Recording (SMDR) feature is available with ETS. For a description of ETS and SMDR, refer to AT&T 231-090-154 and AT&T 231-090-166, respectively.

3.11 The Flexible Route Selection (FRS) feature is optionally available for Centrex/ESSX-1 customers to automatically direct outgoing station calls to the customer and to automatically direct outgoing station calls to the customer's most preferred available route. The foreign exchange (FX) routes may be accessed by the FRS feature. Under certain conditions, tie lines used for off-network dialing may be included as a possible route. For a description of FRS, refer to AT&T 231-090-142.

3.12 Full ESSX-1 service provides customer facility groups (CFGs) which have the capability to limit network access calls, intercommunication calls, and 3-port facility usage for Centrex/ESSX-1 customers. Refer to AT&T 231-090-145.

3.13 The identified Outward Dialing feature provides the means for identifying the originating number on the AMA tape on calls

involving timed or message unit charges. The number may be inserted in the AMA message manually by an operator or automatically by the switching system. This feature provides the telephone number from which each call was originated. Refer to AT&T 231-090-147.

3.14 The Message Detail Recording-Revenue Accounting Office (MDR-RAO) feature has been enhanced to provide two modified AMA tape entries for calls routed by the ETS dialing plan to FX trunks, Centrex/ESSX-1 tie trunks, ETS intertandem trunks, and/or common channel switching arrangement (CCSA) network access trunks.

(a) The Station Message Detail Recording via the Revenue Accounting Office (SMDR-RAO) feature, prior to the 1AE6 generic programs, provided station identified call detail for most calls placed by a Centrex/ESSX-1 customer. Intra-Centrex/ESSX-1 call were not included, but call detail, including station identification, could be provided by the AMA tape for calls routed via WATS, CCSA, FX, tie lines, and DDD facilites.

(b) The SMDR to the Customer Premises feature was introduced in the 1AE6 generic program to provide for call detail to be sent directly to the customer premises via a peripheral unit controller (PUC) data link channel. This provided call detail, without RAO processing, for calls placed using the ETS dialing plan. However, details for calls placed through other access (9+, 1XX, etc.) were not available. Also, use of SMDR-Premises resulted in the loss of station identified billing on the AMA tape for billable calls made using the ETS dialing plan.

(c) Both SMDR-Premises and SMDR-RAO were improved in the 1AE7 generic programs. The improvements in SMDR-Premises result in individual station identification on the AMA tape for calls placed via facilities for which a billing record is normally made (for example, DDD, WATS). The modification is essentially transparent to the RAO since the entry type remains unchanged. The bulk-billing number is simply replaced by the individual station number. The SMDR-RAO improvements also result in individual station identification. In addition, modification of entry types V01 and V09 were made to provide call detail on the AMA tape for calls placed via the ETS dialing plan and routed over FX trunks, Centrex/ESSX-1 tie trunks, ETS access trunks, ETS intertandem trunks, and CCSA network access trunks. The modified V09 entry type is used for calls using CCSA network access trunks. The modified V01 entry type is used for all other call routing for which no other normal billing record would be made. These AMA records are for the use of the customer and are nonbillable. The difference between the standard V01 and V09 formats and the modified V01 and V09 formats is in data group A2 (Table B). In the modified V01 and V09 formats, the A2 information digits equal 40, indicating sampled nonbillable calls, and the A2 service feature code equals 19, indicating an MDR-RAO record.

(d) The ETS Billing improvements (Enhancements) feature [also known as wide area telecommunications service (WATS) reseller], available in the 1AE7 generic program, provides enhancements to the ETS feature as follows:

(1) Allows remote access to ETS lines.
(2) Increases the number of authorization codes per ETS customer to 10,000,000.
(3) Provides the capability of station message detail records (SMDR) and extended message detail records (XMDR) on the AMA tape or the attached processor system (APS).

(e) The primary objective of the ETS Billing Enhancements feature (AT&T 231-090-135) is to provide remote access to business owned ETS lines. Any public or private touch-tone telephone may be used to gain access to an ETS line. An ETS line is accessed by dialing the directory of that ETS line. Once the ETS line is accessed, it may be used to

place any valid call over the private ETS network or the public network. Calls placed from ETS lines accessed from remote locations may be routed via the Automatic Route Selection-Deluxe and ETS Deluxe Queuing features and recorded via the Station Message Detail Recording feature. The remote access to ETS lines capability is expected to be used primarily for placing WATS calls from the local telephone.

(f) The ETS Billing Enhancements feature provides a capability of recording both SMDR and XMDR on the local 1A ESS Switch AMA tape or APS. The SMDR and XMDR formats provided in the following tables:

Table O - VZ12 SMDR Format 1 Data (No ETS Account Code or Authorization Code)

Table P - VZ12 SMDR Format 1 Data (ETS Account Code)

Table Q - VZ12 SMDR Format 1 Data (WATA Reseller Authorization Code)

Table R - VZ12 SMDR Format 2 Data

Table S - VZ12 SMDR Format 3 Data

Table T - VZ12 SMDR Format 4 Data

Table U - VZ12 XMDR Format 5/6 Data

Table V - VZ12 XMDR Format 5/6 Data [WATS Reseller Authorization Code (Non-IDDD)]

Table W - VZ12 XMDR Format 5/6 Data [WATS Reseller Authorization Code (IDDD)].

3.15 When the RAO processes the VZ12 or structure code 09004 AMA records, the RAO separates SMDR and XMDR from the billing records and then forwards the SMDR and the XMDR to the ETS customer. This capability is called ETS Billing Enhancement MDR via RAO feature and can be used either as a stand-alone feature or as a backup to the data link and the customer premises recording equipment

3.16 For ETS customers withou recording equipment and data links, both SMDR and XMDR are optionally recorded on the AMA tape or APS. For ETS customers with recording equipment and data links, both SMDR and XMDR are optionally recorded on the AMA tape or APS only when the customer's recording equipment, data link, or both malfunction. This provides a backup for the customer premises located recording equipment. Whenever the data link and the customer premises equipment are in service, SMDR and XMDR are transmitted by the 1A ESS switch over the data link to the customer premises recording equipment. The ETS Billing Enhancements MDR via RAO feature is optional on a per ETS customer basis and is available to all ETS customers.

(a) The ETS Billing Enhancement Authorization Code Recording for the EEDP (ETSACRE) feature (AT&T 231-390-383) extends the WATS Reseller feature to EEDP customers. The ETSACRE feature produces VZ12 or Structure Code 09004 AMA records for EEDP class 1 and class 2 calls which are available in 1AE8A.11 and 1AE9.06 and later generic programs.

3.17 The message Detail Recording on Tie Trunks (TAMA) feature provides an AMA record of tie trunk or FX trunk call originations on a per access code basis. The AMA record contains the calling number, called number (1 to 24 digits), connect and disconnect times, and other information. Refer to AT&T 231-090-417 for additional information.

3.18 The Type 27 AMA Modification feature is an optional feature available for use in conjunction with the TAMA feature. It is initially available for the 1AE8A generic program in PPU (Periodic Partial Update) 8A.09. For the 1AE9 generic program, it is available in PPU 9.04 and later generic programs.

3.19 Feature group 9STAMA is required for the TAMA feature and must be loaded to implement the Type 27 AMA Modification feature. The Type 27 AMA Modification feature is a fast feature controlled by set card FF031. If the value of set card FF031 equals one, the feature is turned on. If the value is equals zero, the feature is not turned on.

3.20 Without the optional Type 27 AMA Modification feature, the TAMA feature generates type entry code 27 AMA records for tie trunk and FX trunk call originations on a per-access code basis only.

3.21 The Type 27 AMA Modification feature provides three new service feature codes (i.e., 85, 86, and 87) for Data Group A2, which is formatted as part of a type entry code 27 AMA record. Service feature codes 85, 86, and 87 indicate 5-digit, 6-digit, and 7-digit tie trunk and/or FX trunk call originations, respectively. The number of digits dialed includes the dialed access code.

3.22 These service feature codes provide telephone company screening capabilities that facilitate the collection of AMA entries for service area wide call originations via tie trunks and/or FX trunks. When these types of call originations are identified as either 5-, 6-, or 7-digit calls, the appropriate service feature code is recorded in Data Group A2 of the type entry code 27 AMA records generated for such calls. For any other type of tie trunk or FX trunk call origination, service feature code 00 will continue to be recorded in Data Group A2 as is currently done.

3.23 In order to process type entry code 27 AMA records that contain these new service feature codes, the billing program used by the RAC (Revenue Accounting Center) will require modification.

3.24 The Minimum Recordable Duration (MRD) feature provides the initial off-hook time as answer time in AMA entries for which 2-second minimum chargeable duration (MCD) timing is performed. A normal chargeable entry is made only when the off-hook signal persists for at least 2-seconds. If an off-hook signal occurs, but does not persist for longer than two seconds, the call is considered an MRD call and an MRD record is made. The MRD record is nonchargeable and has the same entry type and data groups as the record which would have been made if the call had been completed. The AMA record can be identified as an MRD record by information digit 1 in data group A2 (digit 1 equals 4, 5, 6, or 7 for no charge), and optional data group U100 is appended with a value of 2 (Table B).

3.25 The Originating Screening Office (OSO) feature utilizes the CCIS data base for handling 800 Service (formerly called INWATS) calls. With the OSO feature, the CCIS data base determines if an 800 Service call can be completed to an idle terminating end office or if the call will be blocked due to a busy condition. The V10 type entry code is available in 1AE7 and later generic programs for AMA records (for use in point to point studies) of 800 Service calls utilizing the OSO feature. The 800 Service calls utilizing the OSO feature will continue to have the standard toll record (type entry code 01) made. These toll records are determined to be nonbillable by the RAO by recognizing the digits 800 in data group D. Refer to table A and Table B.

Data group A3 contains either an NCD or "9" (indicating subscriber line usage study) and the connect time. Data group D contains the actual 800 Service number dialed. Data group I8 contains terminating data. For a description of the 800 Service feature, refer to AT&T 231-090-274.

3.26 The Signaling Irregularities (SIGI) feature provides the capablity to detect, identify the source of, and report illegal MF signaling on toll calls due to electronic toll fraud. Signaling Irregularities uses a type entry 91 for AMA records. Refer to Table A and Table B for the data groups applicable to SIGI.

3.27 The Source Billing of Attendant-Handled Calls (SBAC) feature causes the attendant billing DN to be replaced in the AMA record by the source party billing DN when a call is placed through the attendant position. For information on SBAC, refer to AT&T 231-090-147.

3.28 The WATS calls provide provide a customer with service to a predetermined area or areas at a rate based on expected usage. The WATS calls are divided into two distinct and separate service offerings, OUTWATS and 800 Service (formerly known as INWATS).

(a) The OUTWATS calls provide direct distance dialing access to lines arranged for outward service between the customer's line and specified service areas. The service may be provided on a full business day or on a measured time basis. Details of direct dialed 7- or 10-digit OUTWATS calls are recorded on AMA tape in the OUTWATS serving office. Each transaction is characterized by one of two entry types: entry type 25 or entry type 11 (Table A). Entry type 25

(a) identifies the OUTWATS band used and the calling station number; entry type 11 does not.

(b) The 800 Service allows customers to receive calls from the message network with the charges for the call being billed to the called party instead of the calling party. The service may be provided on a full business day or a measured time basis. Full call details may be AMA recorded. An AMA record is made of all 800 Service calls (abandoned and completed). The record of an 800 Service transaction is entered on the AMA tape as an entry type 29. On incomplete (abandoned) calls, the abandon time is entered in the connect time space and the disconnect time space is filled with NCD characters.

(c) The WATS Administration (WTAD) feature provides a unique identification number for each individual WATS member of a SFG. For detailed information concerning WTAD see AT&T 231-090-273.

3.29 The Old Format AMA for SSP Number Services (OFNS) is a group of services that provides inward call management and requires dialing of special numbers that determine call treatment. In the 1A ESS Switch, the SSP provides the ability to recognize Number Service calls and to distribute those calls to the appropriate application feature. The application feature (such as 800 Service) interfaces with telephone company data bases at a service control point (SCP) using CCS7.

3.30 Based on the feature selected, the SSP Number Services AMA records produced at the 1A ESS Switch SSP office are formatted in either the new standard format or in the old format. Selecting automatic message accounting standard entries (AMASE) results in new standard format AMA records being created by the APS of the 1A ESS Switch and teleprocessed to the RAO. Selecting OFNS results in old format AMA records being created by the 1A ESS Switch and written onto magnetic tape.

3.31 The ASP NAP feature provides a virtual network accesss to private network customers who are not served directly by a SSP. The NAP allows customers to access the SSP (via POTS) and indirectly the Service Control Point (SCP) customer data base without the need to allocate private lines from each customer site to the ASP SSP office.

3.32 A billing record that shows either the charge number or calling party number that was delivered to the first office in the terminating LATA is provided when the NI feature is active. The V66 record is made in place of the V64 record whenever an Inter-Exchange Carrier (IXC) uses CCS7 signaling to the first office in the terminating LATA, and the IXC provides the calling party or charge number to the first office in the Terminating LATA. If CCS7 is used, but neither the charge number nor the calling party number is provided, the V64 record is generated. Refer to AT&T 231-390-521 for a detailed description of the NI feature.

3.33 The ASP/SSP feature provided services based on feature logic and data being located at a centralized node in the network, rather than in each individual switching system node. The ASP/SSP feature is partitioned into 3 phases, each providing different capabilities. Refer to AT&T 231-390-519 for a detailed description of the ASP/SSP feature.

ASP1-> When the Service Control Point (SCP) specifies that ASP/SSP billing is to be generated, one of four record types will be generated: Charge Type 11 (REGULAR WATS), Charge Type 25 (WATS WITH WATS BAND NUMBER), Charge Type 1 (STATION PAID), or Charge Type 27 (TIE LINE AMA). For each of the record types, Optional Data Group W2000 will be appended when ASP/SSP specified billing has been requested. W2000 is a 3-character field that contains the Call Code passed by the SCP. Also, the Service Feature Value (SFV), which is normally derived by the 1A ESS Switch, will be overwritten with the SFV passed by the SCP. The SFV is a 2-character field. Finally, the Called Number will be replaced with either the Routing Number or the Outpulsed Number returned by the SCP. Phase I is available with the 1AE11.09 generic.

ASP2-> ASP2 is available with the 1AE12.01 generic.

The ASP/SSP Phase 2 feature provides the Dialed Number Triggering (DNT) capability.

If the SCP specified route is Simulated

Facilities and no SFG billing number is to be recorded, the number that was triggered on will be recorded as the Calling Number (Data Group B2).

For all other SCP specified routes, the number that was triggered on will be recorded as the Calling Number (Data Group B2).

DEFAULT BILLING: For a Dialed Number Trigger (DNT), the default bill is no bill with one exception. If the SCP specified route is an SFG, then the appropriate WATS record will be generated. For this scenario, the call will always be billed to the SFG DN (WATS billing number).

ASP3-> No modifications have been made to existing ASP1 and ASP2 records for Old Format recording. Off-Hook Delay (OHD) triggers, developed under ASP3, will generate one of the 4 aforementioned ASP record types.

3.34 The Carrier Identification Code Expansion (CICE) feature allows for 4 digit Carrier Identification Codes (CICs). When a 4 digit Carrier is recorded, Data Group U20000 will display the CIC and the Carrier Identifier field of Data Group T will contain NCDs. When a 3 digit Carrier is recorded, Data Group U20000 will not be appended and the Carrier Identifier field of Data Group T will contain the CIC. If an invalid Carrier is identified, Data Group U20000 will not be appended, the Carrier Identifier field of Data Group T will contain NCDs, and the Operator Action field will contain a value of 9. The CICE feature is available with the 1AE12.00 base generic.

3.35 The Inward Area Telecommunications Service (INWATS) AMA Recording Enhancement (IWAR) improves the information contained in the Simulated Facilities Usage for WATS field (data group I4) for Line-to-Line calls. When the IWAR Set Card is set to 1, a 13-word AMA record will be seized. This will allow for the recording of the Simulated Facilities Identification Number when the WATS Administrative Feature applies, the Multi-Line Hunt Group Terminating Number if the terminating number is in a Multi-Line Hunt Group, or the last four digits of the terminating DN for line-to-line calls. If the IWAR Set Card is set to 0, a 9-word AMA register will be seized and the I4 field will contain the Simulated Facilities Identification Number when the WATS Administrative Feature applies, the Multi-Line Hunt Group Terminating Number if the terminating number is in a Multi-Line Hunt Group, or NCDs for line-to-line calls.

3.36 The Advanced Services Interface (ASI) Proxy Feature provides the ability to support a dialogue between the switch and an Intelligent Peripheral (IP) to allow for automatic call handling instructions from the IP. The IP can provide the switch either the sequences of instructions for call handling, call extension, and feature access. The V81 type entry code is available with the 1AE12.04 and later Generic Programs for AMA records of Explicit Access calls to an IP, when the ASI-Proxy subscriber's line parameter, "Bill all Explicit Accesses Option" is set to yes. The V82 type entry code is available with the 1AE12.04 and later Generic Programs for AMA records of calls extended by an IP, when the ASI-Proxy subscriber's line parameter, "Bill all IP Dial Calls Option" is set to yes and a chargeable AMA record does not already exist. Data Group W4000 contains both the Service Code and Subscriber ID sent to the IP, the "Access Method" used (Implicit or Explicit) by the ASI-Proxy subscriber to connect up to the IP, and whether the switch provided DP-to-DTMF conversion (for 1A ESS, set to "1" indicating no conversion).

3.37 Suppressed Ringing (SR) provides a technology for Utility Telemetry Services (UTS), where access to customer lines is allowed, regardless of the state of assigned features. The 1A ESS Switch provides a "pipe" or "cut-thru connection" from an incoming trunk to the customer line without ringing the customer line. Once this connection is provided, services such as Meter Reading or Load Shedding can be provided to the customer premise.

When a Suppressed Ringing record is generated, type entry code V01 is created with data group A2 set to 11 indicating Suppressed Ringing.

For further information regarding the Suppressed Ringing Feature, see AT&T Practice 231-390-524.

4. Abbreviations and Acronyms

A

AC
Automatic Callback

ACBC
Automatic Callback Calling

ACC
Access Code

ACRG
Access Code Restriction Group

ACT
Activate Inactive Station

AMA
Automatic Message Accounting

AMASE
Automatic Message Accounting Standard Entries

APS
Attached Processor System

AR
Automatic Recall

ASI
Advance Services Interface

ASP
Advanced Services Platform

ASP/SSP
Advanced Services Platform/ Service Switching Point

AT
Access Tandem

B

BCD
Binary Coded Decimal

BCLID
Bulk Calling Line Identification

BISI
Busy/Idle Status Indicator

BLUS
Busy Line Unstricted Source

C

CAMA
Centralized Automatic Message Accounting

CAR
Computer Access Restriction

CCIS
Common Channel Interoffice Signaling

CCPIC
Customer Changeable Primary InterLATA Carrier

CCS7
Common Channel Signaling System 7

CCSA
Common Channel Switching Arrangement

CDAR
Customer Dialed Account Recording

CDFP
Centrex Data Facility Pooling

CEKSN
Centrex Electronic Key Port

CFBL
Call Forwarding Busy Line

CFDA
Call Forwarding Don't Answer

CFG
Customer Facility Group

CFN
Call Forwarding Number

CFUP
Call Forwarding Usage Sensative

CFUS
Call Forwarding Unrestricted Source

CFV
Call Forwarding Variable

CHDR
Charge Daily Timing Reduction

CI
Carrier Interconnect

CIC
Carrier Identification Code

CICE
Carrier Identification Code Expansion

CLINE
Centrex Electronic Key Line

CPORT
Centrex Electronic Key Port

CPU
Call Pickup

CSAID
Customer Automatic Identification

CSDC
Circuit Switched Digital Capability

CSR
Centrex Station Rearrangements

CT
Conference Trunk

CWD
Call Waiting Deluxe

CWO
Call Waiting Originating

CWT
Call Waiting Terminating

CWUSCC
Call Waiting Deluxe Usage Sensitive Conference Count

D

DA
Distinctive Alert

DAMA
Directory Assistance Charging

DAUS
Don't Answer Unrestricted Source

DCN
Direct Connect Number

DCPN
Directed Call Pickup Nonbarge-in

DCPU
Directed Call Pickup with Barge-in

DCW
Dial Call Waiting

DNT
Dialed Number Trigger

E

EAEO
Equal Access End Office

EEDP
Expanded Electronic Tandem Switching Dialing Plan

EITA
Enhanced Inward Wide Area Telephone Service

ETF
Electronic Toll Fraud

ETS
Electronic Tandem Switching

ETSACRE
Electronic Tandem Switching Authorization Code Recording

F

FRL
Facility Restriction Level

FRS
Flexible Route Service

FX
Foreign Exchange

G

GID
Group Identifier

I

IC
InterLATA Carrier

ICLID
Individual Calling Line Identification

IDDD
International Direct Distance Dialing

INACT
Deactive Station

INC
International Carrier

INEQ
Inhibit Electronic Tandem Switching Queuing

IP
Intelligent Peripheral

IXC
Inter-Exchange Carrier

L

LASS
Local Area Signaling Service

LDCR
Long Duration Call Recording

LDN
Listed Directory Number

LEN
Line Equipment Number

LSF
Line Switch Frame

M

MBI
Message Billing Index

MCD
Minimum Chargeable Duration

MDC
Message Desk Center

MDR-RAO
Message Detail Recording-Revenue Accounting Office

MF
Multifrequencies

MRD
Minimum Recordable Duration

MS
Message Service

MSAMA
Message Service Automatic Message Accounting Type

MWI
Message Waiting Indicator

N

NAP
Network Access Point

NCD
NonCheck Dummy

NI
Network Interconnect

NPA
Numbering Plan Area

O

OFNS
Old Format for Number Service

OSO
Originating Screening Office

P

PBN
Port Billing Number

PFEAT
Port Feature

PFX
Prefix

POTS
Plain Old Telephone Service

PPU
Periodic Partial Update

PPV
Pay Per View

PUC
Peripheral Unit Controller

R

RAO
Revenue Accounting Office

RAS
Remote Access Service

RCYC
Ring Cycles for Call Forwarding Don't Answer

RDFP
Residential Data Facility Pooling

S

SASCF
Single Activation of Selective Call Forwarding

SBAC
Source Billing of Attendant-Handled Calls

SCA
Selective Call Acceptance

SCF
Selective Call Forwarding

SCP
Service Control Point

SFG
Service Feature Value

SIGI
Signaling Irregularities

SLE II
Screen Listing Editing daily continuation II

SLS
Straight Line Set

SLUS
Subscriber Line Usage Studies

SMDR
Station Message Detail Recording

SR
Suppressed Ringing

SSP
Service Switching Point

SST
Short Supervisory Transition

STC
Station Control

T

TAMA
Trunks Automatic Message Accounting

TGN
Trunk Group Number

TN
Trunk Number

TNN
Trunk Network Number

TSSCF
Total Separation of Selective
Call Forwarding

U

UCR
Unidentified Caller Rejection

USTWC
Usage Sensitive Three-Way Calling

UTS
Utility Telemetry Service

V

VDI
Voice/Data Interface

VDP
Voice/Data Protection

VMWI
Visual Message Waiting Indicator

W

WATS
Wide Area Telephone Service

WTAD
Wide Area Telephone Service
Administration

X

XMDR
Extended Message Detail Records

Table A. AMA Format Chart

Description	Type Entry Code	Data Group (Note) Standard												
	A1	A2	A3	B2	C	D	G	H	I3	I4	I5	I8	I9	I11
Station Paid (1AE8A and Later)	01						-	-	-	-	-	-	-	-
USTWC (Usage sensitive Three-Way Calling) Charge Record (1AE8A and Later)	01						-	-	-	-	-	-	-	-
Suppressed Ringing	01						-	-	-	-	-	-	-	-
DTWX Station Paid	08						-	-	-	-	-	-	-	-
CCSA	09						-	-	-	-	-	-	-	-
OSO-CCIS INWATS	10						-	-	-	-	-		-	-
OUTWATS (1AE8A and Later)	11						-	-	-		-	-	-	-
Detail Message Rate-No MBI	15						-	-	-	-	-	-	-	-
Message Rate-Timed	16					-		-	-	-	-	-	-	-
Message Rate-Single Unit Untimed	17				-	-		-	-	-	-	-	-	-
Detail Message Rate-MBI	18							-	-	-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Standard I21	I22	I23	I24	I25	I28	I29	I30	I31	I32
Station Paid (1AE8A and Later)	01	-	-	-	-	-	-	-	-	-	-
USTWC (Usage sensitive Three-Way Calling) Charge Record (1AE8A and Later)	01	-	-	-	-	-	-	-	-	-	-
Suppressed Ringing	01	-	-	-	-	-	-	-	-	-	-
DTWX Station Paid	08	-	-	-	-	-	-	-	-	-	-
CCSA	09	-	-	-	-	-	-	-	-	-	-
OSO-CCIS INWATS	10	-	-	-	-	-	-	-	-	-	-
OUTWATS (1AE8A and Later)	11	-	-	-	-	-	-	-	-	-	-
Detail Message Rate-No MBI	15	-	-	-	-	-	-	-	-	-	-
Message Rate-Timed	16	-	-	-	-	-	-	-	-	-	-
Message Rate-Single Unit Untimed	17	-	-	-	-	-	-	-	-	-	-
Detail Message Rate-MBI	18	-	-	-	-	-	-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Standard I33	I34	I35	I36	I37	I38	I39	I40	J	L
Station Paid (1AE8A and Later)	01	-	-	-	-	-	-	-	-		-
USTWC (Usage sensitive Three-Way Calling) Charge Record (1AE8A and Later)	01	-	-	-	-	-	-	-	-		-
Suppressed Ringing	01	-	-	-	-	-	-	-	-		-
DTWX Station Paid	08	-	-	-	-	-	-	-	-		
CCSA	09	-	-	-	-	-	-	-	-		
OSO-CCIS INWATS	10	-	-	-	-	-	-	-	-		
OUTWATS (1AE8A and Later)	11	-	-	-	-	-	-	-	-		
Detail Message Rate-No MBI	15	-	-	-	-	-	-	-	-		
Message Rate-Timed	16	-	-	-	-	-	-	-	-		
Message Rate-Single Unit Untimed	17	-	-	-	-	-	-	-	-		
Detail Message Rate-MBI	18	-	-	-	-	-	-	-	-		

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Optional M	N	P	Q	S	T	U2	U4	U10	U40
Station Paid (1AE8A and Later)	01	-	-	-	-	-	-	-	-	-	-
USTWC (Usage sensitive Three-Way Calling) Charge Record (1AE8A and Later)	01	-	-	-	-	-	-	-	-	-	-
Suppressed Ringing	01	-	-	-	-	-	-	-	-	-	-
DTWX Station Paid	08	-				-	-		-	-	-
CCSA	09	-				-	-		-	-	
OSO-CCIS INWATS	10	-				-	-		-		
OUTWATS (1AE8A and Later)	11	-							-		
Detail Message Rate-No MBI	15	-				-	-		-	-	
Message Rate-Timed	16	-				-	-	-	-	-	
Message Rate-Single Unit Untimed	17	-				-	-	-	-	-	
Detail Message Rate-MBI	18	-				-	-		-	-	

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Optional U100	U10000	U20000	W400	W2000	W4000	W10000
Station Paid (1AE8A and Later)	01	-	-	-	-	-		-
USTWC (Usage sensitive Three-Way Calling) Charge Record (1AE8A and Later)	01	-	-	-	-	-		-
Suppressed Ringing	01	-	-	-	-	-		-
DTWX Station Paid	08			-	-	-		-
CCSA	09			-	-	-		-
OSO-CCIS INWATS	10			-	-	-		-
OUTWATS (1AE8A and Later)	11				-			-
Detail Message Rate-No MBI	15			-	-	-		-
Message Rate-Timed	16			-	-	-		-
Message Rate-Single Unit Untimed	17			-	-	-		-
Detail Message Rate-MBI	18			-	-	-		-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code	Data Group (Note) Standard												
	A1	A2	A3	B2	C	D	G	H	I3	I4	I5	I8	I9	I11
Conference Trunk Usage	19	-	-	-	-	-	-		-	-	-	-	-	-
Detail Message Rate-Timed	22							-	-	-	-	-	-	-
Detail Message Rate-Untimed	23				-			-	-	-	-	-	-	-
OUTWATS-Station Detail (1AE8A and Later)	25							-	-		-	-	-	-
Call Forwarding Usage (Nonbusiness)	26						-	-	-	-		-	-	-
Message Detail Recording on Tie Lines	27					-	-	-		-	-	-	-	-
800 Service Call	29					-	-	-	-		-	-	-	-
Directory Assistance Charging (Bulk-Billing)	30				-	-	-	-	-	-	-	-	-	-
CSDC	48						-	-	-	-	-			
USTWC Activation Record (1AE8A and Later)	49				-	-	-	-	-	-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Standard I21	I22	I23	I24	I25	I28	I29	I30	I31	I32
Conference Trunk Usage	19	-	-	-	-	-	-	-	-	-	-
Detail Message Rate-Timed	22	-	-	-	-	-	-	-	-	-	-
Detail Message Rate-Untimed	23	-	-	-	-	-	-	-	-	-	-
OUTWATS-Station Detail (1AE8A and Later)	25	-	-	-	-	-	-	-	-	-	-
Call Forwarding Usage (Nonbusiness)	26	-	-	-	-	-	-	-	-	-	-
Message Detail Recording on Tie Lines	27	-	-	-	-	-	-	-	-	-	-
800 Service Call	29	-	-	-	-	-	-	-	-	-	-
Directory Assistance Charging (Bulk-Billing)	30	-	-	-	-	-	-	-	-	-	-
CSDC	48	-	-	-	-	-	-	-	-	-	-
USTWC Activation Record (1AE8A and Later)	49	-	-	-	-	-	-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code	Data Group (Note) Standard									
	A1	I33	I34	I35	I36	I37	I38	I39	I40	J	L
Conference Trunk Usage	19	-	-	-	-	-	-	-	-		
Detail Message Rate-Timed	22	-	-	-	-	-	-	-	-		
Detail Message Rate-Untimed	23	-	-	-	-	-	-	-	-		
OUTWATS-Station Detail (1AE8A and Later)	25	-	-	-	-	-	-	-	-		
Call Forwarding Usage (Nonbusiness)	26	-	-	-	-	-	-	-	-		-
Message Detail Recording on Tie Lines	27	-	-	-	-	-	-	-	-		
800 Service Call	29	-	-	-	-	-	-	-	-		
Directory Assistance Charging (Bulk-Billing)	30	-	-	-	-	-	-	-	-		
CSDC	48	-	-	-	-	-	-	-	-		
USTWC Activation Record (1AE8A and Later)	49	-	-	-	-	-	-	-	-		-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code	Data Group (Note) Optional									
	A1	M	N	P	Q	S	T	U2	U4	U10	U40
Conference Trunk Usage	19		-			-	-	-	-	-	-
Detail Message Rate-Timed	22		-			-	-	-	-	-	-
Detail Message Rate-Untimed	23		-			-	-	-	-	-	-
OUTWATS-Station Detail (1AE8A and Later)	25		-						-		
Call Forwarding Usage (Nonbusiness)	26	-	-	-	-	-	-	-	-	-	-
Message Detail Recording on Tie Lines	27		-				-		-	-	
800 Service Call	29		-			-	-	-	-	-	
Directory Assistance Charging (Bulk-Billing)	30		-		-	-	-	-	-	-	-
CSDC	48		-			-			-		
USTWC Activation Record (1AE8A and Later)	49	-	-	-	-	-	-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Optional U100	U10000	U20000	W400	W2000	W4000	W10000
Conference Trunk Usage	19			-	-	-		-
Detail Message Rate-Timed	22			-	-	-		-
Detail Message Rate-Untimed	23			-	-	-		-
OUTWATS-Station Detail (1AE8A and Later)	25				-			-
Call Forwarding Usage (Nonbusiness)	26	-	-	-	-	-		-
Message Detail Recording on Tie Lines	27			-	-			-
800 Service Call	29	-	-	-	-	-		-
Directory Assistance Charging (Bulk-Billing)	30			-	-	-		-
CSDC	48				-	-		-
USTWC Activation Record (1AE8A and Later)	49	-	-	-	-	-		-

See note at end of table.

Table A. AMA Format Chart

Description	Type Entry Code	Data Group (Note) Standard												
	A1	A2	A3	B2	C	D	G	H	I3	I4	I5	I8	I9	I11
Originating Exchange CI Overflow Record	63	(See Table C*)												
Terminating Access Record (1AE8A and Later)	64						-	-	-	-	-	-	-	-
NI Terminating Access Record	66						-	-	-	-	-	-	-	-
Originating Exchange CI Overflow Record (1AE12 and later)	67	(See Table AD)												
LASS (1AE9 and Later)	70	(See Table D)												
CDFP	71					-	-	-	-	-	-	-	-	-
CCPIC	73	(See Table E*)												
RAS	74				-		-	-	-	-	-	-	-	-
OFNS (1AE10.01 and Later)	75						-	-	-	-	-	-	-	-
SCA, CAR, and SLEII	76	(See Table F)												
ASP NAP	79	(Same as 01)												
ASI-Proxy Explicit Access	81						-	-	-	-	-	-	-	-
ASI-Proxy IP Dialed	82						-	-	-	-	-	-	-	-
CSR Ext Number Change	85	(See Table G*)												
Station Feature Assignment Change	86	(See Table H*)												
Station Verification	87	(See Table K*)												
Feature Verification	88	(See Table L*)												
Signaling Irregularities	91					-	-	-		-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Standard I21	I22	I23	I24	I25	I28	I29	I30	I31	I32
Originating Exchange CI Overflow Record	63	(See Table C*)									
Terminating Access Record (1AE8A and Later)	64	-	-	-	-	-	-	-	-	-	-
NI Terminating Access Record	66	-	-	-	-	-	-	-	-	-	-
Originating Exchange CI Overflow Record (1AE12 and later)	67	(See Table AD)									
LASS (1AE9 and Later)	70	(See Table D)									
CDFP	71	-	-	-	-	-	-	-	-	-	-
CCPIC	73	(See Table E*)									
RAS	74	-	-	-	-	-	-	-	-	-	-
OFNS (1AE10.01 and Later)	75	-	-	-	-	-					
SCA, CAR, and SLEII	76	(See Table F)									
ASP NAP	79	-	-	-	-	-	-	-	-	-	-
ASI-Proxy Explicit Access	81	-	-	-	-	-	-	-	-	-	-
ASI-Proxy IP Dialed	82	-	-	-	-	-	-	-	-	-	-
CSR Ext Number Change	85	(See Table G*)									
Station Feature Assignment Change	86	(See Table H*)									
Station Verification	87	(See Table K*)									
Feature Verification	88	(See Table L*)									
Signaling Irregularities	91	-	-	-	-	-	-	-	-	-	-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Standard I33	I34	I35	I36	I37	I38	I39	I40	J	L
Originating Exchange CI Overflow Record	63	(See Table C*)									
Terminating Access Record (1AE8A and Later)	64	-	-	-	-	-	-	-	-	-	
NI Terminating Access Record	66	-	-	-	-	-	-	-	-	-	
Originating Exchange CI Overflow Record (1AE12 and later)	67	(See Table AD)									
LASS (1AE9 and Later)	70	(See Table D)									
CDFP	71	-	-	-	-	-	-	-	-		
CCPIC	73	(See Table E*)									
RAS	74	-	-	-	-	-	-	-	-		-
OFNS (1AE10.01 and Later)	75	-	-	-	-	-	-	-	-		
SCA, CAR, and SLEII	76	(See Table F)									
ASP NAP	79	-	-	-	-	-	-	-	-		
ASI-Proxy Explicit Access	81	-	-	-	-	-	-	-	-		
ASI-Proxy IP Dialed	82	-	-	-	-	-	-	-	-		
CSR Ext Number Change	85	(See Table G*)									
Station Feature Assignment Change	86	(See Table H*)									
Station Verification	87	(See Table K*)									
Feature Verification	88	(See Table L*)									
Signaling Irregularities	91	-	-	-	-	-	-	-	-		

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Optional M	N	P	Q	S	T	U2	U4	U10	U40
Originating Exchange CI Overflow Record	63	(See Table C*)									
Terminating Access Record (1AE8A and Later)	64					-		-	-	-	-
NI Terminating Access Record	66					-		-	-	-	-
Originating Exchange CI Overflow Record (1AE12 and later)	67	(See Table AD)									
LASS (1AE9 and Later)	70	(See Table D)									
CDFP	71	-				-	-		-		
CCPIC	73	(See Table E*)									
RAS	74	-	-	-	-	-	-	-	-	-	-
OFNS (1AE10.01 and Later)	75							-	-		-
SCA, CAR, and SLEII	76	(See Table F)									
ASP NAP	79								-		
ASI-Proxy Explicit Access	81	-					-	-	-	-	
ASI-Proxy IP Dialed	82	-					-	-	-	-	
CSR Ext Number Change	85	(See Table G*)									
Station Feature Assignment Change	86	(See Table H*)									
Station Verification	87	(See Table K*)									
Feature Verification	88	(See Table L*)									
Signaling Irregularities	91	-				-	-	-			-

See note at end of table.

Table A. AMA Format Chart (Contd)

Description	Type Entry Code A1	Data Group (Note) Optional U100	U10000	U20000	W400	W2000	W4000	W10000
Originating Exchange CI Overflow Record	63	(See Table C*)						
Terminating Access Record (1AE8A and Later)	64				-	-		
NI Terminating Access Record	66				-	-		
Originating Exchange CI Overflow Record (1AE12 and later)	67	(See Table AD)						
LASS (1AE9 and Later)	70	(See Table D)						
CDFP	71			-	-	-		-
CCPIC	73	(See Table E*)						
RAS	74	-	-	-	-	-		-
OFNS (1AE10.01 and Later)	75					-		
SCA, CAR, and SLEII	76	(See Table F)						
ASP NAP	79					-		
ASI-Proxy Explicit Access	81		-	-	-	-		-
ASI-Proxy IP Dialed	82		-	-	-	-		-
CSR Ext Number Change	85	(See Table G*)						
Station Feature Assignment Change	86	(See Table H*)						
Station Verification	87	(See Table K*)						
Feature Verification	88	(See Table L*)						
Signaling Irregularities	91			-	-	-		-

Note:

A "" indicates that a data group may be used for the type entry code listed.
A "-" indicates that a data group is not used for the type entry code listed.
A "*" indicates that the data groups are not used.
Data group W10000 may be used for any data group that can contain data group N.

Table B. AMA Data Groups

Data Group	Information	AMA Chars./ Item	AMA Chars./ Group
A2	First Information Digit:	1	4
	0-Neither traffic service observed or traffic sampled mcharged 1-Traffic service observed - charged 2-Traffic sampled - charged 3-Traffic service observed and traffic sampled - charged 4-Traffic sampled - no charge 5-Traffic service observed and traffic sampled - no charge 6-Traffic service observed but not traffic sampled - no charge 7-Neither traffic service observed nor traffic sampled - no charge		
	Second Information Digit:	1	
	0-Neither operator dialed, operator identified, nor time charged 1-Time change 2-Operator dialed 3-Operator dialed and time change 4-Operator identified 5-Operator identified and time change 6-Operator dialed and identified 7-Operator dialed, operator identified, and time change 9-Terminating CI test call		
	Service Features: (Also see paragraph 2.07)	2	
	00-Other (none of the service features below) 01-Coin 02-Hotel-Motel 06-Centrex Attendant 08-800 Service 10-3-Way Calling Service 11-Suppressed Ringing 12-Call Forwarding 14-CFBL/DA (Call Forwarding Busy Line/Don't Answer 15-CSDC (Circuit Switched Digital Capability) 17-RCF (Remote Call Forwarding) 18-USTWC (Usage Sensitive Three-Way Calling) 19-MDR-RAO (Message Detail Recording-Revenue Accounting Office 26-ASP terminating access 32-AC delayed processing after reactivation		

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
A2 (Contd)	33-AR delayed processing after reactivation		
	34-AC busy ringback after reactivation		
	35-AR busy ringback after reactivation		
	36-AC timeout after reactivation		
	37-AR timeout after reactivation		
	38-AC deactivation after reactivation		
	39-AR deactivation after reactivation		
	52-TSSCF (activation/deactivation)		
	53-SLE II (Screen List Editing daily continuation II)		
	57-CDFP (Centrex Data Facility Pooling) Private Facility Pooling		
	58-CDFP Network Modem Pooling		
	59-RDFP (Residential Data Facility Pooling)		
	60-Automatic Recall incoming immediate		
	61-Automatic Recall outgoing immediate		
	62-Automatic Recall incoming delayed		
	63-Automatic Recall outgoing delayed		
	64-Automatic Recall incoming busy ringback		
	65-Automatic Recall outgoing busy ringback		
	66-Automatic Recall incoming time-out		
	67-Automatic Recall outgoing time-out		
	68-Automatic Recall incoming deactivation		
	69-Automatic Recall outgoing deactivation		
	70-Customer Originated Trace activation		
	71-SCF screen list editing (activation/ deactivation)		
	72-Selective Call Rejecting screen list editing		
	73-Distinctive Alert screen list editing (activation/deactivation)		
	74-Screen List Editing daily continuation I		
	75-Originating end per call privacy		
	76-SASCF (Single Activation SCF) (activation/deactivation)		
	85-Entry Type V27 (five digits dialed)		
	85-Entry Type V70 (NNDA or NNP)		
	86-Entry Type V27 (six digits dialed)		
	86-Entry Type V70 (NAP)		
	87-Entry Type V27 (seven digits dialed		
	95-Two Level AR/AC (Automatic Recall/ Callback) (activation/deactivation)		
	98-SCA (Selective Call Acceptance) (activation/deactivation)		
	99-CAR (Computer Access Restriction) (activation/deactivation)		

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
A3	Connect Time:		8
	NCD (noncheck dummy) character or 9 (RAO Study Call)	1	
	Hours	2	
	Minutes	2	
	Seconds	2	
	Tenths of seconds	1	
B2	Calling Number (Originating Number)	7	7
C	Disconnect Time:		8
	Midnights passed	1	
	Hours	2	
	Minutes	2	
	Seconds	2	
	Tenths of seconds	1	
D	Called Number (Destination Number):		10
	NPA digits if dialed; otherwise, NCDs	3	
	Directory number	7	
G	Message Billing Index or WATS Band	2	2
H	CT (Conference Trunk) Usage:		24
	NCD	1	
	CT seizure time:		
	Hours	2	
	Minutes	2	
	Seconds	2	
	Tenths of seconds	1	
	Calling Number	7	
	Midnights passed	1	
	CT release time:		
	Hours	2	
	Minutes	2	
	Seconds	2	
	Tenths of seconds	1	
	CT ports used	1	

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
I3	Dialed digits for type entry code 27 or Detected MF digits for type entry code 91	24	24
I4	Simulated Facilities Usage for WATS		5
	Charge indicator:	1	
	NCD-800 Service 1-OUTWATS full business day 2-OUTWATS measured time	4	
	Pseudo trunk number		
I5	Date of Call Forwarding Activation/ Deactivation		4
	Month	2	
	Day	2	
I8	Terminating Company data applicable only to CCIS INWATS OSO data base; otherwise, this field contains all zeros		4
I9	CSDC (Circuit Switching Digital Capability) Indicator (type entry code 48)	1	1
I11	CSDC Data Rate Indicator	1	1
I21	LASS (Local Area Signaling Services) Function Code: 00-Not applicable 01-Activate 02-Not activate 03-Delete 04-Create new LASS function option	2	
I22	LASS Function Status Code I: 000-Not applicable 001-SCF (Selective Call Forwarding) active 002-SCR (Selective Call Rejection) active 003-SCF and SCR active 004-DA (Distinctive Alert) active 005-SCF and DA active 006-SCR and DA active 007-SCF, SCR, and DA active 010-SASCF active 012-SASCF and SCR active 014-SASCF and DA active 016-SASCF, DA, and SCR active 020-TSSCF active 022-TSSCF and SCR active 024-TSSCF and DA active 026-TSSCF, SCR, and DA active	3	

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
I23	LASS SCF screen list size	2	
I24	LASS SCR screen list size	2	
I25	LASS DA screen list size	2	
I28	OFNS dialed number	10	
I29	OFNS number service customer's RAO	3	
I30	OFNS originating LATA	3	
I31	OFNS call type (call code)	3	
I32	OFNS structure code	4	
I33	LASS Feature Status Code II: 000-Not applicable 001-SCA active 002-CAR active 003-CAR and SCA active		
I34	LASS SCA Screen list size		
I35	LASS CAR Screen list size		
I36-I40	Screen list size reserved		
J	NPA Digits (for originating station) (Not optional for OFNS and NI terminating access records)	3	3
L	Entry Extender (character "Y")	1	1
M	Data group indicator:		2
	First Digit:	1	
	0-Neither data group N, P, nor Q 1-Data group Q 2-Data group P 3-Data groups P and Q 4-Data group N 5-Data groups N and Q 6-Data groups N and P 7-Data groups N, P, and Q		
	Second Digit:	1	
	0-Neither data group R, S, nor T 1-Data group T 2-Data group S 3-Data groups S and T		

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
N	Overseas Number Expander (Destination)	2	2
P	Data Group U Indicator: 00002-Data group U2 00004-Data group U4 00010-Data group U10 00040-Data group U40 00100-Data group U100 10000-Data group U10000 20000-Data group U20000 Note: Indicator values are cumulative. For example, a value of 00006 indicates data groups U2 and U4.	5	5
Q	Trunk Network Number	6	6
S	Data Group W Indicator: 00400-Data group W400 02000-Data group W2000 04000-Data group W4000 10000-Data group W10000 Note: Indicator values are cumulative. For example, a value of 10400 indicates data groups W400 and W10000.	5	5
T	CI (Carrier Interconnect) Data:		25
	IC/INC Prefix: Carrier identifier (3 digits)	4	
	Operator data (1 digit): 0-Operator requested 1-Operator not requested 2-Not determined if operator requested or originating exchange overflow record 9-IEC/INC Unknown		
	Carrier Connect Time:		
	Time Change Indicator: NCD-No time change 0-time change (answer to disconnect) 1-time change (carrier connect to answer) 2-time change (answer to disconnect) 3-time change (carrier connect to answer-test call)	1	
	Hours	2	
	Minutes	2	
	Seconds	2	
	Tenths of seconds	1	
	Carrier Connect Time:		
	Month	2	
	Day	2	

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
T (Contd)	IC/INC Call Event Status 00-Reserved 01-First wink from IC/INC 02-Abandon or time-out before dialing is complete 03-Second start dial wink 04-Time-out waiting for acknowledgement 05-Operator services or CAMA 06-Call terminated (network management feature 07-Acknowledgement wink received 08-Invalid called number 09-All failures 10-Answer 11-Time-out waiting for second start dial wink 12-Operator service or CAMA time-out for off-hook 13-Off-hook rather than second start dial wink for calls utilizing INC signaling (originating exchange)	2	
	Routing Indicator: Originating 0-Non-CCS7 direct TGN 1-Non-CCS7 common TGN (EAEO to AT TGN) 2-CCS7 direct TGN 3-CCS7 AT TGN (AT to IC/INC TGN) 4-CCS7 EO TGN (CCS7 to EAMF interworking Terminating 0-Non-CCS7 direct TGN 1-Non-CCS7 (IC/INC to AT) non-CCS7 (AT to EO) 2-CCS7 direct TGN 3-CCS7 (IC/INC to AT) CCS7 (AT to EO) 4-Non-CCS7 (IC/INC to AT) CCS7 (AT to EO) 5-CCS7 (IC/INC to AT) non-CCS7 (AT to EO)	1	
	Dialing Indicator (originating exchange): 1-PIC or default carrier 2-10XXX dialed 3-950-1XXX dialed	1	
	NCD-Terminating exchange record (V64 and V66)		

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
T (Contd)	ANI/CPN Indicator 0-No ANI/CPN provided 1-ANI provided 2-CPN provided 3-ANI and CPN provided NCD-Terminating exchange record (V64 only)	1	
	Trunk Group Number	4	
U2	Customer Accounting Code	8	8
U4	End of SST (short supervisory transition) Time (for type entry code 91)	8	8
U10	SIGI/LDCR Status Information: 02-No answer (SIGI status) 03-All ETF investigation facilities were available (SIGI status) 10-Start of long duration call (LDCR status) 11-Continuation of long duration call (LDCR status) 12-End of long duration call (LDCR status) 13-Start of long duration call with SIGI 14-Continuation of long duration call with SIGI 15-End of long duration call with SIGI 30-SIGI record (type entry code 91) also made for this call (SIGI status) 40-SST not investigated because ETF investigation facilities not available (SIGI status)	2	2
U40	Customer Identification	4	4
U100	Minimum Recordable Duration Indicator	1	1
U10000	02-AR/AC Return Call to Number Sent Public	2	2
	03-AR/AC Return Call to Number Sent Private	2	2
U20000	IC/INC Prefix: Carrier Identifier	4	4
W400	OFNS Alternate Billing Number	10	10
W2000	ASP/SSP Call Code	3	3

Table B. AMA Data Groups (Contd)

Data Group	Information	AMA Chars./ Item	AMA Chars./ Groups
W4000	IP Service Code Service Code digits sent to the IP are right justified.	5	17
	Access Method Type of access to IP 1-Implicit Access 2-Explicit Access 3-Reserved 4-Reserved 5-Reserved	1	
	Subscriber ID Subscriber ID sent to IP is right justified.	10	
	Conversion Indication 1-No conversion used 2-DP-to-DTMF conversion used	1	
W10000	Country Code Length	1	4
	Overseas digits 13, 14, 15	3	

Table C. Type Entry Code 63 (Originating Exchange CI Overflow Record)

Information	AMA Chars.	AMA Char. Position
Start of entry character "V"	1	1
Type Entry code 63	2	2,3
Time	8	4-11
IC/INC Information:		
Prefix	4	12-15
Overflow peg count	5	16-20
Prefix	4	21-24
Overflow peg count	5	25-29
Prefix	4	30-33
Overflow peg count	5	34-38
Prefix	4	39-42
Overflow peg count	5	43-47

Table D. Type Entry Code 70 (SCF, SCR, AR, DA, COT, SASCF, TSSCF, SLE I, and Name/Number Privacy Access Records)

Information	Data Group	AMA Char. Position
Start of entry character "V"	A1	1
Type entry code 70	A1	2, 3
Information digits	A2	4-5
Service feature code LASS service feature options are: 32 = AC delayed processing after reactivation 33 = AR delayed processing after reactiveation 34 = AC busy ringback after reactivation 35 = AR busy ringback after reactivation 36 = AC timeout after reactivation 37 = AR timeout after reactivation 38 = AC deactivation after reactivation 39 = AR deactivation after reactivation 52 = TSSCF (Total Separation SCF) 60 = AC immediate processing 61 = AR immediate processing 62 = AC delayed processing 63 = AR delayed processing 64 = AC busy ringback 65 = AR busy ringback 66 = AC time-out 67 = AR time-out 68 = AC deactivation 69 = AR deactivation 70 = COT activation 71 = SCF 72 = SCR 73 = DA 74 = SLE daily continuation I 75 = orig.end per call privacy 76 = SASCF (Single Activation SCF) 85 = NNP or NNDA Dialed 86 = NAP toggle Dialed 95 = Two-Level AR/AC	A2	6-7
NCD		8
Activation time (hour, second, tenth of second)	A3	9-15

Table D. Type Entry Code 70 (SCF, SCR, AR, DA, COT, SASCF, TSSCF, SLE I, and Name/Number Privacy Access Records) (Contd)

Information	Data Group	AMA Char. Position
Billing number	B2	16-22
Deactivation time	C	23-30
Far-end DN	D	31-40
Date	I5	41-44
LASS Function Options are: 000-N/A 001-active 002-not active 003-delete 004-create	I21	45-46
Feature Status Options are: 000-N/A 001-SCF active 002-SCR active 003-SCF and SCR active 004-DA active 005-SCF and DA active 006-SCR and DA active 007-SCF, SCR, and DA active 010-SASCF active 012-SASCF and SCR active 014-SASCF and DA active 016-SASCF, SCR, and DA active 020-TSSCF active 022-TSSCF and SCR active 024-TSSCF and DA active 026-TSSCF, SCR, and DA active	I22	47-49
Screen list size for SCF	I23	50-51
Screen list size for SCR	I24	52-53
Screen list size for DA	I25	54-55
Billing NPA (conditional)	J	56-58
NCD		59-60

Table E. Type Entry Code 73 (Customer Changeable Primary-LATA Carrier)

Information	AMA Chars.	AMA Char. Position
Start of entry character "V"	1	1
Type entry code 73	2	2-3
NPA	3	4-6
Billing number (NXX-XXXX)	7	7-13
PIC change date (year, month, day)	5	14-18
PIC change time (hour, minute, second, tenth of second)	7	19-25
Prior (old) PIC	3	26-28
New PIC	3	29-31
Origination of PIC change: 0-Customer 1-Telephone company	1	32
Verify or change: 0-Verify 1-Change	1	33
Charge or no charge: 0-No charge 1-Charge	1	34
NCD (noncheck dummy)	1	35

Table F. Type Entry Code 76 (SCA, CAR, and SLE II Records)

Information	Data Group	AMA Char. Position
Start of entry character "V"	A1	1
Type entry code 76	A1	2, 3
Information digits	A2	4-5
Service feature code LASS service feature codes: 53 = SLE daily continuation II 98 = SCA (Selective Call Acceptance 99 = CAR (Computer Access Restriction	A2	6-7
NCD		B
Activation time (hour, second, tenth of second)	A3	9-15
Billing number	B2	16-22
Deactivation	C	23-30
Far-end DN	D	31-40
Date	I5	41-44
LASS function Options are: 000-N/A 001-active 002-not active 003-delete 004-create	I21	45-46
Feature status option II Options are: 000-N/A 001-SCA active 002-CAR active	I33	47-49
Screen list size for SCA	I34	50-51
Screen list size for CAR	I35	52-53
	I36	54-55
	I37	56-57
Screen list size reserved	I38	58-59
	I39	60-61
	I40	62-63
Billing NPA (conditional)	J	64-66
NCD		67-70

Table G. Type Entry Code 85 (CSR Extension Number Change)

Information	AMA Chars.	AMA Char. Position
Start of entry character "V"	1	1
Type entry code 85	2	2, 3
NCD (noncheck dummy) character	1	4
NPA	3	5-7
Billing number (NXX-XXXX)	7	8-14
Date:		
Last digit of year	1	15
Month	2	16, 17
Day	2	18, 19
Time (hour, minute, second, tenth of second	7	20-26
Extension number changed ("old" extension number)	5	27-31
Extension number changed to ("moved to" extension number)	5	32-36

Table H. Type Entry Code 86 (Station Feature Assignment Change)

Information	AMA Chars.	AMA Char. Position
Start of entry character "V"	1	1
Type entry code 86	2	2, 3
NCD (noncheck dummy) character	1	4
NPA	3	5-7
Billing number (NXX-XXXX)	7	8-14
Date:		
Last digit of year	1	15
Month	2	16, 17
Day	2	18, 19
Time (hour, minute, second, tenth of second)	7	20-26
Extension number of station with feature changes	5	27-31
Features changed:		
Added	9	32-40
Deleted	9	41-49
(See Table I)		
Entry extender character "Y" (1AE8A and later generic programs) or NCD (last character for record in 1AE7)	1	50
Features changed:		
Added	16	51-66
Deleted	16	67-82
(1AE8A and later generic programs, see Table J		
NCD Characters	3	83-85

Table I. Nine-Character Field for V86 and V88 Records

Char.	Value	Features
1	0	Neither ACT, ACRG, nor FRL
	1	ACRG (Access Code Restriction Group)
	2	FRL (Facility Restriction Level)
	3	ACRG and FRL
	4	ACT (Activate Inactive Station)
	5	ACT and ACRG
	6	ACT and FRL
	7	ACT, ACRG, and FRL
	8	Not assigned
	9	Not assigned
2	0	Neither CFN, CPU, nor INACT
	1	CPU (Call Pickup)
	2	INACT (Deactivate Station)
	3	CPU and INACT
	4	CFN (Call Forwarding Number)
	5	CFN and CPU
	6	CFN and INACT
	7	CFN, CPU, and INACT
	8	Not assigned
	9	Not assigned
3	0	Neither CFBL, HUNT, nor DCPU
	1	HUNT
	2	DCPU (Directed Call Pickup With Barge-In)
	3	HUNT and DCPU
	4	CFBL (Call Forwarding Busy Line)
	5	CFBL and HUNT
	6	CFBL and DCPU
	7	CFBL, HUNT, and DCPU
	8	Not assigned
	9	Not assigned
4	0	Neither CFUS, CFDA, nor RCYC
	1	CFDA (Call Forwarding Don't Answer)
	2	RCYC (Ringing Cycles for CFDA)
	3	CFDA and RCYC
	4	CFUS (Call Forwarding Unrestricted Source)
	5	CFUS and CFDA
	6	CFUS and RCYC
	7	CFUS, CFDA, and RCYC
	8	Not assigned
	9	Not assigned

Table I. Nine-Character Field for V86 and V88 Records (Contd)

Char.	Value	Features
5	0	Neither CHD, CFV, nor SC
	1	CFV (Call Forwarding Variable)
	2	SC (1-Digit Speed Calling)
	3	CFV and SC
	4	CHD (Call Hold)
	5	CHD and CFV
	6	CHD and SC
	7	CHD, CFV, and SC
	8	Not assigned
	9	Not assigned
6	0	Neither INEQ, CWT, nor CWO
	1	CWT (Call Waiting Terminating)
	2	CWO (Call Waiting Originating)
	3	CWT and CWO
	4	INEQ (Inhibit ETS Queueing
	5	INEQ and CWT
	6	INEQ and CWO
	7	INEQ, CWT, and CWO
	8	Not assigned
	9	Not assigned
7	0	Neither ACBC, CSR, nor DCPN
	1	ACBC (Automatic Callback Calling)
	2	CSR (Centrex Station Rearrangements)
	3	ACBC and CSR
	4	DCPN (Directed Call Pickup Nonbarge-In)
	5	ACBC and DCPN
	6	CSR and DCPN
	7	ACBC, CSR, and DCPN
	8	Not assigned
	9	Not assigned
8	0	Neither DCN, ACC, nor PFX
	1	DCN (Direct Connect Number)
	2	ACC (DCN access code)
	3	DCN and ACC
	4	PFX (DCN prefix)
	5	DCN and PFX
	6	ACC and PFX
	7	DCN, ACC, and PFX
	8	Not assigned
	9	Not assigned

Table I. Nine-Character Field for V86 and V88 Records (Contd)

Char.	Value	Features
9	0	Neither IDDD DCN, SC2, nor DCW
	1	IDDD (International Direct Distance Dialing DCN)
	2	SC2 (2-Digit Speed Calling)
	3	IDDD DCN and SC2
	4	DCW (Dial Call Waiting)
	5	IDDD DCN and DCW
	6	SC2 and DCW
	7	IDDD DCN, SC2, and DCW
	8	Not assigned
	9	Not assigned

Table J. Sixteen-Character Feature Field for V86 and V88 Records

Char.	Value	Features
1	0	Neither SCT, VACT, nor VDP
	1	VDP (VDP Voice/Data Protection)
	2	VACT (VDP Deactivate Indicator)
	3	VDP and VACT
	4	STC (Station Control)
	5	STC and VDP
	6	STC and VACT
	7	STC, VACT, and VDP
	8	Not assigned
	9	Not assigned
2	0	Neither PFEAT, PBN, nor CLINE
	1	CLINE (Centrex Electronic Key Line)
	2	PBN (Port Billing Number)
	3	PBN and CLINE
	4	PFEAT (Port Features)
	5	PFEAT and CLINE
	6	PFEAT and PBN
	7	PFEAT, PBN, and CLINE
	8	Not assigned
	9	Not assigned
3	0	Neither CPORT, GID, nor CEKSN
	1	CEKSN (Centrex Electronic Key System Number)
	2	GID (Group Identifier)
	3	GID and CEKSN
	4	CPORT (Centrex Electronic Key Port)
	5	CPORT and CEKSN
	6	CPORT and GID
	7	CPORT, GID, and CEKSN
	8	Not assigned
	9	Not assigned
4	0	Neither DAUS, BLUS, nor CFDA1
	1	CFDA1 (Separate Remote Station TN for CFDA)
	2	BLUS (Busy Line Unrestricted Source for CFBL1)
	3	CFDA1 and BLUS
	4	DAUS (Don't Answer Unrestricted Source for CFDA1)
	5	DAUS and CFDA1
	6	DAUS and BLUS
	7	DAUS, BLUS, and CFDA1
	8	Not assigned
	9	Not assigned

Table J. Sixteen-Character Feature Field for V86 and V88 Records (Contd)

Char.	Value	Features
5	0	Neither CFBL1, MSAMA, nor VMWI
	1	VMWI (Visual Message Waiting Indicator)
	2	MSAMA (Message Service AMA Type)
	3	VMWI and MSAMA
	4	CFBL1 (Separate Remote Station TN for CFBL)
	5	CFBL1 and VMWI
	6	CFBL1 and MSAMA
	7	CFBL1, MSAMA, and VMWI
	8	Not assigned
	9	Not assigned
6	0	Neither MWI, MDC, nor CLASS
	1	CLASS (Class of VDP features)
	2	MDC (Message Desk Center)
	3	CLASS and MDC
	4	MWI (Message Waiting Indicator)
	5	MWI and CLASS
	6	MWI and MDC
	7	MWI, MDC, and CLASS
	8	Not assigned
	9	Not assigned
7	0	Neither ASPI, ASPO, ASPA, nor ASP assigned
	1	ASPI incoming
	2	ASPO outgoing
	3	ASPI and ASPO
	4	ASPA access
	5	ASPA and ASPI
	6	ASP
	7-9	Not assigned
8	0	Neither CFN XXX, PFX, or CWC
	1	CFN XXX (CFN with Carrier Specified)
	2	CFN PFX (CFN with Prefix)
	3	CFN XXX and CFN PFX
	4	CWC CFN (CWC Call Forwarding)
	5-9	Not assigned

Table J. Sixteen-Character Feature Field for V86 and V88 Records (Contd)

Char.	Value	Features
9	0	Neither CFBL XXX, PFX, or CWC
	1	CFBL XXX (CFBL with Carrier Specified)
	2	CFBL PFX (CFBL with Prefix)
	3	CFBL XXX and CFBL PFX
	4	CWC CFBL (CWC Busy Line)
	5-9	Not assigned
10	0	Neither CFDA XXX, PFX, or CWC
	1	CFDA XXX (CFDA with Carrier Specified)
	2	CFDA PFX (CFDA with Prefix)
	3	CFDA XXX and CFDA PFX
	4	CWC CFDA (CWC Don't Answer)
	5-9	Not assigned
11	0	No SLS (Straight Line Set)/No RAS (Remote Access Service)
	1	SLS
	2	RAS
	3	RAS and SLS
	4-9	Not assigned
12	0	No features assigned for this character
	1-9	Not assigned
13	0	No features assigned for this character
	1-9	Not assigned
14	0	No features assigned for this character
	1-9	Not assigned
15	0	No SMWI (Simultaneous Message Waiting Indicator)
	1	SMWI
	2-9	Not assigned
16	0	Neither UCR, INDACW, or UCRD
	1	UCR (Unidentified Caller Rejection)
	2	INDACW (Inhibit CFDA After CW)
	3	UCR + INDACW
	4	UCRD (UCR Deactivation)
	5	UCRD + UCR
	6	UCRD + INDACW
	7	UCRD + UCR + INDACW
	8-9	Not assigned

Table K. Type Entry Code 87 (Station Verification)

Information	AMA Chars.	AMA Char. Position
Start of entry character "V"	1	1
Type entry code 87	2	2, 3
NCD (noncheck dummy) character	1	4
NPA	3	5-7
Billing number (NXX-XXXX)	7	8-14
Date:		
Last digit of year	1	15
Month	2	16, 17
Day	2	18, 19
Time (hour, minute, second, tenth of second)	7	20-26
Extension number of first station verified	5	27-31
Number of stations verified	5	32-36

Table L. Type Entry Code 88 (Feature Verification)

Information	AMA Chars.	AMA Char. Position
Start of entry character "V"	1	1
Type entry code 88	2	2, 3
NCD (noncheck dummy) character	1	4
NPA	3	5-7
Billing number (NXX-XXXX)	7	8-14
Date:		
Last digit of year	1	15
Month	2	16, 17
Day	2	18, 19
Time (hour, minute, second, tenth of second)	7	20-26
Features searched for (See Table I)	9	27-35
NCD character	1	36
Number of stations searched	5	37-41
NCD character	1	42
Number of stations found	5	43-47
Entry extender character "Y" (1AE8A and later generic programs)	1	48
Features searched for (See Table J) (1AE8A and later)	16	49-64
NCD character	1	65

Table M. VZ08 - 800 Service Overflow Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1, 2
Record Identifier Characters "08"	2	3, 4
NCD (noncheck dummy) character	1	5
Time (hour and minute)	4	6-9
NCD character	1	10
Customer Billing Number	7	11-17
Overflow Count	5	18-22
Customer Billing Number	7	23-29
Overflow Count	5	30-34
Customer Billing Number	7	35-41
Overflow Count	5	42-46
Customer Billing Number	7	47-53
Overflow Count	5	54-58
Customer Billing Number	7	59-65
Overflow Count	5	66-70

Table N. VZ12 - Centrex/ESSX-1 Intercom and 3-Port Facilities Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1, 2
Record Identifier Characters "12"	2	3, 4
NCD (noncheck dummy) character	1	5
Time (hour and minute)	4	6-9
NCD character	1	10
LDN (listed directory number) (NPA filled with NCDs)	10	11-20
Intercom Counts:		
Attempts	5	21-25
Usage	5	26-30
Overflow	5	31-35
Facilities	5	36-40
3-Port Counts:		
Attempts	5	41-45
Usage	5	46-50
Overflow	5	51-55
Facilities	5	56-60
Total Overflow Counts	5	61-65

Table O. VZ12 - SMDR Format 1 Data (No ETS Account Code or WATS Reseller Authorization Code)

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
Call Success/Failure Code	1
Service Feature Code	1
Automatic Route Selection Pattern	1
Facility Restriction Level	1
Outgoing Facility Member Number (Contd)	2
ETS Customer Identification (064-127)	3
Calling Directory Number	7
Called Directory Number	10
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Time Change Indicator	1
Number of Midnights the Call Lasted	1
Disconnect Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Authorization Code (NCDs, if none)	6
Incoming Facility Group Number	3
Incoming Facility Member Number	3
NCD (Noncheck dummy) Character	2
Outgoing Facility Group Number	3
Outgoing Facility Member Number	1
Call Record Type "1"	1

Tabel P. VZ12 - SMDR Format 1 Data (ETS Account Code)

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
Call Success/Failure Code	1
Service Feature Code	1
Automatic Route Selection Pattern	1
Facility Restriction Level	1
Outgoing Facility Member Number (Contd)	2
ETS Customer Identification (064-127)	3
Calling Directory Number	7
Called Directory Number	10
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Time Change Indicator	1
Number of Midnights the Call Lasted	1
Disconnect Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Authorization Code	6
ETS Optional Account Code	8
Outgoing Facility Group Number	3
Outgoing Facility Member Number	1
Call Record Type "7"	1

Table Q. VZ12 - SMDR Format 1 Data (WATS Reseller Authorization Code)

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
Call Success/Failure Code	1
Service Feature Code	1
Automatic Route Selection Pattern	1
Facility Restriction Level	1
Outgoing Facility Member Number (Contd)	2
ETS Customer Identification (064-127)	3
Calling Directory Number	7
Called Directory Number	10
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Time Change Indicator	1
Number of Midnights the Call Lasted	1
Disconnect Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Authorization Code	6
Authorization Code Prefix	2
Dialing Completion Time:	
Minutes	1
Seconds	2
Outpulsing Completion Time - Minutes	1
Outpulsing Completion Time - Seconds	2
Outgoing Facility:	
Group Number	3
Member Number	1
Call Record Type "8"	1

Table R. VZ12 - SMDR Format 2 Data

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
NCD (Noncheck Dummy) Character	1
Call Success/Failure Code	1
Service Feature Code	1
End-of-Dial Time:	
Hours	2
Minutes	1
ETS Customer Identification (064-127)	3
Centrex LDN (listed directory number)	7
End-of-Dial Time:	
Minutes (Contd)	1
Seconds	2
Tenths of Seconds	1
Time Change Indicator	1
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Automatic Route Selection Pattern	1
Outgoing Facility Group Number	3
Outgoing Facility Member Number	3
Calling Directory Number	10
Facility Restriction Level	1
Incoming Facility Group Number	3
Incoming Facility Member Number	3
NCD Characters	8
Call Record Type "2"	1

Table S. VZ12 - SMDR Format 3 Data

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
NCD (Noncheck Dummy) Character	3
Old Time - Hours	2
Old Time - Minutes	1
ETS Customer Identification (064-127)	3
Centrex LDN (listed directory number)	7
Old Time	
Minutes (Contd)	1
Seconds	2
Tenths of Seconds	1
NCD Character	1
New Time	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
New Date:	
Month	2
Day	2
NCD Characters	28
Call Record Type "3"	1

Table T. VZ12 - SMDR Format 4 Data

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
NCD (Noncheck Dummy) Character	1
Office Identification (From A8NPA)	5
ETS Customer Identification (064-127)	3
Centrex LDN (listed directory number)	7
Office Identification (Contd)	1
Current Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Current Date:	
Month	2
Day	2
Lost Record Count	4
NCD Characters	28
Call Record Type "4"	1

Table U. VZ12 - XMDR Format 5/6 Data

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
Call Success/Failure Code	1
Service Feature Code	1
Outgoing Facility Group Number*	3
Outgoing Facility Member Number*	1
ETS Customer Identification (064-127)	3
Calling Directory Number	7
Called Directory Number	12
Time Change Indicator	1
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Number of Midnights the Call Lasted	1
Disconnect Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Incoming Facility Group Number	3
Incoming Facility Member Number	3
Outgoing Facility Member Number (Contd)*	2
CDAR (Customer Dialed Account Recording) Optional Account Code	8
Call Record Type "5"/"6"	1

* These fields contain the access code digits, padded on the right with NCDs, for XMDR format 6 records if the customer chooses the XMDRPD option.

Table V. VZ12 - XMDR Format 5/6 Data [WATS Reseller Authorization Code (IDDD)]

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
Call Succes/Failure Code	1
Service Feature Code	1
Outgoing Facility Group Number	3
Outgoing Facility Member Number	1
ETS Customer Identification (064-127)	3
Calling Directory Number	7
Called Directory Number	16
Time Change Indicator	1
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Number of Midnights the Call Lasted	1
Disconnect Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Incoming Facility Group Number	3
Incoming Facility Member Number	3
Outgoing Facility Member Number	2
Authorization Code	6
Authorization Code Prefix	2
Call Record Type "9"	

Table W. VZ12 - XMDR Format 5/6 Data [WATS Reseller Authorization Code (Non-IDDS)]

Information	AMA Chars.
Statistical Record Characters "VZ"	2
Record Identifier Characters "12"	2
Call Succes/Failure Code	1
Service Feature Code	1
Outgoing Facility Group Number	3
Outgoing Facility Member Number	1
ETS Customer Identification (064-127)	3
Calling Directory Number	7
Called Directory Number	16
Time Change Indicator	1
Answer Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Number of Midnights the Call Lasted	1
Disconnect Time:	
Hours	2
Minutes	2
Seconds	2
Tenths of Seconds	1
Incoming Facility Group Number	3
Incoming Facility Member Number	3
Outgoing Facility Member Number	2
Authorization Code	6
Authorization Code Prefix	2
Call Record Type "5"/"6"	1

Table X. VZ18 - 800 Service Busy Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1, 2
Record Identifier Characters "18"	2	3, 4
NCD (noncheck dummy) Character	1	5
Time (hours and minutes)	4	6-9
NCD character	1	10
Customer Billing Number	7	11-17
End Office Busy Counts	5	18-22
Data Base Busy Counts	5	23-27
Customer Billing Number	7	28-34
End Office Busy Counts	5	35-39
Data Base Busy Counts	5	40-44
Customer Billing Number	7	45-51
End Office Busy Counts	5	52-56
Data Base Busy Counts	5	57-61
NCD (noncheck dummy) Characters	4	62-65

Table Y. VZ22 - Message Service Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1, 2
Record Identifier Characters "22"	2	3, 4
NCD character	1	5
Time (hours and minutes)	4	6-9
NCD character	1	10
NPA	3	11-13
Customer Billing Number	7	14-20
Success Counts	5	21-25
Private Counts	5	26-30
Unavailable Counts	5	31-35
VDI (Voice/Data Interface)/IOP (I/O Processor) Indicator	1	36
NPA	3	37-39
Customer Billing Number	7	40-46
Success Counts	5	47-51
Private Counts	5	52-56
Unavailable Counts	5	57-61
VDI/IOP	1	62
NPA	3	63-65
Customer Billing Number	7	66-72
Success Counts	5	73-77
Private Counts	5	78-82
Unavailable Counts	5	83-87
VDI/IOP	1	88
NCD characters	4	62-55
	2	89, 90

Table Z. Format for BCLID (VZ30), ICLID (VZ31) or PPV (VZ32) Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1, 2
Record Identifier Characters "30", "31", or "32"	2	3, 4
NCD character	1	5
Time (hours and minutes)	4	6-9
NCD character	1	10
NPA	3	11-13
Customer Billing Number	7	14-20
AC (count of available calling DNs sent to customer)	5	21-25
UPC (count of unavailable/private calling DN indicators sent to customer)	5	26-30
NPA	3	31-33
Customer Billing Number	7	34-40
AC	5	41-45
UPC	5	46-50
NPA	3	51-53
Customer Billing Number	7	54-60
AC	5	61-65
UPC	5	66-70

Note: ICLID = For PPV, the AC items are a count of orders transmitted to the I/O channel. The UPC items are a combined count of check digit mismatches and output buffer overflows.

Table AA. Format for CNAM Only (VZ33) Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1-2
Record Identifier Characters "33"	2	3-4
NCD Character	1	5
Time (hours and minutes)	4	6-9
NCD Character	1	10
NPA	3	11-13
Billing Number	7	14-20
Count of Names Sent	5	21-25
Count of Name Private/Unavailable	5	26-30

Note: The count of Name Private/Unavailable is a combined count of Name Private and Name Unavailable Sent.

Table AB. Format for CNAM and ICLID Combined (VZ34) Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1-2
Record Identifier Characters "34"	2	3-4
NCD Character	1	5
Time (hours and minutes)	4	6-9
NCD Character	1	10
NPA	3	11-13
Billing Number	7	14-20
Count of Name/Number Sent	5	21-25
Count of Priv/Unavail Name/Number	5	26-30
Count of Name and Priv/Unavail Number Sent	5	31-35
Count of Number and Priv/Unavail Number Sent	5	36-40

Note: The count of Private/Unavailable Name and Private/Unavailable Number is a combined count of Name Sent Private or Unavailable and Number Sent Private or Unavailable.

Tabel AC. Format for CWD (VZ35) Counts

Information	AMA Chars.	AMA Char. Position
Statistical Record Characters "VZ"	2	1-2
Record Identifier Characters "35"	2	3-4
Pad Character "*"	1	5
Time (hours and minutes - HHMM)	4	6-9
Pad Character "*"	1	10
NPA	3	11-13
Customer Billing Number	7	14-20
Count of CWD Conference Option Usage	5	21-25

Information	Chars.	Position
Start of entry character "V"	1	1
Type entry code 67	2	2-3
Time	8	4-11
IC/INC PREFIX ONE:		
Carrier Identifier	4	12-15
Operator Data = 2	1	16
Overflow Peg Count	5	17-21
IC/INC PREFIX TWO:		
Carrier Identifier	4	22-25
Operator Data = 2	1	26
Overflow Peg Count	5	27-31
IC/INC PREFIX THREE:		
Carrier Identifier	4	32-35
Operator Data = 2	1	36
Overflow Peg Count	5	37-41
IC/INC PREFIX FOUR:		
Carrier Identifier	4	42-45
Operator Data = 2	1	46
Overflow Peg Count	5	47-51
NCDs	4	52-55

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FEEDBACK FORM

Document Title: 1A ESS Switch
Automatic Message Accounting
Feature Document

Document Number: AT&T 231-390-063, Appendix 1

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