



Welcome to SMS ATM Technical Specifications, Volume 2

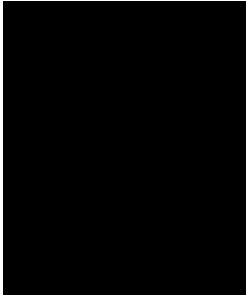
The *V.I.P. System SMS ATM Technical Specifications* manual has been updated. This manual is intended for technical and systems professionals responsible for implementing ATM processing for U.S. and international members, and for those managing their individual ATM programs after they are installed. This manual describes message formats, field descriptions, and file specifications.

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SMS ATM Technical Specifications, Volume 2

V.I.P. SYSTEM

Effective: 30 June 2004

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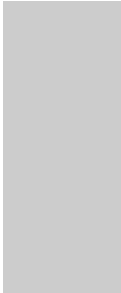
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COUNTRY AND CURRENCY CODES

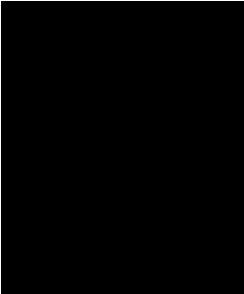
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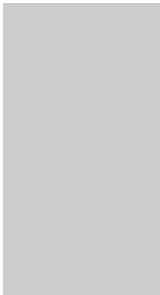


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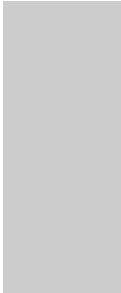
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About This Manual

The *V.I.P. System SMS ATM Technical Specifications* manual contains technical information about processing ATM transactions through VisaNet. VisaNet supports ATM processing for issuers and acquirers worldwide.

This manual contains the technical details to enable Visa and Plus issuers and acquirers to plan the systems development efforts needed to implement ATM transaction processing, including detailed specifications for message formats, field descriptions, codes, and files.

AUDIENCE

The *V.I.P. System SMS ATM Technical Specifications* manual is intended for U.S. and international technical and systems professionals responsible for implementing ATM processing, and for those managing their individual ATM programs after they are installed. The manual is designed to be used with either of the following companion manuals:

V.I.P. System International SMS ATM Processing Specifications
V.I.P. System SMS Processing Specifications (U.S.)

ORGANIZATION OF THIS MANUAL

This two-volume manual is organized as follows.

Volume 1

Volume 1 contains:

Chapter 1, Message Matching—Provides detailed information about the concepts that underlie the V.I.P. System message format requirements.

Chapter 2, Message Structure and Header Field Specifications—Describes the Visa-developed message header that is required in all online messages processed by the V.I.P. System.

Chapter 3, Field Attributes—Contains tables that provide VisaNet and ISO data field summary information.

Chapter 4, Data Field Descriptions—Provides definitions and programming specifications for all ATM message data fields transmitted to, from, and within the V.I.P. System.

Volume 2

Volume 2 contains:

Chapter 5, Message Formats—Provides detailed information about the requirements for the presence of data fields in all ATM transaction types.

Appendix A, Files—Contains programming specifications for ATM batch files, raw data files, and routing files.

Document Conventions

Appendix B, File Maintenance Error Codes—Provides error codes that can appear in field 48 when an online file maintenance message is incorrect or when there is a reason a file update cannot be processed.

Appendix C, Reject Codes—Provides a numeric list of the Single Message System (SMS) message processing reject codes used by the V.I.P. System.

Appendix D, GMT Conversion—Contains the Greenwich mean time (GMT) conversion tables, which show worldwide time zones and U.S. time zones. Instructions for converting GMT to local date and time are included.

Appendix E, Country and Currency Codes—Contains the V.I.P. System country and currency codes.

DOCUMENT CONVENTIONS

Table 1 shows the document conventions used in this manual.

Table 1 Document Conventions

Document Convention	Purpose in This Guide
boldface	Extra emphasis (stronger than italics).
EXAMPLE	Identifies an example of what the accompanying text describes or explains.
IMPORTANT	Highlights important information in the text.
<i>italics</i>	Document titles; emphasis; variables.
"text in quote marks"	Section names referenced in a chapter.
NOTE	Provides more information about the preceding topic.
Shaded illustrations	Systems or procedures that are not directly involved in the process being illustrated in the graphic.
White boxes in flow diagrams	White boxes represent request messages.
Shaded boxes in flow diagrams	Shaded boxes represent response messages.
Dotted line boxes in flow diagrams	Boxes with dotted lines illustrate advice messages.

V.I.P. SYSTEM DOCUMENTATION DESCRIPTIONS

Table 2 provides brief descriptions of V.I.P. System manuals.

V.I.P. System Documentation Descriptions

Table 2 Descriptions of V.I.P. System Manuals

General Information

V.I.P. System Overview

Provides basic descriptions of the VisaNet network and its components, connections, processing concepts, requirements, and options. Contains descriptions of the V.I.P. System, access methods, the BASE I System and the Single Message System, issuer and acquirer responsibilities, and Visa Interchange Center (VIC) operations. Also provides a brief introduction to V.I.P. services.

Doc ID 0851-04

V.I.P. System Reports

Provides sample reports for V.I.P. System services, BASE I, and Single Message System processing.

Doc ID 0852-04

V.I.P. System Services, Volume 1

Provides complete information about V.I.P. System services available to BASE I and to SMS users. Service descriptions include basic information, processing requirements, options, features, key message fields, and message flows.

Volume 1 contains the following parts:

- Part 1: V.I.P. Basics
- Part 2: Routing Services
- Part 3: Risk Management Services
- Part 4: Visa Secure Electronic Commerce (VSEC) Services
- Part 5: Chip Card Services

Doc ID 0853A-04

V.I.P. System Services, Volume 2

Provides complete information about V.I.P. System services available to BASE I and to SMS users. Service descriptions include basic information, processing requirements, options, features, key message fields, and message flows.

Volume 2 contains the following parts:

- Part 6: Authorization Database Files and Services
- Part 7: Authorization Services

Doc ID 0853B-04

V.I.P. System Documentation Descriptions

Table 2 Descriptions of V.I.P. System Manuals (continued)

BASE I

V.I.P. System BASE I Processing Specifications

Describes V.I.P. transaction processing in the BASE I System environment, including message types, processing considerations, security responsibilities, related services, and connection options.

Doc ID 0847-04

V.I.P. System BASE I Technical Specifications, Volume 1

Documents technical specifications of V.I.P. transaction processing in the BASE I System environment. This companion volume to *V.I.P. System BASE I Processing Specifications* describes the fields for BASE I.

Doc ID 0844A-05

V.I.P. System BASE I Technical Specifications, Volume 2

Documents technical specifications of V.I.P. transaction processing in the BASE I System environment. This companion volume to *V.I.P. System BASE I Processing Specifications* describes the message formats and file specifications for BASE I.

Doc ID 0844B-05

Interlink

V.I.P. System SMS Processing Specifications (U.S.)

Contains information about the Single Message System, including message types, processing considerations, connection options, security responsibilities, and related services for Visa/Plus ATM, Interlink, Visa POS, and Visa Electron.

Doc ID 0857-04

V.I.P. System SMS Interlink Technical Specifications

Companion volume to *V.I.P. System SMS Processing Specifications (U.S.)*. Describes message formats, field descriptions, and file specifications for Interlink.

Doc ID 0866-03

SMS ATM

V.I.P. System SMS Processing Specifications (U.S.)

Contains information about the Single Message System, including message types, processing considerations, connection options, security responsibilities, and related services for Visa/Plus ATM, Interlink, Visa POS, and Visa Electron.

Doc ID 0857-04

V.I.P. System Documentation Descriptions

Table 2 **Descriptions of V.I.P. System Manuals (continued)**

V.I.P. System International SMS ATM Processing Specifications

Contains information about Single Message System ATM processing, including message types, processing considerations, connection options, security responsibilities, and related services.

Doc ID 0839-04

V.I.P. System SMS ATM Technical Specifications, Volume 1

Companion volume to *V.I.P. System SMS Processing Specifications (U.S.)* and to *V.I.P. System International SMS ATM Processing Specifications*. Contains information about field descriptions for ATM.

Doc ID 0868A-03

V.I.P. System SMS ATM Technical Specifications, Volume 2

Companion volume to *V.I.P. System SMS Processing Specifications (U.S.)* and to *V.I.P. System International SMS ATM Processing Specifications*. Contains information about message formats and file specifications for ATM.

Doc ID 0868B-03

SMS POS

V.I.P. System SMS Processing Specifications (U.S.)

Contains information about the Single Message System, including message types, processing considerations, connection options, security responsibilities, and related services for Visa/Plus ATM, Interlink, Visa POS, and Visa Electron.

Doc ID 0857-04

V.I.P. System International SMS POS (Visa & Visa Electron) Processing Specifications

Contains information about Single Message System POS processing, including message types, processing considerations, connection options, security responsibilities, related services, and reports.

Doc ID 0835-04

V.I.P. System SMS POS (Visa & Visa Electron) Technical Specifications, Volume 1

Companion volume to *V.I.P. System SMS Processing Specifications (U.S.)* and to *V.I.P. System International SMS POS (Visa & Visa Electron) Processing Specifications*. Describes the fields for Visa POS and for Visa Electron.

Doc ID 0869A-03

Sources of V.I.P. Information

Table 2 Descriptions of V.I.P. System Manuals (continued)

V.I.P. System SMS POS (Visa & Visa Electron) Technical Specifications, Volume 2

Companion volume to *V.I.P. System SMS Processing Specifications (U.S.)* and to *V.I.P. System International SMS POS (Visa & Visa Electron) Processing Specifications*. Describes message formats and file specifications for Visa POS and for Visa Electron.

Doc ID 0869B-03

SOURCES OF V.I.P. INFORMATION

This section lists the primary sources for the information contained in *V.I.P. System SMS ATM Technical Specifications*. The information from these sources has been analyzed, rewritten, and reorganized, when necessary. Technical staff and service experts reviewed and verified these updates. In addition, this revised manual incorporates all of the comments and change requests received from members and from Visa staff, where appropriate.

Existing Manuals

For a list of the existing manuals, refer to Table 2.

Technical Letters

V.I.P. System SMS ATM Technical Specifications includes information from the following technical letters:

- *October 2003 VisaNet Business Enhancements Technical Letter*, publication 80019-02, including Update Bulletins
- *April 2004 VisaNet Business Enhancements Technical Letter*, publication 80022-02, including Update Bulletins

OBTAINING REPORT SAMPLES

Visa offers a variety of reports to members. Many of these reports clarify and track service processing. The following documents provide report samples:

- *V.I.P. System Reports*
- *VisaNet Settlement Service (VSS) User's Guide, Volume 2, Reports*

Members can contact their Visa representatives to discuss reporting options or to obtain additional samples.

FOR MORE INFORMATION

Visa provides documentation to support Visa products and services. For many of the services described in this manual, Visa has developed implementation guides that contain region-specific details about signing up for a service, selecting options, and installing, testing, and operating the service. Members can ask their Visa representatives for regional guides.

For More Information

Related Publications

The publications listed in this section provide information about Visa systems, regulations, and additional services not covered in this manual. Use the following information to obtain any of the listed publications, to be added to or removed from distribution lists, or to inquire about other publications.

- U.S. members and third-party processors can contact the Visa U.S.A. Member Publications department by sending an e-mail to puborder@visa.com.
- Members and third-party processors in all other Visa regions can contact their Visa representatives.
- U.S.-based Visa staff (except those in Miami) can send an e-mail request to Docline@visa.com. Docline distributes VisaNet documentation and tries to locate other publications distributed elsewhere within Visa.
- Visa staff located in Miami and outside of the U.S. can contact their regional representatives.

To inquire about VisaNet documentation or to submit changes and additions, contact Technical Communications Services by sending an e-mail to Docline@visa.com.

Operating Regulations

Operating regulations for the six Visa regions are published in the following manuals:

Visa International Operating Regulations

The *Visa International Operating Regulations* consists of four volumes of operating regulations covering all Visa regions except the U.S. region, namely:

- Volume I—General Rules
- Volume II—Dispute Resolution Rules
- Volume IV—Interlink Program Operating Regulations
- Volume V—Visa Cash Program Operating Regulations

Regions are also governed by the regulations in *Visa International Card and Marks Specifications*.

The *Visa Regional Operating Regulations* refers to operating regulations for each of the Visa regions except the U.S. region, namely:

- Visa Regional Operating Regulations—Asia-Pacific (AP)
- Visa Regional Operating Regulations—Canada (CAN)
- Visa Regional Operating Regulations—Central and Eastern Europe, Middle East, and Africa (CEMEA)
- Visa Regional Operating Regulations—European Union (EU)
- Visa Regional Operating Regulations—Latin America and Caribbean (LAC)

Visa U.S.A. Inc. Operating Regulations and By-Laws

The *Visa U.S.A. Inc. Operating Regulations* consists of two volumes of operating regulations for the U.S. region only:

- Volume I—General Rules
- Volume II—Dispute Resolution Rules

The U.S. region is also governed by the *Visa U.S.A. Inc. By-Laws*.

For More Information

BackOffice Adjustment System (BOAS)—DOS Version

For information about BOAS, refer to:

BOAS Administration and Technical Guide

Using BOAS With the BASE II System

Using BOAS With the Single Message System

BackOffice Adjustment System (BOAS) OnLine

For information about BOAS OnLine, refer to:

BOAS OnLine Conversion Guide—Legacy Members

BOAS OnLine Member System Administrator's Guide

BOAS OnLine User's Guide

Deferred Clearing Advice File (DCAF) Service

For information about DCAF, refer to *V.I.P. System Services, Volume 2*.

POS Check Service

For information about the POS Check Service, refer to:

Visa U.S.A. POS Check Service Operating Regulations

V.I.P. System Services, Volume 2

V.I.P. System SMS POS (Visa & Visa Electron) Technical Specifications

VisaNet Settlement Service (VSS) User's Guide, Volume 2, Reports

Risk Management Services

For information about risk management services, refer to:

Card Recovery Bulletin Service User's Guide

Fraud Reporting System User's Manual

Issuer's Clearinghouse Service User's Guide

National Merchant Alert Service User's Guide

Risk Identification Service User's Manual

Risk Management Process Guide

V.I.P. System Services, Volume 1

Visa Issuer Fraud Detection (VIFD) Service Workstation User's Guide

For More Information

Security

For information about data and system security, refer to the following documents:

Introduction to Cryptography and PIN Security

Payment Technology Standards Manual

PIN Security Program: Auditor's Guide

PIN Security Requirements

Visa Image Exchange Workstation (VIEW)

For information about VIEW and about VIEW OnLine, refer to:

Visa Image Exchange Workstation (VIEW) Administrator's Guide

Visa Image Exchange Workstation (VIEW) Installation Guide

Visa Image Exchange Workstation (VIEW) User's Guide

Visa Image Exchange Workstation (VIEW) OnLine Thick Client User's Guide

Visa Image Exchange Workstation (VIEW) OnLine Thick Client Member Implementation Guide

Visa Image Exchange Workstation (VIEW) OnLine Thin Client User's Guide

Visa Image Exchange Workstation (VIEW) OnLine Thin Client Member Implementation Guide

Visa Smart Debit/Smart Credit (VSDC) Service

For information about the VSDC Service, refer to:

V.I.P. System Services, Volume 1—This manual contains a complete service description.

Visa Smart Debit and Visa Smart Credit Service Description—This manual provides a high-level description of the features and the benefits of a VSDC program.

Visa Smart Debit and Credit Planning Guide—This manual helps members plan their VSDC program and migration strategy to position themselves competitively for the future.

Visa Smart Debit and Credit Member Implementation Guide for Issuers—This manual provides guidelines for issuers involved in the implementation of new VSDC programs.

Visa Smart Debit and Credit Member Implementation Guide for Acquirers—This manual provides guidelines for acquirers involved in the implementation of new VSDC programs.

Visa Smart Debit/Visa Smart Credit System Technical Manual—This manual provides information for members and for Visa staff responsible for the implementation and the operation of a VSDC program.

Visa Integrated Circuit Card Specifications—This 3-volume manual contains the technical specifications for how the VSDC card application works, describing both the functionality and the flow of a VSDC transaction.

For More Information

VisaNet Access Points (VAPs)

For information about VisaNet Access Points (VAPs), refer to the pertinent sets of documentation listed below. The VAP Release 10.23 documentation is for PS/2 architecture; the VAP Release 11 documentation is for PCI and ISA architecture.

VAP Release 10.23 Documentation

VAP Computer-Based Training User's Guide

VAP Interface Specifications: BASE II and Other File Processing

VAP Interface Specifications: V.I.P. Processing

VAP Messages and Troubleshooting

VAP Operator's Guide

VAP Software Library

VAP Systems Guide

VAP Release 11 Documentation

VAP Release 11 Interface Specifications: BASE II and Other File Processing

VAP Release 11 Interface Specifications: V.I.P. Processing

VAP Release 11 Maintenance, Messages, and Troubleshooting Guide

VAP Release 11 Operator's Guide

VisaNet Copy Request and Fulfillment Service (VCRFS)

For information about the VisaNet Copy Request and Fulfillment Service (VCRFS), refer to:

VCRFS Fax Gateway User's Guide

VCRFS Processing Guide

VisaNet Image Gateway Image Interface Technical Specifications

VisaNet Image Gateway User's Guide

Miscellaneous Systems and Services

For more information about miscellaneous systems and services relevant to V.I.P., refer to:

V.I.P. System Services, Volume 1 and Volume 2

Visa Global ATM Planning Guide—This manual contains information about the Visa/Plus International ATM Program. It includes an overview of the program, its business requirements, optional services, risk management, processing options, certification procedures, and back office management.

Address Verification Service (AVS) User's Guide



For More Information

Card Verification Value (CVV) Member Technical Guide

Cardholder Verification Value Reporting User's Guide

Cash-Back Service Description (Doc ID 40080-01)

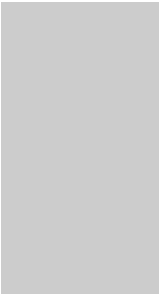
Visa Information System User's Guide

VisaNet Settlement Service (VSS) User's Guide, Volume 1, Specifications

VisaNet Settlement Service (VSS) User's Guide, Volume 2, Reports

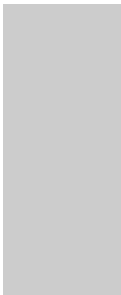
Visa Test System - Version 3 User's Guide

VTs2000 User's Guide



About This Manual

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About This Manual

The tables in this chapter apply to Single Message System ATM processing and show the fields in a message. The table notations show whether a field value is required, conditional, or optional, or if it should be left blank. Necessary actions on the part of the acquirer, the issuer, and VisaNet (that is, the VIC) are also noted.

5.1 INTERPRETING THE CHARTS

Figure 5-1 provides a key to the notations used throughout this chapter, as well as examples of how to interpret the notations.

Figure 5-1 Code and Message Interpretations

Message initiator

Message type

Processing type

Field Number and Name		Original			
		0200		0210	
		Acqr/Svc Pvdr	VIC	Issr/ Cust Inst	VIC
2	Primary Acct Nbr	M	→	M	→
5	Amt, Settlmt		C+		C+
7	Transmsn Date/Time	M	→	M	→
14	Date, Exp	C	→		
15	Date, Settlmt		M+	M	→
39	Resp Code		C+	C	→
41	Card Accptr Term ID	C	→	C	→
44.1	Resp Source/Rsn Cde				C+
44.5	CVV/iCVV Results Cde		C+	C	
62.1	Auth Char Indctr	M	C	O	M+
62.2	Trans Idfr		C+	OC	+
115	Addtnl Trace Data	O	–		C+

Codes

C Conditional—field/value is present in the message under certain conditions, which are explained in Chapter 4 of the *ATM Technical Specifications*.

C+Field/value is conditionally added at the VIC.

C–Field/value is conditionally removed at the VIC.

M Mandatory—field/value must be present in the message.

M+ Field/value is always added at the VIC.

O Optional—field/value presence in the message is up to the message initiator or the recipient.

blank space:

Field/value must not be present in the message in that stage of its journey.

→VisaNet passes the field/value; **no** VisaNet action other than possible field editing.

–Field/value is **always removed** by VisaNet at the VIC.

□ Members must forward or return field/value **exactly** as received.

Row coding interpretation examples:

Field 2: 1) acquirer must include the primary account number in the request; 2) VisaNet passes the account number as it is received assuming a successful length edit; 3) issuer must return the account number in the response **exactly** as it was received in the request; 4) VisaNet does nothing to the account number except forward it.

Field 5: 1) acquirer does not include the settlement amount in the request; 2) VisaNet inserts the settlement amount **if** the issuer participates in multicurrency; 3) issuer does not return the field value in the response; 4) VisaNet replaces it if the acquirer is a multicurrency participant.

Field 39: 1) acquirer does not include this field; 2) if appropriate, VisaNet inserts the response code before forwarding the request to the issuer; 3) if appropriate, the issuer inserts the response code in the response; 4) VisaNet forwards to the acquirer.

Field 115: 1) acquirer can include the field if it wants; 2) VisaNet removes it if necessary before forwarding the message to the issuer; 3) because the field value is absent from the request, the issuer does not include it in the response; 4) VisaNet re-inserts it before forwarding the response to the acquirer.

Rules governing when a field is included in a message are contained in the respective field descriptions in Chapter 4 of this *SMS ATM Technical Specifications* manual.

5.1.1 The Use of M (Mandatory), C (Conditional), and O (Optional) in the Charts

M (Mandatory) means that the field and perhaps a specific code or value is required in the message.

C (Conditional) means that the particular field or specific code or value is required in the message if certain conditions exist, that is, if the message is attempting to meet certain service or system requirements. For example, if the message is being submitted for CVV checking (field 22 = 05 or 95 and track data included), Field 44.5, CVV Results Code may be present either in the request forwarded to the issuer, or in the response to the acquirer. However, if the request is not being submitted for CVV checking (track data included, field 22 is not 05 or 95), field 44.5 will not be included in either the request forwarded to the issuer or in the response to the acquirer. Therefore, field 44.5 = C in the message layout charts that accommodate both CVV and non-CVV submissions.

O (Optional) means the presence of the field is up to the message sender. V.I.P. does not check or edit the field or its content.

The determination of when a field is mandatory, conditional, or optional is found in .

5.2 FIELD NAME ABBREVIATIONS

Table 5-1 provides a list of field names with the field name abbreviations that are used throughout this chapter. The term “not applicable” means the field does not apply to ATM transactions. The term “unused” shows the ISO fields not used by Visa.

Table 5-1 List of Field Names and Abbreviations

Field Number	Field Name	Field Name Abbreviation
—	Primary Bit Map	Not applicable
—	Second Bit Map	Not applicable
—	Third Bit Map	Not applicable
2	Primary Account Number (PAN)	Primary Acct Nbr
3	Processing Code	Processing Code
4	Amount, Transaction	Amt, Trans
5	Amount, Settlement	Amt, Settlmt
6	Amount, Cardholder Billing	Amt, Cdhldr Billing
7	Transmission Date/Time	Transmsn Date/Time
9	Conversion Rate, Settlement	Conv Rate, Settlmt
10	Conversion Rate, Cardholder Billing	Conv Rate, Cdhldr Billing
11	System Trace Audit Number	Sys Trace Audit Nbr
12	Time, Local Transaction	Time, Local Trans
13	Date, Local Transaction	Date, Local Trans
14	Date, Expiration	Date, Expr

Table 5-1 List of Field Names and Abbreviations (continued)

Field Number	Field Name	Field Name Abbreviation
15	Date, Settlement	Date, Settlmt
16	Date, Conversion	Date, Conv
18	Merchant's Type	Mchnt Type
19	Acquiring Institution Country Code	Acqng Inst Cntry Code
20	PAN Extended, Country Code	PAN Extnd, Cntry Code
21	Forwarding Institution Country Code	Fwdng Inst Cntry Code
22	POS Entry Mode Code	POS Entry Mode Code
23	Card Sequence Number	Card Seq Nbr
25	POS Condition Code	POS Cond Code
26	POS PIN Capture Code	POS PIN Captr Code
28	Amount, Transaction Fee	Amt, Trans Fee
32	Acquiring Institution Identification Code	Acqng Inst ID Code
33	Forwarding Institution Identification Code	Fwdng Inst ID Code
34	PAN, Extended	Not applicable
35	Track 2 Data	Track 2 Data
37	Retrieval Reference Number	Retrieval Ref Nbr
38	Authorization Identification Response	Auth ID Resp
39	Response Code	Resp Code
41	Card Acceptor Terminal Identification	Card Accptr Termnl ID
42	Card Acceptor Identification Code	Card Accptr ID Code
43	Card Acceptor Name/Location	Card Accptr Name/Loc
44	Additional Response Data	Addtnl Resp Data
44.1	Response Source/Reason Code	Resp Source/Rsn Code
44.2	Address Verification Result Code	Not applicable
44.5	CVV/iCVV Results Code	CVV/iCVV Results Code
44.6	PACM Diversion Level Code	Not applicable
44.7	PACM Diversion Reason Code	Not applicable
44.8	Card Authentication Results Code	Card Authen Results Code
44.11	Original Response Code	Orig Resp Code
45	Track 1 Data	Not applicable
48	Additional Data—Private	Addtnl Data—Private
49	Currency Code, Transaction	Curry Code, Trans

Table 5-1 List of Field Names and Abbreviations (continued)

Field Number	Field Name	Field Name Abbreviation
50	Currency Code, Settlement	Currency Code, Settlement
51	Currency Code, Cardholder Billing	Currency Code, Cardholder Billing
52	PIN Data	PIN Data
53	Security-Related Control Information	Sec Related Control Info
54	Additional Amounts	Additional Amt
59	National POS Geographic Data	Natl POS Geo Data
60	Additional POS Information	Additional POS Info
60.1	Terminal Type	Terminal Type
60.2	Terminal Entry Capability	Term Entry Cap
61	Other Amounts	Not applicable
61.1	Other Amount, Transaction	Other Amt, Trans
62.0	CPS Fields Bit map	CPS Fields Bit Map
62.1	Authorization Characteristics Indicator	Auth Char Indctr
62.2	Transaction Identifier	Trans Idfr
62.11	Multiple Clearing Sequence Number	Mult Clrng Seq Nbr
62.18	Excluded Transaction Identifier Reason Code	Not Applicable
62.21	Online Risk Assessment Risk Score and Reason Codes	Risk Score
62.22	Online Risk Assessment Condition Codes	Condition Codes
63	SMS Private-Use Fields	SMS Private-Use Fields
63.0	Field 63 Bit Map	Bit Map (Field 63)
63.1	Network Identification Code	Netwk ID Code
63.2	Time (Preauthorization Time Limit)	Not applicable
63.3	Message Reason Code	Msg Rsn Code
63.4	STIP/Switch Reason Code	STIP/Switch Rsn Code
63.5	Plus PMC Identification	Plus PMC ID
63.6	Chargeback Reduction/BASE II Flags	Not applicable
63.7	Network Participation Flags	Not applicable
63.8	Visa Acquirer's Business Identification	Not applicable
63.9	Fraud Data	Not applicable
63.10	Gateway Merchant Data	Not applicable
63.11	Reimbursement Attribute	Not applicable
63.12	Sharing Group Code	Not applicable

Table 5-1 List of Field Names and Abbreviations (continued)

Field Number	Field Name	Field Name Abbreviation
63.13	Decimal Positions Indicator	Decimal Postns Indctr
63.14	Issuer Currency Conversion Data	Issr Crrncy Conv Data
63.15	Settlement Amount, Acquirer Currency Conversion Fee Allocation	Settlmt Amt, Acqr Crrncy Conv Fee Alloc
66	Settlement Code	Settlmt Code
68	Receiving Institution Country Code	Rcvg Inst Cntry Code
69	Settlement Institution Country Code	Settlmt Inst Cntry Code
70	Network Management Information Code	Netwk Mgmt Info Code
73	Date, Action	Date, Action
74	Credits, Number	Credits, Nbr
75	Credits, Reversal Number	Credits, Reversal Nbr
76	Debits Number	Debits Nbr
77	Debits, Reversal Number	Debits, Reversal Nbr
86	Credits, Amount	Credits, Amt
87	Credits, Reversal Amount	Credits, Reversal Amt
88	Debits, Amount	Debits, Amt
89	Debits, Reversal Amount	Debits, Reversal Amt
90	Original Data Elements	Orig Data Elemts
91	File Update Code	File Update Code
92	File Security Code	File Sec Code
95	Replacement Amounts	Not applicable
96	Message Security Code	Msg Sec Code
97	Amount, Net Settlement	Amt, Net Settlmt
98	Payee	Not applicable
99	Settlement Institution Identification Code	Settlmt Inst ID Code
100	Receiving Institution Identification Code	Rcvg Inst ID Code
101	File Name	File Name
102	Account ID 1	Acct ID 1
103	Account ID 2	Acct ID 2
104	Transaction Description	Not applicable
105	Double-Length DES Key (Triple DES)	DbI-Lngth DES Key (Trple DES)
115	Additional Trace Data	Addtnl Trace Data

Table 5-1 List of Field Names and Abbreviations (continued)

Field Number	Field Name	Field Name Abbreviation
119	Settlement Service Data	Settlmt Svc Data (International only)
123	Address Verification Data	Not applicable
125	Supporting Information	Supporting Info
	Usage 7, Visa Commerce Information	Usage 7, Visa Commerce
126.0	Bit Map (Field 126)	Not Abbreviated
126.1	Customer Name	Not applicable
126.2	Customer Address	Not applicable
126.3	Biller Address	Not applicable
126.4	Biller Telephone Number	Not applicable
126.5	Process by Date	Not applicable
126.12	Service Indicators	Svc Indctrs
127	Format 2 File Maintenance	File Format 2 Maint
127C.1	PIN Verification Data	PIN Verif Data
127E.1	Action Code	Action Code
127E.2	Region Coding	Region Coding
127E.3	Cardholder Spending Amount Limit	Cardhldr Spndng Amt Limit
127E.4	Cardholder Spending Count Limit	Cardhldr Spndng Cnt Limit
128	Message Authentication Code	Msg Authen Code
130	Terminal Capability Profile	Term Capblty Profile
131	Terminal Verification Results (TVR)	Term Verif Results
132	Unpredictable Number	Unpredict Nbr
133	Terminal Serial Number	Term Serial Nbr
134	Visa Discretionary Data	Visa Discret Data
134.1	Derivation Key Index	Deriv Key Index
134.2	Cryptogram Version	Crypto Version Nbr
134.3	Card Verification Results (CVR)	Card Verif Results
135	Issuer Discretionary Data	Issuer Discret Data
136	Cryptogram	Not Abbreviated
137	Application Transaction Counter	App Trans Counter
138	Application Interchange Profile	App Intchg Profile
139.1	ARPC Response Cryptogram and Code	ARPC
139.2	ARPC Response Code	ARPC Resp Code

Table 5-1 List of Field Names and Abbreviations (continued)

Field Number	Field Name	Field Name Abbreviation
142	Issuer Script	Not Abbreviated
143	Issuer Script Results	Not Abbreviated
144	Cryptogram Transaction Type	Crypto Trans Type
145	Terminal Country Code	Term Cntry Code
146	Terminal Transaction Date	Term Trans Date
147	Cryptogram Amount	Crypto Amt
148	Cryptogram Currency Code	Crypto Currecy Code
149	Cryptogram Cashback Amount	Not Applicable
152	Secondary PIN BLock	Secondary PIN Block
192	Message Authentication Code (MAC)	Msg Authen Code

5.3 ORIGINAL FINANCIAL TRANSACTIONS

The following are original financial messages for ATM transactions:

0200 Cash Disbursement

0200 Balance Inquiry

0200 Account Transfer (domestic only)

5.3.1 0200 Cash Disbursement

A cash disbursement is a request to authorize, post, and settle a transaction for the withdrawal of cash from an ATM.

If the issuer is unavailable, VisaNet responds to the acquirer and creates an advice message for the issuer.

Financial transaction messages have settlement impact.

Table 5-2 shows the field requirements for a cash disbursement.

Table 5-2 Cash Disbursement

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Second Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→	M	→	M	
5	Amt, Settlmt		C+		C+	C	

Original Financial Transactions

Table 5-2 Cash Disbursement (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
6	Amt, Cdhldr Billing		C+			C	
7	Transmsn Date/time	M	→	M	→	M	M
9	Conv Rate, Settlmt		C+		C+	C	
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	C	→			C	
15	Date, Settlmt		M+	M	→	M	M
16	Date, Conv		C+		C+	C	
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Capture Code	C	→			C	
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp			C	→	C	
39	Resp Code		C+	M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				C+	C	
44.5	CVV/iCVV Results Code		C+	O	C+	C	
44.11	Orig Resp Code				C+		
48	Addtnl Data—Private; Usage 10			C	C-	C	C

Message Formats

Table 5-2 Cash Disbursement (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
49	Curmy Code, Trans	M	→	M	→	M	
50	Curmy Code, Settlmt		C+		C+	C	
51	Curmy Code, Cdhdr Billing		C+			C	
52	PIN Data	M	→			M	
53	Security-Related Cntrl Info	M	→			M	
54	Addtnl Amounts			O	→	C	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	O	→			C	
60.2	Term Entry Cap	O	→			C	
60.9	Cardholder ID		C+			C	
62.0	CPS Fields Bit Map	C	→	C	→	C	C
62.1	Auth Char Indctr	O	C	O	C+	C	O
62.2	Trans Idfr		M+	O	C+	C	O
62.21	Risk Score		C+		C-	C	
62.22	Condition Codes		C+		C-	C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.3	Msg Rsn Code					C	
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	C	→			C	
63.13	Decimal Pos Indctr	C	C+	C	C+	C	C
63.14	Issr Currecy Conv Data		C+			C	
63.15	Settlmt Amt, Acqr Currecy Conv Fee Alloc				C+	C	
68	Rcvg Inst Cntry Code	C	→			C	
102	Acct ID 1			O	→		
115	Addtnl Trace Data 1	O	C-		C+		
119	Settlmt Svc Data (International only)	O	C-			C	
126.0	Bit Map (Field 126)	C	C-			C	
126.12	Svc Indctrs	C	C-			C	

5.3.2 0200 Balance Inquiry

A balance inquiry is a request for account balance information to be displayed at an ATM.

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This transaction is strictly between the cardholder and the issuer. Because there is no settlement between the acquirer and the issuer, this transaction cannot be reversed, adjusted, charged back, or re-presented.

STIP cannot process a balance inquiry on behalf of an unavailable issuer, but does check the account against the Exception File. STIP responds and creates an advice if a decline or pickup code is on file. This is one of the two instances when a STIP-processing advice does not reflect typical STIP authorization processing.

Balance inquiries do not impact settlement totals

Table 5-3 shows the field requirements for a balance inquiry.

Table 5-3 Balance Inquiry

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Second Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
7	Transmsn Date/Time	M	→	M	→	M	M
11	Systems Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	O	→			C	
15	Date, Settlmt		M+	M	→	M	M
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Capture Code	C	→			C	
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
39	Resp Code		C+	M	→	M	M

Table 5-3 Balance Inquiry (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
41	Card Acqptr Termnl ID	M	→	M	→	M	M
42	Card Acqptr ID Code	M	→	M	→	M	M
43	Card Acqptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				C+	C	
44.5	CVV/iCVV Results Code		C+	O	C+	C	
48	Addtnl Data—Private; Usage 10			C	C+	C	C
49	Currqy Code, Trans	C	→	O	C+	C	
52	PIN Data	M	→			M	
53	Sec Related Cntrl Info	M	→			M	
54	Addtnl Amts			C	→		
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	O	→			C	
60.2	Term Entry Cap	O	→			C	
60.9	Cardholder ID		C+			C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	C	→			C	
63.13	Decimal Pos Indctr			C	C+		
102	Acct ID 1			O	→		
115	Addtnl Trace Data 1	O	C-		C+		

5.3.3 0200 Account Transfer (Domestic only)

An account transfer is a request to transfer funds between a cardholder's two accounts at the same financial institution. ATM account transfers are currently available for domestic transactions.

This transaction is strictly between the cardholder and the issuer; no cross-border transactions are allowed. Because there is no settlement between the acquirer and the issuer, this transaction cannot be adjusted, charged back, or re-presented. An account transfer can be reversed if it is necessary to cancel the cardholder charge when the acquirer cannot deliver the response to the point of service.

STIP cannot process an account transfer on behalf of an unavailable issuer, but checks the account against the Exception File. STIP responds and creates an advice if a decline or pickup

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code is on file. This is one of the two instances when a STIP-processing advice does not reflect typical STIP authorization processing.

Account transfers do not impact settlement totals.

Table 5-4 shows the field requirements for an account transfer.

Table 5-4 Account Transfer (Domestic only)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Second Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→	M	→	M	
6	Amt, Cdhldr Billing		C+			C	
7	Transmsn Date/Time	M	→	M	→	M	M
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	C	→			C	
15	Date, Settlmt		M+	M	→	M	M
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Capture Code	C	→			C	
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp			O	→	C	
39	Response Code		C+	M	→	M	M

Table 5-4 Account Transfer (Domestic only) (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
41	Card Acqptr Termnl ID	M	→	M	→	M	M
42	Card Acqptr ID Code	M	→	M	→	M	M
43	Card Acqptr Name/Loc	M	→			M	
44.5	CVV/iCVV Results Code		C+	O	C+	C	
48	Addtnl Data—Private; Usage 10			C	C-	C	C
49	Currncy Code, Trans	M	→	M	→	M	
51	Currncy Code, Cdhltr Billing		C+			C	
52	PIN Data	M	→			M	
53	Sec Related Cntrl Info	M	→			M	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	O	→			C	
60.2	Term Entry Cap	O	→			C	
60.9	Cardholder ID		C+			C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	C	→			C	
102	Acct ID 1			O	→		
103	Acct ID 2			O	→		O
115	Addtnl Trace Data 1	O	C-		C+		
126.0	Bit Map (Field 126)	C	C-			C	
126.12	Svc Indctrs	C	C-			C	

5.4 FINANCIAL REVERSALS

The following are reversal messages for original ATM financial transactions:

0420 Reversal

0420 Account Transfer Reversal (domestic only)

5.4.1 0420 Reversal

Financial transaction reversal messages negate outstanding or previously approved financial transactions.

Under normal conditions, the acquirer submits an 0420 reversal advice to the issuer, and the issuer returns an 0430 response. If acquirers send 0400 messages, VisaNet converts them

Financial Reversals

to 0420 advices. VisaNet generates a reversal when it cannot deliver an approval response for the original financial transaction request; reversal acquirer switch advices are sent by Visa to the acquirer.

Financial transaction reversals impact settlement totals.

Table 5-5 shows the field requirements for a reversal.

Table 5-5 Reversal

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
—	Second Bit Map	M	→	M	→	M	M
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→			M	
5	Amt, Settlmt		C+		C+	C	
6	Amt, Cdhldr Billing		C+			C	
7	Transmsn Date/Time	M	→	M	→	M	M
9	Conv Rate, Settlmt		C+		C+	C	
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	C	→			C	
15	Date, Settlmt		M+	M	→	M	M
16	Date, Conv		C+		C+	C	
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
25	POS Cond Code	M	→	M	→	M	M
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	

Financial Reversals

Table 5-5 Reversal (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp	C	→			C	
39	Resp Code			M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				M+	M	
48	Addtnl Data—Private; Usage 10	C	→	C	→	C	C
49	Currncy Code, Trans	M	→			M	
50	Currncy Code, Settlmt		C+		C+	C	
51	Currncy Code, Cdhldr Billing		C+			C	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	C	→			C	
60.2	Term Entry Cap	C	→			C	
60.9	Cardholder ID		C+			C	
62.0	CPS Fields Bit Map	C	→	C	C+	C	C
62.1	Auth Char	C	→	O	C+	C	O
62.2	Trans Idfr	C	→	O	C+	C	O
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.3	Msg Rsn Code	O	→			O	
63.4	STIP/Switch Rsn Code		C+			M	
63.5	Plus PMC ID	C	→			C	
63.13	Decimal Pos Indctr	C	C+	C	C+	C	C
63.14	Issr Currncy Conv Data		C+			C	
63.15	Settlmt Amt, Acqr Currncy Conv Fee Alloc				C+	C	
90	Orig Data Elemts	M	→	M	→	M	M
102	Acct ID 1			O	→		
115	Addtnl Trace Data 1	O	C-		C+		

Table 5-5 Reversal (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
126.0	Bit Map (Field 126)	C	C-				
126.12	Svc Indctrs	C	C-				

5.4.2 0420 Account Transfer Reversal (Domestic only)

An ATM account transfer reversal is used to negate an outstanding or previously approved account transfer. An account transfer reversal is normally initiated by the acquirer. VisaNet generates an account transfer reversal when it cannot deliver an approval response for the original financial transaction request.

Account transfer reversals do not impact settlement totals.

Table 5-6 shows the field requirements for an account transfer reversal.

Table 5-6 Account Transfer Reversal (Domestic only)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
—	Second Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	C	→	C	→	C	C
3	Procssng Cde	M	→	M	→	M	M
4	Amt, Trans	M	→	M	→	M	M
6	Amt, Cdhldr Blng		C+			C	
7	Transmsn Date/Time	M	→	M	→	M	M
9	Conv Rate, Settlmt		C+		C+	C	
10	Convsn Rate, Cdhldr Blng		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Exp	C	→			C	
15	Date, Settlmt		M+	M	→	M	M

Table 5-6 Account Transfer Reversal (Domestic only) (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Cde	M	→	M	→	M	M
20	PAN Extnd, Cntry Cde				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Cde	M	→			M	
25	POS Cond Cde	M	→	M	→	M	M
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Cde	M	→	M	→	M	M
33	Fwdng Inst ID Cde	C	→			C	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp	C	→			C	
39	Resp Cde			M	→	M	M
41	Card Accptr Term ID	M	→	M	→	M	M
42	Card Accptr ID Cde	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				M+	M	
48	Addtnl Data—Private; Usage 10	C	→	C	→	C	C
49	Currny Cde, Trans	M	→			M	
51	Currny Cde, Cdhldr Blng		C+			C	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	C	→			C	
60.2	Term Entry Cap	C	→			C	
60.9	Cardholder ID		C+			C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Cde		C+			M	
63.5	Plus PMC ID	C	→			C	

System-Generated Financial Transactions

Table 5-6 Account Transfer Reversal (Domestic only) (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
102	Acct ID 1			0	→		
103	Acct ID 2			0	→		
115	Addtnl Trace Data 1	0	C-		C+		
126.0	Bit Map (Field 126)	C	C-				
126.12	Svc Indctrs	C	C-				

5.5 SYSTEM-GENERATED FINANCIAL TRANSACTIONS

Table 5-7 shows the field requirements for the system-generated financial message.

5.5.1 0220 Cash Disbursement Adjustment

Cash disbursement adjustment messages are used to adjust the value of an ATM withdrawal, usually within a minute or two of the original transaction. Adjustments can be for a debit or credit amount.

The most common cash disbursement adjustment is for a partial dispense or misdispense when the amount dispensed by the ATM did not match the amount approved by the issuer.

Adjustments are not valid for balance inquiries or account transfers (domestic only). Adjustments cannot be reversed by the acquirer but can be charged back by the issuer.

Adjustments have settlement impact.

Table 5-7 Cash Disbursement Adjustment: Misdispense

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/time	M	→	M	→

System-Generated Financial Transactions

Table 5-7 Cash Disbursement Adjustment: Misdispense (continued)

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		
11	Sys Trace Audit Nbr	M	→	M	→
12	Time, Local Trans	M	→		
13	Date, Local Trans	M	→		
14	Date, Expr	C	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code				M+
21	Fwdng Inst Cntry Code	C	→		
22	POS Entry Mode Code	M	→		
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	C+	M	→
33	Fwdng Inst ID Code	C	→		
37	Retrieval Ref Nbr	M	→	M	→
39	Resp Code		C+	M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44.11	Original Resp Code				C+
48	Addtnl Data—Private; Usage 10	C	→	C	→
49	Currency Code, Trans	M	→		
50	Currency Code, Settlmt		C+		
51	Currency Code, Cdhldr Billing		C+		
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C

Exception Transactions

Table 5-7 Cash Disbursement Adjustment: Misdispense (continued)

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+	C	C+
63.14	Issr Crrcy Conv Data		C+		
63.15	Settlmt Amt, Acqr Crrcy Conv Fee Alloc				C+
90	Orig Data Elemts	C	→	C	→
102	Acct ID 1			O	→
115	Addnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data (International only)	C	C-		C+
126.0	Bit Map (Field 126)	C	C-		
126.12	Svc Indctrs	C	C-		

Message Formats

5.6 EXCEPTION TRANSACTIONS

The following are messages used for exception processing for original ATM financial transactions:

- 0220 Back Office Adjustment
- 0422 Chargeback
- 0422 Chargeback Reversal
- 0220 Representment
- 0220 Fee Collection/Funds Disbursement

5.6.1 0220 Back Office Adjustment

Back office adjustment messages are used to request an adjustment to a financial transaction that has changed or is incorrect. Adjustments can be for a debit or credit amount.

Back office adjustments are used by acquirers when a processing error has been identified during or after ATM reconciliation.

Adjustments cannot be reversed by the acquirer but can be charged back by the issuer.

Exception Transactions

Adjustments have settlement impact.

Table 5-8 shows the field requirements for a back office adjustment.

Table 5-8 Back Office Adjustment

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		
11	Sys Trace Audit Nbr	M	→	M	→
12	Time, Local Trans	M	→		
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code				M+
21	Fwdng Inst Cntry Code	C	→		
22	POS Entry Mode Code	M	→		
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	C	→		
37	Retrieval Ref Nbr	M	→	M	→
38	Auth ID Response	O	→		
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→

Exception Transactions

Table 5-8 Back Office Adjustment (continued)

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		
44.11	Original Resp Code				C+
48	Addtnl Data—Private; Usage 10	C	→	C	→
49	CurrCy Code, Trans	M	→		
50	CurrCy Code, Settlmt		C+		C+
51	CurrCy Code, Cdhldr Billing		C+		
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+	C	C+
63.14	Issr CurrCy Conv Data		C+		
63.15	Settlmt Amt, Acqr CurrCy Conv Fee Alloc				C+
90	Orig Data Elemts	O	→	O	→
102	Acct ID 1			O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data (International only)	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		

Message Formats

5.6.2 0422 Chargeback

A chargeback is used by an issuer to return a previously accepted financial transaction to an acquirer. Issuers have the right to charge back to acquirers posted transactions that are disputed by the cardholders or identified as invalid by the issuer. Chargebacks must adhere to the applicable Visa operating regulations.

Exception Transactions

If an original chargeback cannot be delivered to the acquirer, it is placed in the Advice File and field 63.4 is added.

STIP advices are created when the acquirer is unable to respond to the original chargeback.

Chargeback advices impact settlement totals.

Table 5-9 shows the field requirements for a chargeback.

Table 5-9 Chargeback

Field Number and Name		0422		0432	
		Issr	VIC	Acqr	VIC
—	Second Bit Map	M	→	M	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
11	Sys Trace Audit Nbr	M	→	M	→
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code	C	M+		
21	Fwdng Inst Cntry Code	C	→		
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	O	→		
37	Retrieval Ref Nbr	M	→	M	→
38	Auth ID Resp	C	→		
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		

Exception Transactions

Table 5-9 Chargeback (continued)

Field Number and Name		0422		0432	
		Issr	VIC	Acqr	VIC
44.11	Orig Resp Code				C+
48	Addtnl Data—Private; Usage 7a (Visa)	M	→		
48	Addtnl Data—Private; Usage 10 (Plus)	C	→	C	→
49	Currncy Code, Trans	M	→		
50	Currncy Code, Settlmt		C+		C+
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C+
62.1	Auth Char	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+	C	C+
90	Orig Data Elemts	O	→	O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data (International only)	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		

Message Formats

5.6.3 0422 Chargeback Reversal

Chargeback reversal messages are used by the issuer to cancel chargebacks that were sent in error to acquirers.

If an original chargeback reversal cannot be delivered to the acquirer, it is placed in the Advice File as a store-and-forward advice, and Field 63.4 is added.

Chargeback reversals impact settlement totals.

Table 5-10 shows the field requirements for a chargeback reversal.

Exception Transactions

Table 5-10 Chargeback Reversal

Field Number and Name		0422		0432	
		Issr	VIC	Acqr	VIC
—	Second Bit Map	M	→	M	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
11	Sys Trace Audit Nbr	M	→	M	→
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code	C	M+		
21	Fwdng Inst Cntry Code	C	→		
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	O	→		
37	Retrieval Ref Nbr	M	→	M	→
38	Auth ID Resp	C	→		
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		
44.11	Orig Resp Code				C+
48	Addtnl Data—Private; Usage 7a (Visa)	M	→		
48	Addtnl Data—Private; Usage 10 (Plus)	C	→	C	→
49	Crrcy Code, Trans	M	→		
50	Crrcy Code, Settlmt		C+		C+
59	Natl POS Geo Data	C	→		

Exception Transactions

Table 5-10 Chargeback Reversal (continued)

Field Number and Name		0422		0432	
		Issr	VIC	Acqr	VIC
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C+
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+	C	C+
90	Orig Data Elemts	O	→	O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data (International only)	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		

Message Formats

5.6.4 0220 Representment

Representment transactions are used by an acquirer to resubmit a transaction that has been charged back by an issuer. Representments must adhere to applicable Visa operating regulations.

If an original representment cannot be delivered to the issuer, it is placed in the Advice File and field 63.4 is added.

STIP advices are created when the acquirer is unable to respond to the original representment.

Representments impact settlement totals.

Table 5-11 shows the field requirements for a representment.

Table 5-11 Representment

Field Number and Name		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→

Exception Transactions

Table 5-11 Representment (continued)

Field Number and Name		0220		0230	
		Acqr	VIC	Issr	VIC
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		
11	Sys Trace Audit Nbr	M	→	M	→
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code	C	→	C	M+
21	Fwdng Inst Cntry Code	C	→		
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	C	→		
37	Retrieval Ref Nbr	M	→	M	→
38	Auth ID Response	O	→		
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		
48	Addtnl Data—Private; Usage 7a (Visa)	M	→		
48	Addtnl Data—Private; Usage 10 (Plus)	C	→	C	→
49	Crrcy Code, Trans	M	→		
50	Crrcy Code, Settlmt		C+		C+
51	Crrcy Code, Cdhldr Billing		C+		
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		

Exception Transactions

Table 5-11 Representment (continued)

Field Number and Name		0220		0230	
		Acqr	VIC	Issr	VIC
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C+
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+	C	C+
63.14	Issr Currcy Conv Data		C+		
63.15	Settlmt Amt, Acqr Currcy Conv Fee Alloc				C+
90	Orig Data Elemts	O	→	O	→
102	Acct ID 2			O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data (International only)	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		

Message Formats

5.6.5 0220/0422 Fee Collection/Funds Disbursement (Visa only)

Fee Collection/Funds Disbursement messages are used in financial transactions or issuer reversal messages for transactions that pay or collect a Visa fee. Fee Collection/Funds Disbursement messages can be acquirer-generated (0220) or issuer-generated (0422).

There is no need to charge back or re-present these messages. Fee collections and funds disbursements cannot be declined, but they can be sent back to the originator.

All valid fee collections and funds disbursements have settlement impact.

Table 5-12 shows the field requirements for an acquirer-generated fee collection or funds disbursement.

Exception Transactions

Table 5-12 Acquirer-Generated Fee Collection or Funds Disbursement (Visa only)

Field Number and Name		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	M	→	M	→
2	Primary Acct Nbr	C	→	C	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		
11	Sys Trace Audit Nbr	M	→	M	→
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
19	Acqng Inst Cntry Code	M	→	M	→
21	Fwdng Inst Cntry Code	C	→	C	
32	Acqng Inst ID Code	M	→	M	→
37	Retrieval Ref Nbr	M	→	M	→
39	Resp Code			M	→
44.11	Orig Resp Code				C+
48	Addtnl Data—Private; Usage 5 (Visa only)	M	→		
49	Currncy Code, Trans	M	→		
50	Currncy Code, Settlmt		C+		C+
51	Currncy Code, Cdhldr Billing		C+		
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
68	Rcvng Inst Cntry Code	C	→	C	→
100	Rcvng Inst ID Code	C	→	C	→
115	Addtnl Trace Data 1	O	C-		C+

Table 5-13 shows the field requirements for an issuer-generated fee collection or funds disbursement.

Table 5-13 Issuer-Generated Fee Collection or Funds Disbursement (Visa only)

Field Number and Name		0422		0432	
		Issr	VIC	Acqr	VIC
—	Second Bit Map	C	→	C	→
2	Primary Acct Nbr	C	→	C	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
11	Sys Trace Audit Nbr	M	→	M	→
15	Date, Settlement		M+	M	→
16	Date, Conv		C+		C+
19	Acqng Inst Cntry Code	M	→	M	→
21	Fwdng Inst Cntry Code	C	→	C	→
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	M	→	M	→
37	Retrieval Ref Nbr	M	→	M	→
39	Resp Code			M	→
44.11	Orig Resp Code				C+
48	Addtnl Data—Private; Usage 5 (Visa only)	M	→		
49	Currncy Code, Trans	M	→		
50	Currncy Code, Settlmt		C+		
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
115	Additnl Trace Data 1	O	C-		C+

5.7 FILE MAINTENANCE

File Maintenance message formats consist of 0302 messages and their 0312 responses for format 2 file updates and inquiries, and 0322 messages and their 0332 responses for auto-CDB file advices.

5.7.1 0302/0322 File Maintenance

File-related messages are used by issuers to update or review the cardholder records in the Exception and PIN Verification files.

The following tables show the types of fee maintenance messages:

- Table 5-14: Format 2 File Update
- Table 5-15: Format 2 File Inquiry
- Table 5-16: Auto-CDB File Advice

Table 5-14 Format 2 File Update

Field Number and Name		0302	0312
		Issr	VIC
—	Second Bit Map	M	M
2	Primary Acct Nbr	C	C
7	Transmsn Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
15	Date, Settlement		M+
19	Acqng Inst Cntry Code	O	O
20	PAN Extnd, Cntry Code	C	C
37	Retrieval Ref Nbr	M	M
39	Resp Code		M
48	Addtnl Data—Private; Usage 1b		C
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
73	Date, Action	C	C
91	File Update Code	M	M
92	File Sec Code	O	C
101	File Name	M	M
102	Acct ID1	O	C
115	Addtnl Trace Data 1	O	C
127	File Maintenance	C	C
127C.1	PIN Verification Data	C	C
127E.1	Exception File Action Code	C	C
127E.2	CRB Region Code	C	C
127E.3	Cardhldr Spndng Amt Limit	C	C
127E.4	Cardhldr Spndng Cnt Limit	C	C

Table 5-15 Format 2 File Inquiry

Field Number and Name		0302	0312
		Issr	VIC
—	Second Bit Map	M	M
2	Primary Acct Nbr	C	C
7	Transmsn Date/Time	M	M
15	Date, Settlement		M+
11	Sys Trace Audit Nbr	M	M
19	Acqng Inst Cntry Code	O	O
20	PAN Extnd, Cntry Code	C	C
37	Retrieval Ref Nbr	M	M
39	Resp Code		M
48	Addtnl Data—Private; Usage 1b for Visa and Plus		C
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
73	Date, Action		C
91	File Update Code	M	M
92	File Sec Code	O	C
101	File Name	M	M
102	Acct ID1	O	C
115	Addtnl Trace Data 1	O	C
127	File Maintenance		C
127C.1	PIN Verification Data		C
127E.1	Exception File Action Code		C
127E.2	CRB Region Code		M
127E.3	Cardhldr Spndng Amt Limit		C
127E.4	Cardhldr Spndng Cnt Limit		C

Table 5-16 Auto-CDB File Advice

Field Number and Name		0322	0332
		VIC	Issr
—	Second Bit Map	M	M
2	Primary Acct Nbr	M	C
7	Transmsn Date/Time	M	M

Reconciliation (0500/0520)

Table 5-16 Auto-CDB File Advice (continued)

Field Number and Name		0322	0332
		VIC	Issr
11	Sys Trace Audit Nbr	M	M
15	Date, Settlement	M	M
20	PAN Extnd, Cntry Code	C	C
32	Acqng Inst ID	M	M
37	Retrieval Ref Nbr	M	M
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
63.4	STIP/Switch Rsn Code	M	
73	Date, Action	M	
91	File Update Code	M	
101	File Name	M	
127	File Maintenance	M	
127E.1	Exception File Action Code	M	
127E.2	CRB Region Code	M	

5.8 RECONCILIATION (0500/0520)

Reconciliation messages convey reconciliation data from the system to an acquirer or issuer at settlement cutoff or in response to an online request for the previous day's cumulative totals.

Table 5-17 contains the field requirements for reconciliation data sent in response to a user's 0800 request:

- 0500 Reconciliation Totals (VIC to acquirer or issuer)
- 0510 Reconciliation Totals Response

Table 5-17 Response to 0800 Reconciliation Data Request

Field Number and Name		0500	0510
		VIC	Acqr/Issr
—	Second Bit Map	M	M
7	Transmsn Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
15	Date, Settlmt	M	M
50	Crrcy Code, Settlmt	C	C
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
63.13	Decimal Pos Indctr	C	

Reconciliation (0500/0520)

Table 5-17 Response to 0800 Reconciliation Data Request (continued)

Field Number and Name		0500	0510
		VIC	Acqr/Issr
66	SettLmt Code		M
69	SettLmt Inst Cntry Code	C	C
70	Netwk Mgmt Info Code	M	M
74	Credits, Nbr	M	C
75	Credits, Reversal Nbr	M	C
76	Debits Nbr	M	C
77	Debits, Reversal Nbr	M	C
86	Credits, Amt	M	C
87	Credits, Reversal Amt	M	C
88	Debits, Amt	M	C
89	Debits, Reversal Amt	M	C
97	Amt, Net SettLmt	M	C
99	SettLmt Inst ID Code	M	M

Table 5-18 shows the advices sent automatically at cutoffs:

- 0520 Reconciliation Totals Advice (VIC to acquirer or issuer)
- 0530 Reconciliation Totals Advice Response

Table 5-18 Automatic Reconciliation Advice

Field Number and Name		0520	0530
		VIC	Acqr/Issr
—	Second Bit Map	M	M
7	Transmsn Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
15	Date, SettLmt	M	M
50	Currncy Code, SettLmt	C	C
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
63.13	Decimal Pos Indctr	C	
66	SettLmt Code		M
69	SettLmt Inst Cntry Code	C	C
70	Netwk Mgmt Info Code	M	M
74	Credits, Nbr	M	C

Table 5-18 Automatic Reconciliation Advice (continued)

Field Number and Name		0520	0530
		VIC	Acqr/Issr
75	Credits, Reversal Nbr	M	C
76	Debits Nbr	M	C
77	Debits, Reversal Nbr	M	C
86	Credits, Amt	M	C
87	Credits, Reversal Amt	M	C
88	Debits, Amt	M	C
89	Debits, Reversal Amt	M	C
97	Amount, Net Settlmt	M	C
99	Settlmt Inst ID Code	M	M

5.9 ADMINISTRATIVE

The following messages are used for administrative purposes:

0600/0620 Text Messages

0620 VIFD Alerts

0620 Funds Transfer Total

5.9.1 0600/0620 Text Messages

A text message is an administrative message used to convey information from a sender to a receiver. Acquirers and issuers can communicate with each other and get general information from each other by sending text messages. The originating center submits an 0600 request to the destination center and receives an 0610 response from the destination center. This response contains no text reply. If the text from the originating center's 0600 request requires a text reply, the destination center must initiate an 0600 text message with the reply.

Text messages do not impact settlement totals.

The following tables show the types of text messages:

- Table 5-19 Visa Administrative Free Text Message
- Table 5-20 Plus Administrative Free Text Message
- Table 5-21 Card Capture (Plus only)
- Table 5-22 Administrative Advice Response Message for Enhanced VIFD Alerts

Table 5-19 Visa Administrative Free Text Message

Field Number and Name		Visa					
		0600		0610		0620	0630
		Sndr	VIC	Rcvr	VIC	VIC	Rcvr
—	Second Bit Map	M	→	M	→	M	M
7	Transmsn Date/Time	M	→	M	→	M	M
11	Sys Trace Audit Nbr	M	→	M	→	M	M
15	Date, Settlmt		M+	M	→	M	M
21	Fwdng Inst Cntry Code	C	→			C	
33	Fwdng Inst ID Code	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
39	Resp Code			M	→		M
43	Card Accptr Name/Loc	O				C	
48	Addtnl Data—Private; Usage 9a	M	→			M	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code					M	
68	Rcvg Inst Cntry Code	C	→	C	→	C	C
70	Netwk Mgmt Info Code	M	→	M	M	M	M
100	Rcvg Inst ID Code	M	→	M	→	M	M
115	Addtnl Trace Data	O	—		C+		

Table 5-20 Plus Administrative Free Text Message

Field Number and Name		Plus					
		0600/0620		0610/0630		0620	0630
		Sndr	VIC	Rcvr	VIC	VIC	Rcvr
—	Second Bit Map	M	→	M	→	M	M
7	Transmsn Date/Time	M	→	M	→	M	M
11	Sys Trace Audit Nbr	M	→	M	→	M	M
15	Date, Settlmt		M+	M	→	M	M
21	Fwdng Inst Cntry Code	C	→			C	
33	Fwdng Inst ID Code	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
39	Resp Code			M	→		M
43	Card Accptr Name/Loc	O				C	

Table 5-20 Plus Administrative Free Text Message (continued)

Field Number and Name		Plus					
		0600/0620		0610/0630		0620	0630
		Sndr	VIC	Rcvr	VIC	VIC	Rcvr
48	Addtnl Data—Private; Usage 9a	M	→			M	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	M	→			C	
68	Rcvg Inst Cntry Code	C	→	C	→	C	C
70	Netwk Mgmt Info Code	M	→	M	M	M	M
100	Rcvg Inst ID Code	M	→	M	→	M	M
115	Addtnl Trace Data	O	–		C+		

Table 5-21 Card Capture (Plus only)

Field Number and Name		0620	0630
		Initiator ¹	Recipient ¹
—	Second Bit Map	M	M
7	Transmsn Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
15	Date, Settlmt	M	M
21	Fwdng Inst Cntry Code	C	
33	Fwdng Inst ID Code	M	
37	Retrieval Ref Nbr	M	M
39	Resp Code		M
41 ²	Card Accptr Termnl ID	M	
42 ²	Card Accptr ID Code	M	
43 ²	Card Accptr Name/Loc	M	
48	Addtnl Data—Private; Usage 13	M	
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
63.4	STIP/Switch Rsn Code	M	
63.5	Plus PMC ID	M	
68	Rcvg Inst Cntry Code	C	C
70	Netwk Mgmt Info Code	M	M

Table 5-21 Card Capture (Plus only) (continued)

Field Number and Name		0620	0630
		Initiator ¹	Recipient ¹
100	Rcvg Inst ID Code	M	M
115	Addtnl Trace Data	O	C

¹There are three card capture message flows:

- **Card Capture Notification:** The acquirer is connected to the Plus Switch, and the issuer is connected to VisaNet. In this case, the 0620 message initiator is VisaNet, and the recipient is the issuer.
- **Default Card Capture Notification:** The acquirer is connected to VisaNet, and the issuer is connected to the Plus Switch. In this case, the 0620 message initiator is VisaNet, and the recipient is the acquirer.
- **Actual Card Capture Notification:** The acquirer is connected to VisaNet, and the issuer is connected to the Plus Switch. In this case, the 0620 message initiator is the acquirer, and the recipient is the issuer. Note that VisaNet forwards the actual card capture status to the Plus Switch, which delivers it later to its issuer.

²Table 5-21 illustrates the actual Card Capture Notification message flow where the acquirer generates the 0620 message. For the Card Capture Notification and the Default Card Capture Notification message flows where VisaNet generates the 0620 message, fields 41 and 42 are blank.

5.9.2 (0620) VIFD Alerts

This section details the fields used in Visa Issuer Fraud Detection (VIFD) alert messages.

The VIFD alert delivers the transaction in a V.I.P. 0620 administrative advice message. VIFD alerts reference transactions that were processed a few hours earlier.

Table 5-22 contains the field requirements for the VIFD 0620 Administrative Advice Message (VIC to issuer).

Table 5-22 Administrative Advice Response Message for Enhanced VIFD Alerts

Field Number and Name		0620	0630
		VIC	Issr
—	Second Bit Map	M	M
7	Transmsn Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
15	Date, Settlmt	M	M
21	Fwdg Inst Cntry Code	C	C
33	Fwdng Inst ID Code	M	
37	Retrieval Ref Nbr	M	M
48	Addtnl Data—Private	M	

Table 5-22 Administrative Advice Response Message for Enhanced VIFD Alerts (continued)

Field Number and Name			
		0620	0630
		VIC	Issr
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID Code	M	M
63.4	STIP/Switch Rsn Code	M	
68	Rcvg Inst Cntry Code	C	C
70	Netwk Mgmt Info Code	M	M
100	Rcvg Inst ID Code	M	M
125	Supporting Info	M	

5.9.3 0620 Funds Transfer Total

Funds transfer total messages are administrative messages that convey funds transfer totals to centers. These messages are sent by VisaNet to issuer and acquirer centers at the end of each processing day, and reflect the final settlement totals for that processing day.

These messages do not impact settlement totals.

VSS participants must meet the field requirements shown in Table 5-23.

Table 5-23 Visa Funds Transfer Totals (VSS)

Field Number and Name		Visa		Plus	
		0620	0630	0620	0630
—	Second Bit Map	M	M	M	M
7	Transmsn Date/Time	M	M	M	M
11	Sys Trace Audit Nbr	M	M	M	M
15	Date, Settlmt	M	M	M	M
37	Retrieval Ref Nbr	M	M	M	M
39	Resp Code		M		M
48	Addtnl Data—Private; Usage 6	M		M	
50	Crrcy Code, Settlemt	M	M	M	M
63.0	Bit Map (Field 63)	M	M	M	M
63.1	Netwk ID	M	M	M	M
69	Settlemt Inst Cntry Code	M	M	M	M
70	Netwk Mgmt Info Code	M	M	M	M
99	Settlemt Inst ID Code	M	M	M	M

5.10 NETWORK MANAGEMENT MESSAGE**5.10.1 0800 Network Management**

Network management messages are messages that (1) establish and change the network status of a station, (2) request gross interchange totals from the Switch, (3) conduct an echo test, and (4) start and stop recovery of advices.

Table 5-24 shows the 0800 Network Management Request (user to VIC or VIC to user) and its 0810 response.

Table 5-25 shows the Dynamic Key Exchange Request and Response.

Table 5-24 Network Management Messages

Field Number and Name		0800	0810
		Sndr	Rcvr
—	Second Bit Map	M	M
7	Trans Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
37	Retrieval Ref Nbr	C	C
39	Resp Code		C
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M
69	Settlmt Inst Cntry Code	C	C
70	Netwk Mgmt Info Code	M	M
99	Settlmt Inst ID Code	C	C

Table 5-25 Dynamic Key Exchange

Field Number and Name		0800	0810
		Sndr	Rcvr
—	Second Bit Map	M	M
7	Trans Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
21	Fwdng Inst Cntry Code	C	C
33	Fwdng Inst ID Code	M	M
39	Resp Code		M
48	Addtnl Data—Private	C	
53	Sec Related Cntrl Info	M	
63.0	Bit Map (Field 63)	M	M
63.1	Netwk ID	M	M

Table 5-25 Dynamic Key Exchange (continued)

Field Number and Name		0800	0810
		Sndr	Rcvr
70	Netwk Mgmt Info Code	M	M
96	Msg Sec Code	C	
105	Dbl-Lngth DES Key (Trple DES)	C	

5.11 CHIP-BASED TRANSACTIONS

This section, which identifies the fields used in chip-based debit or credit transactions, includes the following tables:

- Table 5-26 Chip-Based Cash Disbursement
- Table 5-27 Chip-Based Balance Inquiry
- Table 5-28 Chip-Based Account Transfer (Domestic only)
- Table 5-29 Chip-Based Account Transfer Reversal (Domestic only)
- Table 5-30 Chip-Based Financial Reversal
- Table 5-31 Chip-Based Cash Disbursement Adjustment: Misdispense
- Table 5-32 Chip-Based Back Office Adjustment
- Table 5-33 Chip-Based Chargeback
- Table 5-34 Chip-Based Chargeback Reversals
- Table 5-35 Chip-Based Representment
- Table 5-36 Chip-Based Authentication Failure and/or Script Update Results

Table 5-26 Chip-Based Cash Disbursement

Field Name and Number		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Second Bit Map	M	→	M	→	M	M
—	Third Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→	M	→	M	
5	Amt, Sttlmt		C+		C+	C	
6	Amt, Cdhldr Billing		C+		C+	C	
7	Transmsn Date/Time	M	→	M	→	M	M
9	Conv Rate, Settlt		C+		C+	C	
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	

Chip-Based Transactions

Table 5-26 Chip-Based Cash Disbursement (continued)

Field Name and Number		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
14	Date, Expr	C	→			C	
15	Date, Sttlmt		M+	M	→	M	M
16	Date, Conv		C+		C+	C	
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Capture Code	C	→			C	
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp			C	→	C	
39	Resp Code		C+	M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				C+	C	
44.5	CVV/iCVV Results Code		C+	O	C+	C	
44.8	Card Auth Results Code		C+	C	C+	C	
44.11	Orig Resp Code				C+		
48	Addtnl Data—Private; Usage 10			C	C-	C	C
49	Currecy Code, Trans	M	→	M	→	M	
50	Currecy Code, Sttlmt		C+		C+	C	
51	Currecy Code, Cdhldr Billing		C+			C	
52	PIN Data	M	→			M	
53	Sec Related Cntrl Info	M	→			M	

Message Formats

Table 5-26 Chip-Based Cash Disbursement (continued)

Field Name and Number		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
54	Addtnl Amounts			0	→	C	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	O	→			C	
60.2	Term Entry Cap (Pos. 2)	M	→			M	
60.6	Chip Trans Indctr (Pos. 7)	C	→			C	
60.7	Chip Auth Rel Indctr (Pos. 8)	C	→			C	
60.9	Cardholder ID		C+			C	
62.0	CPS Fields Bit Map	C	→	C	→	C	C
62.1	Auth Char Indctr	O	C	O	C+	C	O
62.2	Trans Idfr		M+	O	C+	C	O
62.21	Risk Score		C+		C-	C	
62.22	Condition Codes		C+		C-	C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.3	Msg Rsn Code					C	
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	C	→			C	
63.13	Decimal Postns Indctr	C	C+		C+	C	
63.14	Issr Crrcy Conv Data		C+			C	
63.15	Settlmt Amt, Acqr Crrcy Conv Fee Alloc				C+	C	
68	Rcvg Inst Cntry Code	C	→			C	
102	Acct ID 1			O	→		
115	Addtnl Trace Data 1	O	C-		C+		
119	Settlmt Svc Data (International only)	O	C-			C	
126.0	Bit Map (Field 126)	C	C-			C	
126.12	Svc Indctrs	C	C-			C	
130	Term Capblty Profile	C	→			C	
131	Term Verif Results	C	→			C	
132	Unpredict Nbr	C	→			C	

Chip-Based Transactions

Table 5-26 Chip-Based Cash Disbursement (continued)

Field Name and Number		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
133	Term Serial Nbr	O	→			O	
134.1	Deriv Key Index	C	→			C	
134.2	Crypto Version Nbr	C	→			C	
134.3	Card Verif Results	C	→			C	
135	Issuer Discret Data	C	→			C	
136	Cryptogram	C	→			C	
137	App Trans Counter	C	→	C	→	C	C
138	App Intchg Profile	C	→			C	
139	ARPC Resp Code			C	→	C	
142	Issuer Script			O	→	C	
144	Crypto Trans Type	C	→			C	
145	Term Cntry Code	C	→			C	
146	Term Trans Date	C	→			C	
147	Crypto Amt	C	→			C	
148	Crypto Crrcy Code	C	→			C	

Table 5-27 Chip-Based Balance Inquiry

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Second Bit Map	M	→	M	→	M	M
—	Third Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
7	Transmsn Date/Time	M	→	M	→	M	M
11	Systems Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	O	→			C	
15	Date, Settlmt		M+	M	→	M	M
18	Mchnt Type	M	→			M	

Table 5-27 Chip-Based Balance Inquiry (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Capture Code	C	→			C	
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
39	Resp Code		C+	M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				C+	C	
44.5	CVV/iCVV Results Code		C+	O	C+	C	
44.8	Card Auth Results Code		C+	C	C+	C	
48	Addtnl Data—Private; Usage 10			C	C-	C	C
49	Currncy Code, Trans	C	→	O	C+	C	
52	PIN Data	M	→			M	
53	Sec Related Cntrl Info	M	→			M	
54	Addtnl Amts			C	→		
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	O	→			C	
60.2	Term Entry Cap (Pos. 2)	M	→			M	
60.6	Chip Trans Indctr (Pos.7)	C	→			C	
60.7	Chip Auth Rel Indctr (Pos. 8)	C	→			C	
60.9	Cardholder ID		C+			C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M

Table 5-27 Chip-Based Balance Inquiry (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	C	→			C	
63.13	Decimal Pos Indctr			C	C+		
102	Acct ID 1			O	→		
115	Addtnl Trace Data 1	O	C-		C+		
130	Term Capblty Profile	C	→			C	
131	Term Verif Results	C	→			C	
132	Unpredict Nbr	C	→			C	
133	Term Serial Nbr	O	→			O	
134	Visa Discret Data	M	→			M	
134.1	Deriv Key Index	C	→			C	
134.2	Crypto Version Nbr	C	→			C	
134.3	Card Verif Results	C	→			C	
135	Issuer Discret Data	C	→			C	
136	Cryptogram	C	→			C	
137	App Trans Counter	C	→	C	→	C	C
138	App Intchg Profile	C	→			C	
139	ARPC Resp Code			C	→	C	
142	Issuer Script			O	→	C	
144	Crypto Trans Type	C	→			C	
145	Term Cntry Code	C	→			C	
146	Term Trans Date	C	→			C	
147	Crypto Amt	C	→			C	
148	Crypto Crrcy Code	C	→			C	

Table 5-28 Chip-Based Account Transfer (Domestic only)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Second Bit Map	C	→	C	→	C	C
—	Third Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→	M	→	M	
6	Amt, Cdhldr Billing		C+			C	
7	Transmsn Date/Time	M	→	M	→	M	M
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	C	→			C	
15	Date, Settlmt		M+	M	→	M	M
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Capture Code	C	→			C	
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	M	→			M	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp			O	→	C	
39	Response Code		C+	M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M

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Table 5-28 Chip-Based Account Transfer (Domestic only) (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
43	Card Accptr Name/Loc	M	→			M	
44.5	CVV/iCVV Results Code		C+	O	C+	C	
44.8	Card Auth Results Code		C+	C	C+	C	
48	Addtnl Data—Private; Usage 10			C	C-	C	C
49	Currncy Code, Trans	M	→	M	→	M	
51	Currncy Code, Cdhldr Billing		C+			C	
52	PIN Data	M	→			M	
53	Sec Related Cntrl Info	M	→			M	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	O	→			C	
60.2	Term Entry Cap (Pos. 2)	M	→			M	
60.6	Chip Trans Indctr (Pos. 7)	C	→			C	
60.7	Chip Auth Rel Indctr (Pos. 8)	C	→			C	
60.9	Cardholder ID		C+			C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code					M	
63.5	Plus PMC ID	C	→			C	
102	Acct ID 1			O	→		
103	Acct ID 2			O	→		O
115	Addtnl Trace Data 1	O	C-		C+		
126.0	Bit Map (Field 126)	C	C-			C	
126.12	Svc Indctrs	C	C-			C	
130	Term Capblty Profile	C	→			C	
131	Term Verif Results	C	→			C	
132	Unpredict Nbr	C	→			C	
133	Term Serial Nbr	O	→			O	
134.1	Deriv Key Index	C	→			C	
134.2	Crypto Version Nbr	C	→			C	
134.3	Card Verif Results	C	→			C	
135	Issuer Discret Data	C	→			C	

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Table 5-28 Chip-Based Account Transfer (Domestic only) (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
136	Cryptogram	C	→			C	
137	App Trans Counter	C	→	C	→	C	C
138	App Intchg Profile	C	→			C	
139	ARPC Resp Code			C	→	C	
142	Issuer Script			O	→	C	
144	Crypto Trans Type	C	→			C	
145	Term Cntry Code	C	→			C	
146	Term Trans Date	C	→			C	
147	Crypto Amt	C	→			C	
148	Crypto Currecy Code	C	→			C	

Table 5-29 Chip-Based Account Transfer Reversal (Domestic only)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
—	Second Bit Map	M	→	M	→	M	M
—	Third Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr (PAN)	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→	M	→	M	M
6	Amt, Cdhldr Billing		C+			C	
7	Transmsn Date/Time	M	→	M	→	M	M
9	Conv Rate, Settlmt		C+		C+	C	
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	C	→			C	
15	Date, Settlmt		M+	M	→	M	M
18	Mchnt Type	M	→			M	

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Table 5-29 Chip-Based Account Transfer Reversal (Domestic only) (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp	C	→			C	
39	Resp Code			M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				M+	M	
48	Addtnl Data—Private; Usage 10	C	→	C	→	C	C
49	Currency Code, Trans	M	→			M	
51	Currency Code, Cdhdr Billing		C+			C	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	C	→			C	
60.2	Term Entry Cap (Pos. 2)	C	→			C	
60.9	Cardholder ID		C+			C	
63.0	Bit Map (Field 63)	M	→	M	→	M	M
63.1	Netwk ID	M	→	M	→	M	M
63.4	STIP/Switch Rsn Code		C+			M	
63.5	Plus PMC ID	C	→			C	
102	Acct ID 1			0	→		
103	Acct ID 2			0	→		
115	Addtnl Trace Data 1	0	C-		C+		

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Table 5-29 Chip-Based Account Transfer Reversal (Domestic only) (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
126.0	Bit Map (Field 126)	C	C-				
126.12	Svc Indctrs	C	C-				
131	Term Verif Results	C	→			C	
133	Term Serial Nbr	C	→			C	
134.1	Deriv Key Index	C	→			C	
134.2	Crypto Version Nbr	C	→			C	
134.3	Card Verif Results	C	→			C	
137	App Trans Counter	C	→	C	→	C	C
143	Issuer Script Results	C	→			C	

Table 5-30 Chip-Based Financial Reversal

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
—	Second Bit Map	M	→	M	→	M	M
—	Third Bit Map	C	→	C	→	C	C
2	Primary Acct Nbr (PAN)	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
4	Amt, Trans	M	→			M	
5	Amt, Settlmt		C+		C+	C	
6	Amt, Cdhldr Billing		C+			C	
7	Transmsn Date/Time	M	→	M	→	M	M
9	Conv Rate, Settlmt		C+		C+	C	
10	Conv Rate, Cdhldr Billing		C+			C	
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	C	→			C	
15	Date, Settlmt		M+	M	→	M	M

Chip-Based Transactions

Table 5-30 Chip-Based Financial Reversal (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
16	Date, Conv		C+		C+	C	
18	Mchnt Type	M	→			M	
19	Acqng Inst Cntry Code	M	→	M	→	M	M
20	PAN Extnd, Cntry Code				M+		
21	Fwdng Inst Cntry Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
28	Amt, Trans Fee	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp	C	→			C	
39	Resp Code			M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→			M	
44.1	Resp Source/Rsn Code				M+	M	
48	Addtnl Data—Private; Usage 10	C	→	C	→	C	C
49	Crrcy Code, Trans	M	→			M	
50	Crrcy Code, Settlmt		C+		C+	C	
51	Crrcy Code, Cdhdr Billing		C+			C	
59	Natl POS Geo Data	C	→			C	
60.1	Terminal Type	C	→			C	
60.2	Term Entry Cap	C	→			C	
60.9	Cardholder ID				C+		
62.0	CPS Fields Bit Map	C	→	C	C+	C	C
62.1	Auth Char Indctr	C	→	O	C+	C	O
62.2	Trans Idfr	C	→	O	C+	C	O
63.0	Bit Map (Field 63)	M	→	M	→	M	M

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Table 5-30 Chip-Based Financial Reversal (continued)

Field Number and Name		Acquirer Advice				Acquirer Switch Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Acqr
63.1	Netwk ID	M	→	M	→	M	M
63.3	Msg Rsn Code	O	→			O	
63.4	STIP/Switch Rsn Code		C+			M	
63.5	Plus PMC ID	C	→			C	
63.7	Netwk Particip Flags	C	–				
63.13	Decimal Pos Indctr	C	C+		C+	C	
63.14	Issr Crrcy Conv Data		C+			C	
63.15	Settlmt Amt, Acqr Crrcy Conv Fee Alloc				C+	C	
90	Orig Data Elemts	M	→	M	→	M	M
102	Acct ID 1			O	→		
115	Addtnl Trace Data 1	O	C-		C+		
119	Settlmt Svc Data (International only)	C	C-			C	
126.0	Bit Map (Field 126)	C	C-				
126.12	Svc Indctrs	C	C-				
131	Term Verif Results	C	→			C	
133	Term Serial Nbr	C	→			C	
134.1	Deriv Key Index	C	→			C	
134.2	Crypto Version Nbr	C	→			C	
134.3	Card Verif Results	C	→			C	
137	App Trans Counter	C	→	C	→	C	C
143	Issuer Script Results	C	→			C	

Table 5-31 Chip-Based Cash Disbursement Adjustment: Misdispense

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	M	→	M	→
—	Third Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		
11	Sys Trace Audit Nbr	M	→	M	→
12	Time, Local Trans	M	→		
13	Date, Local Trans	M	→		
14	Date, Expr	C	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extn, Cntry Code				M+
21	Fwdng Inst Cntry Code	C	→		
22	POS Entry Mode Code	M	→		
23	Card Seq. Nbr	C	→	C	
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	C+	M	→
33	Fwdng Inst ID Code	C	→		
37	Retrieval Ref Nbr	M	→	M	→
39	Resp Code		C+	M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→

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Table 5-31 Chip-Based Cash Disbursement Adjustment: Misdispense (continued)

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
43	Card Acceptor Name/Loc	M	→		
48	Addtl Data—Private; Usage 10	C	→	C	→
49	Currency Code, Trans	M	→		
50	Currency Code, Settlmt		C+		C+
51	Currency Code, Cdhldr Billing		C+		
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimals Postns Indctr	C	C+		C+
63.14	Issr Currency Conv Data		C+		
63.15	Settlmt Amt, Acqr Currency Conv Fee Alloc				C+
90	Orig Data Elemts	C	→	C	→
102	Acct ID 1			O	→
115	Addtl Trace Data 1	O	C-		C+
119	Settlmt Svc Data	C	C-		
126.0	Bit Map (Field 126)	C	C-		
126.12	Svc Indctr	C	C-		
133	Term Serial Nbr	C	→	C	→
137	App Trans Counter	C	→	C	→

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Table 5-32 Chip-Based Back Office Adjustment

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	M	→	M	→
—	Third Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		
11	Sys Trace Audit Nbr	M	→	M	→
12	Time, Local Trans	M	→		
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code				M+
21	Fwdng Inst Cntry Code	C	→		
22	POS Entry Mode Code	M	→		
23	Card Seq. Nbr	C	→	C	
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	C	→		
37	Retrieval Ref Nbr	M	→	M	→
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		

Chip-Based Transactions

Table 5-32 Chip-Based Back Office Adjustment (continued)

Field Number and Name		Acquirer Advice			
		0220		0230	
		Acqr	VIC	Issr	VIC
48	Addtnl Data—Private; Usage 10	C	→	C	→
49	Currency Code, Trans	M	→		
50	Currency Code, Settlmt		C+		
51	Currency Code, Cdhdr Billing		C+		
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimals Postns Indctr	C	C+		C+
63.14	Issr Currency Conv Data		C+		
63.15	Settlmt Amt, Acqr Currency Conv Fee Alloc				C+
90	Orig Data Elemts	O	→	O	→
102	Acct ID 1			O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data (International only)	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		
133	Term Serial Nbr	O	→	O	→
137	App Trans Counter	C	→	C	→

Table 5-33 Chip-Based Chargeback

Field Number and Name		Original			
		0422		0432	
		Issr	VIC	Acqr	VIC
—	Second Bit Map	M	→	M	→
—	Third Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
11	Sys Trace Audit Nbr	M	→	M	→
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code	C	M+		
21	Fwdng Inst Cntry Code	C	→		
23	Card Seq. Nbr	O	→	O	→
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	O	→		
37	Retrieval Ref Nbr	M	→	M	→
38	Auth ID Resp	C	→		
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		
44.11	Orig Resp Code				C+

Message Formats

Table 5-33 Chip-Based Chargeback (continued)

Field Number and Name		Original			
		0422		0432	
		Issr	VIC	Acqr	VIC
48	Addtnl Data—Private; Usage 7a (Visa)	M	→		
48	Addtnl Data—Private; Usage 10	C	→	C	→
49	Currncy Code, Trans	M	→		
50	Currncy Code, Settlmt		C+		C+
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C+
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+		C+
90	Orig Data Elemnts	O	→	O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		
130	Term Capblty Profile	C	→		
131	Term Verif Results	C	→		
132	Unpredict Nbr	C	→		
133	Term Serial Nbr	O	C-		
134	Visa Discret Data	O	C-		
134.1	Deriv Key Index	O	C-		
134.2	Crypto Version Nbr	O	C-		
134.3	Card Verif Results	O	C-		
136	Cryptogram	C	→		

Chip-Based Transactions

Table 5-33 Chip-Based Chargeback (continued)

Field Number and Name		Original			
		0422		0432	
		Issr	VIC	Acqr	VIC
137	App Trans Counter	C	C-		
138	App Intchg Profile	C	→		
144	Crypto Trans Type	C	→		
145	Term Cntry Code	C	→		
146	Term Trans Date	C	→		
147	Crypto Amt	C	→		
148	Crypto Crrcy Code	C	→		

Table 5-34 Chip-Based Chargeback Reversal

Field Number and Name		Original			
		0422		0432	
		Issr	VIC	Acqr	VIC
—	Second Bit Map	M	→	M	→
—	Third Bit Map	C	→	C	→
2	Primary Acct Nbr	M	→	M	→
3	Processng Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
11	Sys Trace Audit Nbr	M	→	M	→
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code	C	M+		
21	Fwdng Inst Cntry Code	C	→		
23	Card Seq. Nbr	O	→	O	→
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		

Message Formats

Chip-Based Transactions

Table 5-34 Chip-Based Chargeback Reversal (continued)

Field Number and Name		Original			
		0422		0432	
		Issr	VIC	Acqr	VIC
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	O	→		
37	Retrieval Ref Nbr	M	→	M	→
38	Auth ID Resp	C	→		
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		
48	Addtnl Data—Private; Usage 7a (Visa)	M	→		
48	Addtnl Data—Private; Usage 10	C	→	C	→
49	Currncy Code, Trans	M	→		
50	Currncy Code, Settlmt		C+		C+
59	Natl POS Geo Data	C	→		
60.1	Terminal Type	C	→		
60.2	Term Entry Cap	C	→		
62.0	CPS Fields Bit Map	C	→	C	C+
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Pos Indctr	C	C+		C+
90	Orig Data Elemts	O	→	O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		

Chip-Based Transactions

Table 5-34 Chip-Based Chargeback Reversal (continued)

Field Number and Name		Original			
		0422		0432	
		Issr	VIC	Acqr	VIC
130	Term Capblty Profile	C	→		
131	Term Verif Results	C	→		
132	Unpredict Nbr	C	→		
133	Term Serial Nbr	O	C-		
134	Visa Discret Data	O	C-		
134.1	Deriv Key Index	O	C-		
134.2	Crypto Version Nbr	O	C-		
134.3	Card Verif Results	O	C-		
136	Cryptogram	C	→		
137	App Trans Counter	C	C-		
138	App Intchg Profile	C	→		
144	Crypto Trans Type	C	→		
145	Term Cntry Code	C	→		
146	Term Trans Date	C	→		
147	Crypto Amt	C	→		
148	Crypto Crrcy Code	O	→		

Message Formats

Table 5-35 Chip-Based Representment

Field Number and Name		Original			
		0220		0230	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	C	→	C	→
—	Third Bit Map	C	→	C	→
2	Primary Acct Nbr (PAN)	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
5	Amt, Settlmt		C+		C+
6	Amt, Cdhldr Billing		C+		
7	Transmsn Date/Time	M	→	M	→
9	Conv Rate, Settlmt		C+		C+
10	Conv Rate, Cdhldr Billing		C+		

Table 5-35 Chip-Based Representment (continued)

Field Number and Name		Original			
		0220		0230	
		Acqr	VIC	Issr	VIC
11	Sys Trace Audit Nbr	M	→	M	→
13	Date, Local Trans	M	→		
15	Date, Settlmt		M+	M	→
16	Date, Conv		C+		C+
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
20	PAN Extnd, Cntry Code	C	→	C	M+
21	Fwdng Inst Cntry Code	C	→		
23	Card Seq. Nbr	O	→	O	→
25	POS Cond Code	M	→	M	→
28	Amt, Trans Fee	C	→		
32	Acqng Inst ID Code	M	→	M	→
33	Fwdng Inst ID Code	C	→		
37	Retrieval Ref Nbr	M	→	M	→
39	Resp Code			M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
44	Addtnl Resp Data	C	→		
48	Addtnl Data—Private Usage 7a (Visa only)	M	→		
48	Addtnl Data—Private Usage 10 (Plus)	C	→	C	
49	Currncy Code, Trans	M	→		
50	Currncy Code, Settlmt		C+		C+
51	Currncy Code, Cdhldr Billing		C+		
59	Natl POS Geo Data	C	→		
62.0	CPS Fields Bit Map	C	→	C	C+
62.1	Auth Char Indctr	C	→	O	C+
62.2	Trans Idfr	C	→	O	C+
63.0	Bit Map (Field 63)	M	→	M	→

Chip-Based Transactions

Table 5-35 Chip-Based Representment (continued)

Field Number and Name		Original			
		0220		0230	
		Acqr	VIC	Issr	VIC
63.1	Netwk ID	M	→	M	→
63.3	Msg Rsn Code	M	→		
63.4	STIP/Switch Rsn Code		C+		
63.5	Plus PMC ID	C	→		
63.13	Decimal Postns Indctr	C	C+		C+
63.14	Issr Crrcy Conv Data		C+		
63.15	Settlmt Amt, Acqr Crrcy Conv Fee Alloc				C+
90	Orig Data Elemts	O	→	O	→
102	Acct ID 1			O	→
115	Addtnl Trace Data 1	O	C-		C+
119	Settlmt Svc Data	C	C-		
126.0	Bit Map (Field 126)	C	→		
126.12	Svc Indctrs	C	→		
130	Term Capblty Profile	C	→		
131	Term Verif Results	C	→		
132	Unpredict Nbr	C	→		
133	Term Serial Nbr	O	→	C	→
134	Visa Discret Data	O	C-		
134.1	Deriv Key Index	O	C-		
134.2	Crypto Version Nbr	O	C-		
134.3	Card Verif Results	O	C-		
136	Cryptogram	C	→		
137	App Trans Counter	C	→	C	→
138	App Intchg Profile	C	→		
144	Crypto Trans Type	C	→		
145	Term Cntry Code	C	→		
146	Term Trans Date	C	→		
147	Crypto Amt	C	→		
148	Crypto Crrcy Code	C	→		

Message Formats

Table 5-36 Chip-Based Authentication Failure and/or Script Update Results

Field Number and Name		Information Advice			
		0620		0630	
		Acqr	VIC	Issr	VIC
—	Second Bit Map	M	→	M	→
—	Third Bit Map	M	→	M	→
2	Primary Acct Nbr (PAN)	M	→	M	→
3	Processing Code	M	→	M	→
4	Amt, Trans	M	→		
6	Amt, Cdhldr Billing		M+		
7	Transmission Date/Time	M	→	M	→
10	Conv Rate, Cdhldr Billing		M+		
11	Sys Trace Audit Nbr	M	→	M	→
15	Date, Settlmt		M+	M	→
18	Mchnt Type	M	→		
19	Acqng Inst Cntry Code	M	→	M	→
22	POS Entry Mode Code	M	→		
23	Card Seq. Nbr	C	→	C	→
32	Acqng Inst ID Code	M	→	M	→
37	Retrieval Ref Nbr	M	→	M	→
39	Response Code	M	→	M	→
41	Card Accptr Termnl ID	M	→	M	→
42	Card Accptr ID Code	M	→	M	→
43	Card Accptr Name/Loc	M	→		
49	Currncy Code, Trans	M	→		
51	Currncy Code, Cdhldr Billing		M+		
59	Natl POS Geo Data	O	→		
60.2	Term Entry Cap	M	→		
63.0	Bit Map (Field 63)	M	→	M	→
63.1	Netwk ID Code	M	→	M	→
63.4	STIP/Switch Rsn Code		C+		
70	Netwk Mgmt Info Code	M	→	M	→
130	Term Capblty Profile	O	→		
131	Term Verif Results	M	→		

Chip-Based ATM Fraud Advice

Table 5-36 Chip-Based Authentication Failure and/or Script Update Results (continued)

Field Number and Name		Information Advice			
		0620		0630	
		Acqr	VIC	Issr	VIC
132	Unpredict Nbr	O	→		
133	Term Serial Nbr	O	→		
134	Visa Discret Data	M	→		
134.1	Deriv Key Index	M	→		
134.2	Crypto Version Nbr	M	→		
134.3	Card Verif Results	M	→		
136	Cryptogram	C	→		
137	App Trans Counter	M	→	M	→
138	App Intchg Profile	C	→		
143	Issuer Script Results	C	→		
145	Term Cntry Code	O	→		
146	Term Trans Date	O	→		

Message Formats

5.12 CHIP-BASED ATM FRAUD ADVICE

Table 5-37 Member-Generated Chip-Based ATM Fraud Advice

Field Number and Name		Notification/ Response	
		9620	9630
		Acqr/Issr	VIC
—	Second Bit Map	M	M
—	Third Bit Map	C	C
2	Primary Acct Nbr	M	M
4	Amt, Trans	C	
7	Trans Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
13	Date, Local Trans	C	
14	Date, Expr	C	
15	Date, Settlmt		M
18	Mchnt Type	C	
22	POS Entry Mode Code	C	
23	Card Seq. Nbr	C	C

Chip-Based ATM Fraud Advice

Table 5-37 Member-Generated Chip-Based ATM Fraud Advice (continued)

Field Number and Name		Notification/ Response	
		9620	9630
		Acqr/Issr	VIC
32	Acqng Inst ID Code	C	C
33	Fwdng Inst ID Code	M	M
37	Retrieval Ref Nbr	C	C
38	Auth ID Resp	O	
39	Resp Code		M
41	Card Accptr Termnl ID	C	
42	Card Accptr ID Code	C	
43	Card Accptr Name/Loc	C	
49	Crrcy Code, Trans	C	
59	Natl POS Geo Data	C	
60	Additional POS Information	C	
60.2	Term Entry Cap (Pos. 2)	O	
61.1	Cashback Amt	C	
62.0	Field 62 Bit Map		
62.2	Trans Idfr	C	
62.11	Mult Clrng Seq Nbr	O	
63.0	SMS Private-Use Fields	M	M
63.1	Netwk ID Code	M	M
63.8	Visa Acqr's Bus ID	C	
63.9	Fraud Data	M	
63.11	Reimbursmt Attribute	C	
70	Netwk Mgmt Info Code	M	M
100	Rcvg Inst ID Code	M	
115	Addtnl Trace Data	O	O
125	Supporting Info	C	
133	Term Serial Nbr	O	
137	App Trans Counter	O	O

Chip-Based ATM Fraud Advice

Table 5-38 Visa-Generated Chip-Based ATM Fraud Advice

Field Number and Name		Notification/ Response	
		9620	9630
		Acqr/Issr	VIC
—	Second Bit Map	M	M
—	Third Bit Map	C	C
2	Primary Acct Nbr	M	M
4	Amt, Trans	C	
7	Trans Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
13	Date, Local Trans	C	
14	Date, Expr	C	
15	Date, Settlmt	M	
18	Mchnt Type	C	
22	POS Entry Mode Code	O	
23	Card Seq. Nbr	C	C
32	Acqng Inst ID Code	C	
33	Fwdng Inst ID Code	M	
37	Retrieval Ref Nbr	C	C
38	Auth ID Resp	O	
39	Resp Code		M
41	Card Accptr Termnl ID	C	
42	Card Accptr ID Code	O	
43	Card Accptr Name/Loc	O	
48	Addtnl Data—Private	M	
	Position 1 Application Identifier	M	
	Positions 2-3 Fraud Response Code	M	
	Positions 4-7 Duplicate Sequence Number	C	
	Positions 8-10 Error 1	C	
	Positions 11-13 Error 2	C	
	Positions 14-16 Error 3	C	
	Positions 17-19 Error 4	C	
	Positions 20-22 Error 5	C	
	Positions 23-25 Error 6	C	

Message Formats

Table 5-38 Visa-Generated Chip-Based ATM Fraud Advice (continued)

Field Number and Name		Notification/ Response	
		9620	9630
		Acqr/Issr	VIC
	Positions 26-28 Error 7	C	
	Positions 29-31 Error 8	C	
	Positions 32-34 Error 9	C	
	Positions 35-37 Error 10	C	
	Positions 38-255		
49	CurrCy Code, Trans	C	
59	Natl POS Geo Data	C	
60	Addtl POS Info	C	
60.2	Term Entry Cap (Pos. 2)	O	
61.1	Cashback Amt	C	
62.0	Field 62 Bit Map		
62.2	Trans Idfr	C	
62.11	Mult Clrng Seq Nbr	O	
63.0	SMS Private-Use Fields	M	M
63.1	Netwk ID Code	M	M
63.4	STIP/Switch Reason Code	M	
63.8	Visa Acquirer's Business ID	C	
63.9	Fraud Data	M	
63.11	Reimbursmt Attribute	C	
70	Netwk Mgmt Info Code	M	M
100	Rcvg Inst ID Code	M	
125	Supporting Info	M	
133	Term Serial Nbr	O	
137	App Trans Counter	O	O

5.13 FRAUD REPORTING (9620/9630)

SMS Fraud messages can be generated by members or by Visa. In member-generated messages, an acquirer or issuer sends a 9620 message to SMS to report confirmed fraud transaction messages online. SMS generates a 9630 response to the member and logs the message.

Visa-generated 9620 advices contain information concerning the disposition of member-generated 9620 fraud reports. Members acknowledge Visa-generated 9620s by generating a 9630 response.

Fraud Reporting (9620/9630)

Table 5-39 and Table 5-40 contain field requirements for the following messages:

- 9620 Fraud Message (acquirer or issuer to VIC)
- 9630 Fraud Response (VIC to acquirer or issuer)

The fields in the member-generated and Visa-generated SMS Fraud Advice and Response Message Format are listed in Table 5-39 and Table 5-40.

Table 5-39 Member-Generated SMS Fraud Advice and Response Message Format

Field Number and Name		Notification/Response	
		9620 Advice	9630 Response
		Acqr/Issr	VIC
—	Second Bit Map	M	M
2	Primary Acct Nbr	M	M
4	Amt, Trans	C	
7	Trans Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
13	Date, Local Trans	C	
14	Date, Expr	C	
15	Date, Settlmt		M
18	Mchnt Type	C	
22	POS Entry Mode Code	C	
23	Card Seq. Nbr	C	C
32	Acqng Inst ID Code	C	C
33	Fwdng Inst ID Code	M	M
37	Retrieval Ref Nbr	C	C
38	Auth ID Resp	O	
39	Resp Code		M
41	Card Accptr Termnl ID	C	
42	Card Accptr ID Code	C	
43	Card Accptr Name/Loc	C	
49	Crrcy Code, Trans	C	
59	Natl POS Geo Data	C	
60	Additional POS Information	C	
60.2	Term Entry Cap (Pos. 2)	O	
61.1	Cashback Amt	C	
62.0	Field 62 Bit Map		
62.2	Trans Idfr	C	

Table 5-39 Member-Generated SMS Fraud Advice and Response Message Format (continued)

Field Number and Name		Notification/Response	
		9620 Advice	9630 Response
		Acqr/Issr	VIC
62.11	Mult Clrng Seq Nbr	O	
63.0	SMS Private-Use Fields	M	M
63.1	Netwk ID Code	M	M
63.8	Visa Acqr's Bus ID	C	
63.9	Fraud Data	M	
63.11	Reimbursmt Attribute	C	
70	Netwk Mgmt Info Code	M	M
100	Rcvg Inst ID Code	M	
115	Addtnl Trace Data	O	O
125	Supporting Info	C	

Fraud Reporting (9620/9630)

Table 5-40 Visa-Generated SMS Fraud Advice and Response Message Format

Field Number and Name		Notification/Response	
		9620	9630
		Acqr/Issr	VIC
—	Second Bit Map	M	M
2	Primary Acct Nbr	M	M
4	Amt, Trans	C	
7	Trans Date/Time	M	M
11	Sys Trace Audit Nbr	M	M
13	Date, Local Trans	C	
14	Date, Expr	C	
15	Date, Settlmt	M	
18	Mchnt Type	C	
22	POS Entry Mode Code	O	
23	Card Seq. Nbr	C	C
32	Acqng Inst ID Code	C	
33	Fwdng Inst ID Code	M	
37	Retrieval Ref Nbr	C	C
38	Auth ID Resp	O	
39	Resp Code		M
41	Card Accptr Termnl ID	C	
42	Card Accptr ID Code	O	
43	Card Accptr Name/Loc	O	

Message Formats

Table 5-40 Visa-Generated SMS Fraud Advice and Response Message Format (continued)

Field Number and Name		Notification/Response	
		9620	9630
		Acqr/Issr	VIC
48	Addtnl Data—Private	M	
	Position 1 Application Identifier	M	
	Positions 2-3 Fraud Response Code	M	
	Positions 4-7 Duplicate Sequence Number	C	
	Positions 8-10 Error 1	C	
	Positions 11-13 Error 2	C	
	Positions 14-16 Error 3	C	
	Positions 17-19 Error 4	C	
	Positions 20-22 Error 5	C	
	Positions 23-25 Error 6	C	
	Positions 26-28 Error 7	C	
	Positions 29-31 Error 8	C	
	Positions 32-34 Error 9	C	
	Positions 35-37 Error 10	C	
	Positions 38-255		
49	CurrCy Code, Trans	C	
59	Natl POS Geo Data	C	
60	Addtnl POS Info	C	
60.2	Term Entry Cap (Pos. 2)	O	
61.1	Cashback Amt	C	
62.0	Field 62 Bit Map		
62.2	Trans Idfr	C	
62.11	Mult Clrng Seq Nbr	O	
63.0	SMS Private-Use Fields	M	M
63.1	Netwk ID Code	M	M
63.4	STIP/Switch Reason Code	M	
63.8	Visa Acquirer's Business ID	C	
63.9	Fraud Data	M	
63.11	Reimbursmt Attribute	C	

Table 5-40 Visa-Generated SMS Fraud Advice and Response Message Format (continued)

Field Number and Name		Notification/Response	
		9620	9630
		Acqr/Issr	VIC
70	Netwk Mgmt Info Code	M	M
100	Rcvg Inst ID Code	M	
125	Supporting Info	M	

5.14 PIN CHANGE/UNBLOCK REQUESTS (UK-DOMESTIC ONLY)

This section details the message format to change or unblock a VSDC card PIN at an ATM. PIN Change/Unblock requests are part of the Visa PIN Management Service and are currently valid only in the United Kingdom for VSDC cards used at an ATM. STIP does not process a PIN Change/Unblock request.

Table 5-41 includes the field requirements for:

- 0200 PIN Change/Unblock Request
- 0210 PIN Change/Unblock Request Response

Table 5-41 PIN Change/Unblock Request

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Bitmap, Secondary	M	→	M	→	M	M
—	Third Bit Map	M	→	M	→	M	M
2	Primary Acct Nbr (PAN)	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
7	Transmsn Date/Time	M	→	M	→	M	M
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
14	Date, Expr	O	→			C	
15	Date, Settlement		M+	M		M	M
18	Mchnt Type	M	→				
19	Acqng Inst Cntry Code	M		M		M	M
20	PAN Extn, Cntry Code				M+		
21	Forwarding Institution Country Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Captr Code	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
35	Track 2 Data	C	→			C	
37	Retrieval Ref Nbr	M	→	M	→	M	M
39	Resp Code			M	→	M	M
41	Card Accptr Termnl ID	M	→	M	→	M	M

PIN Change/Unblock Requests (UK-Domestic only)

Table 5-41 PIN Change/Unblock Request (continued)

Field Number and Name		Original				STIP Advice	
		0200		0210		0220	0230
		Acqr	VIC	Issr	VIC	VIC	Issr
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc	M	→	M		M	M
44.1	Resp Source/Rsn Code				C+	C	
49	Currncy Code, Trans	C	→		C+	C	
52	PIN Data	M	→			M	
53	Sec Related Cntrl Info	M	→			M	
55	Field 55 (BER-TLV)	C	→	C		C	C
59	Natl POS Geo Data	C	→			C	
60	Additional POS Information	M	→			C	C
63.0	Bitmap (Field 63)	M	→	M	→	M	M
63.1	Network ID	M	→	M	→	M	M
63.4	STIP/Switch Reason Code					M	
115	Additional Trace Data	O	C-			C+	
130	Term Capblty Profile	O	→			O	
131	Term Verif Results	O	→			O	
132	Unpredict Nbr	O	→			O	
133	Term Serial Nbr	O	→			O	
134	Visa Discret Data	O	→			O	
135	Issuer Discret Data	O	→			O	
136	Cryptogram	O	→			O	
137	App Trans Counter	O	→	O	→	O	O
138	App Intchg Profile	O	→			O	
139	ARPC Resp Crypto & Code			C			
142	Issuer Script			C			
144	Crypto Trans Type	O	→			O	
145	Term Cntry Code	O	→			O	
146	Term Trans Date	O	→			O	
147	Crypto Amt	O	→			O	
148	Crypto Currncy Code	O	→			O	
152	Secondary PIN Block	C	→			C	

Table 5-42 includes the field requirements for:

PIN Change/Unblock Requests (UK-Domestic only)

- 0420 PIN Change/Unblock Reversal Request
- 0430 PIN Change/Unblock Request Response

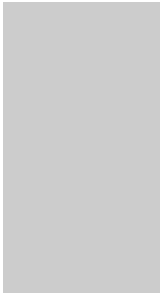
Table 5-42 PIN Change/Unblock Reversal Request

Field Number and Name		Original Acq Reversal				STIP Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Issr
—	Bitmap, Secondary	M	→	M	→	M	M
—	Third Bit Map	M	→	M	→	M	M
2	Primary Acct Nbr (PAN)	M	→	M	→	M	M
3	Processing Code	M	→	M	→	M	M
7	Transmsn Date/Time	M	→	M	→	M	M
11	Sys Trace Audit Nbr	M	→	M	→	M	M
12	Time, Local Trans	M	→			M	
13	Date, Local Trans	M	→			M	
15	Date, Settlement		M+	M		M	M
18	Mchnt Type	M	→				
19	Acqng Inst Cntry Code	M		M		M	M
20	PAN Extnd, Cntry Code				M+		
21	Forwarding Institution Country Code	C	→			C	
22	POS Entry Mode Code	M	→			M	
23	Card Seq. Nbr	C	→	C	→	C	C
25	POS Cond Code	M	→	M	→	M	M
26	POS PIN Captr Code	C	→			C	
32	Acqng Inst ID Code	M	→	M	→	M	M
33	Fwdng Inst ID Code	C	→			C	
37	Retrieval Ref Nbr	M	→	M	→	M	M
38	Auth ID Resp			M	→	M	M
39	Resp Code	M	→	M	→	M	M
40	Service Restriction Code	M	→	M	→	M	M
41	Card Accptr Termnl ID	M	→	M		M	M
42	Card Accptr ID Code	M	→	M	→	M	M
43	Card Accptr Name/Loc			M	→	M	M
44.1	Resp Source/Rsn Code					M	
49	Currency Code, Trans	M				M	
55	Field 55 (BER-TLV)	C	→	C		C	C

PIN Change/Unblock Requests (UK-Domestic only)

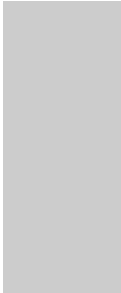
Table 5-42 PIN Change/Unblock Reversal Request (continued)

Field Number and Name		Original Acq Reversal				STIP Advice	
		0420		0430		0420	0430
		Acqr	VIC	Issr	VIC	VIC	Issr
59	Natl POS Geo Data	C	→			C	
60	Additional POS Information	M	→				
63.0	Bitmap (Field 63)	M	→	M	→	M	M
63.1	Network ID	M	→	M	→	M	M
63.3	Message Reason Code	M				M	
63.4	STIP/Switch Reason Code		C+			M	
90	Orig Data Elemts	M	→	M	→	M	M
115	Additional Trace Data	O	C-	O	C+		
119	Settlement Service Data	O	→			O	
131	Term Verif Results	O	→			O	
133	Term Serial Nbr	O	→			O	
134	Visa Discret Data	O	→			O	
137	App Trans Counter	O	→	O	→	O	O
143	Issuer Script Results	M	→	M	→	M	M
152	Secondary PIN Block	C	→			C	



 Message Formats

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This appendix describes the data and report files that ATM Service participants can receive from Visa, as well as a tape file that participating issuers can send to Visa to update their records on the Exception File or the PIN Verification File. This appendix contains the following sections:

Overview—Describes data and report files from Visa in general terms.

Raw Data Records—This section contains a brief description of raw data records. For record layouts, refer to VisaNet Settlement Service (VSS) User's Guide, Volume 2.

Routing Tables—Contains a detailed description of the Visa and Plus Routing Tables.

Record Layouts—Contains detailed descriptions of TC 33, TC 45, TC 46, TC 47, and TC 90 records that are used for delivering data and report files to SMS participants.

Batch File Maintenance—Describes procedures for submitting tape files to Visa for updating an issuer's records on the Exception File and PIN Verification File, and contains detailed descriptions of the record formats.

A.1 OVERVIEW

This section contains an overview of data and report files that single-message participants can receive from Visa and summarizes how the files are delivered to the participant's VisaNet Access Point (VAP).

A.1.1 Data Files

ATM Service participants can elect to receive the following types of data files:

- Raw (unformatted) data
- Visa/Plus routing tables
- Member settlement totals

Raw data and member settlement totals are optional for acquirers and for issuers; routing tables are required for acquirers. Raw data and routing tables are delivered to participants in TC 33 records. For U.S. members, the routing tables can also be delivered through an RJE or CompuServe mailbox connection.

Member settlement totals, which are the electronic version of the national and international settlement reports, are delivered in TC 46 records.

Raw data records are described in the "Raw Data" section of this appendix. The TC 46 record, which is used for member settlement totals, is described in the "Record Formats" section of this appendix.

A.1.2 Report Files

Participants may also receive the following types of report files:

- Detail and reconciliation reports
- Report generation records (for settlement reports)

The detail and reconciliation reports are delivered in TC 45 records. The report generation records, which are used for international and national settlement reports, are delivered in TC 47 records. These records are described in the “Record Formats” section of this appendix.

For information about detail reports, settlement reports, and reconciliation reports, refer to the VisaNet Settlement Service (VSS) User’s Guide, Volume 2.

A.1.3 File Maintenance Methods

Batch files are maintained by transmitting a tape file to the VIC from a VisaNet Access Point (VAP) or by sending a tape to Visa. (A tape file is a batch file of update or replacement records that are applied to the user files at the VIC. The batch file is usually written to a tape, but it may be a disk file that is transferred from a center host to a VAP.)

If a complete file replacement is required (format 1 only), the center should coordinate the change with Visa. Lack of coordination can seriously jeopardize the center’s file. The center must initiate file replacement by shipping a tape to Visa. Replacement files may not be transmitted through a VAP. For information about format 2 file replacements, refer to the next subsection, “Exception File Replace and Update Options—Format 2.”

Each tape mailed to Visa must contain 500,000 or fewer records. Multiple tapes must be used for update requests involving more than 500,000 records. Files requiring multiple tapes are accepted as separate tapes with individual header and trailer records or as a multiple reel or concatenated file.

Before the records from a tape file are applied to the files at the VIC, an offline process edits the updates for critical data, such as account numbers and purge dates. Visa Member Services will contact the center if a tape is rejected or if errors are found.

A.1.3.1 Exception File Replace and Update Options—Format 2

SMS issuers can perform full file replacement of both the BASE I and SMS Exception Files at the BIN level. In addition to PCR-level full file replacements, issuers can also submit a tape file with only one update record per account number for both BASE I and SMS. The file submission parameters are summarized in Table A-1.

Table A-1 Full Exception File Replacement Parameters

File Characteristics	BASE I	SMS
Media	BASE I issuers may send a file replacement tape to Visa.	SMS issuers may send a file replacement tape to Visa.
Formats	Format 1 and Format 2	Format 2
File Types	E1, E2, E9	E3, E4 NOTE: <i>Only E3 is allowed for Cardholder Update batch update submissions.</i>
BIN Number in Header Record	BIN number for the records to be updated must appear in positions 41–51 of the file header record.	BIN number for the records to be updated must appear in positions 41–51 of the file header record.

Table A-1 Full Exception File Replacement Parameters (continued)

File Characteristics	BASE I	SMS
Processing Type Code in File Header Record	Processing Type Code in position 14 must be one of the following: 1 = Replacement of entire file by PCR 2 = Replacement of entire file by BIN NOTE: <i>Use Processing Type code U to update selected records only.</i>	Processing Type Code in position 14 must be one of the following: 3 = Replacement of entire file by PCR 4 = Replacement of entire file by BIN NOTE: <i>Use Processing Type code U to update selected records only.</i>
File Update Code in Detail Record	Position 3 in the Detail Record must be 1 or 2	Position 3 in the Detail Record must be 1 or 2

SMS issuers that choose to update both the SMS and BASE I Exception files can submit a batch update tape containing a single update record per account number. The single update record updates both the BASE I and SMS Exception files. Table A-2 shows the requirements for this update option.

Table A-2 SMS Batch Update of SMS and BASE I Exception Files—Cardholder Update (CUP)

File Characteristics	Processing Rules
File Format	Format 2 only
File Medium	Tape only
File Type	Positions 1–2 in the Format 2 Detail Record must be E3

A.1.4 How Files Are Delivered

The following options are available for delivering SMS reports, raw data, and routing files to members. Options vary by region. For details, contact your Visa representative.

Overview

- Direct Access Service (DAS) with VAP
- BASE II connection, which can be one of the following:
 - VAP
 - Host-to-Host (H2H) CONNECT:Direct (C:D). C:D was formerly referred to as Network Data Mover or NDM.
 - Direct Exchange Open File Delivery (OFD), with TC 33 and TC 45 wrappers.

NOTE

All BASE II options, including the DEX OFD option, use TC 33 and TC 45 wrappers around SMS data and reports; the following non-BASE II options do **not** use TC formats.

- SMS, DEX OFD connection, without TC wrappers
- Remote Job Entry (RJE). Visa supports the 3770 SNA RJE protocols for point-to-point file transfer. RJE transmissions can optionally include a member-specified Supertracks header.
- CONNECT:Direct (C:D). This is a standard option. An exception to this rule is Interlink, for which C:D is a standard option, provided the report and file data are not combined with data Debit (Visa POS, Visa Electron, or Visa ATM) products.

A.1.4.1 Deliveries Through BASE II VAP or Direct Access Service (DAS)

Files can be delivered through a VAP using either the BASE II or Direct Access Service (DAS) application. The record formats are the same. For users of the BASE II application, the formats reflect the output of the BASE II Edit Package. For users of the DAS application, they are the format of the records received directly from the VAP.

VisaNet delivers SMS reports and raw data to BASE II VisaNet Access Points (VAPs) seven days a week.

Table A-3 and Table A-4 list the file type, transaction code, and record length for data and report files. Note that each 168-byte file contains a file header (TC 90) and file trailer (TC 92). Batch trailers (TC 91) are present if the file contains multiple batches. The formats of the header and trailer records are included in the “Record Formats” section.

Table A-3 Data Files

Description	File Type	Transaction Code	Record Length
Raw data	DBRAW	TC 33	168 bytes
Visa/Plus routing tables	UNDIF	TC 33	168 bytes
Member settlement totals	SETLMR	TC 46	168 bytes

Table A-4 Report Files

Description	File Type	Transaction Code	Record Length
Detail reports	DBRPT	TC 45	133 or 168 bytes at member's option
Report generation records	SETLR, ETLR	TC 47	133 bytes

A.1.4.2 VSS Report Delivery

VSS summary reports have replaced DS summary reports.

VSS machine-readable report data in TC 46 wrappers is always delivered in TC 46 format, regardless of whether the member is using a BASE II connection or one of the other options. CONNECT:Direct is not supported (except via DEX).

VSS print-ready reports in TC 47 wrappers can be handled in one of two ways, depending on the delivery method chosen in the system tables:

- Platform Option: Data in TC 47 wrappers is delivered to the BASE II connection in TC 47 format.
- SMS Option: Data in TC 47 wrappers is sent to SMS to be combined with SMS detail reports.

SMS strips the TC 47 wrapper to reveal the print-ready VSS reports, combines them with the SMS detail reports, and then delivers the resulting file through any of the delivery methods specified earlier.

If a Base II connection is used to deliver this file of combined SMS/VSS reports, then, like SMS reports alone, they will be in TC 45 wrappers, not TC 47 wrappers.

A.2 RAW DATA RECORDS

As an optional service, Visa provides transaction details as raw data. Raw data differs from report data in that it is suited for automated processing. Raw data is available to all SMS issuers and acquirers. Users of this service can create and reconcile their own customized reports. The raw data records are produced from the same sources as Visa-generated formatted transaction detail reports. Receipt of each record type is optional.

Raw data records are sent to issuers and acquirers and always include a header and trailer record for control. V.I.P. integrated format records are available for Release 2.2 of PS2000.

NOTE

Release 2.2 is available with the VisaNet Settlement Service. For record layouts, refer to the VisaNet Settlement Service (VSS) User's Guide, Volume 2.

A.3 ROUTING TABLES

The Visa and Plus routing tables are batch files that contain the account ranges applicable to each program. The tables are used by Visa and Plus acquirers to make authorization routing decisions. The Visa routing table is also known as the Visa Account Range table, and the Plus routing table is also called the Plus BIN table.

SMS ATM acquirers must use the Visa or Plus routing tables and must specify the preferred card program they wish to participate in within the network ID field. If the acquirer subscribes to the Priority Routing Service, then the acquirer must specify a network ID of '0000' in the network ID field. Arrangements for receiving the tables can be made through an acquirer's Visa Member Service representative.

NOTE

Acquirers may elect to receive a new combined Visa/Plus routing table that will contain Visa and Plus account ranges.

This section contains specifications for receiving the Visa and Plus routing tables from Visa and is divided into the following subsections:

Delivery Schedules—Describes the delivery mechanisms that can be used to receive the routing tables.

Delivery Options—Describes the delivery options available to acquirers that receive the Visa and Plus routing tables in TC 33 records.

Record Formats— Contains detailed specifications for the table files.

Member-Written Programs—Describes the programs that an acquirer can use to extract and reformat the table records. Sample programs are included.

A.3.1 Delivery Schedules

VisaNet generates routing tables according to the schedule in Table A-5.

Table A-5 VisaNet Routing Table Distribution Schedule

for these Routing Tables	VisaNet generates/ receives	and BASE II delivers it on	Comments
Visa	generates each Tuesday	the following Wednesday BASE II Central Processing Day	Each transmission is a full file replacement. The new file must be loaded for processing by the sixth business day following file distribution.
Plus	receives from Plus Switch on Wednesday	the following Friday BASE II Central Processing Day	Acquirers must load replacement tables for processing within three business days following receipt from Visa. Acquirers must modify the BIN table between regularly scheduled updates if Visa notifies it that Plus Switch has identified needed changes.
Combined Visa/Plus	each Wednesday, Pacific Time	The following Friday BASE II CPD	This is an optional combined Visa/Plus routing table. Each transmission is a full file replacement. The new file must be loaded for processing within three (3) business days of file distribution. Acquirers that elect to receive the new Combined Visa/Plus routing table must contact their Visa representative. Acquirers must modify their systems to process the Combined Visa/Plus routing table on their Edit Package and to maintain the Combined Visa/Plus routing table as part of their terminal and host routing logic.

A.3.2 Delivery Options

Delivery of the Visa and Plus and Combined Visa/Plus routing tables is supported by the BASE II or Direct Access Service (DAS) applications running on the member's VAP.

A.3.2.1 VAP (BASE II)

This section contains the technical specifications for acquirers that have opted to receive the Visa and Plus routing tables through a VAP with the BASE II application.

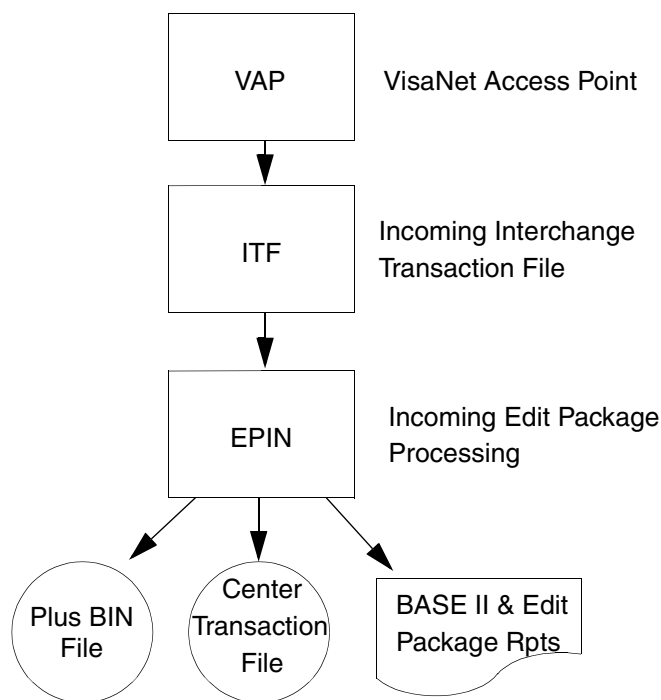
The Interchange Transaction File (ITF) received from Visa is processed through the VisaNet BASE II Edit Package. The Edit Package produces one or more center transaction files (CTFs), several report files, and data files. One of the data files is the “PLUSBIN” file.

The “PLUSBIN” file contains TC 33 records for both the Visa and Plus routing tables. The Edit Package creates the file when these TC 33 records are present on the incoming ITF.

Routing table records are delivered in the Report Text field of the TC 33 record. Each Visa routing table record contains three account range identifier entries per TC 33 record. Each Plus BIN table record contains one BIN table entry per TC 33 record.

The following figure depicts the processing required to receive the routing tables from a BASE II VAP.

Figure A-1 BASE II VAP Processing Flow



Files

A.3.2.2 VAP (DAS)

An ATM acquirer can elect to use a VAP with the Direct Access Service (DAS) application to receive the Visa and Plus routing tables. This VAP does not require a BASE II Edit Package. The format and content of the routing table file received from this VAP is the same as the “PLUSBIN” file created by the Edit Package.

The routing table records are received within TC 33 records. Both the Visa routing table records and Plus BIN table records are delivered in the Report Text field of the TC 33 record. The Visa

Routing Tables

routing table records contain three account range identifier entries per TC 33 record. Plus BIN table records contain one BIN table entry per TC 33 record.

If the member is not ready to receive the routing tables at its host as soon as the VAP receives them from VisaNet, the VAP will store the tables for later delivery to the member.

A.3.3 Record Formats

This section describes the following three formats of the Visa, Plus, and Combined Visa/Plus routing tables:

- Visa routing table compressed format (133-byte records)
- Plus routing table (133-byte records)
- Combined Visa/Plus routing table

The compressed form of the Visa routing table contains three 40-byte table segments per TC 33. The Plus routing table contains one segment per 80-byte record. Because both routing tables are delivered in TC 33 records in the same file from the DAS VAP or BASE II Edit Package, acquirers need to write a program or programs to extract the routing table records and prepare the tables for use in the acquirer host system. Sample programs are described in the section below entitled “Member-Written Programs.”

The general format and organization of the Visa and Plus routing tables are the same. Each table segment contains a sequence number, segment number, account length value, BIN length value, and BIN. The sequence of table segments is as follows:

- Account length in ascending order
- BIN length in descending order
- BIN in ascending order

Note that in this context, BIN can be up to 12 digits in length. This includes the 6-digit BASE Identification Number and up to six succeeding digits, as needed to uniquely identify a range of account numbers associated with a Visa or Plus card program. For example, a BIN of 412345678 (with account length of 16 and BIN length of 9) means that any 16-digit card number that begins with 412345678 is a match in the routing table.

Table A-6, Table A-7, and Table A-8 provide header, data, and trailer record specifications for the Visa Routing Table File.

Table A-6 Visa Routing Table File Record Layout—Header Record

Field Name	Position	Length	Type ¹	File Contents
Record Type	1–11	11	AN	Constant HEADER with trailing spaces
File Type	12–19	8	AN	Constant BINDISTR
Filler	20–21	2	AN	Spaces
Date	22– 26	5	N	Julian date file was created (YYDDD)
Processing	27–33	7	AN	Constant TOTAL with trailing spaces
Network Type	34–39	6	AN	Constant Visa with trailing spaces
Filler	40–120	81	AN	Spaces
Table Identifier	121–133	13	AN	Constant Visa TABLE

Table A-6 Visa Routing Table File Record Layout—Header Record (continued)

1. Key to Type Column: N = Numeric, AN = Alphanumeric

Table A-7 Visa Routing Table file Record Layout—Data Record

Field Name	Position	Length	Type ¹	File Contents
Sequence Number	1–6	6	N	Consecutive sequence number incremented by one (1) from 000001
Segment Number	7	1	N	Always equal to 1; allows for multiple records per account range
Account Length	8–9	2	N	Length of account number
BIN Length	10–11	2	N	Number of digits used for routing
BIN	12–23	12	N	Unique portion of the account number used for routing
Issuer Country Code	24–26	3	AN	Three-digit numeric country code of issuer BIN
Filler	27–40	14	AN	Spaces
Sequence Number	41–46	6	N	Consecutive number incremented by one from 000001
Segment Number	47	1	N	Always equal to 1; allows for multiple records per account range
Account Length	48–49	2	N	Account number length
BIN Length	50–51	2	N	Number of digits used for routing
BIN	52–63	12	N	Unique portion of account number used for routing
Issuer Country Code	64–66	3	AN	Three-digit numeric country code of issuer BIN
Filler	67–80	14	AN	Spaces
Sequence Number	81–86	6	N	Consecutive number incremented by one from 000001
Segment Number	87	1	N	Always equal to 1; allows for multiple records per account range
Account Length	88–89	2	N	Account number length
BIN Length	90–91	2	N	Number of digits used for routing
BIN	92–103	12	N	Unique portion of account number used for routing
Issuer Country Code	104–106	3	AN	Three-digit numeric country code of issuer BIN
Filler	107–120	14	AN	Spaces
Visa Table Identifier	121–133	13	AN	Constant Visa TABLE

1. Key to Type Column: N = Numeric, AN = Alphanumeric

Table A-8 Visa Routing Table File Record Layout—Trailer Record

Field Name	Position	Length	Type ¹	File Contents
Record Type	1–11	11	AN	Constant TRAILER with trailing spaces
File Type	12–19	8	AN	Constant BINDISTR

Table A-8 Visa Routing Table File Record Layout—Trailer Record (continued)

Field Name	Position	Length	Type ¹	File Contents
Detail Record Count	20–26	7	N	Number of detail records on file
Filler	27–120	94	AN	Spaces
Table Identifier	121–133	13	AN	Constant Visa TABLE

1. Key to Type Column: N = Numeric, AN = Alphanumeric

A.3.3.1 Plus Routing Table Record Layouts

The Plus routing table contains a header record, multiple data records, and a trailer record. These records appear in the 133-byte Report Text field of TC 33 records in the “UNDIF” file from a DAS VAP or the “PLUSBIN” file from the BASE II Edit Package. Acquirers can develop programs to remove header and trailer records to reduce the size of the table entries.

Table A-9 , Table A-10, and Table A-11 provide header, data, and trailer record specifications for the Plus Routing Table File.

Table A-9 Plus BIN Routing Table File Record Layout—Header Record

Field Name	Position	Length	Type ¹	File Contents
Record Type	1–11	11	AN	Constant TAPEHEADER with trailing space
File Type	12–19	8	AN	Constant BINDISTR
Filler	20–21	2	AN	Spaces
Date	22– 26	5	N	Julian date file was created (YYDDD)
Processing	27–33	7	AN	Constant TOTAL with trailing spaces
Filler	34–35	2	AN	Spaces
ID Tag	36–49	14	AN	Constant Plus BIN TABLE
Filler	50–133	84	AN	Spaces

1. Key to Type Column: N = Numeric, AN = Alphanumeric

Table A-10 Plus BIN Routing Table File Record Layout—Data Record

Field Name	Position	Length	Type ¹	File Contents
Sequence Number	1–6	6	N	Consecutive sequence number incremented by one (1) from 000001
Segment Number	7	1	N	Always equal to 1; allows for multiple records per account range
Account Length	8–9	2	N	Length of account number
BIN Length	10–11	2	N	Number of digits used for routing
BIN	12–23	12	N	Unique portion of the account number used for routing
BIN From-Account Type	24–26	3	AN	Default from-account type; used if no account was selected
BIN Flag	27	1	AN	Visa BSPI Flag

Table A-10 Plus BIN Routing Table File Record Layout—Data Record (continued)

Field Name	Position	Length	Type ¹	File Contents
Filler	28	1	AN	Space
Issuing Institution Country Code	29–31	3	N	Country code
Filler	32–35	4	AN	Spaces
ID Tag	36–49	14	AN	Constant Plus BIN TABLE
Filler	50–133	84	AN	Spaces

1. Key to Type Column: N = Numeric, AN = Alphanumeric

Table A-11 Plus BIN Routing Table File Record Layout—Trailer Record

Field Name	Position	Length	Type ¹	File Contents
Record Type	1–11	11	AN	Constant TAPETRAILER
File Type	12–19	8	AN	Constant BINDISTR
Detail Record Count	20–26	7	N	Number of detail records on file
Filler	27–35	9	AN	Spaces
ID Tag	36–49	14	AN	Constant Plus BIN TABLE
Filler	50–133	84	AN	Spaces

1. Key to Type Column: N = Numeric, AN = Alphanumeric

A.3.3.2 Combined Visa/Plus Routing Table Record Layouts

The format of the combined Visa/Plus routing table will be based on the format of the Visa routing table. The following are the format modifications for the combined Visa/Plus routing table:

- Detail Record Count: A count of the total number of account ranges on the file will be included in positions 34–40 in the header record
- Source File Indicator—ATM: The account range domain will be identified in positions 31, 71, and 111 in each detail record
- Table Identifier: The identifier will be 'VISAPLUS TBL' in positions 121–133 in the file header and trailer records and in each detail record

Table A-12, Table A-13, and Table A-14 show the format of the Combined Visa/Plus routing table header, data, and trailer records.

Table A-12 Combined Visa/Plus Routing Table File Record Layout—Header Record

Field Name	Position	Length	Format	File Contents
Record Type	1–11	11	AN	Constant HEADER with trailing spaces
File Type	12–19	8	AN	Constant BINDISTR
Filler	20–21	2	AN	Spaces
Date	22– 26	5	N	Julian date file was created (YYDDD)

Table A-12 Combined Visa/Plus Routing Table File Record Layout—Header Record (continued)

Field Name	Position	Length	Format	File Contents
Processing	27–33	7	AN	Constant TOTAL with trailing spaces
Detail Record Count	34–40	7	N	Number of account ranges on the file
Filler	41–120	80	AN	Spaces
Table Identifier	121–133	13	AN	Constant VISAPLUS TBL

N = Numeric, AN = Alphanumeric

Table A-13 Combined Visa/Plus Routing Table File Record Layout—Data Record

Field Name	Position	Length	Format	File Contents
Sequence Number	1–6	6	N	Consecutive sequence number incremented by one (1) from 000001
Segment Number	7	1	N	Always equal to 1; allows for multiple records per account range
Account Length	8–9	2	N	Length of account number
BIN Length	10–11	2	N	Number of digits used for routing
BIN	12–23	12	N	Unique portion of the account number used for routing
Issuer Country Code	24–26	3	AN	3-digit numeric country code of issuer BIN
Filler	27–30	4	AN	Spaces
Source File Indicator–ATM	31	1	AN	Identifies the account range domain: 1 = Visa 2 = Plus 3 = Visa and Plus
Filler	32–40	9	AN	Spaces
Sequence Number	41–46	6	N	Consecutive number incremented by one from 000001
Sequent Number	47	1	N	Always equal to 1; allows for multiple records per account range
Account Length	48–49	2	N	Account number length
BIN Length	50–51	2	N	Number of digits used for routing
BIN	52–63	12	N	Unique portion of account number used for routing
Issuer Country Code	64–66	3	AN	3-digit numeric country code of issuer BIN
Filler	67–70	4	AN	Spaces

Table A-13 Combined Visa/Plus Routing Table File Record Layout—Data Record (continued)

Field Name	Position	Length	Format	File Contents
Source File Indicator–ATM	71	1	AN	Identifies the account range domain: 1 = Visa 2 = Plus 3 = Visa and Plus
Filler	72–80	9	AN	Spaces
Sequence Number	81–86	6	N	Consecutive number incremented by one from 000001
Segment Number	87	1	N	Always equal to 1; allows for multiple records per account range
Account Length	88–89	2	N	Account number length
BIN Length	90–91	2	N	Number of digits used for routing
BIN	92–103	12	N	Unique portion of account number used for routing
Issuer Country Code	104–106	3	AN	3-digit numeric country code of issuer BIN
Filler	107–110	4	AN	Spaces
Source File Indicator–ATM	111	1	AN	Identifies the account range domain: 1 = Visa 2 = Plus 3 = Visa and Plus
Filler	112–120	9	AN	Spaces
Table Identifier	121–133	13	AN	Constant VISAPLUS TBL

N = Numeric, AN = Alphanumeric

Table A-14 Combined Visa/Plus Routing Table File Record Layout—Trailer Record

Field Name	Position	Length	Format	File Contents
Record Type	1–11	11	AN	Constant TRAILER with trailing spaces
File Type	12–19	8	AN	Constant BINDISTR
Filler	20–120	101	AN	Spaces
Table Identifier	121–133	13	AN	Constant VISAPLUS TBL

AN = Alphanumeric

A.3.4 Routing Table File Search Procedures

This section describes the search procedures that should be used to determine whether a given account number is included in one of the account ranges defined in the Routing Table File.

Routing Tables

The file is divided into sections according to account length. Each section contains one account length value. The account length sections are sorted in ascending order by account length. For example, if there are account numbers with 13, 16, and 19 digits listed on the file, all of the 13-digit account numbers will be listed first; next, all of the 16-digit account numbers; and last, all of the 19-digit account numbers.

Within each account length section, the records are sorted by card prefix length in descending order.

Within each card prefix length, the card prefixes are listed sequentially in ascending order.

Acquirers that receive the file must program their systems to search the file as follows:

1. Determine the length of the account number. This value is referred to as a .
2. Begin the search with a card prefix length of 11 (valid card prefix length values are 4 through 11). This value is referred to as n .
3. Search all records that have an account number length of a and a card prefix length of n for a card prefix value that matches the cardholder's account number. The first n digits of the cardholder's account number must match the card prefix value on file.
4. If there is a match, terminate the search and route the transaction for that account number to Visa.

If there is no match in records with a card prefix length of n and an account length of a , decrease the value of n by 1 and continue the search starting from Step 3.

If the value of n reaches 4, all of the records with this value are searched. If there are no matches, terminate the search and assume that the transaction cannot be routed to Visa.

A.3.5 Searching a Sample Routing Table File

Table A-15 provides the Routing Table File field descriptions needed to understand the file search logic. Table A-16 contains account record examples from a sample Routing Table File. The tables are followed by an explanation of how to locate a sample account number by searching for a specific card prefix in the Routing Table File.

Table A-15 Routing Table File Field Descriptions

Field Name	Description
Sequence Number	This field indicates the sequence number for each record. The first of the data records starts with 1, and every record following is incremented by 1.
Segment Number	This field contains the segment number for each record, which allows multiple records to be associated with one account range. Since the Routing Table has only one record per account range, the segment number is always 1.
Account Length	This field is used to match the cardholder account length to the records in the file that contain the same account length.
Card Prefix Length	This field indicates the card prefix length, which can be any integer value from 4 to 11.
Card Prefix	This field contains the values to be searched in order to find a specific card prefix.

In Table A-16 the numbered callouts (in bold brackets) refer to the instructions that follow the table.

Routing Tables

Table A-16 Account Record Examples

Sequence No.	Segment No.	Account Length	Card Prefix Length	Card Prefix [1]
1	1	13	11	3xxxx54321 [1]
2	1	13	11	3xxxx54322 [1]
3	1	13	11	3xxxx54323 [1]
4	1	13	10	3xxxx7652 [2]
5	1	13	10	4xxxx5675 [2]
6	1	13	8	3xxxx67
7	1	13	8	5xxxx51
8	1	13	8	5xxxx52
9	1	13	7	3xxxx1 [3]
10	1	13	7	3xxxx2
11	1	13	7	4xxxx1
12	1	13	7	4xxxx2
13	1	13	7	4xxxx3
14	1	13	6	3xxxx
15	1	13	4	3xx
16	1	16	10	5xxxx6789

A.3.5.1 Instructions for Locating an Account Number

In the following instructions, the bracketed numbers in boldface type refer to the corresponding callouts in Table A-16.

1. Determine the length of the account number on a transaction. In this example, the account number is 3xx xx11 1924 3. The length of this number is 13 digits.
2. Begin the search with a card prefix length of 11.
3. Search all records that have an account length of 13 and a card prefix length of 11 for a card prefix value that matches the first 11 digits of the cardholder's account number (3xx xx11 192) **[1]**. In this example, there is no match.
4. Reduce the card prefix length used for the search from 11 to 10 and search all records that have an account length of 13 and a card prefix length of 10 for a card prefix value that matches the first 10 digits of the cardholder's account number (3xx xx11 19) **[2]**. Again, there is no match.
5. Continue reducing the card prefix length and repeating the search as in Step 4 until there is a match. In this case, there is a match when the card prefix length is 7; the search can be terminated **[3]**.

A.3.6 Member-Written Programs

Acquirers may need to modify the routing table files for use in their host systems. This section describes three sample member-written programs that may be used as follows:

Separator Program—For acquirers that receive both the Visa and Plus routing tables or only the Visa routing table, the separator program extracts routing table records, drops the header and trailer records, and writes the two tables to separate output files. The Visa routing table file will contain 133-byte records; the Plus BIN table file will contain 80-byte records.

Decompression Program—For acquirers that receive the Visa routing table, the decompression program creates an 80-byte record for each 40-byte table segment in data records.

Plus Reformat Program—For members that receive only the Plus BIN table, the Plus reformat program extracts routing table records, deletes the header and trailer records, and writes 80-byte records to an output file.

Each of these member-written programs is described in the next section.

A.3.6.1 Member-Written Separator Program

The member-written separator program is run if the member receives:

- Both the Visa routing table and Plus BIN table.
- The Visa routing table only.

The program extracts the Visa routing table from the 168-byte image received from the VAP using the DAS application or BASE II Edit Package to a 133-byte record and separates the Visa routing table and Plus BIN table if applicable.

The sample IBM COBOL program below reads the Plus BIN file and writes two files:

- A file containing a 133-byte Visa routing table (excluding the header and trailer records)
- A file containing an 80-byte Plus BIN table (excluding the header and trailer records). This file is created only if the Plus BIN table is present.

For both files, the program strips off the BASE II prefix data, left-justifies the routing table data, drops the header and trailer records, and retains the Visa TABLE and Plus BIN TABLE visual identification tags.

The Plus BIN table is now ready to be used for authorization routing by the member's host system.

The Visa routing table can be loaded to the member's host system in a compressed format with three 40-byte data segments per 133-byte record. If the member prefers to decompress the file to one 40-byte data segment per 80-byte record, the file must be processed through a decompression program. See the Member-Written Decompression Program section for more information on this process.

The sample coding that follows is for an IBM OS environment. Members must modify sample programs and job streams to ensure compatibility with their in-house operating environment. Members using different platforms should contact their Visa Member Services representative if they require assistance with this file extraction process.

Sample IBM OS Job Stream for the Member-Written Separator Program

```
//REL1SEP EXEC PGM=REL1SEP
//SYSUDUMP DD SYSOUT=X
//SYSPRINT DD SYSOUT=X
//INFILE DD DSN=TC 33.INFILE,DISP=(OLD,DELETE)
//VISAOUT DD DSN=VISA.COMPRESS.FILE,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=SYSDA,
//          SPACE=(TRK,(50,25),RLSE),
//          DCB=(RECFM=FB,LRECL=133,BLKSIZE=1330)
//PLUSOUT DD DSN=PLUSTAB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=SYSDA,
//          SPACE=(TRK,(50,25),RLSE),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//
```

Sample Member-Written Separator Program

```

IDENTIFICATION DIVISION.
PROGRAM-ID. REL1SEP.
ENVIRONMENT DIVISION.
*****
INPUT-OUTPUT SECTION.
*****
FILE-CONTROL.
SELECT   INFILE           ASSIGN TO INFILE.
SELECT   VISA-OUT-FILE     ASSIGN TO VISAOUT.
SELECT   Plus-OUT-FILE     ASSIGN TO PLUSOUT.

*****
DATA DIVISION.
FILE SECTION.
*****

FD INFILE
   RECORDING MODE IS F
   LABEL RECORDS ARE STANDARD.

01 INFILE-RECORD.
   05 FILLER PIC X(34).
   05 Plus-TEXT.
       10 Plus-DATA-ONLY.
           15 Plus-HEADER-TRLR PIC X(19).
           15 FILLER PIC X(16).
           15 Plus-TAG PIC X(14).
           15 FILLER PIC X(31).
       10 FILLER PIC X(54).
   05 VISA-TEXT REDEFINES
       Plus-TEXT.
       10 VISA-DATA-ONLY.
           15 VISA-HEADER-TRLR PIC X(19).
       15 FILLER PIC X(101).
       15 VISA-TAG PIC X(13).
       10 FILLER PIC X(01).

FD VISA-OUT-FILE
RECORDING MODE IS F
LABEL RECORDS ARE STANDARD.

01 VISA-OUT PIC X(133).

FD Plus-OUT-FILE
RECORDING MODE IS F
LABEL RECORDS ARE STANDARD.

01 Plus-OUT PIC X(80).

*****
WORKING-STORAGE SECTION.
*****

01 S-SWITCHES.
   5 S-EOD PIC X(01).
   88 NO-DATA VALUE 'Y'.

PROCEDURE DIVISION.

```

Sample Member-Written Separator Program (continued)

```

*****
* 00000-MAIN
*
*****
00000-MAIN.
      PERFORM 10000-INIT      THRU 10000-EXIT.
      PERFORM 20000-PROC      THRU 20000-EXIT.
      PERFORM 30000-TERM      THRU 30000-EXIT.

*****
* 10000-INIT
*
*****
10000-INIT.

      OPEN INPUT   INFILE
      OPEN OUTPUT  VISA-OUT-FILE
      Plus-OUT-FILE.

      MOVE 'N' TO S-EOD.
      PERFORM 80000-READ-EXTRACT THRU 80000-EXIT.
10000-EXIT.

*****
* 20000-PROC
*
*****
20000-PROC.
      PERFORM 21000-PROCESS-RECORD THRU 21000-EXIT
      UNTIL NO-DATA.

20000-EXIT.

*****
* 30000-TERM
*
*****
30000-TERM.

      CLOSE INFILE
      VISA-OUT-FILE
      Plus-OUT-FILE.

      STOP RUN.
30000-EXIT.

*****
* 21000-PROCESS-RECORD
*
*****
21000-PROCESS-RECORD.

      IF VISA-TAG = 'VISA TABLE' AND
      VISA-HEADER-TRLR NOT = 'HEADER BINDISTR' AND
      VISA-HEADER-TRLR NOT = 'TRAILER BINDISTR'
      INITIALIZE VISA-OUT

```

Sample Member-Written Separator Program (continued)

```

        MOVE VISA-DATA-ONLY TO VISA-OUT
        WRITE VISA-OUT
    ELSE
        IF Plus-TAG = 'Plus BIN TABLE' AND
           Plus-HEADER-TRLR NOT = 'TAPEHEADER BINDISTR' AND
           Plus-HEADER-TRLR NOT = 'TAPETRAILERBINDISTR'
            INITIALIZE Plus-OUT
            MOVE Plus-DATA-ONLY TO Plus-OUT
            WRITE Plus-OUT.

        PERFORM 80000-READ-EXTRACT THRU 80000-EXIT.
2100-EXIT.
*****
* 80000-READ-EXTRACT
*
*****
80000-READ-EXTRACT.
        READ INFILE
          AT END MOVE 'Y' TO S-EOD.

80000-EXIT.

```

A.3.6.2 Member-Written Decompression Program

Members can choose to execute a special member-written decompression program as the final processing step prior to loading the Visa routing table on their host system. In the compressed format of 133 bytes, the Visa routing table will initially contain about 3,200 records, with three 40-byte account range segments per data record. The purpose of the decompression program is to convert these records to 80-byte records, each with one 40-byte table segment. This results in a simpler file layout, with one account range per record. However, the size of the file will be increased to approximately 9,600 records.

After successful execution of this decompression program, the Visa routing table is ready to be loaded on the member's host system.

A sample IBM COBOL decompression program follows. The program cannot be successfully executed until the header and trailer records have been deleted. The sample separator program deletes the header and trailer records for members receiving the routing table through a VAP using either the BASE II or the DAS application.

The sample coding is for an IBM OS environment.

Members must modify sample programs and job streams to ensure compatibility with their in-house operating environment. Members using different platforms should contact their Visa Member Services representative if they require assistance with this processing.

Sample IBM OS Job Stream for the Decompression Program

```

//DECMPRS EXEC PGM=DECMPRS
//SYSUDUMP DD SYSOUT=X
//INFILE   DD DSN=VISA.COMPRESS.FILE,DISP=SHR
//OUTFILE  DD DSN=VISATAB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=SYSDA,
//          SPACE=(TRK,(50,25),RLSE),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=8000)
//

```

Sample Member-Written Decompression Program

```

IDENTIFICATION DIVISION.
PROGRAM-ID. DECMPRS.
ENVIRONMENT DIVISION.
*****
*****
INPUT-OUTPUT SECTION.
*****
*****
FILE-CONTROL.
        SELECT    INFILE      ASSIGN TO INFILE.
        SELECT    OUTFILE     ASSIGN TO OUTFILE.
DATA DIVISION
FILE SECTION.

FD  INFILE
    RECORDING MODE IS F
    LABEL RECORDS ARE STANDARD.

    01  IN-DATA.
        05  ACCT-SEGMENT OCCURS 3 TIMES.
        10  SEQ-NBR      PIC 9(6) .
        10  SEG-NBR      PIC 9(1) .
        10  ACCT-LEN     PIC 9(2) .
        10  BIN-LEN      PIC 9(2) .
        10  BIN          PIC 9(12) .
        10  FILL-DTL1    PIC X(4) .
        10  NETID        PIC X(12) .
        10  FILL-DTL2    PIC X(1) .
        05  VISA-TAG     PIC X(13) .
FD  OUTFILE
    RECORDING MODE IS F
    LABEL RECORDS ARE STANDARD.
01  OUT-DATA PIC X(80) .
*****
*
*           W O R K I N G   S T O R A G E
*
*****
WORKING-STORAGE SECTION.
01  OUTPUT-RECORD.
    10  O-SEQ-NBR      PIC 9(6) .
    10  O-SEG-NBR      PIC 9(1) .
    10  O-ACCT-LEN     PIC 9(2) .
    10  O-BIN-LEN      PIC 9(2) .
    10  O-FILL1        PIC X(4) .
    10  O-NETID        PIC X(12) .
    10  O-FILL2        PIC X(41) .
01  FILLER            PIC X(27)  VALUE
    'WORKING-STORAGE STARTS HERE' .
01  FILLER            PIC X(08)  VALUE
    'DECMPRS' .
*****
*           W O R K I N G   V A R I A B L E S
*
*****
01  WORK-AREAS.
    05  I              PIC 9.

```

Sample Member-Written Decompression Program (continued)

```
*****
*                               S W I T C H E S                               *
*****
01  S-SWITCHES.
      05  S-EOD          PIC X (01).
      88  NO-DATA       VALUE 'Y'.

      PROCEDURE DIVISION.

*****
* 00000-MAIN
*
00000-MAIN.
*
*****
00000-MAIN.
      PERFORM 10000-INIT THRU 10000-EXIT.
      PERFORM 20000-PROC THRU 20000-EXIT.
      PERFORM 30000-TERM THRU 30000-EXIT.

*****
* 10000-INIT
*
*****
10000-INIT.

      OPEN INPUT INFILE.
      OPEN OUTPUT OUTFILE.
      MOVE 'N' TO S-EOD.
      COMPUTE I = 1.

      10000-EXIT.

*****
* 20000-PROC
*
*****
20000-PROC.

      PERFORM 80000-READ-INFILE THRU 80000-EXIT.
      PERFORM 21000-PROCESS-RECORD THRU 21000-EXIT
      UNTIL NO-DATA.

      20000-EXIT.

*****
* 30000-TERM
*
*****
30000-TERM.
      CLOSE INFILE
      OUTFILE.
      STOP RUN.
30000-EXIT.
```

Sample Member-Written Decompression Program (continued)

```

*****
* 21000-PROCESS-RECORD
*
*****
21000-PROCESS-RECORD.

        IF SEQ-NBR(I) > 0
            INITIALIZE OUTPUT-RECORD
            MOVE SEQ-NBR(I) TO O-SEQ-NBR
            MOVE SEG-NBR(I) TO O-SEG-NBR
        MOVE ACCT-LEN(I) TO O-ACCT-LEN
        MOVE BIN-LEN(I) TO O-BIN-LEN
        MOVE BIN(I) TO O-BIN
        MOVE NETID(I) TO O-NETID
        PERFORM 28100-WRITE-DATA THRU 28100-EXIT.
        IF I > 3
            COMPUTE I = 1
        COMPUTE I = I + 1.
        PERFORM 80000-READ-INFILE THRU 80000-EXIT.

21000-EXIT.
*****
* 28100-WRITE-DATA
*
*****
28100-WRITE-DATA.
        MOVE OUTPUT-RECORD TO OUT-DATA.
        WRITE OUT-DATA.
28100-EXIT.

*****
* 80000-READ-INFILE
*
*****
80000-READ-INFILE.
        READ INFILE
        AT END MOVE 'Y' TO S-EOD.

80000-EXIT.

```

A.3.6.3 Member-Written Plus Reformat Program

The member-written Plus reformat program is used when an acquirer receives only the Plus BIN table file.

The following sample contains a sample COBOL program that reads the “UNDIF” file from the DAS VAP or the “PLUSBIN” file from the BASE II Edit Package and creates a new 80-byte Plus BIN table that can be loaded to the member’s host system.

The program strips off the BASE II prefix data, left-justifies the BIN table data, excludes the Plus header and trailer records, and retains the Plus BIN TABLE visual identification tag.

Sample Member-Written Plus Reformat Program

```

ID DIVISION.
PROGRAM-ID. REPTSEP.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-370.
OBJECT-COMPUTER. IBM-370.
SPECIAL NAMES.
*****
INPUT-OUTPUT SECTION.
*****
FILE-CONTROL.
    SELECT REPORTS-IN-FILE      ASSIGN TO UT-S-REPTIN.
    SELECT REPORTS-OUT-FILE     ASSIGN TO UT-S-REPTOUT.
    SELECT Plus-OUT-FILE        ASSIGN TO UT-S-PLUSOUT.
*****
DATA DIVISION.
FILE SECTION.
*****
FD  REPORTS-IN-FILE
    RECORD CONTAINS 168 CHARACTERS
    BLOCK CONTAINS 9 RECORDS
    RECORDING MODE IS F
    LABEL RECORDS ARE STANDARD
    DATA RECORD IS REPORTS-IN-RECORD.
01  REPORTS-IN-RECORD          PICTURE X(168) .
FD  REPORTS-OUT-FILE
    RECORD CONTAINS 168 CHARACTERS
    BLOCK CONTAINS 9 RECORDS
    RECORDING MODE IS F
    LABEL RECORDS ARE STANDARD
    DATA RECORD IS REPORTS-OUT-RECORD.
01  REPORTS-OUT-RECORD         PICTURE X(168) .
FD  Plus-OUT-FILE
    RECORD CONTAINS 80 CHARACTERS
    RECORDING MODE IS F
    LABEL RECORDS ARE OMITTED
    DATA RECORD IS Plus-RECORD-OUT.
01  Plus-RECORD-OUT            PICTURE X(80) .
*****
WORKING-STORAGE SECTION.
*****
REPORTS-DATA
01  03 FILLER                  PICTURE X(34) .
    03 Plus-HDR-TRLR.
        05 HEADER-TRLR         PICTURE X(19) .
        05 FILLER               PICTURE X(16) .
        05 HORTAG               PICTURE X(14) .
        05 FILLER               PICTURE X(31) .
    03 Plus-DATA REDEFINES Plus-HDR-TRLR.
        05 SEQ                  PICTURE X(06) .
        05 FORMAT               PICTURE X(01) .
        05 CH-LENGTH            PICTURE X(02) .
        05 BIN-LENGTH           PICTURE X(02) .
        05 BIN-NUMBER           PICTURE X(12) .
        05 ACCT-TYPE            PICTURE X(03) .
        05 BASE I-FLAG          PICTURE X(01) .
        05 FILLER               PICTURE X(08) .
        05 TAG                  PICTURE X(14) .
        05 FILLER               PICTURE X(31) .
    03 FILLER                  PICTURE X(54) .

```


Sample Member-Written Plus Reformat Program (continued)

```

*****
*                               WORKFIELDS                               *
*****
01 RPT-HEADER PICTURE X(19) VALUE SPACES.
01 BIN-TABLE-TAG PICTURE X(14) VALUE SPACES.
01 BLANK PICTURE X(14) VALUE SPACES.
01 NINE PICTURE 9 VALUE 9.
01 RPTIN-EOF PICTURE 9 VALUE 0.
*****
*                               OPEN FILES                               *
*                               MAINLINE PROCESSING                       *
*                               CLOSE FILES                               *
*****
PROCEDURE DIVISION.
    OPEN INPUT REPORTS-IN-FILE.
    OPEN OUTPUT REPORTS-OUT-FILE.
    OPEN OUTPUT Plus-OUT-FILE.
    PERFORM 9000-READRECS THRU 9000-EXIT.
    IF RPTIN-EOF NOT EQUAL NINE
        PERFORM 1000-MAINPROC THRU 1000-EXIT
        UNTIL RPTIN-EOF EQUAL NINE.
    PERFORM 9010-CLOSEFILES THRU 9010-EXIT.
*****
*                               MAINPROC-PROCESSING A RECORD             *
*****
1000-MAINPROC SECTION.
1000-PERFORM.
    IF BIN-TABLE-TAG EQUAL 'Plus BIN TABLE'
        IF RPT-HEADER NOT EQUAL 'TAPEHEADER BINDISTR' AND
            RPT-HEADER NOT EQUAL 'TAPETRAILER BINDISTR'
            MOVE Plus-DATA TO Plus-RECORD-OUT
            WRITE PLUS-RECORD-OUT
    ELSE
        MOVE BLANKS TO BIN-TABLE-TAG
    ELSE
        WRITE REPORTS-OUT-RECORD FROM REPORTS-DATA.
    PERFORM 9000-READRECS THRU 9000-EXIT.
1000-EXIT SECTION.
1000-DONE.
*****
*                               READRECS-READ A RECORD FROM THE REPORTS-IN-FILE *
*****
9000-READRECS SECTION.
9000-PERFORM.
    READ REPORTS-IN-FILE AT END MOVE NINE TO RPTIN-EOF.
    MOVE REPORTS-IN-RECORD TO REPORTS-DATA.
    MOVE HEADER-TRLR TO RPT-HEADER.
    MOVE TAG TO BIN-TABLE-TAG.
9000-EXIT SECTION.
9000-DONE.

```

Sample Member-Written Plus Reformat Program (continued)

```
*****
*                                CLOSE FILES                                *
*****
9010-CLOSEFILES SECTION.
9010-PERFORM.
    CLOSE REPORTS-IN-FILE.
    REPORTS-OUT-FILE.
    Plus-OUT-FILE.
9010-EXIT SECTION.
9010-DONE.
    STOP RUN.
```

A.3.6.4 Sample Output From Member-Written Plus Reformat Program

Following is an example of the Plus BIN Table file record format after executing the sample member-written program.

The header and trailer records have been deleted, as described in the previous subsection.

The Plus BIN TABLE label has been retained but is not required for processing.

Member-Written Plus Reformat Program—Sample Output

```
0....5...10...5....20...5....30...5....40...5....50
00000111106561065000000NAS      Plus BIN TABLE
00000211106564134000000NAS      Plus BIN TABLE
00000311104001100000000DDA      Plus BIN TABLE
00000411104001200000000DDA      Plus BIN TABLE
00000511309426211540000CCD      Plus BIN TABLE
```

A.3.6.5 Sample OS/JCL

Following is a skeleton of sample JCL (IBM/OS) for executing the sample member-written program.

Sample JCL

```
// SEP EXEC PGM=REPTSEP
// SYSUDUMP DD SYSOUT=A
// SYSPRINT DD SYSOUT=A
// REPTIN DD DSN=PLUSBN,UNIT=DISP=(OLD,DELETE)
// PLUSOUT DD
DSN=PLUSTAB,DISP=(NEW,KEEP),UNIT=SYSDA,SPACE=(CYL,(5.5))
/*
```

A.4 RECORD LAYOUTS

This section shows the layouts of the following records:

Record Layouts

- TC 33 Multipurpose Message Transaction

The TC 33 is used for raw data.

- TC 45 General Delivery Report Transaction

The TC 45 is used for the Visa and Plus Routing Table report files and the daily detail and reconciliation reports.

- TC 46 Member Settlement Data Transaction

The TC 46 is used for the electronic version of the national and international settlement report information.

- TC 47 Report Generation Records

The TC 47 is used for the print lines version of the national and international settlement reports.

- TC 90, 91, and 92 File Header and Trailer Records

The TC 90 header and TC 91 and TC 92 trailer records are used to identify and provide totals for all record types (TC 33, TC 45, TC 46, and TC 47).

A.4.1 Multipurpose Message Transaction—TC 33

The Multipurpose Message Transaction (TC 33) shown in Table A-17 is used for raw data and for the Visa and Plus Routing Table files.

Table A-17 Multipurpose Message Transaction Record Layout—TC 33

Position	Field Length	Format ¹	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–10	6	UN	Destination BIN
11–16	6	UN	Source BIN
17–22	6	AN	Report Identifier
23–32	10	UN	Report Line Sequence Number
33–34	2	AN	Reserved
35–167	133	AN	Report Text
168	1	AN	Reimbursement Attribute

1. UN = Unpacked Numeric, AN = Alphanumeric

A.4.2 General Delivery Report Transaction—TC 45

The General Delivery Report Transaction (TC 45) shown in Table A-18 is used to transmit detail and reconciliation reports.

Record Layouts

Table A-18 General Delivery Report Transaction Record Layout—TC 45

Position	Field Length	Format ¹	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–10	6	UN	Destination BIN
11–16	6	UN	Source BIN
17–148	132	AN	Report Text
149	1	AN	Reserved
150–155	6	AN	Report Identifier
156	1	UN	Report Day Sequence Number
157–162	6	UN	Report Line Sequence Number
163–167	5	AN	Reserved
168	1	AN	Reimbursement Attribute

1. UN = Unpacked Numeric, AN = Alphanumeric

A.4.3 Member Settlement Data Transaction—TC 46

The Member Settlement Data Transaction (TC 46) shown in Table A-19 is used to transmit machine-readable national and international settlement data.

The transaction format utilized is Report Group = Space.

Table A-19 Member Settlement Data Record Layout—TC 46

Position	Field Length	Format ¹	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–10	6	UN	Destination BIN
11–16	6	UN	Source BIN
17–21	5	UN	Central Processing Date (YYDDD)
22–24	3	UN	Currency Code
25	1	UN	Report Level
26–27	2	UN	Record Type
28	1	UN	Summary Level
29–30	2	UN	Summary Transaction Code
31	1	UN	Summary Transaction Usage

Record Layouts

Table A-19 Member Settlement Data Record Layout—TC 46 (continued)

Position	Field Length	Format ¹	Contents
32–36	5	AN	Settlement Date
37–58	22	AN	Reserved
59	1	AN	Report Group
60–61	2	AN	Corresponding Report ID
62–63	2	AN	Reserved
64–78	15	UN	Outgoing Amount
79–80	2	AN	Outgoing Amount Sign
81–95	15	UN	Incoming Amount
96–97	2	AN	Incoming Amount Sign
98–112	15	UN	Net Amount
113–114	2	AN	Net Amount Sign
115–122	8	UN	Outgoing Count
123–130	8	UN	Incoming Count
131–167	37	AN	Reserved
168	1	AN	Reimbursement Attribute

1. UN = Unpacked Numeric, AN = Alphanumeric

A.4.4 Report Generation Record Transaction—TC 47

The Report Generation Record (TC 47) shown in Table A-20 is used for the print version of international and national settlement reports. This is a 170-byte record.

Table A-20 Report Generation Record Transaction—TC 47

Position	Field Length	Format ¹	Contents
1–2	2	UN	Transaction Code
3–4	2	BINARY	Record Hash Total
5	1	UN	Transaction Code Qualifier
6	1	UN	Transaction Component Sequence Number
7–12	6	UN	Destination BIN
13–18	6	UN	Source BIN
19–149	131	UN	Text
150–169	20	AN	Reserved
170	1	AN	Reimbursement Attribute

1. UN = Unpacked Numeric, AN = Alphanumeric

A.4.5 Header Records—TC 90

Header records are used to identify the file.

Members can receive more than one delivery file during one processing cycle. This can occur under two different conditions.

Multiple files can be continuation files of one transmission. In this case, the Continuation Tape Indicator field in the TC 90s of the first file contains a space, and that field in the TC 90s of subsequent files contains a C (indicating continuation). The File Continuation Count field on all TC 92s except the last contains 000000; the TC 92 of the last file would contain the number of files in the transmission.

These files can also be multiple separate files with no continuation relationship. This occurs, for example, when customized delivery services have been selected. In this case the Continuation Tape Indicator field in the TC 90s on the files is set to a space. The File Continuation Count field on each of the TC 92s contains 000001. See Table A-21 for the header record layout of a TC 90 transaction.

Table A-21 Header Record Layout—TC 90

Position	Field Length	Format ¹	Contents
1–2	2	UN	Transaction Code
3–8	6	AN	Processing BIN
9–13	5	UN	Processing Date (YYDDD)
14–29	16	AN	Reserved
30–33	4	AN	Test Option
34–62	29	AN	Reserved
63–70	8	AN	Security Code
71–76	6	AN	Reserved
77–79	3	UN	Outgoing File ID
80–168	89	AN	Reserved

1. UN = Unpacked Numeric, AN = Alphanumeric

A.4.6 Batch and File Trailer Records—TC 91, 92

The Batch Trailer (TC 91) is used for batch control totals and as a batch boundary indicator at the end of each batch. The File Trailer (TC 92) is used for file control totals and as an end-of-file indicator. See Table A-22.

Batch File Maintenance

Table A-22 Batch and File Trailer Record Layout

Position	Field Length	Format ¹	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–10	6	UN	BIN
11–15	5	UN	Processing Date (YYDDD)
16–30	15	UN	Destination Amount
31–42	12	UN	Number of Monetary Transactions
43–48	6	UN	Batch Number
49–60	12	UN	Number of TCRs
61–66	6	UN	Reserved
67–74	8	AN	Center Batch ID
75–83	9	UN	Number of Transactions
84–101	18	UN	Reserved
102–116	15	UN	Source Amount
117–131	15	UN	Reserved
132–146	15	UN	Reserved
147–161	15	UN	Reserved
162–168	7	AN	Reserved

1. UN = Unpacked Numeric, AN = Alphanumeric

A.5 BATCH FILE MAINTENANCE

Batch file maintenance is suitable for changing a large number of records in the Exception File or the PIN Verification File. For routine maintenance, online updates may be used. This section explains the requirements for batch file maintenance of these files using the format 2 file format, including:

- Tape mailing and shipping instructions.
- Tape requirements.
- Format 2 record formats.

As with online file maintenance, file access is limited to the member or processor center associated with the account number to be updated. Before a tape file of updates is applied to a file at Visa, an offline process edits the updates for critical data such as account numbers and purge dates. Participants are advised by Visa Member Services if a tape is rejected or errors are found.

Batch file maintenance supports Visa PIN Verification Value (PVV) and IBM Offset algorithms only. If an issuer uses Atalla DES Bi-Level or Atalla Identikey, online file maintenance must be used.

A.5.1 Tape Mailing Instructions

The PIN Verification File or the Exception File can be maintained in batch mode by preparing a tape file and sending it to Visa at the following address:

Visa International
Attention: Tape Support Services
P.O. Box 8999
San Francisco, California 94128-8999 U.S.A.

The preferred, fastest delivery method is a courier service. Tapes can also be delivered to Visa by registered mail or air freight.

Each tape mailed to Visa must contain 500,000 or fewer records. Multiple tapes must be used for update requests involving more than 500,000 records. Files requiring multiple tapes are accepted as separate tapes with individual header and trailer records or as a multiple reel/concatenated file.

A.5.2 Tape File Requirements

Following are the requirements for Format 2 file maintenance tapes.

A.5.2.1 External Label Requirements

Each tape must have two external labels, one describing the tape, the other providing the name and address of the sender. The label that describes the tape must include the following information:

- Processing center ID
- Volume serial number
- "PIN Verification File Update" or "Exception File Update;" to update both files, use the file name in the first update record
- For multivolume tape files, tape reel sequence number in the format "1 of x", "2 of x", and so on
- Tape creation date
- Tape effective date and time
- Tape density
- Manufacturer and model number of the tape unit used to create the tape
- Whether the tape has an internal label
- Approximate number of records

The second label describes the source of the tape and must include the following information:

- Processing center name
- Department name (optional)
- Street address, city, state or province, postal code
- Country

The tape will be returned to this address after Visa processing.

A.5.2.2 Tape Specifications

File maintenance tapes must have the following physical characteristics:

- One-half inch magnetic tape
- 9-track EBCDIC
- 800, 1600, or 6250 bpi (800 bpi is not recommended)
- Standard IBM labels or unlabeled
- 200 bytes per record, 4 records per block
- One logical file per physical tape file (one or more reels), in the following format:
 - File header record
 - Detail records
 - File trailer record
 - Two tapemarks

Detail records may be for the PIN Verification File or the Exception File, or both, and can be in any sequence.

The formats of the file header, detail, and trailer records are described below.

A.5.2.3 Record Formats

The format 2 file header record identifies the tape and the sender and indicates when the file was created.

Format 2 detail records contain data for updating the PIN Verification File or the Exception File. The general format of detail records is as follows:

- Bytes 1–2: File type, or both
- Bytes 3–55: Account information
- Bytes 56–200: Data specific by file type

The contents of bytes 56–200 vary by type of update:

- For File Update Code 1 or 2 (add or change), the entire record must be supplied, with spaces or zeros in fields that do not apply. (When a change is processed at Visa, the entire record is replaced, not just the actual data being changed.)
- For File Update Code 3 (delete), the file type and all applicable account identification information must be supplied, but bytes 56–200 can be space-filled.

The format 2 file trailer record contains a count of detail records in the file.

The format of each of the format 2 records is shown in Table A-23, Table A-24, Table A-25, and Table A-26.

Table A-23 Format 2 File Header Record

Field Name	Bytes	Length	Type	Content and Description
Record Type	1	1	A	H for header
Filler	2	1	AN	Space
Tape ID	3–8	6	AN	Volume serial number of the tape
Filler	9	1	AN	Space
Processing Center ID	10–13	4	N	4-digit ID assigned to the center by Visa
Processing Type	14	1	A	U for update
Effective Date	15–22	8	AN	The GMT date in MM/DD/YY format

Table A-23 Format 2 File Header Record (continued)

Field Name	Bytes	Length	Type	Content and Description
Filler	23	1	AN	Space
Effective Time	24–31	8	AN	The GMT in hh:mm:ss format
Filler	32–34	3	AN	Spaces
Message Format	35	1	AN	2
Filler	36–200	165	AN	Spaces

Table A-24 Format 2 Detail Record—PIN Verification File

Field Name	Bytes	Length	Type	Content and Description
File Type	1–2	2	AN	Indicates the file to be updated: C4 = PIN Verification File
File Update Code	3	1	N	1 = Add, 2 = Change, 3 = Delete
Primary Account Number Length	4–5	2	N	The number of digits or characters in the account number, right-justified and zero-filled
Primary Account Number (PAN)	6–33	28	AN	If numeric, must be 5 to 28 digits, right-justified and zero-filled If alphanumeric, must be 5 to 14 characters, left-justified and space-filled Must be a number that is valid for the issuer. Must match the number encoded on the magnetic stripe of the card
Purge Date	34–39	6	AN	If File Update Code is 1 or 2, must be a valid date in YYMMDD format If File Update Code is 3, must be spaces
Country Code	40–42	3	N	Identifies country of the issuer. Required only if account number or issuer ID begins with 59. Otherwise, zero-filled
Issuing Institution ID Length	43–44	2	N	Required only for non-ISO-standard account numbers. Specifies the number of digits in the issuer institution identification number. Otherwise, zero-filled
Issuing Institution ID	45–55	11	N	Required only for non-ISO-standard account numbers. Specifies the issuer institution identification number. Otherwise, zero-filled
PIN Verification Data	56–62	7	AN	Required for PIN verification if File Update Code is 1 or 2. Must be spaces if File Update Code is 3 For PVV:
Algorithm ID	56–57	2	AN	Bytes 56–57 = Algorithm ID “01”
PVK1	58	1	AN	Byte 58 = PVKI (values 1 through 6)

Files

Table A-24 Format 2 Detail Record—PIN Verification File (continued)

Field Name	Bytes	Length	Type	Content and Description
PVV or Offset	59–62	4	AN	Bytes 59–62 = PVV For IBM PIN Offset: Bytes 56–57 = Algorithm ID “04” Byte 58 = PVKI (value = 1) Bytes 59–62 = IBM PIN Offset
Filler	63–200	138	AN	Spaces

Table A-25 Format 2 Detail Record—Exception File

Field Name	Bytes	Length	Type	Content and Description
File Type	1–2	2	AN	Indicates the file to be updated: E4 = Exception File
File Update Code	3	1	N	1 = Add, 2 = Change, 3 = Delete
Primary Account Number Length	4–5	2	N	The number of digits or characters in the account number, right-justified and zero-filled
Primary Account Number (PAN)	6–33	28	AN	If numeric, will be 5 to 28 digits, right-justified and zero-filled If alphanumeric, will be 5 to 14 characters, left-justified and space-filled
Purge Date	34–39	6	AN	If File Update Code is 1 or 2, will be a valid date in YYMMDD format If File Update Code is 3, will be spaces
Country Code	40–42	3	N	Identifies country of the issuer. Present only if account number or issuing institution ID number begins with 59. Otherwise, zero-filled
Issuing Institution ID Length	43–44	2	N	Present only for non-ISO standard account numbers. Specifies the number of digits in the Issuing Institution ID. Otherwise, zero-filled
Issuing Institution ID	45–55	11	N	Present only for non-ISO standard account numbers. Specifies the issuing institution identification number. Otherwise, zero-filled
Action Code	56–57	2	AN	If File Update Code is 1 or 2, must be a valid Action Code for the Exception File (see Field 127E.1 for Debit—Format 2 in Appendix C of this guide. If File Update Code is 3, can be space-filled
Region Coding	58–66	9	AN	Space-filled

Table A-25 Format 2 Detail Record—Exception File (continued)

Field Name	Bytes	Length	Type	Content and Description
Cardholder Spending Amount Limit	67–72	6	N	Can be any dollar value If File Update Code is 1 or 2 and Action Code is spaces, amount limit must be greater than zero If File Update Code is 1 or 2 and Cardholder Spending Count Limit is greater than zero, amount limit must also be greater than zero If File Update Code is 3, amount limit can be zeros or a valid amount limit
Cardholder Spending Count Limit	73–74	2	N	Can be any value between 00 and 99 If File Update Code is 1 or 2 and Action Code is spaces, count limit must be greater than zero If File Update Code is 3, count limit can be zero-filled
Filler	75–200	126	AN	Spaces

Table A-26 Format 2 Trailer—PIN Verification File and Exception File

Field Name	Bytes	Length	Type	Content and Description
Trailer ID	1	1	A	T for trailer
Number of Records	2–10	9	N	Number of detail records in the file, right-justified, and zero-filled
Filler	11–200	190	AN	Spaces

File Maintenance Error Codes

This appendix lists error codes that are used by the system to describe errors in the content of file maintenance messages.

B.1 ERROR CODE DESCRIPTIONS

Error codes appear in field 48 of an 0310 or 0312 response message, or in an 0322 enhanced file update advice. In most cases of file-related error, the VisaNet Interchange Center (VIC) replies to the file update or file inquiry by sending back an 0310 or 0312 response or an 0322 file update discrepancy advice that contains (1) an error response code 06 in field 39 and (2) a 4-digit error code in field 48 of the response.

The file error codes are listed in numeric order in Table B-1, along with the name of the field or subfield in error and a brief description of the error condition. Refer to Chapter 4, Data Field Descriptions, for details on field edits.

Table B-1 Error Codes

Error Code	Error Condition
0530	Field 101—File Name: Invalid file name
0532	Length of issuing institution is invalid.
0558	Field 2—Primary Account Number: Length not used by issuer
0559	Cardholder Spending Amount Limit (field 127E.3) is a value greater than zero, but Cardholder Spending Count Limit (field 127E.4) is not. Or vice versa.
0560	File Update Code (field 91) indicates add or change, but neither Action Code (field 127E.1) nor Cardholder Spending Limits (fields 127E.3 or 4) is specified.
0561	The Action Code (field 127E.1) is a decline (that is, not 11) but cardholder spending limits (fields 127E.3 and 4) are present.
0562	Cardholder Spending Amount Limit (field 127E.3) contains a non-numeric value.
0563	Cardholder Spending Count Limit (field 127E.4) contains a non-numeric value.
0564	In an update, the length of field 127 is less than the minimum or more than the maximum length allowed, based on the subfield requirements for the file name specified.
0565	There is no record in the file with the cardholder account number specified for a change, delete, or inquiry.

Error Code Descriptions

Table B-1 Error Codes (continued)

Error Code	Error Condition
0566	The cardholder account number specified for an add already exists in the file.
0567	The file handler has encountered a file or file access problem.
0568	Field 91 in an 0302 request contains a code other than 1, 2, 3, or 5.
	Field 91 is not 5 in a file inquiry.
	Field 91 in an 0210 response contains a code other than 3 or 4. (Issued as an Auto-CDB file update error code.)
0570	The account number (fields 2, 102, or 103) has an invalid check digit.
0571	Cardholder account number does not fall within a valid range.
0572	The source authorization center is not the center responsible for this cardholder data.
0573	Purge date (field 73) contains a nonnumeric character.
0574	Month is not 01 through 12.
0575	Purge date (field 73) is invalid for one of these reasons: <ul style="list-style-type: none"> • In an add or change, the date is missing. • Date has expired. • Date is present in a delete.
0577	Region Coding (field 127E.2) contains an invalid code. If file name = E2 or E4, valid codes are 0 through 9, A through F, and X through Z. Or, Region Coding includes zero in combination with one or more non-zero codes.
0578	Region Coding (field 127E.2) is spaces when Action Code is 04, 07, 41, or 43.
0582	The Algorithm Identifier (field 127C.1) is not 01 or 04.
0583	The PIN Verification Key Index (field 127C.1) is not a value from 1 to 6.
0584	The PVV or PIN offset PVV/offset (in field 127C.1) is not numeric.
0585	The country code in field 20 is invalid.
0586	The country code in field 20 is invalid.
0650	The Action Code (field 127E.1) is invalid for one of these reasons: <ul style="list-style-type: none"> • The code is not 01, 04, 05, 07, 11, 41 or 43. • The code is 01 in an Electron account record.
	Action Code inconsistent with Response Code (field 39) in the authorization response message (Auto CDB)
0682	The length of File Name (field 101) is not 2.

Reject Codes

This appendix lists reject codes that are used by the V.I.P. system to describe errors in message content.

Reject codes appear in field 14 of a reject message header. A message is rejected if it contains an error that prevents it from being processed at the VisaNet Interchange Center (VIC).

C.1 REJECT CODES DESCRIPTIONS

The table below titled “Multiple Field Reject Codes” lists reject codes applicable to several fields and the requirements for avoiding them. The table titled “Reject Codes, Numerical Sequence” lists reject codes in numerical order, and provides:

- The number of the header or message text field that caused the message to reject.
- The name of the field in error.
- The reject reason.

For most codes, the reason is either “invalid value” or “missing field.”

NOTE

In the tables’ “Field in Error” column, an “H” means a message header field.

Table C-1 Multiple Field Reject Codes

Requirement	Reject Code
VisaNet must be able to parse a message into recognizable fields of the correct length	0400 = parse error (for example, invalid length, missing code)
The SMS system component may not send SMS-only reject codes to other components (BASE I, Plus, and so on). For example, a reject that applies to SMS processing only and is invalid for BASE I is translated to 0518 when returned to the BASE I acquirer.	0518 = default reject code
Both of the following: <ul style="list-style-type: none"> • Messages in a transaction set must be for the same type of cardholder function • An adjustment is valid only after an original request or advice 	0596 = consistency error; message is for a different type of cardholder function than the other transaction set records, or a primary request followed an adjustment
For multiple transactions, only one financial request can be submitted for the same cardholder function	0597 = consistency error; the card number, reference number, and type of request are the same, but the trace number is different
Primary requests or reversals must be processed prior to an adjustment	0598 = consistency error; message is a primary request or reversal, but an adjustment has already been processed for this transaction set

Reject Codes

Table C-1 Multiple Field Reject Codes (continued)

Requirement	Reject Code
Messages must contain valid Message Type Identifiers	<p>0599 = consistency error; invalid combination of Message Type Identifiers and message fields</p> <ul style="list-style-type: none"> • For 02xx and 04xx messages—message type in Original Data Elements, time limit presence, Advice-Transaction flag setting, processing code (first two digits), and POS condition code (when 13, 17, or 54) • For 03xx messages—File Update Code <p>Or, the message type is invalid for the card program</p> <p>Or, response values do not match those in corresponding request or advice</p>
Exception processing messages must contain correct processing code, transaction amount, cardholder function type, and transaction set	<p>0601 = consistency error; message is part of a known “transaction,” but processing code, transaction amount, cardholder function type, or transaction set does not match:</p> <ul style="list-style-type: none"> • First two digits of processing code (exception: code is different for a chargeback reversal) • Transaction amount, except may be different in chargeback, chargeback reversal, or representment • Type of cardholder function • Transaction group (financial transaction or adjustment)
Messages for a given transaction must be processed in correct sequence	0602 = consistency error; message is out of sequence with previously processed messages for same cardholder transaction
A response or advice response must be consistent with the request or advice	<p>0603 = consistency error; response or advice response inconsistent with request or advice. One of the following fields does not match: account number, transaction amount, processing code, original data elements message type, or POS condition code (if 13, 17, or 54).</p> <p>Or, the time value is present in the request or advice or response/advice response, but not in both.</p> <p>Or, the message type in the response or advice response is not the proper one for the request or advice</p>
Message recipients must ensure against duplicate responses	0604 = consistency error; duplicate response
Source PCR for the Response must Equal the Destination PCR of the Request	0609 = Source PCR for the Response is NOT Equal to the Destination PCR of the Request

Reject Codes

Reject Codes Descriptions

Table C-2 Reject Codes, Numeric Sequence

Code	Field in Error	Field Name	Reject Reason
0001	2	Primary Account Number	Invalid length
0003	H ¹⁵	Destination Station ID	Invalid value
0004	H6	Source Station ID	Invalid value
0005	n/a	Message Type Identifier	Invalid value
0008	3	Processing Code	Invalid value
0009	4	Amount, Transaction	Invalid value
0010	7	Transmission Date and Time	Invalid value
0011	11	Systems Trace Audit Number	Invalid value
0012	H1	Header Length	Invalid value
0013	H2	Header Flag and Format	Invalid value
0014	14	Date, Expiration	Invalid value
0015	H3	Text Format	Invalid value
0016	H4	Total Message Length	Invalid value
0017	18	Merchant's Type	Invalid value
0018	25	POS Condition Code	Invalid value
0019	22	POS Entry Mode Code	Invalid value (acquirer not certified to use code 90)
0020	32	Acquiring Institution Identification Code	Invalid length
0021	32	Acquiring Institution Identification Code	Invalid value
0022	H7	Round-Trip Control Information	Invalid value in request
0024	35	Length subfield of Track 2 Data	Invalid length
0027	35	Track 2 Data	Bad track data
0028	59	National POS Geographic Data	Invalid length
0029	59	National POS Geographic Data	Invalid geographic data
0030	H10	Batch Number	Invalid value
0031	H11	Reserved field	Invalid value
0033	19	Acquiring Institution Country Code	Invalid value
	33	Forwarding Institution ID Code	Field missing
0035	20	PAN Extended, Country Code	Invalid value

Reject Codes

Reject Codes Descriptions

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0037	49	Currency Code, Transaction	Invalid value
	50	Currency Code, Settlement	Invalid value
0038	15	Date, Settlement	Invalid value
0042	70	Network Management Information Code	Invalid value
0043	66	Settlement Code	Invalid value
0044	74	Credits, Number	Invalid value
0045	75	Credits, Reversal Number	Invalid value
0046	76	Debits, Number	Invalid value
0047	77	Debits, Reversal Number	Invalid value
0048	86	Credits, Amount	Invalid value
0049	87	Credits, Reversal Amount	Invalid value
0050	88	Debits, Amount	Invalid value
0051	89	Debits, Reversal Amount	Invalid value
0052	97	Amount, Net Settlement	Invalid value
0055	90	Original Data Elements	Invalid value
0056	33	Forwarding Institution Identification Code	Invalid length
0057	33	Forwarding Institution Identification Code	Invalid value
0058	99	Settlement Institution Identification Code	Invalid length
0059	99	Settlement Institution Identification Code	Invalid value
0060	101	File Name	Invalid length. Length equals zero (0) or it exceeds 17.
0061	48	Additional Data—Private	Invalid value or field missing (field 48 usage-dependent)
0062	63.1	Network ID Code	Invalid value
0063	48	Additional Data—Private	Invalid length
0070	26	Point-of-Service PIN Capture Code	Invalid value
0071	44	Additional Response Data	Invalid length
0072	60	Additional POS Information	Invalid length

Reject Codes

Reject Codes Descriptions

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0082	100	Receiving Institution Identification Code	Invalid value
0087	39	Response Code	Invalid value
0088	53	Security-Related Control Information	Invalid value
0090	12	Time, Local Transaction	Invalid value
0091	13	Date, Local Transaction	Invalid value
0094	37	Retrieval Reference Number	Invalid value in first four digits
0095	37	Retrieval Reference Number	Invalid value
0096	42	Card Acceptor Identification Code	Invalid value
0100	100	Receiving Institution Identification Code	Invalid length
0104	102	Account Identification 1	Invalid length
0105	60	Additional POS Information	Invalid value
0111	103	Account Identification 2	Invalid length
0112	103	Account Identification 2	Invalid value
0114	63.3	Message Reason Code	Invalid value
0118	21	Forwarding Institution Country Code	Invalid value
0119	68	Receiving Institution Country Code	Invalid value
0120	69	Settlement Institution Country Code	Invalid value
0127	44	Additional Response Data	Invalid value
0131	119	Settlement Service Data	Invalid length
0132	119	Settlement Service Data	Invalid country code
0133	6	Amount, Cardholder Billing	Invalid value. This field's amount is shown in field 63.13 as three decimals but ends in a number other than zero.
0134	28	Amount, Transaction Fee	Invalid value
0140	63.3	Message Reason Code	Invalid value (Network ID 0004 transaction only)
0142	22	POS Entry Mode Code	This field = 90 but magnetic stripe not present.
	35	Track 2 Data	Mag stripe data missing or acquirer not certified when field 22 = 90; or, for Visa only, if field present, field 14 omitted.

Reject Codes

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0143	48	Additional Data—Private; Usage 7A	ATM chargeback usage code not 1
0146	119	Settlement Service Data	Invalid value in the member-calculated IRF field
0147	H9	Message Status Flag	Invalid settlement service value in byte 3, bits 2 through 4
0150	54	Additional Amounts	Invalid value. The amount in this field is shown in field 63.13 as three decimals but ends in other than zero.
	63.13	Decimal Positions Indicator	Invalid field 54
0151	62	Custom Payment Service Fields	Invalid length
0152	62.1	Authorization Characteristics Indicator	Invalid value
0153	62.2	Transaction Identifier	Invalid value
0157	63.13	Decimal Position Indicator	Invalid value field 63.13
0158	H6	Source Station ID	VCMS reject: Loopback Router Sign-On: Specified source station already signed onto router with a partner other than the partner specified in Header Field 5 (Destination Station). Loopback Router Sign-Off: Specified source station is not associated with the partner station specified in Header Field 5 (Destination Station).
0159	H5	Destination Station ID	VCMS reject: Destination Station ID contained in a loopback router sign-on request cannot be found in the BASE I System files.
0160	H5	Destination Station ID	VCMS reject: Destination Station ID contained in a loopback router sign-on message is already signed on to the router with a partner different from the specified source station (Header Field 6).
0161	H5	Destination Station ID	VCMS reject: While attempting to parse an 0800 loopback router sign-on or sign-off request, the router application encountered a parse error.
0162	H5	Destination Station ID	VCMS reject: While attempting to process an 0800 loopback router sign-on or sign-off request, an error was encountered trying to interface with the network isolation layer resident on VisaNet.

Reject Codes

Reject Codes Descriptions

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0163	H5 or H6	Destination Station ID or Source Station ID	VCMS reject: At least one station specified in a loopback router sign-on request is not a VCMS-only station (that is, attempted to establish a loopback partnership with a production station).
0164	H6	Source Station ID	VCMS reject: Source station in loopback router sign-on or sign-off not found in the BASE I System files.
0165	2	Primary Account Number	VCMS reject: The account number used is associated with a PCR different from the PCR of the partner station that acts as the issuer.
0169	43	Card Acceptor Name/Location	Invalid value
0170	41	Card Acceptor Terminal ID	Invalid value
0250	54	Additional Amounts	Field missing
0251	2	Primary Account Number	Field missing
0270	n/a	Message Type Identifier	Field missing
0274	3	Processing Code	Field missing
0275	4	Amount, Transaction	Field missing
0276	7	Transmission Date and Time	Field missing
0277	11	Systems Trace Audit Number	Field missing
0278	12	Time, Local Transaction	Field missing
0279	13	Date, Local Transaction	Field missing
0280	14	Date, Expiration	Field missing
0283	18	Merchant's Type	Field missing
0284	25	POS Condition Code	Field missing
0285	22	POS Entry Mode Code	Field missing
0287	32	Acquiring Institution Identification Code	Field missing
0289	41	Card Acceptor Terminal ID	Field missing
0291	35	Track 2 Data	Field missing
0293	38	Authorization Identification Response	Field missing
0294	39	Response Code	Field missing
0295	52	Personal Identification Number (PIN) Data	Field missing
0301	59	National Point-of-Service Geographic Data	Length attribute missing

Reject Codes

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0302	59	National Point-of-Service Geographic Data	Field missing
0306	19	Acquiring Institution Country Code	Field missing
0310	37	Retrieval Reference Number	Field missing
0311	42	Card Acceptor Identification Code	Field missing
0312	43	Card Acceptor Name/Location	Field missing
0314	20	Primary Account Number, Extended, Country Code	Field missing
0315	49	Currency Code, Transaction	Field missing
0319	63.1	Network ID Code	Field missing
0321	70	Network Management Information Code	Field missing
0322	66	Settlement Code	Field missing
0323	74	Credits, Number	Field missing
0324	75	Credits, Reversal Number	Field missing
0325	76	Debits, Number	Field missing
0326	77	Debits, Reversal Number	Field missing
0327	86	Credits, Amount	Field missing
0328	87	Credits, Reversal Amount	Field missing
0329	88	Debits, Amount	Field missing
0330	89	Debits, Reversal Amount	Field missing
0331	97	Amount, Net Settlement	Field missing
0333	33	Forwarding Institution Identification Code	Field missing (Fraud Reporting)
0334	100	Receiving Institution Identification Code	Field missing
0336	90	Original Data Elements	Field missing
0341	91	File Update Code	Field missing
0344	101	File Name	Field missing
0346	63.3	Message Reason Code	Field missing
0347	63.5	Plus Proprietary Member Center ID	Field missing
0360	60	Additional POS Information	Field missing

Reject Codes

Reject Codes Descriptions

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0369	134	Visa Discretionary Data	Invalid length
0370	135	Issuer Discretionary Data	Invalid length
0371	142	Issuer Script	Invalid length
0372	143	Issuer Script Results	Invalid length
0379	44	Additional Response Data	Field missing
0384	53	Security-Related Control Information	Field missing
0399	127	Format 2 File Maintenance	Field missing
0400	Variable		(See the Multiple Field Reject Codes table)
0452	21	Forwarding Institution Country Code	Field missing
0453	68	Receiving Institution Country Code	Field missing
0454	69	Settlement Institution Country Code	Field missing
0455	33	Forwarding Institution Identification Code	Field missing
0473	n/a	n/a	This reject code is typically associated with a V.I.P format error. It does not necessarily imply a member error. Please contact Visa.
0483	62.1	Authorization Characteristics Indicator	Field missing
	62.2	Transaction Identifier	Field missing
0487	63.13	Decimal Positions Indicator	Field 63.13 missing
0514	37	Retrieval Reference Number Network Identification Code	Response value does not match the request value.
	41		
	42		
	63.1		
0517	54	Additional Amounts	Value in field 54, positions 1 and 2, does not match value in field 3, positions 3 and 4.

Reject Codes

Reject Codes Descriptions

Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0518	54	Additional Amounts	Incorrect usage of field 54
	4	Amount, Transaction	Field present in a balance inquiry response
0519	H2	Header Flag and Format	Invalid header format
0521	35 2	Track 2 Data	Track 2 account number is missing or does not agree with field 2.
0527	H9	Message Status Flag	Invalid value in Byte 1, Bit 8
0528	3	Processing Code	Invalid "from account" code
0529	3	Processing Code	First two digits of reply not same as request
0590	39	Response Code	Invalid value (not 00 or 55 when it should be)
0592	52	Personal Identification Number (PIN) Data	Field present when not allowed
0596	22 or 25	POS Condition Code	Consistency error; message is for a different cardholder function type than the other records in the transaction set, or, a primary request followed an adjustment.
0597	25	POS Condition Code	Consistency error; second financial request for same cardholder function (card number, reference number, and type of request are the same; trace number is different).
0598	25	POS Condition Code	Consistency error; message is a primary request or its reversal but an adjustment has already been processed for this transaction set.
0599	H9	Message Status Flag	(See the Multiple Field Reject Codes table)
0600	2	Primary Account Number	Consistency error; account number does not match that already in transaction set.
0601	H9	Message Status Flag	(See the Multiple Field Reject Codes table)
0602	H9	Message Status Flag	(See the Multiple Field Reject Codes table)
0603	H9	Message Status Flag	(See the Multiple Field Reject Codes table)
0604	H9	Message Status Flag	(See the Multiple Field Reject Codes table)
0606	H6	Source Station ID	Source station is not signed on
0607	70	Network Management Information Code	Invalid value in reply
0610	3 or 18	Processing Code or Merchant Type	The first two digits of the processing code in field 3 are not compatible with the MCC in field 18.
0613	4	Amount, Transaction	Invalid value in a U.S. chargeback
0619	H7	Round-Trip Control Information	Not returned in response

Reject Codes

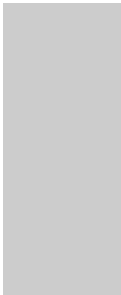
Table C-2 Reject Codes, Numeric Sequence (continued)

Code	Field in Error	Field Name	Reject Reason
0623	28	Amount, Transaction Fee	Field present in a message type for which it is not allowed.
0624	H9	Message Status Flag	National Net requested but transaction does not qualify for the service (used only on a back office transaction).
0625	H9	Message Status Flag	National Bilateral requested but transaction does not qualify for the service (used only on a back office transaction).
0643	59	National Point-of-Service Geographic Data	Invalid national POS geographic code
0644	59	National Point-of-Service Geographic Data	Invalid national POS ZIP code
0646	90	Original Data Element	Exception time exceeded
0647	25	POS Condition Code	Consistency error. The POS Condition Code in the response does not match the value in the request.
0649	63.3	Message Reason Code	Invalid chargeback
0722	32	Acquiring Institution Identification Code	SMS will reject chargebacks that are submitted on original AFC adjustment transactions.

1. An "H" means a message header field.

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Reject Codes



This appendix explains how to convert GMT (Greenwich mean time) to a local date and time. It contains a world map, (the following figure, titled “International Time Zones”), which indicates all global time zones and their demarcation lines. The map makes it easy to find out the time zone in which any location is located and to figure out what time it is anywhere in the world. This information is helpful if a center needs to contact another center directly by telephone or telex.

D.1 CONVERTING GMT TO LOCAL TIME AND DATE

To convert GMT to your local time and date, locate your local time zone on the figure titled “International Time Zones.” Starting with GMT, add or subtract according to the number in your local time zone. The following examples illustrate how to calculate back and forward from current GMT.

In the first example, the target location is one calendar day behind the current GMT, requiring backward calculation.

EXAMPLE

Calculating Back From Current GMT:

Suppose you want to contact a member on the West Coast of the United States. The map indicates -8 for this area. If GMT is 2400, subtract eight hours to determine the local time on the West Coast of the United States. Keep in mind that time zones with negative numbers are one calendar day behind the GMT date.

The next example illustrates a forward calculation where the GMT day remains the same.

EXAMPLE

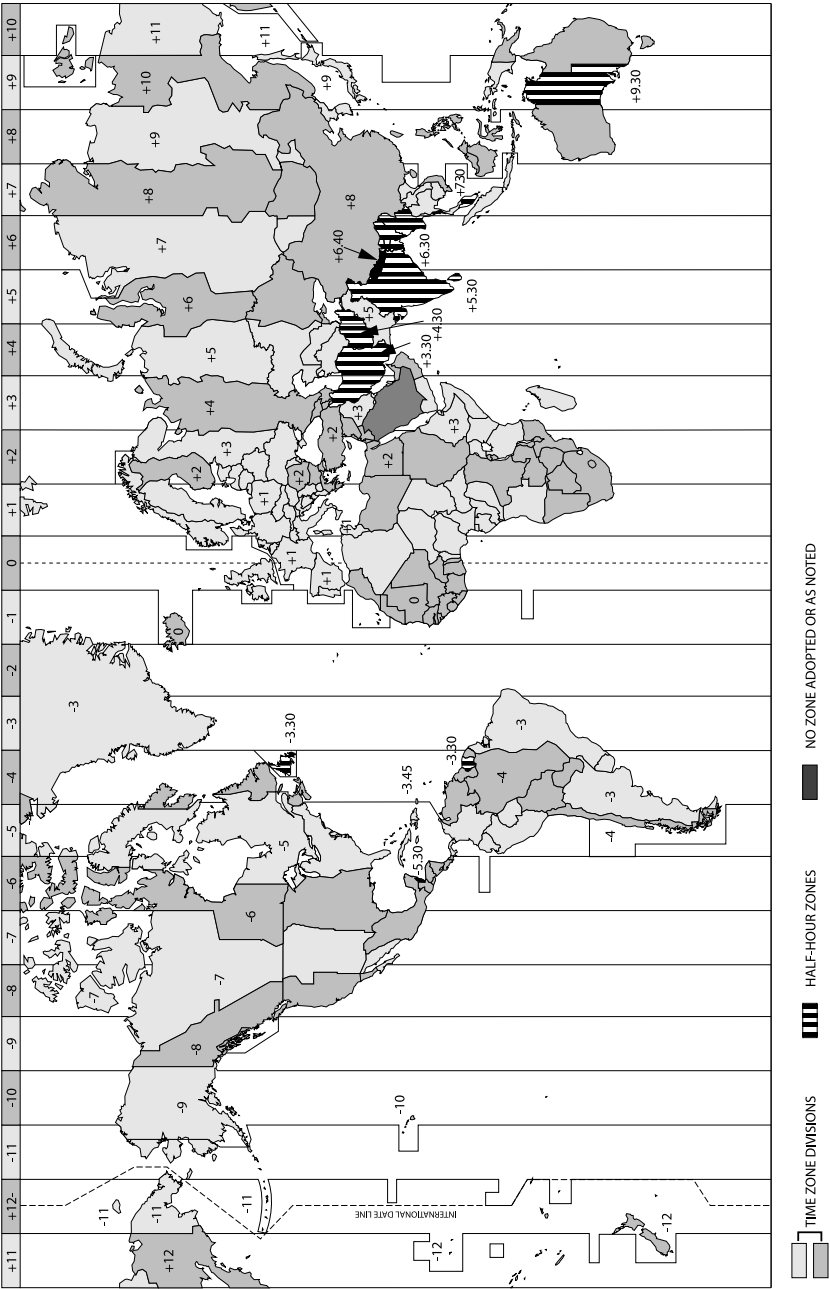
Calculating Forward From Current GMT:

If you want to contact a member in Egypt, the map indicates +2 for this country. If GMT is 2400, add two hours to get the local time in Egypt. This time is in the same calendar day as the GMT date.

NOTE

The map does not reflect the time changes resulting from daylight saving time.

Figure D-1 International Time Zones



GMT Conversion

Country and Currency Codes

This appendix contains the valid combined country and currency codes used for V.I.P. messages. The codes are listed in alphabetical order by country name.

- Field 19—Acquiring Institution Country Code
- Field 20—PAN Extended Country Code
- Field 21—Forwarding Institution Country Code
- Field 69—Settlement Institution Country Code (not used in BASE I)
- Field 119—Settlement Service Data (not used in BASE I)

The alpha codes are used in Field 43—Card Acceptor Name/Location.

The currency codes are used in the following fields:

- Field 49—Currency, Transaction
- Field 50—Currency Code, Settlement (not used in BASE I)
- Field 51—Currency Code, Cardholder Billing

The currency codes reflect ISO 4217 with the following exceptions:

- ISO 4217 codes not supported by V.I.P.:
 - 020, Andorra Peseta (Andorra)
 - 064, Ngultrum (Bhutan)
 - 426, Loti (Lesotho)
- Codes supported by V.I.P. but not in ISO 4217:
 - 226, Ekwele Birr (Equatorial)
 - 365, Iran Airline Rate (Iran)
 - 737, Sudan Airline Rate (Sudan)

E.1 CURRENCY TO COUNTRY CROSS-REFERENCE

Table E-1 is a cross-reference of numeric currency codes to country names.

Table E-1 Numeric Currency Code to Country Name Cross-Reference

ISO Numeric Currency Code	ISO Country Name
004	Afghanistan
008	Albania
012	Algeria
031	Azerbaijan
032	Argentina
036	Australia
036	Christmas Is.
036	Cocos (Keeling) Is.
036	Heard and McDonald Is.
036	Kiribati

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
036	Nauru
036	Norfolk Is.
036	Tuvalu
040	Austria
044	Bahamas
048	Bahrain
050	Bangladesh
051	Armenia
052	Barbados
056	Belgium
060	Bermuda
068	Bolivia
072	Botswana
084	Belize
090	Solomon Is.
096	Brunei Darussalam
104	Myanmar
108	Burundi
116	Cambodia
124	Canada
132	Cape Verde Is.
136	Cayman Is.
144	Sri Lanka
152	Chile
156	China
170	Colombia
174	Comoros
188	Costa Rica
191	Croatia
192	Cuba
196	Cyprus
203	Czech Republic
208	Denmark

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
208	Faeroe Is.
208	Greenland
214	Dominican Rep.
218	Ecuador
222	El Salvador
230	Ethiopia
232	Eritrea
233	Estonia
238	Falkland Is. (Malvinas)
242	Fiji
246	Finland
250	France
250	France, Metropolitan
250	French Guiana
250	French Southern Territory
250	Guadeloupe
250	Martinique
250	Mayotte
250	Monaco
250	Reunion
250	St. Pierre and Miquelon
262	Djibouti
270	Gambia
288	Ghana
292	Gibraltar
300	Greece
320	Guatemala
324	Guinea
328	Guyana
332	Haiti
340	Honduras
344	Hong Kong, China
348	Hungary

Country and Currency Codes

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
352	Iceland
356	Bhutan
356	India
360	Indonesia
364	Iran, Islamic Republic of
365	Iran Airlines
368	Iraq
372	Ireland, Republic of
376	Israel
380	Italy
380	San Marino
380	Holy See (Vatican City State)
388	Jamaica
392	Japan
398	Kazakhstan
400	Jordan
404	Kenya
408	Korea, Democratic People's Republic of (North Korea)
410	Korea, Republic of
414	Kuwait
417	Kyrgyzstan
418	Laos
422	Lebanon
428	Latvia
430	Liberia
434	Libyan Arab Jamahiriya
440	Lithuania
442	Luxembourg
446	Macau, China
450	Madagascar
454	Malawi
458	Malaysia
462	Maldives

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
470	Malta
478	Mauritania
480	Mauritius
484	Mexico
496	Mongolia
498	Moldova, Republic of
504	Morocco
504	Western Sahara
508	Mozambique
512	Oman
516	Namibia
524	Nepal
528	Netherlands
532	Netherlands Antilles
533	Aruba
548	Vanuatu
554	Cook Is.
554	New Zealand
554	Niue
554	Pitcairn
554	Tokelau
558	Nicaragua
566	Nigeria
578	Antarctica
578	Bouvet Is.
578	Norway
578	Svalbard and Jan Mayen Is.
586	Pakistan
590	Panama
598	Papua New Guinea
600	Paraguay
604	Peru
608	Philippines

Country and Currency Codes

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
620	Portugal
624	Guinea—Bissau
626	East Timor
634	Qatar
642	Romania
643	Russian Federation (International) (see 810 for Domestic)
646	Rwanda
654	St. Helena
678	Sao Tome and Principe
682	Saudi Arabia
690	Seychelles
694	Sierra Leone
702	Singapore
703	Slovakia
704	Vietnam
705	Slovenia
706	Somalia
710	Lesotho
710	South Africa
716	Zimbabwe
724	Andorra
724	Spain
736	Sudan
737	Sudan Airlines
740	Suriname
748	Swaziland
752	Sweden
756	Liechtenstein
756	Switzerland
760	Syrian Arab Rep.
764	Thailand
776	Tonga
780	Trinidad and Tobago

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
784	United Arab Emirates
788	Tunisia
792	Turkey
795	Turkmenistan
800	Uganda
807	Macedonia, the Former Yugoslav Republic of
810	Russian Federation (Domestic) (see 643 for International)
818	Egypt
826	So. Georgia and So. Sandwich Is.
826	United Kingdom
834	Tanzania, United Republic of
840	American Samoa
840	British Indian Ocean Territory
840	British Virgin Is.
840	Guam
840	Marshall Islands
840	Micronesia
840	Northern Mariana Islands
840	Palau
840	Puerto Rico
840	Turks and Caicos Is.
840	United States
840	U.S. Minor Outlying Islands
840	U.S. Virgin Is.
840	Palestinian Territory, Occupied
858	Uruguay
860	Uzbekistan
862	Venezuela
882	Samoa
886	Yemen
891	Serbia and Montenegro
894	Zambia
901	Taiwan, Prov. of China

Country and Currency Codes

Currency to Country Cross-Reference

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
950	Cameroon, United Republic of
950	Central African Republic
950	Chad
950	Congo
950	Equatorial Guinea
950	Gabon
951	Anguilla
951	Antigua and Barbuda
951	Dominica
951	Grenada
951	Montserrat
951	St. Kitts-Nevis
951	St. Lucia
951	St. Vincent and The Grenadines
952	Benin
952	Burkina Faso
952	Côte d'Ivoire (Ivory Coast)
952	Mali
952	Niger
952	Senegal
952	Togo
953	French Polynesia
953	New Caledonia
953	Wallis and Futuna Is.
954	European Monetary Cooperation Fund
972	Tajikistan
973	Angola
974	Belarus
975	Bulgaria
976	Democratic Republic of the Congo (formerly Zaire)
977	Bosnia & Herzegovina
978	European Union

Country and Currency Codes

Table E-1 Numeric Currency Code to Country Name Cross-Reference (continued)

ISO Numeric Currency Code	ISO Country Name
978	United Nations Interim Administration Mission in Kosovo (UNMIK)
980	Ukraine
981	Georgia
985	Poland
986	Brazil

E.2 COUNTRY AND CURRENCY CODES

A superscript “S” following the currency name indicates that it is a settlement currency.

Table E-2 Country and Currency Codes

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Afghanistan	AF	AFG	004	Afghani	004	AFA	004	2
Albania	AL	ALB	008	Lek	008	ALL	008	2
Algeria	DZ	DZA	012	Algerian Dinar	012	DZD	012	2
American Samoa	AS	ASM	016	U.S. Dollar ^S	840	USD	840	2
Andorra	AD	AND	020	Euro ^S	978	EUR	978	2
Angola	AO	AGO	024	Kwanza	024	AOA	973	2
Anguilla	AI	AIA	660	E. Caribbean Dollar	951	XCD	951	2
Antarctica	AQ	ATA	010	Norwegian Krone ^S	578	NOK	578	2
Antigua and Barbuda	AG	ATG	028	E. Caribbean Dollar	951	XCD	951	2
Argentina	AR	ARG	032	Argentine Peso	032	ARS	032	2
Armenia	AM	ARM	051	Armenian Dram	051	AMD	051	2
Aruba	AW	ABW	533	Aruban Guilder	533	AWG	533	2
Australia	AU	AUS	036	Australian Dollar ^S	036	AUD	036	2
Austria	AT	AUT	040	Euro ^S	978	EUR	978	2
Azerbaijan	AZ	AZE	031	Azerbaijan Manat	031	AZM	031	2
Bahamas	BS	BHS	044	Bahamian Dollar	044	BSD	044	2
Bahrain	BH	BHR	048	Bahraini Dinar	048	BHD	048	3

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Bangladesh	BD	BGD	050	Taka	050	BDT	050	2
Barbados	BB	BRB	052	Barbados Dollar	052	BBD	052	2
Belarus	BY	BLR	112	Belarussian Ruble	974	BYR	974	0
Belgium	BE	BEL	056	Euro ^S	978	EUR	978	2
Belize	BZ	BLZ	084	Belize Dollar	084	BZD	084	2
Benin	BJ	BEN	204	CFA Franc BCEAO	952	XOF	952	0
Bermuda	BM	BMU	060	Bermudian Dollar	060	BMD	060	2
Bhutan	BT	BTN	064	Indian Rupee ^S	356	INR	356	2
Bolivia	BO	BOL	068	Boliviano	068	BOB	068	2
Bosnia and Herzegovina	BA	BIH	070	Bosnian Convertible Mark	977	BAM	977	2
Botswana	BW	BWA	072	Pula	072	BWP	072	2
Bouvet Is.	BV	BVT	074	Norwegian Krone ^S	578	NOK	578	2
Brazil	BR	BRA	076	Brazilian Real	986	BRL	986	2
British Indian Ocean Territory	IO	IOT	086	U.S. Dollar ^S	840	USD	840	2
British Virgin Is.	VG	VGB	092	U.S. Dollar ^S	840	USD	840	2
Brunei Darussalam	BN	BRN	096	Brunei Dollar	096	BND	096	2
Bulgaria	BG	BGR	100	Bulgarian Lev	975	BGN	975	2
Burkina Faso	BF	BFA	854	CFA Franc BCEAO	952	XOF	952	0
Burundi	BI	BDI	108	Burundi Franc	108	BIF	108	0
Cambodia	KH	KHM	116	Riel	116	KHR	116	2
Cameroon, United Republic of	CM	CMR	120	CFA Franc BEAC	950	XAF	950	0
Canada	CA	CAN	124	Canadian Dollar ^S	124	CAD	124	2
Cape Verde Is.	CV	CPV	132	Cape Verde Escudo	132	CVE	132	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Cayman Is.	KY	CYM	136	Cayman Is. Dollar	136	KYD	136	2
Central African Republic	CF	CAF	140	CFA Franc BEAC	950	XAF	950	0
Chad	TD	TCD	148	CFA Franc BEAC	950	XAF	950	0
Chile	CL	CHL	152	Chilean Peso	152	CLP	152	2
China	CN	CHN	156	Yuan Renminbi	156	CNY	156	2
Christmas Is.	CX	CXR	162	Australian Dollar ^S	036	AUD	036	2
Cocos (Keeling) Is.	CC	CCK	166	Australian Dollar ^S	036	AUD	036	2
Colombia	CO	COL	170	Colombian Peso	170	COP	170	2
Comoros	KM	COM	174	Comoro Franc	174	KMF	174	0
Congo	CG	COG	178	CFA Franc BEAC	950	XAF	950	0
Cook Is.	CK	COK	184	New Zealand Dollar ^S	554	NZD	554	2
Costa Rica	CR	CRI	188	Costa Rican Colon	188	CRC	188	2
Côte d'Ivoire (Ivory Coast)	CI	CIV	384	CFA Franc BCEAO	952	XOF	952	0
Croatia	HR	HRV	191	Croatian Kuna	191	HRK	191	2
Cuba	CU	CUB	192	Cuban Peso	192	CUP	192	2
Cyprus	CY	CYP	196	Cyprus Pound	196	CYP	196	2
Czech Republic	CZ	CZE	203	Czech Koruna	203	CZK	203	2
Democratic Republic of the Congo (formerly Zaire)	CD	COD	180	Franc Congolais (formerly New Zaire)	976	CDF	976	2
Denmark	DK	DNK	208	Danish Krone ^S	208	DKK	208	2
Djibouti	DJ	DJI	262	Djibouti Franc	262	DJF	262	0
Dominica	DM	DMA	212	E. Caribbean Dollar	951	XCD	951	2
Dominican Rep.	DO	DOM	214	Dominican Peso	214	DOP	214	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
East Timor	TP	TMP	626	Timor Escudo	626	TPE	626	0
Ecuador	EC	ECU	218	Sucre	218	ECS	218	2
Egypt	EG	EGY	818	Egyptian Pound	818	EGP	818	2
El Salvador	SV	SLV	222	U.S. Dollar ^S	840	USD	840	2
Equatorial Guinea	GQ	GNQ	226	CFA Franc BEAC	950	XAF	950	0
Eritrea	ER	ERI	232	Eritrean Nakfa	232	ERN	232	2
Estonia	EE	EST	233	Kroon	233	EEK	233	2
Ethiopia	ET	ETH	231	Ethiopian Birr	230	ETB	230	2
European Union	n/a	n/a	n/a	Euro ^S	978	EUR	978	2
European Monetary Cooperation Fund	n/a	n/a	n/a	European Currency Unit	954	XEU	954	2
Faeroe Is.	FO	FRO	234	Danish Krone ^S	208	DKK	208	2
Falkland Is. (Malvinas)	FK	FLK	238	Falkland Is. Pound	238	FKP	238	2
Fiji	FJ	FJI	242	Fiji Dollar	242	FJD	242	2
Finland	FI	FIN	246	Euro ^S	978	EUR	978	2
France	FR	FRA	250	Euro ^S	978	EUR	978	2
France, Metropolitan	FX	FXX	249	Euro ^S	978	EUR	978	2
French Guiana	GF	GUF	254	Euro ^S	978	EUR	978	2
French Polynesia	PF	PYF	258	CFP Franc	953	XPF	953	0
French Southern Territory	TF	ATF	260	Euro ^S	978	EUR	978	2
Gabon	GA	GAB	266	CFA Franc BEAC	950	XAF	950	0
Gambia	GM	GMB	270	Dalasi	270	GMD	270	2
Georgia	GE	GEO	268	Georgian Lari	981	GEL	981	2
Germany	DE	DEU	276	Euro ^S	978	EUR	978	2
Ghana	GH	GHA	288	Cedi	288	GHC	288	2
Gibraltar	GI	GIB	292	Gibraltar Pound	292	GIP	292	2
Greece	GR	GRC	300	Euro ^S	978	EUR	978	2
Greenland	GL	GRL	304	Danish Krone ^S	208	DKK	208	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Grenada	GD	GRD	308	E. Caribbean Dollar	951	XCD	951	2
Guadeloupe	GP	GLP	312	Euro ^S	978	EUR	978	2
Guam	GU	GUM	316	U.S. Dollar ^S	840	USD	840	2
Guatemala	GT	GTM	320	Quetzal	320	GTQ	320	2
Guinea	GN	GIN	324	Guinea Franc	324	GNF	324	0
Guinea—Bissau	GW	GNB	624	Guinea-Bissau Peso	624	GWP	624	2
Guyana	GY	GUY	328	Guyana Dollar	328	GYD	328	2
Haiti	HT	HTI	332	Gourde	332	HTG	332	2
Heard and McDonald Is.	HM	HMD	334	Australian Dollar ^S	036	AUD	036	2
Holy See (Vatican City State)	VA	VAT	336	Euro ^S	978	EUR	978	2
Honduras	HN	HND	340	Lempira	340	HNL	340	2
Hong Kong, China	HK	HKG	344	Hong Kong Dollar ^S	344	HKD	344	2
Hungary	HU	HUN	348	Forint	348	HUF	348	2
Iceland	IS	ISL	352	Iceland Krona ^S	352	ISK	352	2
India	IN	IND	356	Indian Rupee ^S	356	INR	356	2
Indonesia	ID	IDN	360	Rupiah	360	IDR	360	2
Iran, Islamic Republic of	IR	IRN	364	Iranian Rial	364	IRR	364	2
Iran Airlines	n/a	n/a	n/a	Iranian Airline Rate	365	IRA	365	2
Iraq	IQ	IRQ	368	Iraqi Dinar	368	IQD	368	3
Ireland, Republic of	IE	IRL	372	Euro ^S	978	EUR	978	2
Israel	IL	ISR	376	New Israeli Shekel	376	ILS	376	2
Italy	IT	ITA	380	Euro ^S	978	EUR	978	2
Jamaica	JM	JAM	388	Jamaican Dollar	388	JMD	388	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Japan	JP	JPN	392	Yen ^S	392	JPY	392	0
Jordan	JO	JOR	400	Jordanian Dinar	400	JOD	400	3
Kazakhstan	KZ	KAZ	398	Tenge	398	KZT	398	2
Kenya	KE	KEN	404	Kenyan Shilling	404	KES	404	2
Kiribati	KI	KIR	296	Australian Dollar ^S	036	AUD	036	2
Korea, Democratic People's Republic of (North Korea)	KP	PRK	408	North Korean Won	408	KPW	408	2
Korea, Republic of	KR	KOR	410	Won	410	KRW	410	0
Kuwait	KW	KWT	414	Kuwaiti Dinar	414	KWD	414	3
Kyrgyzstan	KG	KGZ	417	Som	417	KGS	417	2
Laos	LA	LAO	418	Kip	418	LAK	418	2
Latvia	LV	LVA	428	Latvian Lats	428	LVL	428	2
Lebanon	LB	LBN	422	Lebanese Pound	422	LBP	422	2
Lesotho	LS	LSO	426	Rand ^S	710	ZAR	710	2
Liberia	LR	LBR	430	Liberian Dollar	430	LRD	430	2
Libyan Arab Jamahiriya	LY	LBY	434	Libyan Dinar	434	LYD	434	3
Liechtenstein	LI	LIE	438	Swiss Franc ^S	756	CHF	756	2
Lithuania	LT	LTU	440	Lithuanian Litas	440	LTL	440	2
Luxembourg	LU	LUX	442	Euro ^S	978	EUR	978	2
Macau, China	MO	MAC	446	Pataca	446	MOP	446	2
Macedonia, the Former Yugoslav Republic of	MK	MKD	807	Denar	807	MKD	807	2
Madagascar	MG	MDG	450	Malagasy Franc	450	MGF	450	0
Malawi	MW	MWI	454	Malawi Kwacha	454	MWK	454	2
Malaysia	MY	MYS	458	Malaysian Ringgit ^S	458	MYR	458	2
Maldives	MV	MDV	462	Rufiyaa	462	MVR	462	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Mali	ML	MLI	466	CFA Franc BCEAO	952	XOF	952	0
Malta	MT	MLT	470	Maltese Lira	470	MTL	470	2
Marshall Islands	MH	MHL	584	U.S. Dollar ^S	840	USD	840	2
Martinique	MQ	MTQ	474	Euro ^S	978	EUR	978	2
Mauritania	MR	MRT	478	Ouguiya	478	MRO	478	2
Mauritius	MU	MUS	480	Mauritius Rupee	480	MUR	480	2
Mayotte	YT	MYT	175	Euro ^S	978	EUR	978	2
Mexico	MX	MEX	484	Mexican Peso	484	MXN	484	2
Micronesia	FM	FSM	583	U.S. Dollar ^S	840	USD	840	2
Moldova, Republic of	MD	MDA	498	Moldovan Leu	498	MDL	498	2
Monaco	MC	MCO	492	Euro ^S	978	EUR	978	2
Mongolia	MN	MNG	496	Tugrik	496	MNT	496	2
Montserrat	MS	MSR	500	E. Caribbean Dollar	951	XCD	951	2
Morocco	MA	MAR	504	Moroccan Dirham	504	MAD	504	2
Mozambique	MZ	MOZ	508	Metical	508	MZM	508	2
Myanmar	MM	MMR	104	Kyat	104	MMK	104	2
Namibia	NA	NAM	516	Namibia Dollar	516	NAD	516	2
Nauru	NR	NRU	520	Australian Dollar ^S	036	AUD	036	2
Nepal	NP	NPL	524	Nepalese Rupee	524	NPR	524	2
Netherlands	NL	NLD	528	Euro ^S	978	EUR	978	2
Netherlands Antilles	AN	ANT	530	Netherlands Antillian Guilder	532	ANG	532	2
New Caledonia	NC	NCL	540	CFP Franc	953	XPF	953	0
New Zealand	NZ	NZL	554	New Zealand Dollar ^S	554	NZD	554	2
Nicaragua	NI	NIC	558	Cordoba Oro	558	NIO	558	2
Niger	NE	NER	562	CFA Franc BCEAO	952	XOF	952	0

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Nigeria	NG	NGA	566	Naira	566	NGN	566	2
Niue	NU	NIU	570	New Zealand Dollar ^S	554	NZD	554	2
Norfolk Is.	NF	NFK	574	Australian Dollar ^S	036	AUD	036	2
Northern Mariana Islands	MP	MNP	580	U.S. Dollar ^S	840	USD	840	2
Norway	NO	NOR	578	Norwegian Krone ^S	578	NOK	578	2
Oman	OM	OMN	512	Rial Omani	512	OMR	512	3
Pakistan	PK	PAK	586	Pakistan Rupee	586	PKR	586	2
Palau	PW	PLW	585	U.S. Dollar ^S	840	USD	840	2
Palestinian Territory, Occupied	PS	PSE	275	U.S. Dollar ^S	840	USD	840	2
Panama	PA	PAN	591	Balboa	590	PAB	590	2
Papua New Guinea	PG	PNG	598	Kina	598	PGK	598	2
Paraguay	PY	PRY	600	Guarani	600	PYG	600	0
Peru	PE	PER	604	Nuevo Sol	604	PEN	604	2
Philippines	PH	PHL	608	Philippine Peso	608	PHP	608	2
Pitcairn	PN	PCN	612	New Zealand Dollar ^S	554	NZD	554	2
Poland	PL	POL	616	Polish New Zloty	985	PLN	985	2
Portugal	PT	PRT	620	Euro ^S	978	EUR	978	2
Puerto Rico	PR	PRI	630	U.S. Dollar ^S	840	USD	840	2
Qatar	QA	QAT	634	Qatari Rial	634	QAR	634	2
Reunion	RE	REU	638	Euro ^S	978	EUR	978	2
Romania	RO	ROM	642	Leu	642	ROL	642	2
Russian Federation	RU	RUS	643	Russian Ruble (International)	643	RUB	643	2
				Russian Ruble (Domestic)	810	RUR	810	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Rwanda	RW	RWA	646	Rwanda Franc	646	RWF	646	0
Samoa	WS	WSM	882	Tala	882	WST	882	2
San Marino	SM	SMR	674	Euro ^S	978	EUR	978	2
Sao Tome and Principe	ST	STP	678	Dobra	678	STD	678	2
Saudi Arabia	SA	SAU	682	Saudi Riyal	682	SAR	682	2
Senegal	SN	SEN	686	CFA Franc BCEAO	952	XOF	952	0
Serbia & Montenegro	CS	SCG	891	Serbian Dinar	891	CSD	891	2
Seychelles	SC	SYC	690	Seychelles Rupee	690	SCR	690	2
Sierra Leone	SL	SLE	694	Leone	694	SLL	694	2
Singapore	SG	SGP	702	Singapore Dollar ^S	702	SGD	702	2
Slovakia	SK	SVK	703	Slovak Koruna	703	SKK	703	2
Slovenia	SI	SVN	705	Tolar	705	SIT	705	2
Solomon Is.	SB	SLB	090	Solomon Is. Dollar	090	SBD	090	2
Somalia	SO	SOM	706	Somali Shilling	706	SOS	706	2
South Africa	ZA	ZAF	710	Rand ^S	710	ZAR	710	2
So. Georgia and So. Sandwich Is.	GS	SGS	239	Pound Sterling ^S	826	GBP	826	2
Spain	ES	ESP	724	Euro ^S	978	EUR	978	2
Sri Lanka	LK	LKA	144	Sri Lanka Rupee	144	LKR	144	2
St. Helena	SH	SHN	654	St. Helena Pound	654	SHP	654	2
St. Kitts-Nevis	KN	KNA	659	E. Caribbean Dollar	951	XCD	951	2
St. Lucia	LC	LCA	662	E. Caribbean Dollar	951	XCD	951	2
St. Pierre and Miquelon	PM	SPM	666	Euro ^S	978	EUR	978	2

Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
St. Vincent and The Grenadines	VC	VCT	670	E. Caribbean Dollar	951	XCD	951	2
Sudan	SD	SDN	736	Sudanese Pound	736	SDD	736	2
Sudan Airlines	n/a	n/a	n/a	Sudan Airline Rate	737	SDA	737	2
Suriname	SR	SUR	740	Surinam Guilder	740	SRG	740	2
Svalbard and Jan Mayen Is.	SJ	SJM	744	Norwegian Krone ^S	578	NOK	578	2
Swaziland	SZ	SWZ	748	Lilangeni	748	SZL	748	2
Sweden	SE	SWE	752	Swedish Krona ^S	752	SEK	752	2
Switzerland	CH	CHE	756	Swiss Franc ^S	756	CHF	756	2
Syrian Arab Rep.	SY	SYR	760	Syrian Pound	760	SYP	760	2
Taiwan	TW	TWN	158	New Taiwan Dollar	901	TWD	901	2
Tajikistan	TJ	TJK	762	Somoni	972	TJS	072	2
Tanzania, United Republic of	TZ	TZA	834	Tanzanian Shilling	834	TZS	834	2
Thailand	TH	THA	764	Thailand Baht ^S	764	THB	764	2
Togo	TG	TGO	768	CFA Franc BCEAO	952	XOF	952	0
Tokelau	TK	TKL	772	New Zealand Dollar ^S	554	NZD	554	2
Tonga	TO	TON	776	Pa'anga	776	TOP	776	2
Trinidad and Tobago	TT	TTO	780	Trinidad and Tobago Dollar	780	TTD	780	2
Tunisia	TN	TUN	788	Tunisian Dinar	788	TND	788	3
Turkey	TR	TUR	792	Turkish Lira	792	TRL	792	0
Turkmenistan	TM	TKM	795	Manat	795	TMM	795	2
Turks and Caicos Is.	TC	TCA	796	U.S. Dollar ^S	840	USD	840	2
Tuvalu	TV	TUV	798	Australian Dollar ^S	036	AUD	036	2
Uganda	UG	UGA	800	Uganda Shilling	800	UGX	800	0

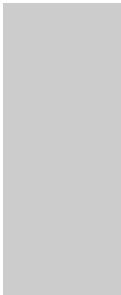
Table E-2 Country and Currency Codes (continued)

ISO Country Name	ISO Alpha Country (2-char.) Code	ISO Alpha Country (3-char.) Code	ISO Numeric Country Code	ISO Currency Name	Default ISO Numeric Currency Code	ISO Alpha Currency Code	ISO Numeric Currency Code	ISO Minor Units
Ukraine	UA	UKR	804	Ukrainian Hryvnia	980	UAH	980	2
United Arab Emirates	AE	ARE	784	U.A.E. Dirham	784	AED	784	2
United Kingdom	GB	GBR	826	Pound Sterling ^S	826	GBP	826	2
United Nations Interim Administration Mission in Kosovo	QZ	QZZ	900	Euro ^S	978	EUR	978	2
United States	US	USA	840	U.S. Dollar ^S	840	USD	840	2
U.S. Minor Outlying Islands	UM	UMI	581	U.S. Dollar ^S	840	USD	840	2
U.S. Virgin Is.	VI	VIR	850	U.S. Dollar ^S	840	USD	840	2
Uruguay	UY	URY	858	Peso Uruguayo	858	UYU	858	2
Uzbekistan	UZ	UZB	860	Uzbekistan Sum	860	UZS	860	2
Vanuatu	VU	VUT	548	Vatu	548	VUV	548	0
Venezuela	VE	VEN	862	Bolivar	862	VEB	862	2
Vietnam	VN	VNM	704	Dong	704	VND	704	2
Wallis and Futuna Is.	WF	WLF	876	CFP Franc	953	XPF	953	0
Western Sahara	EH	ESH	732	Moroccan Dirham	504	MAD	504	2
Yemen	YE	YEM	887	Yemeni Rial	886	YER	886	2
Zambia	ZM	ZMB	894	Zambian Kwacha	894	ZMK	894	2
Zimbabwe	ZW	ZWE	716	Zimbabwe Dollar	716	ZWD	716	2

NOTE:

A superscript "S" following the currency name indicates that it is a settlement currency.

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Country and Currency Codes

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