worldpay

ISO 8583 Reference Guide

March 2023

V2.46

ISO 8583 Reference Guide: V2.46

CONTENTS

Appendix D ISO 8583 Apple Pay™ In-App\Web Transactions

Appendix E Worldpay Terminal Processing Information

Appendix F ISO 8583 Access over the Internet

Appendix G Benefit Card Services Flow Between Merchant and Worldpay

List of Message Examples

worldpay

About This Guide

This manual serves as a reference to specifications for the Worldpay ISO 8583 Terminal Interface used for payment processing with the Worldpay Core systems. It reflects our interpretation of the ISO 8583-1987 message standard. This document describes the transaction set currently supported by Worldpay, as well as the required message content for each message type. The data format Worldpay has elected to accept is the compressed data format. This means you can send all numeric fields in a packed-unsigned format, conserving bandwidth on the communication transport. If you cannot support the compressed format, contact your Worldpay representative for other alternatives.

Intended Audience

This document is intended for technical personnel who will be setting up and maintaining payment processing using the Worldpay ISO8583 format.

Revision History

For revision history for this document prior to August 2017, consult your Relationship Manager.

This document has been revised as follows:

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
2.46	02.20.2023	Added Tap to Pay (SoftPos) options to Fields 120, tables Table 5-6, Table 5-29, and Table 5-130. Added Processing Time to Field 120, Table 5-130. Added Position 06 to Tag 01 of Field 121 (Table 5-136).	Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
2.45	11.16.2022.	Changed wording for network token initiated transaction in Fiels 2 (see Primary Account Number (PAN) on page 236). Added Amount Types 5S, 5T, and 5U to Field 54 (see Table 5-26). Added Field Use Indicators 31 and 32 to Field 61 (see Network Specific Information on page 321) Added Bit Position 5 to Field 101 (see Card Results Field) Added HIP for EBT Redemption option to Field 120 (see Additional Request Data on page 471). Also added an option to request the return first 8 of PAN in Field 101 of the response. (see Card Results Field of Additional Request Data Formats Add Position 05 to Tag 01 of Field121 (Table 5-136).	Chapter 5
2.44	08.24.2022	Added Terminal Classification Code to DE 120 Added Tag 09 to DE 121.	Chapter 5
2.43	06.29.2022	Added Visa Secure Token to DE 120	Chapter 5
2.42	05.25.2022	Added information in support of Visa 2.0	Chapter 5
2.41	04.27.2022	Added Translated PAN and Terminal Classification Code to Field 120 (Table 5-130) Added info to Field 002	Chapter 5
2.40	04.08.2022	Fixed typos in Field 62.82 Added Terminal Classification and Basket Total tags to Field 120. Also fixed minor typos in Table 5-128.	Chapter 5
V2.39	03.23.2022	Added Note to subfield 3 of Field 62.78 - FIS Loyalty Data. Added info to Field 62.82 - FIS Loyalty Fuel Data (formerly unused). Fixed definition of Host Capture Advice Indicator, Identifier Y of Field 120 - Additional Request Data. Corrected the size of the Amount subfield in Field 62.41 - Fleet Product Data (Deprecated). Formerly 2 bytes, but should have been 12 bytes.	Chapter 5
V2.38	02.04.2021	Added Bit 126 (Electronic Commerce/MOTO Indicator) to Table 2-50 - 0420 Reversal Requests. Updated description for Field 126 - Electronic Commerce/MOTO Indicator.	Chapter 2, Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.37	01.07.2022	Added a note to Level 3 Authorization Descriptor Fields (Usage 2) to state Mastercard does not let you specify Fuel Products as Level 3. For Field 120 - Additional Request Data, updated the description for Host Capture Advice Indicator's Y identifier. For Field 121 - Additional Information, added Position 04 (indicates if the transaction is a prior authorized transaction) to Tag 01. For Field 126 - Electronic Commerce/MOTO Indicator, added a value of 04 (Unknown MOTO) to Table 5-162.	Chapter 5
V2.36	12.03.2021	Added the following credit response code mappings to Table 5-12: 46 (Closed Account) and 59 (Suspected Fraud). For Field 070 - Network Management Information Code, added a value of 163 (Make Key/No Stage) to Table 5-95. For Field 070 - Network Management Information Code, added a value of 164 (Make Key/Schedule Future Change Key Advice) to Table 5-95.	Chapter 5
V2.35	11.05.2021	For Field 119 (Fleet Product Data), revised the description of subfield 8 and added subfield 4. For Field 120 (Additional Request Data), added Debit Optimization Request Indicator to Table 5-130. For Field 120, added the Incremental Preauthorization Flag. For Field 120, added the Merchant Advice Code (Request Only) format and the Merchant Advice Codes (MACs - Response Only). For Field 120, updated the description of Address Verification Format. Changed all references to Optum to Benefit Card Services.	Chapter 5, Appendix G

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.34	10.01.2021	Added a description for an example (Table 2-65) to 0800 - Network Management Request. Added a new example (Table 2-70) to 0800 - Network Management Request. Updated the Requirements for Field 022 - Point of Service Entry Mode. For 62.78 - FIS Loyalty Data, updated its attributes and added subfield 7. For 124.6 - Token Request Indicator, updated the description.	Chapter 2, Chapter 5
V2.33	09.03.2021	Added Field 124.13 - Sender Account Type Code to Usage 4 for Field 124 - Transaction Dependent Data.	Chapter 5
V2.32	08.06.2021	Changed the length of Field-Use Indicator 29 from 25 to 21 for Field 61 - Network Specific Information. Added the Shipping Indicator format to Field 120 - Additional Request Data.	Chapter 5
V2.31	07.09.2021	For Field 62.48 - POSA Foreign Network, added the VALT (Valutech) indicator. Changed the attribute values for Field 062.85 - Mastercard DSRP Cryptogram and Field 062.86 - Remote Commerce Acceptor Identifier. Added the following formats to Field 100.1 Encryption Vendor ID: P (Onguard SDE) and E (Verifone ADE). For Field 121 - Additional Information, added two new subtags (RN and TI) to Tag 06 (Additional Request Data) and added Tag 07 (3D Secure Program Protocol) and 08 (3D Secure Directory Server Transaction ID). Added Usage 11 - Valutec Information for Field 124 - Transaction Dependent Data.	Chapter 5
V2.30	06.16.2021	Removed “five” from the format description of Terminal Specific Data. In Table 5-136, changed the attributes of Tag 01 (Processing Flags) to ans 1..3 for Field 121 - Additional Information. Added tags 04 (Service Level Indicator), 05 (UCAF/AAV Data), and 06 (Additional Request Data) to Table 5-136 for Field 121 - Additional Information.	Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.29	05.05.2021	Changed the description of the value ZZZZZZZZZ for the Address Verification Format in Table 5-130. Removed the unused value of 11 (Transit Access Terminal) from Subfield 1 in Table 5-6. Added Master Key Index, Working Key Index, Key Type to Return, and Key Label Acro to Usage 9 - Network Management Data for Field 124 - Transaction Dependent Data.	Chapter 5
V2.28	04.07.2021	For Table 5-13, renamed the "Denial Reason" column to "Description" and removed 09 to improve accuracy. Added missing identifier RN to Table 5-130 for Raw Network Data. In Table 5-162, corrected a typo in the description of Value 05. For Field 61 (Network Specific Information), added a new Field-Use Indicator 29. For Field 120 (Additional Request Data), added Low Value Token for PIN to Table Table 5-130.	Chapter 5
V2.27	03.03.2021	Corrected Field 37 Retrieval Reference Number field to be alphanumeric instead of numeric. Changed the name of Field 112.2 to Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number. Added Field 121 Additional Information.	Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.26	02.03.21	Added note to in regard to Optum transactions to Field 54 - Additional Amounts. Updated Table 5-26 with Optum amount types. Added Field 62.87 - EMD Completion Checkpoint Information. For Field 106 - WIC EBT Pass-Thru Field #1/Level 3 Authorization Descriptor Fields, added Usage 3 (Optum UPC/PLU Pass-Thru Data). For Field 107 - WIC EBT Pass-Thru Field #2, added Usage 2 (Optum UPC/PLU Pass-Thru Data #2) For Field 108 - WIC EBT Pass-Thru Field #3, added Usage 2 (Optum UPC/PLU Pass-Thru Data #3). Added Field 109 - Benefit Card Services UPC/PLU Pass-Thru Data #4. Updated the name of Subfield 5 to Vehicle Number (WEXP Purchase Device Sequence Number) for Field 118 - Fleet Customer Data. Added a new format (Optum Transaction Request) for Field 120 - Additional Request Data. Added a new format (EMD pre-authorization conversion request indicator) for Field 120 - Additional Request Data. Corrected description to Current System Health in Table 5-157. Added Appendix G, "Benefit Card Services Flow Between Merchant and Worldpay".	Chapter 5, Appendix G
V2.25	01.06.2021	Added Mastercard DSRP Cryptogram and Remote Commerce Acceptor Identifier. Added Amex Seller ID (62.83) and Merchant Fraud Customer Name (62.84). Added Mastercard DSRP Cryptogram (62.85) and Remote Commerce Acceptor Identifier (62.86). Added the Raw Network Data identifier for Additional Request Data.	Chapter 4, Chapter 5
V2.24	12.02.2020	Added fields Check Authorization Provider and Capital One Tracking ID to Transaction Dependent Data.	Chapter 5
V2.23	11.04.2020	Corrected the descriptions for the Production and Test/QA environments in Appendix F.3, "Authorization Platform".	Appendix F

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.22	10.07.2020	Updated the description for Transaction Dependent Data in Table 2-64, Table 2-71, and Table 2-79 to include a reference to Transaction Dependent Data for additional usages. Added a new response code (W1 - More Prompts Required) to Table 5-12. Updated the title and description of Field 117 - Fleet Additional Restriction/Prompt Request Block and added a new field identifier (HP - Host Based Customer Prompts Requested). For Network Management Information Code, added a new value of 801 (System Health Status) to Table 5-95. Added the following additional request data formats to Table 5-130: WX (Wright Express Prompt/Product Support) and W2 (Wright Express Host Based Prompting Second Pass Indicator). Added Usage 10 - System Health Status Information for Field 124 (Transaction Dependent Data). Added Appendix F, *ISO 8583 Access over the Internet*.	Chapter 2, Chapter 5, Appendix F
V2.21	09.02.2020	Added a note to Field 012 (Local Transaction Time) in regard to check authorization acknowledgments and reversals.	Chapter 5
V2.20	08.08.2020	Added value 11 (Transit Access Terminal) in Subfield 1 (PAN/Date Entry Mode) for Point of Service Entry Mode. Added Field 062.81 Transit Access Terminal Function Code (TAT) to Vantiv Transaction Data. Corrected Subfield 01 (Transaction Identifier) in Table 5-36 to be numeric instead of alphanumeric. Corrected the attributes of Transit Program Data to nP4. Added Field 117 Fleet Additional Restriction/Prompt Request Block. For Field 118 Fleet Customer Data, updated the description for code 05 in Table 5-114 to note that WEXP no longer supports this code. For Field 120 Additional Request Data, added the Wright Express Prompt/Product Support format to Table 5-130.	Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.19	07.08.2020	Added a new value of 08 (Contactless EMV) to Subfield 1: PAN/Date Entry Mode for Field 22 (Point of Service Entry Mode). Added the following new indicators to Field 60.3 (Terminal Entry Capability): Indicator 7 (Contactless Magnetic Stripe) and Indicator 8 (Contactless EMV). Renamed Indicator 4 from Contactless Magnetic Stripe to OCR Read. In Table 2-71, removed the erroneous Systems Trace Audit Number description for Field 070 and replaced it with Network Management Information Code. Added a new format, Digital Secure Remote Payment (DSRP) Indicator, for Field 120 (Additional Request Data). Added new format, Synchrony Additional Private Data, for Field 120 (Additional Request Data) and Synchrony Additional Private Data Usages.	Chapter 2, Chapter 5
V2.18	06.03.2020	Added response code 86 (Cannot Verify PIN) to Table 5-11, "Debit Response Code Mappings" and Table 5-12, "Credit Response Code Mappings". Added a note to the introductory text in Appendix E to state that the Worldpay Terminal Processing Host is not intended for use with standard host-to-host processing.	Chapter 5, Appendix E

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.17	05.06.2020	Added the Transaction Dependent Data field and Make Key Request and Response examples to 0800 - Network Management Request and 0810 - Network Management Response. Added 0820 - Network Management Confirmation Advice Request and 0830 - Network Management Confirmation Advice Response to Network Management Request and Response Messages. Added the following indicators to Field 60.6 (POS Transaction Status Indicator): H and J. Updated the field description and value descriptions for Field 062.68 (POS Environment Indicator). Added Field 62.80 (WIC Operating Environment Indicator). Added the following new values to Field 70 - Network Management Information Code: 160 (Make Key Request), 161 (Change Key Advice), and 162 (Make Key Confirmation). For Field 120 (Additional Request Data), added a missing note to the PINless POS Conversion Indicator data format description. For Field 120 (Additional Request Data), changed Globally Unique ID to Native RAFT API Transaction ID. Replaced Usage 3 (Private Label Credit Card Data) for Field 124 (Transaction Dependent Data) with Usage 3 - Cap One Private Label Data. Added Usage 9 - Network Management Data to Field 124 - Transaction Dependent Data. Updated the description of Field 125 - Network Management Information.	Chapter 2, Chapter 5
V2.16	04.01.2020	Added Field 62.79 Extended Customer Web Session (Browser) ID. Added 120.AR format (Additional Response Data) for Additional Request Data.	Chapter 5
V2.15	03.04.2020	Updated the description of 0420 Reversal/Adjustment Advice to support credit in addition to debit and host-data-capture in The Message Type Identifier on page 6. Added Usage 8 - Amazon Pay Information on page 531 to Field 124. Updated Incremental Authorization and Partial Reversals on page 553 to include Mastercard.	Chapter 1, Chapter 5, Chapter 6

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.14	02.05.2020	Removed deprecated Field 113 (Bill Me Later® Data). Updated the description of Field-Use Indicator 26 for Field 61 Network Specific Information.	Chapter 2, Chapter 5
V2.13	01.08.2020	For Electronic Commerce/MOTO Indicator, updated the descriptions for the following values: 05, 06, and 07.	Chapter 5
V2.12	12/06/2019	Revised the description of Field 060.7's E indicator in Table 5-35. Corrected the Visa Commercial Card Type Request Indicator (EMD Message Set) entry in Table 5-130 to say that Network Specific Information, Field-Use Indicator 17 returns the value. Revised the description of Field 120's EMD Settlement format in Table 5-130.	Chapter 5
V2.11	10.30.2019	Added Field 062.78 (FIS Loyalty Data). Added the following new indicators to Field 120 (Additional Request Data): Merchant Fraud – Fraudsight (Request Only) and Merchant Fraud – Fraudsight (Response Only). Added a new indicator, EMD Settlement, to Field 120. Added the following new subfields for Field 124 Usage 7 (Real Time Account Updater Information): 124.6 (Token Request Indicator) and 124.7 (Replacement PAN Token).	Chapter 5
V2.10	10.02.2019	Removed erroneous sentence from the description of Customer IP Address. Removed erroneous sentence from the description of Customer Phone. Added the following new tag for Additional Request Data: Terminal Serial Number. Updated the following tag description for Field 120 (Additional Request Data): Terminal Identification Data Format. For Field 120 (Additional Request Data), updated the description of the Synchony Promo Data tab in Table 5-130 and added the Synchrony request and response tags.	Chapter 5
V2.9	09.04.2019	Removed merchant references. Added an amount type of 70 (Money Order Amount) to Table 5-26, "Additional Amounts Amount Type".	Chapter 2, Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
V2.8	08.07.2019	Removed incorrect TCP/IP information from Chapter 1. Corrected a cross-reference in Table 2-1. Created a cross-reference to Appendix E for Terminal Application Header and Terminal Specific Data. Changed the format, description, and examples for Multi-Clearing Naming in Table 5-130. Change the name and description for Return E-Commerce Indicator in Table 5-130. Added Return E-Commerce Indicator and UCAF Indicator to Table 5-130. Added Field Use Indicator 27 and 28 to Network Specific Information. Created a new appendix (Appendix E, "Worldpay Terminal Processing Information").	Chapter 1, Chapter 2, Chapter 4, Chapter 5, Appendix E
V2.7	07.10.2019	Updated the description of Field 124.5 Memo for Usage 6 - AliPay Transaction Data. Added Field 124.13 Original Partner Transaction ID for Usage 6 - AliPay Transaction Data.	Chapter 5
V2.6	06.12.2019	Updated Table 5-130, "Additional Request Data Formats" with an EMD/HDC Capable column. Added Field 124.17 Network Response Code and 124.18 Check Type to Usage 5 - Enhanced Check Authorization.	Chapter 5
V2.5	05.17.2019	Added a reserved field to Table 5-130.	Chapter 5
2.4	05.14.2019	Renamed Chapter 2 and corrected two small typos. Added SC amount type (Calculated Surcharge Amount) to Table 5-26, "Additional Amounts Amount Type". Added the value 45 (Deferred) to Table 5-94 (Subsequent Transaction Codes) for Field 63. Added Generate Surcharge Amount Request format to Table 5-130, "Additional Request Data Formats". Added the following codes to Field 124's Usage 1: 610 (ACH Debit) and 611 (ACH Refunds). Changed the name of Field 124's Usage 5 section to Enhanced Check Authorization. Added Usage 6 - AliPay Transaction Data for Field 124 (Transaction Dependent Data). Added Usage 7- Real Time Account Updater Information for Field 124	Chapter 2, Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
2.3	03.06.2019	Added the following fields: 062.69 Customer Bill-To Address, 062.70 Customer Ship-To Address, 062.71 Customer ID, 062.72 Customer Order ID, 062.73 Customer Email, 062.74 Customer Phone, 062.75 Customer IP Address, and 062.76 Customer Web Session (Browser) ID. Added Field-Use Indicator 26 (Transaction Integrity Class) for Network Specific Information. Added the Transaction Integrity Class format to Field 120 Additional Request Data. Corrected two typos ("85 83" to "8530" and "CFT" to "ECK") in Usage 5 for Field 124 Transaction Dependent Data.	Chapter 5
2.2	02.06.2019	Corrected Retrieval Reference Number's data type to n12 in Table 2-1. Added the following values to POS Environment Indicator: **F** (Final Auth) and **P** (Preauth). Added Field-Use Indicator 25 to Field 61 Network Specific Information. Added Network Retrieval Reference Number to Field 120 Additional Request Data.	Chapter 2, Chapter 5
2.1	01.9.2018	Removed the following text from Field 61 - Network Specific Information: "Subfield values are as follows (all are fixed-length)." For Field 124, added Usage 5 (Enhanced Check Authorization Data) and added subfields 124.1 - 124.16 for check authorization. Added the following note to Fields 62.11, 62.11, 62.12, 62.13, 62.14, 62.15, 62.17, 62.33, 62.34, 62.35, 62.36, and 62.39: "Use Field 124 (Usage 5) for enhanced check authorization services instead of this field." For 62.19, added addition information to the Requirements section in regard to enhanced check authorization services. Marked the following fields as deprecated: 62.33, 62.34, 62.35, 62.36, and 113.	Chapter 5
2.0	10.31.2018	Re-branded entire document format due to the Vantiv-Worldpay merger; replaced many instances of "Vantiv" with "Worldpay." Updated the attributes for Field 100.3 Encrypted Track II.	All, Chapter 5

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
1.15	10.03.2018	Updated the description of the Fee subfield for Transaction Fee Amount with the maximum amount allowed and noted that the 8 digit field only uses 5 digits. Updated the description of Indicator 3 for Terminal Entry Capability by removing “Contactless Chip.”	Chapter 5
1.14	08.08.2018	For Field 54 (Additional Amounts), updated the Additional Amounts Amount Type table (Table 5-26) with 43 (Incremental Authorization Cumulative Amount). For Field 61 (Network Specific Information), added Field-Use Indicator 24 and noted that Field-Use Indicator 23 is for both request and response messages and that if data is unavailable in the request message, that the subfields should be filled with blanks. Revised the note in Using Field 126 (Electronic Commerce/MOTO Indicator) regarding the value for the Secure Code transaction identifier.	Chapter 5, Appendix D
1.13	07.11.2018	In sections 2.1.1, 2.1.3, 2.2.1, and 2.2.3, noted that for refund transactions (Field 003 is 20), merchants must limit their use of optional fields (like AVS and CVV2) to avoid denials by issuers. Updated Field 55 (Integrated Circuit Card Data) from optional (O) to conditional (C) with a note saying that if EMV data is available from a EMV card, the transaction should present it. Added a note to Field 019 (Acquiring Institution Country Code) to indicate the contents of the field must reflect the country or US Territory code populated in Field 43 (Card Acceptor Name and Location Data).	Chapter 2, Chapter 5
1.12	06.08.2018	Added TCP/IP. Removed an extra zero from 0220 Financial Transaction Advice Request on page 103. Added Globally Unique ID format to Table 5-130. Changed "o" to "of" in Request Message Conditional Tags on page 577. Updated the steps in Apple Pay for In-App/Web Using eProtect on page 591 and Figure D-1.	Chapter 1, Chapter 2, Appendix B, Appendix D

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
1.11	05.09.2018	Added information about the Alphabetic Country Code for US territories for Field 43's (Card Acceptor Name and Location Data) three formats. In Table 5-130 (Additional Request Data Formats), mapped the eCommerce Discretionary Data formats to their equivalents in the *cnpAPI Reference Guide*. Updated Table A-1 with information for Guam, Puerto Rico, and the US Virgin Islands. In Appendix D, added a note telling merchants that Visa requires AVS verification and added the cryptogram length for each card type.	Chapter 5, Appendix A, Appendix D
1.10	04.11.2018	In Table 5-41, removed erroneous text (Discover Processing Code) and added it to a table cell. Incorporated examples from Appendix C and D into Chapter 2. In Section F.1.2, revised Step 2 of the procedure to make it clear that merchants should pass the <EC> in the wallet payload.	
1.9	03.14.2018	Removed erroneously placed Field 0.1 (Terminal Application Header) from all Credit EMD messages. Added Field 115 (Terminal Specific Data) to all EMD message examples.	Chapter 2
1.8	02.09.2018	Updated all request and response messages to include Field 01 (Terminal Application Header)	Chapter 2
1.7	01.12.2018	Revised Field 22 (Point of Service Entry Mode) note.	Appendix E

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
1.6	01.10.2018	Added Field 0.1(Terminal Application Header). In Field 42 (Card Acceptor Identification), added a paragraph in regard to format and processing lookups. For Field 60 (Additional POS Data), removed "Magnetic" from Indicator 3's description in Table 5-31. In Field 062.48 (POSA Foreign Network), updated Table 5-76 to include the following POSA foreign network indicators: FGFT (Stored Value Systems), MPLN (Mastercard Repower), and NSPD (Netspend). Added Field 115 (Terminal Specific Data). For Field 120 (Additional Request Data), added eCommerce Discretionary Data format. For Field 120, updated Software Descriptor Data in Table Table 5-130 to indicate the option is for HDC merchants only. In ISO 8583 Apple Pay™ In-App\Web Transactions, made the following updates: • Moved sentence in regard to only including <DATA> for specific electronic transactions under Step 4 and made it a Note. • Moved paragraph regarding Field 22 to Table D-2 and the remaining contents to a note below the table.	Chapter 5, Appendix F
1.5	11.09.2017	Updated Table 5-12 to include missing credit response codes.	Chapter 5
1.4	11.08.2017	Corrected the description for the DUKPT Key Serial Number (KSN) format for Field 120 - Additional Request Data. In Table 5-130, changed Multiple Clearing Sequence Number from 01-99 to 00-99. In Appendix D, "ISO 8583 Apple Pay™ In-App\Web Transactions", changed the sentence after Step 4 to indicate that Mastercard, Visa and American Express all result in a 20 byte hexadecimal value. Changed Field 014 from "Expiration Data" to "Expiration Date." Changed Field 039 from "Network Response Code" to "Response Code."	Chapter 5, Appendix F

TABLE 1 Document Revision History

Doc. Version	Release Date	Description	Location(s)
1.3	10.06.2017	Field 22 - Point of Service Entry Mode - added new sub-field 10 - Credential on file. Field 60, subfield 6 - added new values: (S - estimated auth, T - estimated auth + partial auth eligible). Added Field 62.68 - POS Environment Indicator, with values C - Credential on file, R - Recurring, I - Installment. Field 63 - added new values: 40 - Incremental, 41 - Resubmission, 42 - Delayed Charge, 43 - Reauthorization, 44 - No Show. Added new subfield (Multi-Clearing Information) to field 120.	Chapter 5
1.2	09.06.2017	Added values 41 (Card Holder Funds Transfer - Debit) and 42 (Card Holder Funds Transfer - Credit) to Field 003 - Processing Code. Added Usage 4 - Cardholder Funds Transfer Information to Field 124 - Transaction Dependent Data.	Chapter 5
1.1	08.09.2017	Changed Subfield 10 of Field 119 - Fleet Product Data to “Authorization Source.” Placed all of the formats for Field 120 - Additional Request Data in an alphabetized table.	Chapter 5
1.0	07.12.2017	Major rewrite of Guide. For a list of changes made to this guide before July 12, 2017, see the *Vantiv ISO 8583 Update History*.	Release of guide in new format. Revisions to previous versions of this guide were tracked by date of release.

Document Structure

This manual contains the following sections:

Chapter 1, "Introduction"

This chapter defines the rules and regulations that must be followed in order to successfully convey ISO messages between Worldpay and its customers.

Chapter 2, "Host Data Capture and Credit EMD Message Sets"

This chapter provides information about supported message sets, their structure, and message examples.

Chapter 3, "Message Flow Diagrams"

This chapter contains diagrams that illustrate the transaction flows for the message types that the Worldpay ISO Message Format supports.

Chapter 4, "Check Authorization"

This chapter documents each Message Type Identifier and lists the fields required to successfully convey the message.

Chapter 5, "Message Field Definitions"

This chapter provides information about each field used in the supported message sets.

Appendix A, "Additional Field Usage Information"

This appendix lists the following: numeric country and currency codes, U.S./Canadian State/Province codes, Fleet Card product codes, and the currency codes supported by Worldpay's Multi Currency Processing (MCP) product.

Appendix B, "EMV Processing Requirements"

This appendix describes the EMV processing requirements and the required request and response tag data you must include for all chip card transactions.

Appendix C, "WIC EBT Pass-Thru Information"

This appendix describes the WIC EBT Pass Thru fields (Field 106, Field 107, and Field 108). which comprise one or more composite data elements with each one containing three subelements.

Appendix D, "ISO 8583 Apple Pay™ In-App\Web Transactions"

This appendix describes how to perform ISO 8583 Apple Pay in-app\web transactions.

Appendix E, "Worldpay Terminal Processing Information"

This appendix describes general considerations for TCP/IP communications, defines the message construction for authorization requests and responses between POS devices (or applications) and the Worldpay host and devices (or applications), and provides additional processing requirements.

Typographical Conventions

Table 2 describes the conventions used in this guide.

TABLE 2 Typographical Conventions

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted.
< >	Angle brackets are used in the following situations: • user-supplied values (variables) • XML elements
[ ]	Brackets enclose optional clauses from which you can choose one or more option.
bold text	Bold text indicates emphasis.
Italicized text	Italic type in text indicates a term defined in the text, the glossary, or in both locations.
blue text	Blue text indicates a hypertext link.

Contact Information

Technical Publications - For questions or comments about this document, please address your feedback to the Technical Publications Department. All comments are welcome.

Technical Publications Contact Information

E-mail	TechPubs@vantiv.com

worldpay

1

Introduction

This chapter defines the rules and regulations that you must follow in order to successfully convey ISO messages between Worldpay and its customers. Specifically, it describes the three components that comprise the message structure and discusses the following card security products: Point-to-Point Encryption, Tokenization (Worldpay Legacy Reverse Crypto and OmniToken), and eProtect.

1.1 Rules and Regulations

This section explicitly defines the rules and regulations that you must follow in order to successfully convey ISO messages between Worldpay and its customers.

1.1.1 Field Data Definitions

To provide a more consistent presentation, there is a set of rules that govern the use of data descriptions. Unless otherwise stated, the following rules are in effect for this entire specification:

- You must send numeric fields compressed (4 bit BCD - packed unsigned). In this case, you must utilize a communication protocol that supports transparency.
- If the data in a fixed-length numeric field does not fully populate the field, you should right justify and zero fill the data.
- If the data in a fixed-length non-numeric field does not fully populate the field, you should left justify and blank fill the data.
- Odd length numeric values should contain a leading zero.
- Worldpay assumes that you left justify with trailing zeros all fixed-length binary data elements.
- Worldpay counts all data element positions from left to right; it considers the leftmost position Position 1.
- The primary bit map indicates the presence of fields 1-64. The secondary bit map indicates the presence of fields 65-128.
- This specification uses a fixed set of abbreviations. See Table 1-1 for these abbreviated values and their corresponding descriptions.
- The maximum length of an LLd-type variable length field is 128 bytes (255 hex digits). The maximum length of an LLb-type variable length field is 255 bytes. The maximum length of an LLL-type variable length field is 999 bytes. The maximum length of an LLLL-type variable length field is 9,999 bytes.
- For LLbVAR and LLdVAR fields, the LL (length) value is a one-byte binary field. For LLLVAR fields, the LLL (length) value is a two-byte binary field. For LLLLVAR fields, the LLLL (length) value is a two-byte binary field. The length value indicates the length of the data only.
- For LLdVAR fields, the length value indicates the number of digits (nibbles) of data; whereas, the LLbVAR, LLLVAR and LLLLVAR fields indicate the number of bytes of data.

TABLE 1-1 Abbreviation Descriptions

Value	Description
a	Alphabetic Characters
nP	Numeric 4-bit BCD (packed unsigned)
nPs	Numeric 4-bit BCD (packed signed)
s	Special characters
an	Alphabetic numeric characters
as	Alphabetic and special characters

TABLE 1-1 Abbreviation Descriptions

Value	Description
ns	Numeric and special characters
ans	Alphabetic, numeric, and special characters
MM	Month
DD	Day
YY	Year
hh	Hours (time)
mm	Minutes (time)
ss	Seconds (time)
LLd	Variable length field 1-128 bytes (1-255 hex digits) and the length indicates the number of nibbles in field
LLb	Variable length field 1-255 bytes, and the length indicates the number of bytes in field
LLL	Variable length field 1-999 bytes
LLLL	Variable length field 1-9,999 bytes
LL,LLL	Length of variable field that follows
3	Fixed length of 3 characters
..17	This has a variable length up to a maximum of 17 characters. Additionally all variable length fields contain one or two bytes at the beginning of the field to identify the number of positions to follow.
..nn	Variable length up to a maximum of nn characters
INT	Field requirements for the transaction intercept
HDC INT	Field requirements for the transaction intercept and host data capture
EMD INT	Field requirements for the transaction intercept and EMD settled
PROC	Field requirements for the transaction processor
HDC PROC	Field requirements for the transactions processor and host data capture
x	C for Credit or D for Debit. This is always a numeric value; that is, x + n16 in amount, net settlement means prefix C or D and 16 digits of amount, net settlement
b	This is binary data. If it is not supported, you can use the character representation of the data.

TABLE 1-1 Abbreviation Descriptions

Value	Description
n	Numeric digits
M	Mandatory
R	Required
C	Conditional. (See Notes column.)
O	Optional
z	Tracks 2 and 3 code set as defined in IS0 7811 and ISO 7813
YDDD	This a special field. It contains the last digit of year and 3-digit Julian date.

1.1.2 Surcharging Requirements

The following is a list of requirements for Intercept - Processors (IP) using the ISO 8583 format:

- Intercept - Processors (IP) that want to support surcharging must follow all network operating rules for surcharging.
- While certain networks require Worldpay to approve the surcharge screen, receipt and surround signage, the IP and the applicable member institution are solely responsible for complying with all network rules and regulations.
- Field 004 - Transaction Amount in the message should only contain the amount of the cash withdrawal exclusive of any surcharge amounts. For example, Worldpay sends a $50.00 cash withdrawal, a $2.00 surcharge, and a $50.00 cash withdrawal transaction.
- You must include a surcharge field (Field 28 - Transaction Fee Amount) in the message should any additional fees apply to the transaction, because certain networks (for example, Plus and Cirrus) require that you pass it to them as a separate field in their messages.
- Plus and Cirrus do not permit surcharging on international cardholders, except within certain network approved states. The IP must observe this Plus/Cirrus rule prior to switching the transaction to Worldpay.

The following is a list of requirements for Intercept - Processors (IP) that do not convert to the ISO 8583 message format:

- Only U.S. Cash Withdrawal transactions permit surcharging. IPs that send stamp or ticket dispensing as a cash withdrawal transaction cannot surcharge.
- The surcharge amount cannot be equal to or greater than $5.00 or the applicable state law limit.
- The IP cannot surcharge on ATMs that dispense coins or single dollars ($1.00).
- The IP cannot surcharge if using the option to convert POS transactions to cash withdrawal transactions in the message.
- You can only use U.S. dollars in the transaction. Worldpay does not permit foreign currency. The ATM should dispense U.S. dollars; however, if the IP performs a currency conversion prior to switching the transaction to Worldpay, the cash withdrawal dollar amount must be divisible by five (for example, $20.00, $25.00, and so on).

- Plus and Cirrus do not permit surcharging on International Cardholders, except within certain network approved states. The IP must observe this Plus /Cirrus rule prior to switching the transaction to Worldpay.

1.1.3 TCP/IP Network Management

If you choose to use the TCP/IP protocol, you must support handshake messages. A network management code (bit 070) of 0301 in the 0800/0810 messages signifies a handshake message.

1.1.4 Merchant Customer Rules

A merchant that does both credit and debit transactions, including EMD merchants, must follow the debit message set rules. See Chapter 2, "Host Data Capture and Credit EMD Message Sets" for more information about the debit message set.

1.2 Host Data Capture Message Set

Each message comprises the following components: the Message Type Identifier, one or more bit maps, and a series of data elements (fields) as indicated by the bit map(s).

1.2.1 The Message Type Identifier

The Message Type Identifier is a four-digit numeric field that indicates the function of the message. All messages require the Message Type Identifier. Worldpay supports the following Message Type Identifiers:

- 0100 - Authorization Request
- 0110 - Authorization Reply
- 0120 - Authorization Advice
- 0130 - Authorization Advice Reply
- 0200 - Financial Request
- 0210 - Financial Reply
- 0220 - Financial Advice
- 0230 - Financial Advice Reply
- 0302 - Card Issuer File Update Request
- 0312 - Card Issuer File Update Reply
- 0400 - Reversal Request (Credit)
- 0410 - Reversal Reply (Credit)
- 0420 - Reversal/Adjustment Advice (Debit/Host-Data-Capture/Credit)
- 0430 - Reversal/Adjustment Advice Reply (Debit/Host-Data-Capture)
- 0500 - Acquirer Reconciliation Request
- 0510 - Acquirer Reconciliation Reply
- 0620 - Administrative Advice
- 0800 - Network Management Request
- 0810 - Network Management Request Response
- 0900 - PIN Translation Request
- 0910 - PIN Translation Reply

1.2.2 The Bit Map

Each bit map consists of 64 bits with each bit position indicating the presence or absence of a data field in the message. A bit value of 1 indicates the presence of a field while a value of 0 indicates the absence of a field.

The numeric equivalent of the position of the bit in the bit map define field identifiers, relative to one, starting from the left (for example, bit position 15 represents Field 15). A value of 1 in bit position 1 indicates the presence of a second contiguous bit map. The second bit map represents fields 65 - 128.

Position 65 in the second bit map indicates the presence of a third bit map, which Wordpay does not currently support.

1.3 Value-Added Service

This section describes Worldpay's value-added services.

1.3.1 Card Security Products

Merchants face challenges with the risks of processing payment card data and the feasibility to develop and implement their own data security programs to remove cardholder data from their environment. PCI Data Security Standards (PCI DSS) protect cardholder data against such threats, yet data compromises continue to escalate.

Worldpay's security solutions solve many of merchants' challenges by removing payment data from their environment, transferring some of the ownership to Worldpay, and reducing PCI scope. Worldpay solutions remove or replace payment data from merchant's environment in order to make the information useless to an unauthorized party.

Worldpay has the following security products:

- Point-to-Point Encryption
- Tokenization (Worldpay Legacy Reverse Crypto and OmniToken)
- eProtect

You can introduce and sunset these products at any time.

In addition to proprietary security products, Worldpay also plans to support other approved security products like Networks and EMVco tokens. Table 1-2 lists these.

TABLE 1-2 EMVco Tokens

Type	Description
High Value Token	A High Value Token lets you use the token itself in lieu of cardholder data to perform a transaction at multiple merchant locations.
Low Value Token	A Low Value Token is a session identifier or surrogate token value that you cannot use as a payment instrument in lieu of cardholder data. tt is analogous to a temporary token.
OmniToken	An OmniToken is a unified token where a customer can choose to connect with one or more Worldpay platforms and receive a consistent token from a singular enterprise token server. It is randomly generated. It is not based on a unique merchant key; therefore, Worldpay does not need to regenerate based on the PCI best practices of key rotation requirement (every 12 to 36 months).

TABLE 1-2 EMVco Tokens

Type	Description
Registration ID	The eProtect Registration ID is a temporary low-value token. It is active for 24-hours (or upon authorization) and replaces payment card information (PAN, optional CVV) from passing through merchant webservers. Worldpay only returns the Registration ID upon request to the eProtect server before it submits the order for processing. You can use the Registration ID for authorization and conversion to the high-value Omni-Token. Currently, the Registration ID is 19 digits numeric, composed of random values with no encryption involved, and it does not contain any embedded data.
Token	Tokenization is a substitution for the Primary Account Number (PAN) with proxy data. Tokenization limits the ability to conduct fraudulent payment transactions. A token value is numeric and is the same length as the card account number. The POS initiates a token request and upon successful processing, the host returns the token in the response message. Usage requires the token replacing the PAN, track data, or both.
Low Value CVV2 Token	eProtect can capture CVV2/CVC/CID as a standalone data element for card-on-file transactions and return a low value token element called checkoutId. You can use the checkoutId in transactions in place of the CVV2/CVC/CID value. Note that this low value token has a limited life (24 hours) and Worldpay never provides a high value token in its place. By regulation, Worldpay cannot store the validation value for long term use.

worldpay

2

Host Data Capture and Credit EMD Message Sets

Each message comprises the following components: The Message Type Identifier, one or more bit maps, and a series of data elements (fields) as indicated by the bit map(s).

Each message type within the ISO 8583 specification has certain field requirements. This section documents each Message Type Identifier and lists the fields Worldpay requires to successfully convey transactions for a Host Data Capture merchant.

A Host Data Capture merchant relies on Worldpay to collect transaction data and to build the Electronic Merchant Deposit (EMD) file for settlement. When Worldpay receives a message from a Host Data Capture merchant, Worldpay logs all necessary settlement data from the transaction. At the end of the business day, Worldpay creates the EMD file for the merchant from the collected log records, and then settles the merchant. Since the merchant does not send in an EMD file, the online transaction request message that the merchant sends to Worldpay must include all information that is needed for settlement.

Debit transactions are always Host Data Capture Settled, whereas, credit transactions settle as either Host Data Capture or Credit EMD, depending on which option the merchant chose. Credit EMD merchants should see Credit EMD Message Set on page 162 for information about the EMD message set, because this section refers strictly to Host Data Capture merchants.

See Table 1-1 for more information about the abbreviations contained in the request and response tables in this chapter.

2.1 Authorization Request and Response Messages

This section describes the field requirements for each of the following authorization message types:

2.1.1 0100 Authorization Request

Table 2-1 describes the field requirements for the 0100 Authorization Request. (The ISO Field Name links to the definition of the field in Chapter 5, "Message Field Definitions".) See Table 1-1 for more information about the abbreviations contained in the request tables.

TABLE 2-1 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	Worldpay requires this bit for merchants who process using the Terminal Processing platform.
0.2	Message Type ID	nP4	M	0100
0.3	Primary Bit Map	b64	M	This bitmap indicates the presence of fields 1 - 64.
001	Secondary Bit Map	b64	C	If the message includes any field from Field 65 through Field 128, the request requires this field.
002	Primary Account Number (PAN)	LLd nP19	C	Include this field for instances of manually enter PAN; otherwise, include either Field 35 - Track II Data or 45 - Track I Data, or Field 100.2 - Encrypted PAN for P2P Encrypted transactions. For card network and EMVco tokens, this field contains the token.

TABLE 2-1 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
003	Processing Code	nP6	M	For refund transactions (that is, the value of this field is 20), merchants must limit their use of optional fields, like AVS and CVV2, to avoid denials by issuers.
004	Transaction Amount	nP12	M	
005	Settlement Amount	nP12	C	Include this field if the transaction and settlement currencies are not the same.
006	Cardholder Billing Amount	nP12	C	Include this field if the cardholder and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
010	Cardholder Billing Conversion Rate	nP8	C	Include this field if the cardholder and transaction currencies are not the same.
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	
013	Local Transaction Date	nP4	M	
014	Expiration Date	nP4	C	Include this field for key entered information.
015	Settlement Date	nP4	O	
016	Conversion Date	nP4	C	Include this field if the transaction and settlement currencies are not the same.
017	Capture Date	nP4	O	
018	Merchant Type	nP4	M	
019	Acquiring Institution Country Code	nP3	C	Include this field if the country code is not 840 (United States).
021	Forwarding Institution Country Code	nP3		

TABLE 2-1 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
022	Point of Service Entry Mode	nP4	C	The request requires this field for transactions from a POS device.
023	Card Sequence Number	nP3	C	The request may include this field if the merchant key enters the information or for chip data.
025	Point of Service Condition Code	nP2	O	
032	Acquiring Institution Identification Code	LLd nP11	M	
035	Track II Data	LLd nP37	C	For machine read cards, include either Field 35 - Track II Data or Field 45- Track I Data. For P2P encrypted transactions, Field 100.3 - Encrypted Track II replaces this field.
037	Retrieval Reference Number	n12	M	
038	Authorization Identification Response	an6	O	
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	C	If you have a Worldpay-assigned merchant ID, you must send it in this field.
043	Card Acceptor Name and Location Data	ans40	M	
044	Additional Response Data	LLL ans5	O	
045	Track I Data	LLL ans76	C	For machine read cards, include either Field 35 - Track II Data or Field 45- Track I Data. For P2P encrypted transactions, Field 100.4 - Encrypted Track I replaces this field.
048	Additional Data (Private)	LLL ans255	C	The request requires this field for WIC inquiries.

TABLE 2-1 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
049	Transaction Currency Code	nP3	M	
051	Cardholder Billing Currency Code	nP3	C	Include this if the cardholder and settlement currencies are not the same
052	Personal Identification Number Data	b64	C	The request requires this field if the cardholder enters a PIN at a device.
054	Additional Amounts	LLL ans120	O	
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	O	
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.8	From Account Qualifier	nP3	O	

TABLE 2-1 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.9	To Account Qualifier	nP3	O	
062.22	Check Type	an1	O	
062.26	Extended Store Number	an10	C	The request requires this field for third-party gift card transactions.
062.27	Chain Code	an6	C	The request requires this field for third-party gift card transactions.
062.43	Gift Card Restriction Value	an2	O	This field is only for activation.
062.46	Draft Locator ID	an11	O	
099	Card Institution ID Code	LLd nP11	O	
100	P2P Encryption Data	LLL ans999	C	The request only requires this field for P2P-encrypted transactions.
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
110	Transaction Dependent Pass Through Data	LLL ans999	O	
115	Terminal Specific Data	LLLL..ans 9,999	C	The request requires this field for merchants who are processing using the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	
126	Electronic Commerce/MOTO Indicator	LLL ans999	C	The request requires this for electronic commerce transactions.

These examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Checkcard Authorization Request

Table 2-2 shows the fields and values for the following example message:

```
0110B23AE4012AE08034000000000400002007200000000000186007242005010121901605010724072407245411084000210A10420003141F0447708090104....D03081015541477F0F2F0F6F0
```

```
F0F0F2F3F0F7F4F0F0F4F4F7F7F0F8F0F9F0F1F0F4F1F2F3C1C3D4C5404040404040404040404040
C1C3D4C5404040404040404040404040404040404040C8C1D9E5C560C4C560C7D9C1C3D6C8E4
E20840000EF3F940404040404040404040404040400007F4F0F0
40F0F0F0001B5E0000000000000000023074F561F340D4C2C6C8F561F340D4C2C6C8100000000005
007257C1C3D4C5404040404040404040404040
```

TABLE 2-2 Checkcard Authorization Request Example Fields and Field Values

Number	Field Name	Field Value
0.2	Message Type ID	0110
0.3	Primary Bit Map	B23AE4012AE08034
001	Secondary Bit Map	0000000004000020
003	Processing Code	072000
004	Transaction Amount	000000001860
007	Transmission Date and Time	0724200501
011	Systems Trace Audit Number	012190
012	Local Transaction Time	160501
013	Local Transaction Date	0724
015	Settlement Date	0724
017	Capture Date	0724
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	447708090104....D03081015541477
037	Retrieval Reference Number	020600023074
038	Authorization Identification Response	00
041	Card Acceptor Terminal Identification	447708090104123
042	Card Acceptor Identification	ACME
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		ACME
043		HARVE-DE-GRAC

TABLE 2-2 Checkcard Authorization Request Example Fields and Field Values

Number	Field Name	Field Value
043		OH
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	39
060	Additional POS Data	
060.1	Terminal Type	400 000
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	023074
062.4	Acquiring Institution Acronym	5/3
062.5	Issuing Institution Acronym	MBFH
062.6	Owner Settlement Agent	5/3
062.7	Cardholder Settlement Agent	MBFH
102	Account Identification I	0000000005007257
123	Merchant Name	ACME

Example: Preauthorization Request

Table 2-3 shows the fields and values for the following example message:

```
0100|B23AE40128E09034|0000000004000020|002000|000000003500|0724200537|012364|1
60500|0724|0725|0724|5411|0840|0021|0A1042000314|1F0447708010100...D0308101432
7534|F0F2F0F6F0F0F2F1F8F0F1F7|C2F2F1F2F0F6F0F0F0F14040404040|E3C5E7C1C3D640E2C
5D9E5C9C3C540|F8F8F740E2C1D5C4D6E2D2E8404040404040404040404040E2E8D2C5E2E5C9D3D3
C5404040D4C4E4E2|0840|4040404040404040|000EF2F4404040404040404040404040|0007F4
F0F040F0F0F0|001B5E00000000000000|218017|E2E6E3C8|D4C2C3C2|E2E6E3C8|D4C2C3C2|1
00000000003023339|E3C5E7C1C3D640E2C5D9E5C9C3C540
```

TABLE 2-3 Preauthorization Request Example Fields and Field Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0100
0.3	Primary Bit Map	B23AE40128E09034
001	Secondary Bit Map	0000000004000020
003	Processing Code	002000

TABLE 2-3 Preauthorization Request Example Fields and Field Values

NUMBER	FIELD NAME	FIELD VALUE
004	Transaction Amount	000000003500
007	Transmission Date and Time	0724200537
011	Systems Trace Audit Number	012364
012	Local Transaction Time	160500
013	Local Transaction Date	0724
015	Settlement Date	0725
017	Capture Date	0724
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	447708010100....D03081014327534
037	Retrieval Reference Number	020600218017
041	Card Acceptor Terminal Identification	B212060001
042	Card Acceptor Identification	ACME
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		887 SANDOSKY
043		SYKESVILLE
043		MD
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	4040404040404040
059	National Point of Service Geographic Data	24
060	Additional POS Data	
060.1	Terminal Type	400 000
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	218017

TABLE 2-3 Preauthorization Request Example Fields and Field Values

NUMBER	FIELD NAME	FIELD VALUE
062.4	Acquiring Institution Acronym	SWTH
062.5	Issuing Institution Acronym	MBCB
062.6	Owner Settlement Agent	SWTH
062.7	Cardholder Settlement Agent	MBCB
102	Account Identification I	0000000003023339
123	Merchant Name	ACME

2.1.2 0110 Authorization Response

Table 2-4 describes the field requirements for the 0110 Authorization Response. See Table 1-1 for more information about the abbreviations contained in the response tables.

TABLE 2-4 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The response requires this bit for merchants who process using the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The response requires this if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	If present, the response copies this from the 0100 message.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	The response copies this from the 0100 message.
005	Settlement Amount	nP12	C	Include this field if the transaction and settlement currencies are not the same.
006	Cardholder Billing Amount	nP12	C	Include this field if the cardholder and settlement currencies are not the same.

TABLE 2-4 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
010	Cardholder Billing Conversion Rate	nP8	C	Include this field if the cardholder and transaction currencies are not the same.
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0100 message.
012	Local Transaction Time	nP6	M	
013	Local Transaction Date	nP4	M	
014	Expiration Date	nP4	O	
015	Settlement Date	nP4	M	
016	Conversion Date	nP4	C	Include this field if the transaction and settlement currencies are not the same.
017	Capture Date	nP4	O	
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	O	The response copies this from the request.
023	Card Sequence Number	nP3	O	
025	Point of Service Condition Code	nP2	O	
032	Acquiring Institution Identification Code	LLd nP11	M	If present, the response copies this from the 0100 message.
035	Track II Data	LLd nP37	C	If present, the response copies this from the 0100 message.
037	Retrieval Reference Number	an12	M	If present, the response copies this from the 0100 message.
038	Authorization Identification Response	an6	C	Present for approved transactions.
039	Response Code	an2	M	

TABLE 2-4 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	O	
043	Card Acceptor Name and Location Data	ans40	O	
044	Additional Response Data	LLL ans5	C	If applicable, this field contains AVS result data.
048	Additional Data (Private)	LLL ans255	C	If present, the response copies this from the 0100 message.
049	Transaction Currency Code	nP3	M	The response copies this from the 0100 message.
051	Cardholder Billing Currency Code	nP3	C	Include this if the cardholder and settlement currencies are not the same
054	Additional Amounts	LLL ans120	C	The response requires this if additional amounts are needed or balances are returned.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the response should present it.
059	National Point of Service Geographic Data	LLL ans999	C	If present, the response copies this from the 0100 message.
060	Additional POS Data	LLL ans999	M	
061	Network Specific Information	LLL ans999	C61	See Field 61 - Network Specific Information for descriptions of the subfield requirements.

TABLE 2-4 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.22	Check Type	an1	O	
062.43	Gift Card Restriction Value	an2	C	The response sends this if the card has a restriction value set.
062.46	Draft Locator ID	an11	C	If present, the response copies this from the 0100 message.
099	Card Institution ID Code	LLd nP11	O	
101	Card Results Field	LLL ans999	O	
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
104	Transaction Specific Data	LLL ans255	C	For WIC transactions, this contains receipt information the response obtains from the WIC processor.

TABLE 2-4 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
106	WIC EBT Pass-Thru Field #1/Level 3 Authorization Descriptor Fields	LLL ans999	C	This field contains passthrough information from the WIC processor for balance inquiry responses only.
107	WIC EBT Pass-Thru Field #2	LLL ans999	C	This field contains passthrough information from the WIC processor for balance inquiry responses only.
108	WIC EBT Pass-Thru Field #3	LLL ans999	C	This field contains passthrough information from the WIC processor for balance inquiry responses only.
115	Terminal Specific Data	LLLL..ans 9,999	C	The response requires this bit for merchants who process using the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	

The following examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Checkcard Authorization Response

Table 2-5 lists the fields and values in the following example message:

```
0110B23AE4012AE0803400000000004000020072000000000001860072420050101219016050107
2407240724541108400021 0A10420003141F0447708090104....D03081015541477F0F2F0F6F0
F0F0F2F3F0F7F4F0F0F4F4F7F7F0F8F0F9F0F1F0F4F1F2F3C1C3D4C5404040404040404040404040
C1C3D4C5404040404040404040404040404040404040C8C1D9E5C560C4C560C7D9C1C3D6C8E4
E20840000EF3F940404040404040404040404040400007F4F0F0
40F0F0F0001B5E0000000000000000023074F561F340D4C2C6C8F561F340D4C2C6C8100000000005
007257C1C3D4C5404040404040404040404040
```

TABLE 2-5 Checkcard Authorization Response Example Fields and Field Values

Number	Field Name	Field Value
0.2	Message Type ID	0110
0.3	Primary Bit Map	B23AE4012AE08034
001	Secondary Bit Map	0000000004000020
003	Processing Code	072000
004	Transaction Amount	000000001860
007	Transmission Date and Time	0724200501
011	Systems Trace Audit Number	012190
012	Local Transaction Time	160501
013	Local Transaction Date	0724
015	Settlement Date	0724
017	Capture Date	0724
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	447708090104....D03081015541477
037	Retrieval Reference Number	020600023074
039	Response Code	00
041	Response Code	447708090104123
042	Card Acceptor Identification	ACME
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		ACME
043		HARVE-DE-GRAC
043		OH
043		US
49	Transaction Currency Code	0840
59	National Point of Service Geo-graphic Data	39

TABLE 2-5 Checkcard Authorization Response Example Fields and Field Values

Number	Field Name	Field Value
60	Additional POS Data	
60.1	Terminal Type	400 000
62	Vantiv Transaction Data	
62		5E00000000000000
62.2	Terminal Sequence Number	023074
62.4	Acquiring Institution Acronym	5/3
62.5	Issuing Institution Acronym	MBFH
62.6	Owner Settlement Agent	5/3
62.7	Cardholder Settlement Agent	MBFH
102	Account Identification I	0000000005007257
123	Merchant Name	ACME

Example: Preauthorization Response

Table 2-6 shows the field and values for following example message:

```
0110B23AE4012AE0803400000000040000200020000000000350007242005370123641605000024072507245411084000210A10420003141F0447708010100....D030810143275340F0F2F0F6F0F0F2F1F8F0F1F7F0F0C2F2F1F2F0F6F0F0F0F14040404040E3C5E7C1C3D640E2C5D9E5C9C3C540F8F8F740E2C1D5C4D6E2D2E8404040404040404040404040E2E8D2C5E2E5C9D3D3C5404040D4C4E4E20840000EF2F4404040404040404040404040400007F4F0F040F0F0F0001B5E0000000000000218017E2E6E3C8D4C2C3C2E2E6E3C8D4C2C3C2100000000003023339E3C5E7C1C3D640E2C5D9E5C9C3C540
```

TABLE 2-6 Preauthorization Response Example Fields and Field Values

Number	Field Name	FIELD VALUE
0.2	Message Type ID	0110
0.3	Primary Bit Map	B23AE4012AE08034
001	Secondary Bit Map	0000000004000020
003	Processing Code	002000
004	Transaction Amount	000000003500
007	Transmission Date and Time	0724200537
011	Systems Trace Audit Number	012364
012	Local Transaction Time	160500
013	Local Transaction Date	0024

TABLE 2-6 Preauthorization Response Example Fields and Field Values

Number	Field Name	FIELD VALUE
017	Capture Date	0725
018	Merchant Type	0724
019	Acquiring Institution Country Code	5411
003	Processing Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	447708010100....D03081014327534
037	Retrieval Reference Number	020600218017
039	Response Code	00
041	Card Acceptor Terminal Identification	B212060001
042	Card Acceptor Identification	ACME
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		887 SANDOSKY
043		SYKESVILLE
043		MD
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	24
060	Additional POS Data	
060.1	Terminal Type	400 000
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	218017
062.4	Acquiring Institution Acronym	SWTH
062.5	Issuing Institution Acronym	MBCB
062.6	Owner Settlement Agent	SWTH
062.7	Cardholder Settlement Agent	MBCB
102	Account Identification I	0000000003023339

TABLE 2-6 Preauthorization Response Example Fields and Field Values

Number	Field Name	FIELD VALUE
123	Merchant Name	ACME

2.1.3 0120 Authorization Advice Request

Table 2-7 describes the field requirements for the 0120 Authorization Advice Request. See Table 1-1 for more information about the abbreviations contained in the request tables.

TABLE 2-7 0120 Authorization Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this field if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	This field is mandatory in all cases except for the following: • P2P encrypted transactions - Field 100.2 - Encrypted PAN replaces this field. • Token-initiated transactions • Networks (VISA, MC, AMEX) and EMVco-created tokens go in the PAN field with an additional element called a cryptogram.
003	Processing Code	nP6	M	For refund transactions (that is, the value for this field is 20), merchants must limit their use of optional fields, like AVS and CVV2, to avoid denials by issuers.
004	Transaction Amount	nP12	M	
005	Settlement Amount	nP12	C	Include this field if the transaction and settlement currencies are not the same.

TABLE 2-7 0120 Authorization Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
006	Cardholder Billing Amount	nP12	C	Include this field if the cardholder and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
010	Cardholder Billing Conversion Rate	nP8	C	Include this field if the cardholder and transaction currencies are not the same.
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	Copied from the 01XX message.
013	Local Transaction Date	nP4	M	Copied from the 01XX message.
014	Expiration Date	nP4	C	Include this field for key-entered information. It is mandatory in any Host Data Capture non-original requests.
015	Settlement Date	nP4	O	
016	Conversion Date	nP4	C	Include this field if the transaction and settlement currencies are not the same.
017	Capture Date	nP4	O	
018	Merchant Type	nP4	M	
019	Acquiring Institution Country Code	nP3	C	Include this field if the country code is not 840 (US).
022	Point of Service Entry Mode	nP4	C	The request requires this field for transactions from a POS device.
023	Card Sequence Number	nP3	C	This field may be present for key entered or chip data.
025	Point of Service Condition Code	nP2	O	
032	Acquiring Institution Identification Code	LLd nP11	M	

TABLE 2-7 0120 Authorization Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
035	Track II Data	LLd nP37	C	The request only includes this field for original messages of swiped transactions where Track I is not included. For P2P encrypted transactions, Field 100.3 - Encrypted Track II replaces this field.
037	Retrieval Reference Number	an12	M	Copied from the 01XX message.
038	Authorization Identification Response	an6	C	Copied from the 01XX message if available.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	C	Copied from the 01XX message if available.
043	Card Acceptor Name and Location Data	ans40	M	
044	Additional Response Data	LLL ans5	O	
045	Track I Data	LLL ans76	C	Include for original messages of swiped transactions where Track II is not included. For P2P encrypted transactions, Field 100.4 - Encrypted Track I replaces this field.
048	Additional Data (Private)	LLL ans255	C	The request requires this if it is present in an 0110 message.
049	Transaction Currency Code	nP3	M	
051	Cardholder Billing Currency Code	nP3	C	Include this if the cardholder and settlement currencies are not the same.
054	Additional Amounts	LLL ans120	C	The request sends this if transaction-related amounts are present.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	

TABLE 2-7 0120 Authorization Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	The request copies this from the 0110 message.
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	O	
062.5	Issuing Institution Acronym	an4	O	
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.8	From Account Qualifier	nP3	O	
062.9	To Account Qualifier	nP3	O	
062.22	Check Type	an1	O	
062.46	Draft Locator ID	an11	O	
099	Card Institution ID Code	LLd nP11	O	
100	P2P Encryption Data	LLL ans999	C	The request requires this for P2P encrypted transactions.
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
110	Transaction Dependent Pass Through Data	LLL ans999	O	

TABLE 2-7 0120 Authorization Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
115	Terminal Specific Data	LLLL..ans 9,999	C	The request requires this bit for merchants who process using the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	

2.1.4 0130 Authorization Advice Response

Table 2-8 describes the field requirements for the 0130 Authorization Advice Response. See Table 1-1 for more information about the abbreviations contained in the response tables.

TABLE 2-8 0130 Authorization Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The response requires this bit for merchants who process using the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
002	Primary Account Number (PAN)	LLd nP19	M	The response copies this from the 0120 message.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	
005	Settlement Amount	nP12	C	Include this field if the transaction and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0120 message.

TABLE 2-8 0130 Authorization Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
012	Local Transaction Time	nP6	M	The response copies this from the 0120 message.
013	Local Transaction Date	nP4	M	The response copies this from the 0120 message.
015	Settlement Date	nP4	M	
037	Retrieval Reference Number	an12	M	The response copies this from the 0120 message.
038	Authorization Identification Response	an6	O	
039	Response Code	an2	M	You must use 00 for the value.
044	Additional Response Data	LLL ans5	O	
048	Additional Data (Private)	LLL ans255	C	If available, the response copies this from the 0120 message.
049	Transaction Currency Code	nP3	M	The response copies this from the 0120 message.
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	

TABLE 2-8 0130 Authorization Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.22	Check Type	an1	O	
062.46	Draft Locator ID	an11	C	If present, the response copies this from the 0120 message.
101	Card Results Field	LLL ans999	O	
115	Terminal Specific Data	LLLL..ans 9,999	C	The response requires this bit for merchants who process using the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O	

2.2 Financial Transaction Request and Response Messages

This section describes the field requirements for each of the following financial transaction message types:

2.2.1 0200 Financial Transaction Request

Table 2-9 describes the field requirements for the 0200 Financial Transaction Request. See Table 1-1 for more information about the abbreviations contained in the request tables.

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The request requires this bit for merchants who process using the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	Include this field for manually entered PAN or for a non-original resubmission message. For P2P encrypted transactions, Field 100.2 - Encrypted PAN replaces this field. Token initiated transactions do not include this field. For card network and EMVco tokens, this field contains the token.

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
003	Processing Code	nP6	M	For refund transactions (that is, the value for this field is 20), merchants must limit their use of optional fields, like AVS and CVV2, to avoid denials by issuers.
004	Transaction Amount	nP12	M	All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.
005	Settlement Amount	nP12	C	Include this field if the transaction and settlement currencies are not the same.
006	Cardholder Billing Amount	nP12	C	Include this field if the cardholder and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
010	Cardholder Billing Conversion Rate	nP8	C	
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
013	Local Transaction Date	nP4	M	All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.
014	Expiration Date	nP4	C	The request may include this field for key-entered information, and it requires it in a non-original resubmission message.
015	Settlement Date	nP4	O	
016	Conversion Date	nP4	C	Include this field if the transaction and settlement currencies are not the same.
017	Capture Date	nP4	O	
018	Merchant Type	nP4	M	All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.
019	Acquiring Institution Country Code	nP3	C	Include if the country code is not 840 (US).
021	Forwarding Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	C	The request requires this for transactions from a POS device. All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
023	Card Sequence Number	nP3	C	The request may include this if the merchant key enters the information or for chip data.
025	Point of Service Condition Code	nP2	O	
028	Transaction Fee Amount	X+an8	C	This is mandatory for acquirers imposing a surcharge or rebate. All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.
029	Settlement Fee Amount	X+an8	C	Include this field if the transaction and settlement currencies are not the same.
032	Acquiring Institution Identification Code	LLd nP11	M	
035	Track II Data	LLd nP37	C	For machine read cards, include either Field 35 - Track II Data or Field 45 - Track I Data. All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process. Omit this field in a non-original resubmission message. For P2P encrypted transactions, Field 100.3 - Encrypted Track II replaces this field.
037	Retrieval Reference Number	an12	M	

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
038	Authorization Identification Response	an6	C	The request requires this for EBT voucher clear transactions.
041	Card Acceptor Terminal Identification	ans15	M	All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.
042	Card Acceptor Identification	ans15	C	If you have a Worldpay-assigned Merchant ID, you must include it in this field.
043	Card Acceptor Name and Location Data	ans40	M	All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission process.
045	Track I Data	LLL ans76	C	For machine read cards, include either Field 35 - Track II Data or Field 45 - Track I Data. Omit this in a non-original resubmission message. For P2P encrypted transactions, Field 100.4 - Encrypted Track I replaces this field.
048	Additional Data (Private)	LLL ans255	C	The request requires this for WIC inquiries.
049	Transaction Currency Code	nP3	M	
051	Cardholder Billing Currency Code	nP3	C	Include this if the cardholder and settlement currencies are not the same.
052	Personal Identification Number Data	b64	C	The request requires this if the cardholder enters a PIN at a terminal.

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
053	AMEX Card Identifier	LLb ans4	O	
054	Additional Amounts	LLL ans120	C	The request sends this if transaction-related amounts are present. All submissions and resubmissions of merchant authorized transactions must contain the original data element value. These items must remain the same throughout the life of the submission/resubmission processed amounts are present.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the request should present it.
057	Card Product Type	ans3	O	
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	Subfield 6 must have a value of 4 for preauthorized debit. For more information, see POS Transaction Status Indicator on page 317.
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.4	Acquiring Institution Acronym	an4	O	
062.5	Issuing Institution Acronym	an4	O	
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.8	From Account Qualifier	nP3	O	
062.9	To Account Qualifier	nP3	O	
062.16	Check Number	an6	C	The request requires this for check cleared inquiry and stop payment.
062.20	Transaction Related Date	nP6	C	The request requires this for merchant bill payment and stop payment.
062.21	New PIN	b64	C	The request requires this for PIN change.
062.22	Check Type	an1	O	
062.23	Deposit Type	an1	O	
062.28	Routing Priority List	LLb ans255	O	
062.30	Preferred Debit Routing Flag	an1	O	
062.31	Card Conversion Flag	b1	O	
062.32	Special Inquiry Transaction Qualifier	an3	O	
062.33	Check Authorization Information (Deprecated)	LLb ans255	C	The request requires this for ECC Check Conversion, Verification, and Guarantee transactions.
062.43	Gift Card Restriction Value	an2	O	The request only uses this for activation.
062.46	Draft Locator ID	an11	O	
062.52	Bill Payment Payee Information	an75	C	The request only uses this to transmit bill payment payee information on bill payment transactions.

TABLE 2-9 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
099	Card Institution ID Code	LLd nP11	O	
100	P2P Encryption Data	LLL ans999	C	The request only requires this for P2P Encrypted transactions.
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
106	WIC EBT Pass-Thru Field #1/Level 3 Authorization Descriptor Fields	LLL ans999	C	The request only uses this for WIC purchase requests and voucher clear requests where it passes the information to the WIC processor.
107	WIC EBT Pass-Thru Field #2	LLL ans999	C	The request only uses this for purchase requests and voucher clear requests where it passes the information to the WIC processor.
108	WIC EBT Pass-Thru Field #3	LLL ans999	C	The request only uses this for WIC purchase requests and voucher clear requests only where it passes the information to the WIC processor.
110	Transaction Dependent Pass Through Data	LLL ans999	O	
111	Additional EBT Data	LLL ans52	C	The request requires this for some EBT transactions.
115	Terminal Specific Data	LLLL..ans 9,999	C	The request requires this bit for merchants who process using the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	
124	Transaction Dependent Data	LLL ans999	C	The request requires this for Mini-Statement transactions.
126	Electronic Commerce/MOTO Indicator	LLL ans999	C	The request requires this for electronic commerce transactions.

The following examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Cash Withdrawal Request

Table 2-10 shows the fields and values for the following example message:

```
0200F238E48128E09034000000000000002010999999980012....012000000000001000050109
300909300909300905010501541108409010000A1042000314150999999980012....D9912F8F0
F4F1F0F0F0F0F0F9F0F9F0F0F5F2F340404040404040404040F0F9F0F5F4F0F2F8F64040404040
40C5C2E240E3C5E2E340D9D6D6D440404040404040404040D9D6C3C8C5E2E3C5D940404040D5E8
E4E20840486D3162........000ED5E8F0F0F0F1F4F6F9F24040404000007F2F1F240F2F0F3000B
4000000000000000000001260E6C5C7D4C1D5E240404040404040
```

TABLE 2-10 Cash Withdrawal Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0200
0.3	Primary Bit Map	F238E48128E09034
001	Secondary Bit Map	0000000000000020
002	Primary Account Number (PAN)	999999980012....
003	Processing Code	012000
004	Transaction Amount	000000001000
007	Transmission Date and Time	0501093009
011	Systems Trace Audit Number	093009
012	Local Transaction Time	093009
013	Local Transaction Date	0501
017	Capture Date	0501
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	9010
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	999999980012....D9912
037	Retrieval Reference Number	804100000909
041	Card Acceptor Terminal Identification	00523
042	Card Acceptor Identification	090540286
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.

TABLE 2-10 Cash Withdrawal Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
043		EBS TEST ROOM
043		ROCHESTER
043		NY
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	486D3162.....
059	National Point of Service Geographic Data	NY00014692
060	Additional POS Data	212 203
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	001260
123	Merchant Name	WEGMANS

Example: Request with Surcharge

Table 2-11 shows the fields and values for following example message:

```
02003238C09128A0901401200000000001000001051607060000381607060105010660110 0C4F0
F0F0F0F0F1F5F00A1055000372250433718300604....D010210113292197207 23F9F0F0F5F0F0
F0F0F3F84040C6C3F3F2404040404040404040404040D9E3F5F061C3C1D7C540E2E3C3D3C1404040
4040404040C1D5D5C1D7D6D3C9E240404040D4C4E4E2084023F83D97.........0007F2F1F2C8F2
F0F3000F44000000000000000000038D4C2C1C2
```

TABLE 2-11 Request with Surcharge Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	3238C09128A09014
003	Processing Code	012000
004	Transaction Amount	000000010000
007	Transmission Date and Time	0105160706
011	Systems Trace Audit Number	000038
012	Local Transaction Time	160706
013	Local Transaction Date	0105
017	Capture Date	0106

TABLE 2-11 Request with Surcharge Example Fields and Values

Number	Field Name	Field Value
018	Merchant Type	6011
025	Point of Service Condition Code	00
028	Transaction Fee Amount	D00000150
032	Acquiring Institution Identification Code	1055000372
035	Track II Data	433718300604....D01021011329219720723
037	Retrieval Reference Number	9005000038
041	Card Acceptor Terminal Identification	FC32
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		RT50/CAPE STCLA
043		ANNAPOLIS
043		MD
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	23F83D97.....
060	Additional POS Data	212H203
062	Vantiv Transaction Data	
062		4400000000000000
062.2	Terminal Sequence Number	000038
062.6	Owner Settlement Agent	MBAB

Example: EBT Purchase Request

Table 2-12 shows the fields and values for following example message:

```
0200F238E48128E0903400000000000000020130600760187656152....00980000000000084601
12151133232224101133011201135411084090100 00A10420003141E600760187656152....D49
12120391F9F0F1F2F0F0F0F0F1F2F3F7F0F7F6F3F040404040404040404040F0F9F0F5F4F0F7F5
F7404040404040C2C5D3D340D4E3D540E5C9D3D3C1C7C540404040404040D7C140404040404040
40404040D5E8E4E2084090F08D60.........000ED5E8F0F0
F0F1F4F6F9F2404040400007F4F1F240F1F0F3000B400000000000000000001237E6C5C7D4C1D5E2
4040404040404040
```

TABLE 2-12 EBT Purchase Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0200

TABLE 2-12 EBT Purchase Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.3	Primary Bit Map	F238E48128E09034
001	Secondary Bit Map	0000000000000020
002	Primary Account Number (PAN)	600760187656152....
003	Processing Code	009800
004	Transaction Amount	000000000846
007	Transmission Date and Time	0112151133
011	Systems Trace Audit Number	232224
012	Local Transaction Time	101133
013	Local Transaction Date	0112
017	Capture Date	0113
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	9010
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	600760187656152....D4912120391
037	Retrieval Reference Number	901200001237
041	Card Acceptor Terminal Identification	07630
042	Card Acceptor Identification	090540757
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		BELL MTN VILLAGE
043		PA
043		NY
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	90F08D60.....
059	National Point of Service Geographic Data	NY00014692
060	Additional POS Data	412 103
062	Vantiv Transaction Data	

TABLE 2-12 EBT Purchase Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
062		4000000000000000
062.2	Terminal Sequence Number	001237
123	Merchant Name	WEGMANS

Example: EBT Return Request

Table 2-13 shows the fields and values for following example message:

```
0200B238E00128E0903400000000060200202000980000000001000508153802153802153802
20508050860110840 0A1042000314150999999984200....D9912F7F2F5F8F0F0F0F0F1F3F9
F7F0F6F9F0F2404040404040404040F0F9F0F1F2F3F4F5F6404040404040F3F840C6D6E4D
5E3C1C9D540E2D840D7D3C1E9C1404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4E208403225
77DD........000E4040404040404040404040404040400007F4F0F040F0F0F0000B400000000
0000000153802000000016C5C2F0F0F7F2F6F6F8F2F1F1C3C1F0F0F5E6C7F0F6F9E3C5E2E340
C2C1D5D240D6D5D3C9D5
```

TABLE 2-13 EBT Return Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	B238E00128E09034
001	Secondary Bit Map	0000000006020020
003	Processing Code	200098
004	Transaction Amount	000000000100
007	Transmission Date and Time	0508153802
011	Systems Trace Audit Number	153802
012	Local Transaction Time	153802
013	Local Transaction Date	0508
017	Capture Date	0508
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	999999984200....D9912
037	Retrieval Reference Number	725800001397
041	Card Acceptor Terminal Identification	06902
042	Card Acceptor Identification	090123456

TABLE 2-13 EBT Return Request Example Fields and Values

Number	Field Name	Field Value
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		38 FOUNTAIN SQ PLAZA
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	322577DD.....
059	National Point of Service Geographic Data	
060	Additional POS Data	400 000
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	153802
102	Account Identification I	
103	Account Identification 2	
111	Additional EBT Data	EB0072668211CA005WG069
123	Merchant Name	TEST BANK ONLIN

Example: EBT Voucher Request

Table 2-14 shows the fields and values for the following message:

```
0200B238E0012CE0803400000000006020020009800000000003000050815380415380415380405
080508601108400A1042000314150999999984200....D9912F7F2F5F8F0F0F0F0F1F3F9F7F6F5
F4F3F2F1F0F6F9F0F1404040404040404040F0F9F0F1F2F3F4F5F6404040404040F3F840C6D6
E4D5E3C1C9D540E2D840D7D3C1E9C1404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4E20840000E
4040404040404040404040404040400007F4F0F040F0F9F0000B4000000000000000200634000000
21C5C2F0F0F7F2F6F6F8F2F1F1E5D5F0F0F6F1F2F3F1F2F3C3C1F0F0F5E6C7F0F6F9E3C5E2E340
C2C1D5D240D6D5D3C9D5
```

TABLE 2-14 EBT Voucher Request Example Fields and Field Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0200
0.3	Primary Bit Map	B238E0012CE08034
001	Secondary Bit Map	0000000006020020

TABLE 2-14 EBT Voucher Request Example Fields and Field Values

NUMBER	FIELD NAME	FIELD VALUE
003	Processing Code	009800
004	Transaction Amount	000000003000
007	Transmission Date and Time	0508153804
011	Systems Trace Audit Number	153804
012	Local Transaction Time	153804
013	Local Transaction Date	0508
017	Capture Date	0508
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	999999984200....D9912
037	Retrieval Reference Number	725800001397
038	Authorization Identification Response	654321
041	Card Acceptor Terminal Identification	06901
042	Card Acceptor Identification	090123456
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		38 FOUNTAIN SQ PLAZA
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	
060	Additional POS Data	400 090
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	200634
102	Vantiv Transaction Data	
103	Account Identification 2	
111	Additional EBT Data	EB0072668211VN006123123CA005WG069

TABLE 2-14 EBT Voucher Request Example Fields and Field Values

NUMBER	FIELD NAME	FIELD VALUE
123	Merchant Name	TEST BANK ONLIN

FIGURE 2-1 Online Mini Statement Request

Table 2-15 shows the fields and values for following example message:

```
0200B23AE00128E0803400000000004000030322000000000000000012621364700000616364701
260127012760110840 0A1042000314245538900003 33....D05051010259300009 50F4F0F2F6F0
F0F0F0F0F0F2F8F0F0F0F0F0F0F0F0F0F0F0F0F6F2F7C7D9C5C5D5D7D6C9D5E340C2C1D5D2F3F8
40C6D6E4D5E3C1C9D540E2D840D7D3C1E9C1404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4E208
40000EF3F940404040404040404040404040400007F2F1F040F0F0F0001F5E0040000000000000028
C1E4C7D7C1E4C7D7C1E4C7D7C1E4C7D7D6D5E4E20A0000123123C7D9C5C5D5D7D6C9D5E340C2C1
D5D20004000C0028
```

TABLE 2-15 Online Mini Statement Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	B23AE00128E08034
001	Secondary Bit Map	0000000004000030
003	Processing Code	322000
004	Transaction Amount	000000000000
007	Transmission Date and Time	
007		0126
007		213647
011	Systems Trace Audit Number	000006
012	Local Transaction Time	163647
013	Local Transaction Date	0126
015	Settlement Date	0127
017	Capture Date	0127
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	553890000333....D050510102593000095 0
38	Authorization Identification Response	402600000028
41	Card Acceptor Terminal Identification	000000000000627

TABLE 2-15 Online Mini Statement Request Example Fields and Values

Number	Field Name	Field Value
42	Card Acceptor Identification	GREENPOINT BANK
43	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		38 FOUNTAIN SQ PLAZA
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	39
060	Additional POS Data	
060.1	Terminal Type	2
060.2	Physical Terminal Location	1
060.3	Terminal Entry Capability	0
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0
062	Vantiv Transaction Data	
062		5E00400000000000
062.2	Terminal Sequence Number	000028
062.4	Acquiring Institution Acronym	AUGP
062.5	Issuing Institution Acronym	AUGP
062.6	Owner Settlement Agent	AUGP
062.7	Cardholder Settlement Agent	AUGP
062.18	Vantiv Network Acronym	ONUS
102	Account Identification I	0000123123
123	Merchant Name	GREENPOINT BANK
124	Transaction Dependent Data	
124		000C
124		0028

Example: Host-Data-Capture EBT Purchase Request (Manually Entered)

Table 2-16 shows the fields and values for the following example message:

```
3AB50E020200F23C448108E0901400000000000201001050447600023 8....0098000000000001
43122211112400211711112412224912591201100 00A1042000314F1F7F0F64040404040404040
C5D2F0F0F5F2F9F0F0F0F0F0F0F0F1F0F9F0F6F9F0F9F3F3404040404040F8F6F640C3D9C5E2E6
C5D3D340D3C1D5C5404040404040D6D7C5D3D6E4E2C1E240404040D3C1E4E208404BA32A49....
....0024F4F1F240F2F0F3F0F7F4F5F9F4F1F2F3F0F0F0F0
F0F5F2F9F0F0F1F0F0F0F0F0F6F6F2F3000B400000000000000000002117000CC5C2F0F0F7F1F8F9
F8F6F9F8
```

TABLE 2-16 Host-Data-Capture EBT Purchase Request (Manually Entered) Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	3AB50E02
0.2	Message Type ID	0200
0.3	Primary Bit Map	F23C448108E09014
001	Secondary Bit Map	0000000000020100
002	Primary Account Number (PAN)	504476000238....
003	Processing Code	009800
004	Transaction Amount	000000000143
007	Transmission Date and Time	1222111124
011	Systems Trace Audit Number	002117
012	Local Transaction Time	111124
013	Local Transaction Date	1222
014	Expiration Date	4912
018	Merchant Type	5912
022	Point of Service Entry Mode	0110
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
037	Retrieval Reference Number	1706
041	Card Acceptor Terminal Identification	EK0052900000001
042	Card Acceptor Identification	090690933
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		866 CRESWELL LANE
043		OPELOUSAS
043		LA

TABLE 2-16 Host-Data-Capture EBT Purchase Request (Manually Entered) Example Fields and Values

Number	Field Name	Field Value
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	4BA32A49.....
060	Additional POS Data	412 203074594123000005290010000006623
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	002117
111	Additional EBT Data	EB0071898698
120	Additional Request Data	KS020FFFF07982602FF200122

Example: Host-Data-Capture Purchase Request

Table 2-17 shows the field and values for following example message:

```
533614030200B238448128E0901400000000000001000000000000000062251223161239004922
16123912235912901000A1042000314204828510460l1....D990710166542822F1F7F0F14040
4040404040C5D2F0F3F4F6F7F0F0F0F0F0F0F0F1F0F9F0F7F0F3F5F9F5404040404040F2F7F0
F040F1C140E6C1D9C440C2D3E5C4404040404040E6C9D3E2D6D5404040404040D5C3E4E20840
BF73DAC9........0024F4F1F240F2F0F3F0F7F4F5F9F4F1
F2F3F0F0F0F0F3F4F6F7F0F0F1F0F0F0F0F0F6F2F1F6000B400000000000000000049220019D2E2
F0F2F0C6C6C6C6F0F7F9F8F2F6F0F1F7C1C5F0F0F0C6C6
```

TABLE 2-17 Host-Data-Purchase Request Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	53361403
0.2	Message Type ID	0200
0.3	Primary Bit Map	B238448128E09014
001	Secondary Bit Map	0000000000000100
003	Processing Code	000000
004	Transaction Amount	000000006225
007	Transmission Date and Time	1223161239
011	Systems Trace Audit Number	004922
012	Local Transaction Time	161239
013	Local Transaction Date	1223

TABLE 2-17 Host-Data-Purchase Request Example Fields and Values

Number	Field Name	Field Value
018	Merchant Type	5912
022	Point of Service Entry Mode	9010
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	482851046011....D990710166542822
037	Retrieval Reference Number	1701
041	Card Acceptor Terminal Identification	EK0346700000001
042	Card Acceptor Identification	090703595
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		2700 1A WARD BLVD
043		WILSON
043		NC
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	BF73DAC9.....
060	Additional POS Data	412 20307459412300003467001000006216
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	004922
120	Additional Request Data	KS020FFFF079826017AE000FF

Example: Check Authorization Request

Table 2-18 shows the fields and values for following example message:

```
0200B238648108E0803400000000000000020170000000000000001051307373600300207373605
13599908400710000A1123456789F2F1F3F3F0F0F0F0F3F0F0F2F3F3F3F340404040404040404040
4040F1F2F3F4F5F6F7F8F9404040404040C1C2C340404040404040404040404040404040404040
40C9D5C4C9C1D5C1D7D6D3C9E24040E4E2C10840000EF1F8F0F0F0F4F4F1F1F4404040400024F4
F1F3E9F0F0F3F0F0F0F1F8F7F0F0F0F0F0F0F0F0F1F1F1F0F0F1F0F0F0F0F0F0F0F0F00061402E
2000000000000003002F5F9F4F3F2F4F9F1F340404040404040404040404040404040404040404040
4040E3F1F2F3F4F5F6F7F8F9C1F1F2F3F4F5F6F7404040404040404040404C3F0F0F9F8F2F9F1
F2F1F2F1F2C7C1F1F0F2F1F1F2F2F0F0F5C1C2C34040404040404040404040404040
```

TABLE 2-18 Check Authorization Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	B238648108E08034
001	Secondary Bit Map	0000000000000020
003	Processing Code	170000
004	Transaction Amount	000000000001
007	Transmission Date and Time	
007		0513
007		073736
011	Systems Trace Audit Number	003002
012	Local Transaction Time	073736
013	Local Transaction Date	0513
018	Merchant Type	5999
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		07
022		10
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1123456789
037	Retrieval Reference Number	213300003002
041	Retrieval Reference Number	3333
042	Card Acceptor Identification	123456789
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		ABC
043		INDIANAPOLIS
043		USA
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	1800044114
060	Additional POS Data	
060.1	Terminal Type	4

TABLE 2-18 Check Authorization Request Example Fields and Values

Number	Field Name	Field Value
060.2	Physical Terminal Location	1
060.3	Terminal Entry Capability	3
060.4	Merchant Type Indicator	Z
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	3
060.8	Chain Code	000187
060.9	Division Number	000
060.10	Division Number	00000111
060.11	Register/Lane Number	001
060.12	Employee Number	000000000
062	Vantiv Transaction Data	
062		402E200000000000
62.2	Terminal Sequence Number	003002
62.11	Driver's License Number	594324913
62.13	Full MICR Data	T123456789A1234567 C009829
62.14	Date of Birth	121212
62.15	State Code	GA
62.19	Station Number	1021122005
123	Merchant Name	ABC

Example: Card Activation Request

Table 2-19 shows the fields and values for following example message:

```
02007238440108A09014105444110112 20....940000000000000000011509000700025409000 7
0115601101100A1042000314F0F0F0F0F0F0F0F0F0F5F2F7C4E5D9E2404040404040404040404040
E5C1D5E3C9E540C2C1D5D240C2C1D5D240404040404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4
E208406C0D0D7B0298....0007C2F0F040F0F0F0000D60000000000000000000005280014
```

TABLE 2-19 Card Activation Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	7238440108A09014

TABLE 2-19 Card Activation Request Example Fields and Values

Number	Field Name	Field Value
002	Primary Account Number (PAN)	544411011220....
003	Processing Code	940000
004	Transaction Amount	000000000000
007	Transmission Date and Time	
007		0115
007		090007
011	Systems Trace Audit Number	000254
012	Local Transaction Time	090007
013	Local Transaction Date	0115
018	Merchant Type	6011
022	Point of Service Entry Mode	
022		01
022		10
032	Acquiring Institution Identification Code	1042000314
037	Retrieval Reference Number	000000000527
041	Card Acceptor Terminal Identification	DVRS
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		VANTIV BANK
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	6C0D0D7B0298....
060	Additional POS Data	
060.1	Terminal Type	B
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	0
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0

TABLE 2-19 Card Activation Request Example Fields and Values

Number	Field Name	Field Value
060.7	POS Transaction Routing Indicator	0
062	Vantiv Transaction Data	
62		6000000000000000
62.2	Terminal Sequence Number	000528
62.3	Transaction Qualifier	0014

Example: Host-Data-Capture EMV Purchase Request

Table 2-20 shows the fields and values for the following example message:

```
0200F23C468128E092140000000000000001001042071969........000000000000001159
05300000001006001006000530491259990510002300 0A10420003142042071969......
..D491266600000000F1F7F0F1404040404040404040C5D2F0F3F4F6F7F0F0F0F0F0F0F0F1
F0F9F1F0F9F5F5F9F6404040404040F8F8F840C5E7C5C3E4E3C9E5C540C3C5D5E3C5D940
C4D9E2E34B40D7C5E3C5D9E2C2E4D9C6D3E4E2084008530FF7........008002007D9F26
0847CAFEAFB47951FC9F2701809F10120110A000032400000000000000000000000FF9F37
045263063F9F3602000195058020008000 9A031205239C01009F02060000000011595F2A
020124820218009F1A0201249F34031E03009F3303E0B0C89F3501228407A00000000410
109F090200025F340101FF010200010024F4F1F540F1D7F3F0F7F0F1F1F0F0F0F0F0F0F0
F0F0F0F0F1F0F0F1F0F0F0F0F0F0F0F0F0F0000B4000000000000000000001000073C3D3F1E3D4F0F8
F2E5C1D940D5D4E5C1D940E5D5C7E6E840D5D4C7E6E840E5D5D7D6E2C1D7D7D5C1D4C5C1D7D740
E5D5D4D6C4C5D361C4E5C3C5E3C5D9D440C1D7D7D5D4E3D440E5D9D5E2C5D9C9C1D340D5E4D4C2
C5D97B7B7BD2E2F0F2F0C6C6C6C6F0F7F9F8F2F6F0F1F7C1C5F0F0 F0C6C6
```

TABLE 2-20 Host-Data-Capture EMV Purchase Request Example Fields and Values

Number	Field Names	Field Values
0.2	Message Type ID	0200
0.3	Primary Bit Map	F23C468128E09214
001	Secondary Bit Map	0000000000000100
002	Primary Account Number (PAN)	42071969.....
003	Processing Code	000000
004	Transaction Amount	000000001159
007	Transmission Date and Time	
007		0530
007		000000
011	Systems Trace Audit Number	100600
012	Local Transaction Time	100600

TABLE 2-20 Host-Data-Capture EMV Purchase Request Example Fields and Values

Number	Field Names	Field Values
013	Local Transaction Date	0530
014	Expiration Date	4912
018	Merchant Type	5999
022	Point of Service Entry Mode	
022		05
022		10
023	Card Sequence Number	0023
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	42071969.....D491266600000000
037	Retrieval Reference Number	1701
041	Card Acceptor Terminal Identification	EK0346700000001
042	Card Acceptor Identification	091095596
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		888 EXECUTIVE CENTER DR
043		ST. PETERSBUR
043		FL
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	08530FF7.....
055	Integrated Circuit Card Data	02007D9F260847CAFEAFB47951FC9F2 701809F10120110A00003240000000000 000000000000FF9F37045263063F9F360 2000195058020008000 9A031205239C01 009F02060000000011595F2A020124820 218009F1A0201249F34031E03009F3303 E0B0C89F3501228407A00000000410109 F090200025F340101FF01020001
060	Additional POS Data	
060.1	Terminal Type	4
060.2	Physical Terminal Location	1
060.3	Terminal Entry Capability	5
060.4	Merchant Type Indicator	

TABLE 2-20 Host-Data-Capture EMV Purchase Request Example Fields and Values

Number	Field Names	Field Values
060.5	POS Card Retention Indicator	1
060.6	POS Transaction Status Indicator	P
060.7	POS Transaction Routing Indicator	3
060.8	Chain Code	070110
060.9	Division Number	000
060.10	Store Number	00000001
060.11	Register/Lane Number	001
060.12	Employee Number	000000000
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	000100
120	Additional Request Data	CL1TM082VAR NMVAR VNGWY NMGWY VNPOSAPPNAMEAPP VNMODEL/DVCETERM APPNMTM VRNSERIALNUMBER###KS020FFFF079826017AE000FF

Example: Host-Data-Capture Purchase Request

Table 2-21 shows the fields and values for following example message:

```
533614030200B238448128E0901400000000000001000000000000000622512231612390049221612391223591290100
00A10420003142048285104601l....D990710166542822F1F7F0F1404040404040404040C5D2F0F3F4F6F7F0F0F0F0F0F0F0F1F0F9F0F7F0F3F5F9F5404040404040F2F7F0F040F1C140E6C1D9C440C2D3E5C4404040404040E6C9D3E2D6D5404040404040D5C3E4E20840BF73DAC9........0024F4F1F240F2F0F3F0F7F4F5F9F4F1
F2F3F0F0F0F0F3F4F6F7F0F0F1F0F0F0F0F0F6F2F1F6000B400000000000000000049220019D2E2F0F2F0C6C6C6C6F0F7F9F8F2F6F0F1F7C1C5F0F0F0C6C6
```

TABLE 2-21 Host-Data-Purchase Request Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	53361403
0.2	Message Type ID	0200
0.3	Primary Bit Map	B238448128E09014
001	Secondary Bit Map	0000000000000100
003	Processing Code	000000
004	Transaction Amount	000000006225

TABLE 2-21 Host-Data-Purchase Request Example Fields and Values

Number	Field Name	Field Value
007	Transmission Date and Time	1223161239
011	Systems Trace Audit Number	004922
012	Local Transaction Time	161239
013	Local Transaction Date	1223
018	Merchant Type	5912
022	Point of Service Entry Mode	9010
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	482851046011....D990710166542822
037	Retrieval Reference Number	1701
041	Card Acceptor Terminal Identification	EK0346700000001
042	Card Acceptor Identification	090703595
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		2700 1A WARD BLVD
043		WILSON
043		NC
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	BF73DAC9.....
060	Additional POS Data	412 20307459412300003467001000006216
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	004922
120	Additional Request Data	KS020FFFF079826017AE000FF

Example: Gift Card Activation Request, Swiped

Table 2-22 shows an example of the fields and values for the following example message:

```
02003238648120E080105100400000000150000720130001000030130001072059120840
9020000A10142003142430999999999900324D12121010000013100000F3F0404040404040
40404040404040F4F4F4F5F1F9F9F9F9F9F6F7F34040D4C5D9C3C8C1D5E340C1C2C34040
40404040404040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400007F0F0F140F0F0
F0
```

TABLE 2-22 Gift Card Activation Request, Swiped Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	3238648120E08010
003	Processing Code	510040
004	Transaction Amount	000000015000
007	Transmission Date and Time	
007		0720
007		130001
011	Systems Trace Audit Number	000030
012	Local Transaction Time	130001
013	Local Transaction Date	0720
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		90
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
035	Track II Data	3099999999900324D1212101000001310000
041	Card Acceptor Terminal Identification	30
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		MERCHANT ABC
043		CINCINNATI
043		USA

TABLE 2-22 Gift Card Activation Request, Swiped Example Fields and Values

Number	Field Name	Field Value
049	Transaction Currency Code	0840
060	Additional POS Data	
060.1	Terminal Type	0
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	1
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0

Example: Gift Card Purchase Request

Table 2-23 shows the fields and values for the following example message:

```
0200723C648100E0801010308999999999930855400000000001000011081300000000201300001108491259120840012000A1014200314F2F040404040404040404040404040F4F4F4F5F1F9F9F9F9F9F6F7F34040D9D84BC9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400007F0F0F140F0F0F0
```

TABLE 2-23 Gift Card Purchase Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	723C648100E08010
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	554000
004	Transaction Amount	000000010000
007	Transmission Date and Time	
007		1108
007		130000

TABLE 2-23 Gift Card Purchase Request Example Fields and Values

Number	Field Name	Field Value
011	Systems Trace Audit Number	000020
012	Local Transaction Time	130000
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
041	Card Acceptor Terminal Identification	20
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
060	Additional POS Data	
060.1	Terminal Type	0
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	1
060.4	Merchant Type Indicator	

TABLE 2-23 Gift Card Purchase Request Example Fields and Values

Number	Field Name	Field Value
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0

Example: Gift Card Load Request

Table 2-24 shows the fields and values for the following example message:

```
0200723C648100E0801010308999999999930852004000000000500011081300060000901300061108491259120840012000A1014200314F9F040404040404040404040404040F4F4F4F5F1F9F9F9F9F9F6F7F34040D9D84BC9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400007F0F0F140F0F0F0
```

TABLE 2-24 Gift Card Load Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	723C648100E08010
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	520040
004	Transaction Amount	000000005000
007	Transmission Date and Time	
007		1108
007		130006
011	Systems Trace Audit Number	000090
012	Local Transaction Time	130006
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840

TABLE 2-24 Gift Card Load Request Example Fields and Values

Number	Field Name	Field Value
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
041	Card Acceptor Terminal Identification	90
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
060	Additional POS Data	
060.1	Terminal Type	0
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	1
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0

Example: Gift Card Unload Request

Table 2-25 shows the fields and values for the following message:

```
0200723C648100E0801010308999999999930853400000000000650011081300040000501300041108491259120840012000A1014200314F5F040404040404040404040404040F0F9F9F9F9F9F8
```

```
F0F2404040404040D9D84BC9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1
E3C940404040E4E2C108400007F0F0F140F0F0F0
```

TABLE 2-25 Gift Card Unload Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	723C648100E08010
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	534000
004	Transaction Amount	000000006500
007	Transmission Date and Time	
007		1108
007		130004
011	Systems Trace Audit Number	000050
012	Local Transaction Time	130004
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
041	Card Acceptor Terminal Identification	50
042	Card Acceptor Identification	099999802
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.

TABLE 2-25 Gift Card Unload Request Example Fields and Values

Number	Field Name	Field Value
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
060	Additional POS Data	
060.1	Terminal Type	0
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	1
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0

Example: Gift Card Balance Inquiry Request

Table 2-26 shows the fields and values for the following example message:

```
0200723C648100E0801010308999999999930857400000000000000011081400040001301400041108491259120840012000A1014200314F1F3F040404040404040404040404040F4F4F4F5F1F9F9F9F9F9F6F7F34040D9D84BC9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400007F0F0F140F0F0F0
```

TABLE 2-26 Gift Card Balance Inquiry Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0200
0.3	Primary Bit Map	723C648100E08010
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	574000
004	Transaction Amount	000000000000
007		

TABLE 2-26 Gift Card Balance Inquiry Request Example Fields and Values

Number	Field Name	Field Value
007		1108
007		140004
011	Systems Trace Audit Number	000130
012	Local Transaction Time	140004
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
041	Card Acceptor Terminal Identification	130
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
060	Additional POS Data	
060.1	Terminal Type	0
060.2	Physical Terminal Location	0

TABLE 2-26 Gift Card Balance Inquiry Request Example Fields and Values

Number	Field Name	Field Value
060.3	Terminal Entry Capability	1
060.4	Merchant Type Indicator	
060.5	Merchant Type Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0

2.2.2 0210 Financial Transaction Response

Table 2-27 describes the field requirements for the 0210 Financial Transaction Response. See Table 1-1 for more information about the abbreviations contained in the response tables.

TABLE 2-27 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The response requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The response requires this field if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	If present, the response copies this from the 0200 message.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	The response copies this from the 0200 message.
005	Settlement Amount	nP12	C	Present if the transaction and settlement currencies are not the same.

TABLE 2-27 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
006	Cardholder Billing Amount	nP12	C	Present if the cardholder and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
010	Cardholder Billing Conversion Rate	nP8	C	Present if the cardholder and transaction currencies are not the same.
011	Systems Trace Audit Number	nP6	M	The response copies from the 0200 message.
012	Local Transaction Time	nP6	M	
013	Local Transaction Date	nP4	M	
014	Expiration Date	nP4	C	Include this field for key entered information or if responding to a non-original resubmission message.
015	Settlement Date	nP4	M	
016	Conversion Date	nP4	C	Include this field if the transaction and settlement currencies are not the same.
017	Capture Date	nP4	O	
018	Merchant Type	nP4	C	If present, the response copies it from the 0200 message.
019	Acquiring Institution Country Code	nP3	C	If present, the response copies it from the 0200 message.
021	Forwarding Institution Country Code	nP3	C	If present, the response copies it from the 0200 message.
022	Point of Service Entry Mode	nP4	C	If present, the response copies it from the 0200 message.
023	Card Sequence Number	nP3	C	The response may contain this field if the merchant key enters the information or for chip data.

TABLE 2-27 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
025	Point of Service Condition Code	nP2	C	If present, the response copies this from the 0200 message.
028	Transaction Fee Amount	X+an8	C	If present, the response copies it from the 0200 message.
029	Settlement Fee Amount	X+an8	C	The response only requires this if Field 28 - Transaction Fee Amount is present. The field is present if the transaction and settlement currencies are not the same.
032	Acquiring Institution Identification Code	LLd nP11	M	The response copies it from the 0200 message.
035	Track II Data	LLd nP37	C	The response copies this from the 0200 message.
037	Retrieval Reference Number	an12	M	The response copies this from the 0200 message.
038	Authorization Identification Response	an6	C	The issuer may return this if the issuer wants the reversal to return this field.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	C	If present, the response copies it from the 0200 message.
043	Card Acceptor Identification	ans40	C	If present, the response copies it from the 0200 message.
044	Additional Response Data	LLL ans5	C	If applicable, this contains AVS result data.
045	Track I Data	LLL ans76	C	If present, the response copies it from the 0200 message.
048	Additional Data (Private)	LLL ans255	C	If present, the response copies it from the 0200 message.
049	Transaction Currency Code	nP3	M	The response copies this from the 0200 message.

TABLE 2-27 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
051	Cardholder Billing Currency Code	nP3	C	Present if the cardholder and settlement currencies are not the same.
054	Additional Amounts	LLL ans120	C54	Required if additional amounts are needed or balances returned.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
057	Card Product Type	ans3	C	If present, copied from the 0200 message.
059	National Point of Service Geographic Data	LLL ans999	C	If present, copied from the 0200 message.
060	Additional POS Data	LLL ans999	M	
061	Network Specific Informationn	LLL ans999	C	See Field 61 - Network Specific Information for descriptions of the subfield requirements.
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	

TABLE 2-27 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.8	From Account Qualifier	nP3	O	
062.9	To Account Qualifier	nP3	O	
062.10	POS Batch Reference Number	b16	C	
062.22	Check Type	an1	O	
062.23	Deposit Type	an1	O	
062.29	DVRS Transfer Flag	an1	O	
062.33	Check Authorization Information (Deprecated)	LLb ans255	C	Required for ECC Check Conversion, Verification, and Guarantee transactions.
062.43	Gift Card Restriction Value	an2	C	The response only sends this if a restriction value is set on the card.
062.46	Draft Locator ID	an11	C	If present, copied from the 0200.
099	Card Institution ID Code	LLd nP11	O	
101	Card Results Field	LLL ans999	O	
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
104	Transaction Specific Data	LLL ans255	C	For WIC Transactions, this contains receipt information obtained from the WIC processor.
106	WIC EBT Pass-Thru Field #1/Level 3 Authorization Descriptor Fields	LLL ans999	C	This is for WIC purchase responses and voucher clear responses only where it passes the information to the WIC processor.
107	WIC EBT Pass-Thru Field #2	LLL ans999	C	This is for WIC purchase responses and voucher clear responses only where it passes the information to the WIC processor.
108	WIC EBT Pass-Thru Field #3	LLL ans999	C	This is for WIC purchase responses and voucher clear responses only where it passes the information to the WIC processor.

TABLE 2-27 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
111	Additional EBT Data	LLL ans52	C	If present, copied from the 0200 message.
115	Terminal Specific Data	LLLL..ans 9,999	C	The response requires this bit for merchants processing via the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	
124	Transaction Dependent Data	LLL ans999	C	This is required for Mini-Statement transactions.

Example: Cash Withdrawal Response

Table 2-28 shows the field and values for the following example message:

```
0210F23AE0012AE0843400000000040000201099999998001 2....012000000000001000050109
300909300909300905010501050154110840 0A1042000314150999999980012....D9912F8F0F4
F1F0F0F0F0F9F0F9F0F0F0F0F5F2F3404040404040404040F0F9F0F5F4F0F2F8F640404040
4040C5C2E240E3C5E2E340D9D6D6D4404040404040404040D9D6C3C8C5E2E3C5D940404040D5
E8E4E208400028F2F0F0F2F8F4F0C3F0F0F0F0F0F0F9F8F8F8F0F0F2F0F0F1F8F4F0C3F0F0F0F0
F0F0F9F8F8F8F0F0000EF3F64040404040404040404040400007F2F1F040F2F0F0001B5E000000
00000000001260E6C5C7F1E3E2E3F1E6C5C7F1E2E6E3C80821232126E6C5C7D4C1D5E240404040
40404040
```

TABLE 2-28 Cash Withdrawal Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23AE0012AE08434
001	Secondary Bit Map	0000000004000020
002	Primary Account Number (PAN)	999999980012....
003	Processing Code	012000
004	Transaction Amount	000000001000
007	Transmission Date and Time	0501093009
011	Systems Trace Audit Number	093009
012	Local Transaction Time	093009
013	Local Transaction Date	0501

TABLE 2-28 Cash Withdrawal Response Example Fields and Values

Number	Field Name	Field Value
015	Settlement Date	0501
017	Capture Date	0501
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	999999980012....D9912
037	Retrieval Reference Number	804100000909
039	Response Code	00
041	Card Acceptor Terminal Identification	00523
042	Card Acceptor Identification	090540286
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		EBS TEST ROOM
043		ROCHESTER
043		NY
043		US
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses two.
054.1	Additional Amount Subfield 1	2002840C000000988800
054.2	Additional Amount Subfield 2	2001840C000000988800
059	National Point of Service Geographic Data	36
060	Additional POS Data	210 200
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	001260
062.4	Acquiring Institution Acronym	WEG1
062.5	Issuing Institution Acronym	TST1
062.6	Owner Settlement Agent	WEG1
062.7	Cardholder Settlement Agent	SWTH
102	Account Identification I	21232126

TABLE 2-28 Cash Withdrawal Response Example Fields and Values

Number	Field Name	Field Value
123	Merchant Name	WEGMANS

Example: Response with Surcharge

Table 2-29 shows the fields and values for following example message:

```
0210B23AE0112AA08434000000000000000001200000000001000001051607060000381607060 1
0501060106601108 40C4F0F0F0F0F0F1F5F00A1055000372250433718300604....D0102101132
9219720723F9F0F0F5F0F0F0F0F3F84040F0F0C6C3F3F2404040404040404040404040D9E3F5F061
C3C1D7C540E2E3C3D3C1404040404040404040C1D5D5C1D7D6D3C9E240404040D4C4E4E208400028
F2F0F0F2F8F4F0C3F0F0F0F0F0F0F0F0F3F6F2F6F2F0F0F1
F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0000EF2F4404040404040404040404040400007F2F1F040F2
F0F0001B5E000000000000000000038D4C2E7F1E2C5E2F2D4C2C1C2E2E6E3C8
```

TABLE 2-29 Response with Surcharge Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	B23AE0112AA08434
001	Secondary Bit Map	0000000000000000
003	Processing Code	012000
004	Transaction Amount	000000010000
007	Transmission Date and Time	0105160706
011	Systems Trace Audit Number	000038
012	Local Transaction Time	160706
013	Local Transaction Date	0105
015	Settlement Date	0106
017	Capture Date	0106
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
028	Transaction Fee Amount	D00000150
032	Acquiring Institution Identification Code	1055000372
035	Track II Data	433718300604....D01021011329219720723
037	Retrieval Reference Number	9005000038
039	Response Code	00
041	Card Acceptor Terminal Identification	FC32

TABLE 2-29 Response with Surcharge Example Fields and Values

Number	Field Name	Field Value
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		RT50/CAPE STCLA
043		ANNAPOLIS
043		MD
043		US
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses two.
054.1	Additional Amount Subfield 1	2002840C000000003626
054.2	Additional Amount Subfield 2	2001840C000000000000
059	National Point of Service Geographic Data	24
060	Additional POS Data	210 200
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	000038
062.4	Acquiring Institution Acronym	MBX1
062.5	Issuing Institution Acronym	SES2
062.6	Owner Settlement Agent	MBAB
062.7	Cardholder Settlement Agent	SWTH

Example: EBT Purchase Response

Table 2-30 shows the fields and values for following example message:

```
0210F23AE4012EE08434000000000000002013060076018765615 2....009800000000000846011215113323222410113301120113011354110840002 10A10420003141E600760187656152....D4912120391F9F0F1F2F0F0F0F0F1F2F3F7F3F2F3F5F5F5F0F0F0F7F6F3F0404040404040404040F0F9F0F5F4F0F7F5F7404040404040C2C5D3D340D4E3D540E5C9D3D3C1C74040404040404040D7C1404040404040404040404040D5E8E4E208400028F9F6F0F2F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0F9F8F0F2F8F4F0C3F0F0F0F0F0F0F0F0F1F9F5F9000EF3F6404040404040404040404040400007F4F0F040F0F0F0001B5E0000000000000000001237E6C5C7F1C5D7C1F1E6C5C7F1E2E6E3C8E6C5C7D4C1D5E24040404040404040
```

TABLE 2-30 EBT Purchase Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210

TABLE 2-30 EBT Purchase Response Example Fields and Values

Number	Field Name	Field Value
0.3	Primary Bit Map	F23AE4012EE08434
001	Secondary Bit Map	0000000000000020
002	Primary Account Number (PAN)	600760187656152....
003	Processing Code	009800
004	Transaction Amount	000000000846
007	Transmission Date and Time	0112151133
011	Systems Trace Audit Number	232224
012	Local Transaction Time	101133
013	Local Transaction Date	0112
015	Settlement Date	0113
017	Capture Date	0113
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	600760187656152....D4912120391
037	Retrieval Reference Number	901200001237
038	Authorization Identification Response	323555
039	Response Code	00
041	Card Acceptor Terminal Identification	07630
042	Card Acceptor Identification	090540757
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		BELL MTN VILLAG
043		PA
043		NY
043		US
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses two.
054.1	Additional Amounts Subfield 1	9602840C000000000000

TABLE 2-30 EBT Purchase Response Example Fields and Values

Number	Field Name	Field Value
054.2	Additional Amounts Subfield 2	9802840C000000001959
059	National Point of Service Geographic Data	36
060	Additional POS Data	400 000
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	001237
062.4	Transaction Qualifier	WEG1
062.5	Issuing Institution Acronym	EPA1
062.6	Owner Settlement Agent	WEG1
062.7	Cardholder Settlement Agent	SWTH
123	Merchant Name	WEGMANS

Example: EBT Return Response

Table 2-31 shows the fields and values for the following example message:

```
0210B23AE4012AE0843400000000000200202000980000000001000508153802153802153802050805080508601108400021 0A1042000314150999999984200....D9912F7F2F5F8F0F0F0F0F1F3
F9F7F0F0F0F6F9F0F2404040404040404040F0F9F0F1F2F3F4F5F6404040404040F3F840C6D6
E4D5E3C1C9D540E2D8404040404040404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4E208400078
F9F6F0F1F8F4F0C3F0F0F0F0F0F0F0F1F1F1F1F1F9F6F0F2F8F4F0C3F0F0F0F0F0F0F0F2F2F2F2
F2F9F6F1F8F8F4F0C3F0F0F0F0F0F0F0F3F3F3F3F3F9F8F0F1F8F4F0C3F0F0F0F0F0F0F0F4F4F4
F4F4F9F8F0F2F8F4F0C3F0F0F0F0F0F0F0F5F5F5F5F5F9F8F1F8F8F4F0C3F0F0F0F0F0F0F0F6F6
F6F6F6000EF3F94040404040404040
4040404000007F4F0F040F0F0F0001B5E0000000000000000153802E6C5C7F1C5D7C1F1E6C5C7F1E2
E6E3C80016C5C2F0F0F7F2F6F6F8F2F1F1C3C1F0F0F5E6C7F0
F6F9E3C5E2E340C2C1D5D240D6D5D3C9D5
```

TABLE 2-31 EBT Return Response Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0210
0.3	Primary Bit Map	B23AE4012AE08434
001	Secondary Bit Map	0000000000020020
003	Processing Code	200098
004	Transaction Amount	000000000100
007	Transmission Date and Time	0508153802

TABLE 2-31 EBT Return Response Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
011	Systems Trace Audit Number	153802
012	Local Transaction Time	153802
013	Local Transaction Date	0508
015	Settlement Date	0508
017	Capture Date	0508
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Country Code	1042000314
035	Track II Data	999999984200....D9912
037	Retrieval Reference Number	725800001397
039	Response Code	00
041	Card Acceptor Terminal Identification	06902
042	Card Acceptor Identification	090123456
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		38 FOUNTAIN SQ
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses six.
054.1	Additional Amounts Subfield 1	9601840C000000011111
054.2	Additional Amounts Subfield 2	9602840C000000022222
054.3	Additional Amounts Subfield 3	9618840C000000033333
054.4	Additional Amounts Subfield 4	9801840C000000044444
054.5	Additional Amounts Subfield 5	9802840C000000055555
054.6	Additional Amounts Subfield 6	9818840C000000066666
59	National Point of Service Geographic Data	39

TABLE 2-31 EBT Return Response Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
60	Additional POS Data	400 000
62	Vantiv Transaction Data	
62		5E00000000000000
62.2	Terminal Sequence Number	153802
62.4	Acquiring Institution Acronym	WEG1
62.5	Issuing Institution Acronym	EPA1
62.6	Owner Settlement Agent	WEG1
62.7	Cardholder Settlement Agent	SWTH
111	Additional EBT Data	EB0072668211CA005WG069
123	Merchant Name	TEST BANK ONLIN

Example: EBT Voucher Response

Table 2-32 shows the fields and values for following example message:

```
0210B23AE4012EE0843400000000000200200098000000000300005081538041538041538040508050805086011084000210A1042000314150999999984200....D9912F7F2F5F8F0F0F0F0F1F3F9F7F6F5F4F3F2F1F0F0F0F6F9F0F1404040404040404040F0F9F0F1F2F3F4F5F6404040404040F3F840C6D6E4D5E3C1C9D540E2D8404040404040404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4E208400078F9F6F0F1F8F4F0C3F0F0F0F0F0F0F0F1F1F1F1F1F9F6F0F2F8F4F0C3F0F0F0F0F0F0F0F2F2F2F2F2F9F6F1F8F8F4F0C3F0F0F0F0F0F0F0F3F3F3F3F3F9F8F0F1F8F4F0C3F0F0F0F0F0F0F0F4F4F4F4F4F9F8F0F2F8F4F0C3F0F0F0F0F0F0F0F5F5F5F5F5F9F8F1F8F8F4F0C3F0F0F0F0F0F0F0F0F6F6F6F6F6000EF3F94040
4040404040404040404000007F4F0F040F0F9F0001B5E0000000000000200634E6C5C7F1C5D7C1F1E6C5C7F1E2E6E3C80021C5C2F0F0F7F2F6F6F8F2F1F1E5D5F0F0F6F1F2F3F1F2F3C3C1F0F0F5E6C7F0F6F9E3C5E2E340C2C1D5D240D6D5D3C9D5
```

TABLE 2-32 EBT Voucher Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	B23AE4012EE08434
001	Secondary Bit Map	0000000000020020
003	Processing Code	009800
004	Transaction Amount	000000003000
007	Transmission Date and Time	0508153804
011	Systems Trace Audit Number	153804
012	Local Transaction Time	153804

TABLE 2-32 EBT Voucher Response Example Fields and Values

Number	Field Name	Field Value
013	Local Transaction Date	0508
015	Settlement Date	0508
017	Capture Date	0508
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	999999984200....D9912
037	Retrieval Reference Number	725800001397
038	Authorization Identification Response	654321
039	Response Code	00
041	Card Acceptor Terminal Identification	06901
042	Card Acceptor Identification	090123456
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		38 FOUNTAIN SQ
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses six.
054.1	Additional Amounts Subfield 1	9601840C000000011111
054.2	Additional Amounts Subfield 2	9602840C000000022222
054.3	Additional Amount Subfield 3	9618840C000000033333
054.4	Additional Amount Subfield 4	9801840C000000044444
054.5	Additional Amount Subfield 5	9802840C000000055555
054.6	Additional Amount Subfield 6	9818840C000000066666
059	National Point of Service Geographic Data	39
060	Additional POS Data	400 090

TABLE 2-32 EBT Voucher Response Example Fields and Values

Number	Field Name	Field Value
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	200634
062.4	Acquiring Institution Acronym	WEG1
062.5	Issuing Institution Acronym	EPA1
062.6	Owner Settlement Agent	WEG1
062.7	Cardholder Settlement Agent	SWTH
111	Additional EBT Data	EB0072668211VN006123123CA005WG069
123	Merchant Name	TEST BANK ONLIN

Example: Online Mini Statement Response

Table 2-33 shows the fields and values for following example message:

```
0210B23AE0012AE0803400000000000000303220000000000000000126213647000006163647012
6012701276011084 00A1042000314245538900003 33....D05051010259300009 50F4F0F2F6F0
F0F0F0F0F0F2F8F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F6F2F7C7D9C5C5D5D7D6C9D5E340C2C1D5D2
F3F840C6D6E4D5E3C1C9D540E2D840D7D3C1E9C1404040C3C9D5C3C9D5D5C1E3C9404040D6C8E4
E20840000EF3F940404040404040404040404040400007F2F1F040F0F0F0001B5E0000000000000000
0028C1E4C7D7C1E4C7D7C1E4C7D7C1E4C7D7C7D9C5C5D5D7D6C9D5E340C2C1D5D20143000B0028
1CC3D2F2F0F0F3F1F0F1F3F0F0F0F0F1F2F7F0F0F0F0F0F0F8F0F0F0F01CF1F0F2F0F0F3F1F0F1
F2F0F0F0F0F0F0F0F0F0F0F0F0F0F0
F2F0F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F1F1F1F0F0F0F0F0F0F8F0F0F0F01CE2E5F1F0F0
F3F1F0F1F3F0F0F0F0F1F1F1F0F0F0F0F0F0F8F0F0F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F1
F3F3F3F3F0F0F0F0F8F0F0F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F3F4F3F4F3F4F0F0F0F8F0
F0F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F5F5F5F5F5F0F0F0F0F8F0F0F0F01CC3D2F1F0F0F3
F1F0F1F3F0F0F0F0F5F5F5F5F5F0F0F0F0F8F0F0F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F5F5
F5F5F5F0F0F0F0F8F0F0F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F5F5F5F5F5F0F0F0F0F8F0F0
F0F01CC3D2F1F0F0F3F1F0F1F3F0F0F0F0F9F9F9F9F9F0F0F0F0F8F0F0F0F0
```

TABLE 2-33 Online Mini Statement Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	B23AE0012AE08034
001	Secondary Bit Map	0000000000000030
003	Processing Code	322000
004	Transaction Amount	000000000000
007	Transmission Date and Time	

TABLE 2-33 Online Mini Statement Response Example Fields and Values

Number	Field Name	Field Value
007		0126
007		213647
011	Systems Trace Audit Number	000006
012	Local Transaction Time	163647
013	Local Transaction Date	0126
015	Settlement Date	0127
017	Capture Date	0127
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	553890000333....D0505101025930000950
037	Retrieval Reference Number	402600000028
039	Response Code	00
041	Card Acceptor Terminal Identification	000000000000627
042	Card Acceptor Identification	GREENPOINT BANK
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		38 FOUNTAIN SQ PLAZA
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	39
060	Additional POS Data	
60.1	Terminal Type	2
60.2	Physical Terminal Location	1
60.3	Terminal Entry Capability	0
60.4	Merchant Type Indicator	
60.5	POS Card Retention Indicator	0
60.6	POS Transaction Status Indicator	0

TABLE 2-33 Online Mini Statement Response Example Fields and Values

Number	Field Name	Field Value
60.7	POS Transaction Routing Indicator	0
62	Vantiv Transaction Data	
62		5E00000000000000
62.2	Terminal Sequence Number	000028
62.4	Acquiring Institution Acronym	AUGP
62.5	Issuing Institution Acronym	AUGP
62.6	Owner Settlement Agent	AUGP
62.7	Cardholder Settlement Agent	AUGP
123	Merchant Name	GREENPOINT BANK
124	Transaction Dependent Data	
124		000B
124		0028
124		CK2003101300001270000080000
124		10200310120000000000000002000
124		CK1003101300001110000080000
124		SV1003101300001110000080000
124		CK1003101300001333000080000
124		CK1003101300003434340080000
124		CK1003101300005555000080000
124		CK1003101300005555000080000
124		CK1003101300005555000080000
124		CK1003101300005555000080000
124		CK1003101300009999000080000

Example: Host-Data-Capture EBT Purchase Response

Table 2-34 shows the fields and values for the following example message:

```
3AB50E020210F23E64010EE0843400000000000200001050447600023 8....0098000000000001
4312221111240021171111241222491212225912084000110A1042000314F1F7F0F64040404040
4040404040404040F0F0C5D2F0F0F5F2F9F0F0F0F0F0F0F0F1F0F9F0F6F9F0F9F3F340404040
4040F8F6F640C3D9C5E2E6C5D3D340D3C1404040404040404040D6D7C5D3D6E4E2C1E240404040D3
C1E4E208400050F9F6F0F1F8F4F0C3F0F0F0F0F0F0F0F0F0
F0F0F0F9F6F1F8F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0F0F9F8F0F1F8F4F0C3F0F0F0F0F0F0F0F0
F1F5F2F9F9F8F1F8F8F4F0C3F0F0F0F0F0F0F0F0F1F6F7F2000EF2F2404040404040404040404040
400007F4F0F040F2F0F0001B5E00000000000000002117C5C3D2C4C5D3C1F1C5C3D2C4E2E6E3C8
```

```
000CC5C2F0F0F7F1F8F9F8F6F9F8F9F6F3F3F9F0F0F4F0F1F0F0F0F0F7C3F0F0F0F0F0F0F1F4F0
F0F0
```

TABLE 2-34 Host-Data-Capture EBT Purchase Response Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	3AB50E02
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23E64010EE08434
001	Secondary Bit Map	0000000000020000
002	Primary Account Number (PAN)	504476000238....
003	Processing Code	009800
004	Transaction Amount	000000000143
007	Transmission Date and Time	1222111124
011	Systems Trace Audit Number	002117
012	Local Transaction Time	111124
013	Local Transaction Date	1222
014	Expiration Date	4912
015	Settlement Date	1222
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0011
032	Acquiring Institution Identification Code	1042000314
037	Retrieval Reference Number	1706
038	Authorization Identification Response	
039	Response Code	00
041	Card Acceptor Terminal Identification	EK0052900000001
042	Card Acceptor Identification	090690933
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		866 CRESWELL LA
043		OPELOUSAS
043		LA
043		US

TABLE 2-34 Host-Data-Capture EBT Purchase Response Example Fields and Values

Number	Field Name	Field Value
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses four.
054.1	Additional Amount Subfield 1	9601840C000000000000
054.2	Additional Amount Subfield 2	9618840C000000000000
054.3	Additional Amount Subfield 3	9801840C000000001529
054.4	Additional Amount Subfield 4	9818840C000000001672
059	National Point of Service Geographic Data	22
060	Additional POS Data	400 200
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	002117
062.4	Acquiring Institution Acronym	ECKD
062.5	Issuing Institution Acronym	ELA1
062.6	Owner Settlement Agent	ECKD
062.7	Cardholder Settlement Agent	SWTH
111	Additional EBT Data	EB0071898698

Example: Host-Data-Capture Purchase Response

Table 2-35 shows an example of the format for following message:

```
533614030210B23A64012EE0843400000000000000000020000000000622512231612390049221612391223122359120840002l0A10420003142048285l046011....D990710166542822F1F7F0
F1404040404040404040404040404040F0F0C5D2F0F3F4F6F7F0F0F0F0F0F0F0F1F0F9F0F7F0F3F5
F9F5404040404040F2F7F0F040F1C140E6C1D9C440C2D3404040404040404040E6C9D3E2D6D54040
4040404040D5C3E4E208400014F2F0F0F1F8F4F0C3F0F0F0
F0F0F0F0F0F0F0F0F0F0000EF3F7404040404040404040404040400007F4F0F040F2F0F0001B5E0000
0000000000004922C5C3D2C4E2C5E2F2C5C3D2C4E2E6E3C8
```

TABLE 2-35 Host-Data-Capture Purchase Response Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	53361403
0.2	Message Type ID	0210
0.3	Primary Bit Map	B23A64012EE08434

TABLE 2-35 Host-Data-Capture Purchase Response Example Fields and Values

Number	Field Name	Field Value
001	Secondary Bit Map	0000000000000000
003	Processing Code	002000
004	Transaction Amount	000000006225
007	Transmission Date and Time	1223161239
011	Systems Trace Audit Number	004922
012	Local Transaction Time	161239
013	Local Transaction Date	1223
015	Settlement Date	1223
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
35	Track II Data	482851046011....D990710166542822
037	Retrieval Reference Number	1701
038	Authorization Identification Response	
39	Response Code	00
41	Card Acceptor Terminal Identification	EK0346700000001
42	Card Acceptor Identification	090703595
43	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
43		2700 1A WARD BL
43		WILSON
43		NC
43		US
49	Transaction Currency Code	0840
54	Additional Amounts	This field supports up to 6 additional amounts. This example uses one.
54.1	Additional Amount Subfield 1	2001840C000000000000
59	National Point of Service Geographic Data	37
60	Additional POS Data	400 200

TABLE 2-35 Host-Data-Capture Purchase Response Example Fields and Values

Number	Field Name	Field Value
62	Vantiv Transaction Data	
62		5E00000000000000
62.2	Terminal Sequence Number	004922
62.4	Acquiring Institution Acronym	ECKD
62.5	Issuing Institution Acronym	SES2
62.6	Owner Settlement Agent	ECKD
62.7	Cardholder Settlement Agent	SWTH

Example: Check Authorization Response

Table 2-36 shows the fields and values for the following example message:

```
0210B23864810EE0803400000000000000001700000000000000010513073736003002073736051359990840071000A1123456789F2F1F3F3F0F0F0F0F3F0F0F2F0F0F0F0F0F0F0F3F3F3F340
4040404040404040404040F1F2F3F4F5F6F7F8F9404040404040C1C2C3404040404040404040404040
4040404040404040C9D5C4C9C1D5C1D7D6D3C9E24040E4E2C10840000EF1F8F0F0F0F4F4F1F1
F44040404000007F4F1F3E9F0F0F3005E002E200000000000F5F9F4F3F2F4F9F1F3404040404040
4040404040404040404040404040404040E3F1F2F3F4F5F6F7F8F9C1F1F2F3F4F5F6F740404040
40404040404040C3F0F0F9F8F2F9F1F2F1
F2F1F2C7C1F1F0F2F1F1F2F2F0F0F5
```

TABLE 2-36 Check Authorization Response Field Examples and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	B23864810EE08034
001	Secondary Bit Map	0000000000000000
003	Processing Code	170000
004	Transaction Amount	000000000001
007	Transmission Date and Time	
007		0513
007		073736
011	Systems Trace Audit Number	003002
012	Local Transaction Time	073736
013	Local Transaction Date	0513
018	Local Transaction Time	5999

TABLE 2-36 Check Authorization Response Field Examples and Values

Number	Field Name	Field Value
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		07
022		10
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1123456789
037	Retrieval Reference Number	213300003002
038	Authorization Identification Response	000000
039	Response Code	00
041	Card Acceptor Terminal Identification	3333
042	Card Acceptor Identification	123456789
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		ABC
043		INDIANAPOLIS
043		USA
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	1800044114
060	Additional POS Data	
060.1	Terminal Type	4
060.2	Physical Terminal Location	1
060.3	Terminal Entry Capability	3
060.4	Merchant Type Indicator	Z
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	3
062	Vantiv Transaction Data	
062		002E200000000000
062.11	Driver's License Number	594324913
062.13	Full MICR Data	T123456789A1234567 C009829

TABLE 2-36 Check Authorization Response Field Examples and Values

Number	Field Name	Field Value
062.14	Date of Birth	121212
062.15	State Code	GA
062.19	Station Number	10211220

Example: Card Activation Response

Table 2-37 shows the fields and value s for following example message:

```
0210F23A60010AA0803400000000000000000105444110112220....940000000000000000011508
5936000253085936011501156011084 00A1042000314F0F0F0F0F0F0F0F0F0F5F2F5F5F5C4E5D9
E2404040404040404040404040E5C1D5E3C9E540C2C1D5D240C2C1D5D2404040404040C3C9D5C3
C9D5D5C1E3C9404040D6C8E4E20840000EF3F940404040404040404040404000007C2F0F040F0F0
F0002E7E00800800000000000005260014F561F340C6C6E6C1F561F340C6C6E6C1F3F7F360F1F2F2
F14040404040404040F0
```

TABLE 2-37 Card Activation Reply Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23A60010AA08034
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	544411011220....
003	Processing Code	940000
004	Transaction Amount	000000000000
007	Transmission Date and Time	
007		0115
007		085936
011	Systems Trace Audit Number	000253
012	Local Transaction Time	085936
013	Local Transaction Date	0115
015	Settlement Date	0115
018	Merchant Type	6011
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
037	Retrieval Reference Number	000000000525
039	Response Code	55

TABLE 2-37 Card Activation Reply Example Fields and Values

Number	Field Name	Field Value
041	Card Acceptor Terminal Identification	DVRS
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		VANTIV BANK
043		CINCINNATI
043		OH
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	39
060	Additional POS Data	
060.1	Terminal Type	B
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	0
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0
062	Vantiv Transaction Data	
062		7E00800800000000
062.2	Terminal Sequence Number	000526
062.3	Transaction Qualifier	0014
062.4	Acquiring Institution Acronym	**5/3**
062.5	Issuing Institution Acronym	FFWA
062.6	Owner Settlement Agent	**5/3**
062.7	Cardholder Settlement Agent	FFWA
062.17	Phone Number and ZIP Code	373-1221
062.29	DVRS Transfer Flag	0

Example: Host-Data-Capture EMV Purchase Response

Table 2-38 shows the fields and values for the following example message:

```
0210F23A64012EE08234000000000000000001042071969........000000000000001159
05300000001006001006000530053059990840051004A1042000314204207196 9........
D491266600000000F1F7F0F1404040404040404040404040404040F0F0C5D2F0F3F4F6F7F0
F0F0F0F0F0F0F1F0F9F1F0F9F5F5F9F6404040404040F8F8F840C5E7C5C3E4E3C9E5C540
C3C5D5E3C5D940C4D9E2E34B40D7C5E3C5D9E2C2E4D9C6D3E4E20840000F02000C910A50
B4BC3291184DF00012000EF1F2404040404040404040404040400007F4F0F040F0F0F0001D
5E40000000000000000100E3C8D6D5C9D5E3F1D4D7E2D4E2E6E3C80021
```

TABLE 2-38 Host-Data-Capture EMV Purchase Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23A64012EE08234
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	42071969.....
003	Processing Code	000000
004	Settlement Amount	000000001159
007	Transmission Date and Time	
007		0530
007		000000
011	Systems Trace Audit Number	100600
012	Local Transaction Time	100600
013	Local Transaction Date	0530
015	Settlement Date	0530
018	Merchant Type	5999
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		05
022		10
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	42071969.....D491266600000000
037	Retrieval Reference Number	1701
038	Authorization Identification Response	
039	Response Code	00
041	Card Acceptor Terminal Identification	EK0346700000001
042	Card Acceptor Identification	091095596

TABLE 2-38 Host-Data-Capture EMV Purchase Response Example Fields and Values

Number	Field Name	Field Value
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		888 EXECUTIVE CENTER DR
043		ST. PETERSBUR
043		FL
043		US
049	Transaction Currency Code	0840
055	Integrated Circuit Card Data	02000C910A50B4BC3291184DF00012
059	National Point of Service Geographic Data	12
060	Additional POS Data	
060.1	Terminal Type	4
060.2	Physical Terminal Location	0
060.3	Terminal Entry Capability	0
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0
062	Vantiv Transaction Data	
062		5E40000000000000
062.2	Terminal Sequence Number	000100
062.4	Acquiring Institution Acronym	THON
062.5	Issuing Institution Acronym	INT1
062.6	Owner Settlement Agent	MPSM
062.7	Cardholder Settlement Agent	SWTH
062.10	POS Batch Reference Number	0021

Example: Gift Card Activation Response

Table 2-39 shows the fields and values for the following example message:

```
0210F23C64812EE0840000000000000000001030999999999003245100400000000150000720130
0001000030130001072012125912084090200000A10142003142430999999999003240121210100
0001310000F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F1F0F0F0F0F0F3F0404040404040404040404040
40F4F4F4F5F1F9F9F9F9F9F6F7F34040D4C5D9C3C8C1D5E340C1C2C3404040404040404040404040
```

```
C3C9D5C3C9D5D5C1E3C940404040E4E2C108400028F4F0F0
F2F8F4F0C3F0F0F0F0F0F0F0F0F2F0F0F0F4F0F0F3F8F4F0C3F0F0F0F0F0F0F0F0F2F0F0F0
```

TABLE 2-39 Gift Card Activation Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23C64812EE08400
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	3099999999900324
003	Processing Code	510040
004	Transaction Amount	000000015000
007	Transmission Date and Time	
007		0720
007		130001
011	Systems Trace Audit Number	000030
012	Local Transaction Time	130001
013	Local Transaction Date	0720
014	Expiration Date	1212
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		90
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
035	Track II Data	3099999999900324D1212101000001310000
037	Retrieval Reference Number	000000000000
038	Authorization Identification Response	001000
039	Response Code	00
041	Card Acceptor Terminal Identification	30
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	

TABLE 2-39 Gift Card Activation Response Example Fields and Values

Number	Field Name	Field Value
043		MERCHANT ABC
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
054	Additional Amounts	
054.1		4002840C000000002000
054.2		4003840C000000002000

Example: Gift Card Purchase Response

Table 2-40 shows the fields and values for the following example message:

```
0210F23C64810EE0840400000000000000001030899999999993085540000000000100001108130000000020130000110849125912084001200 00A1014200314F0F0F0F0F0F0F0F0F0F0F0F0F0F1F0F0F0F1F0F2F040404040404040404040404040F4F4F4F5F1F9F9F9F9F9F6F7F34040D9D84BC9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400028F4F0F0F2F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0F4F0F0F3F8F4F0C3F0F0F0F0F0F0F0F0F0F2F0F5F0
```

TABLE 2-40 Gift Card Purchase Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23C64810EE08404
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	554000
004	Transaction Amount	000000010000
007	Transmission Date and Time	
007		1108
007		130000
011	Systems Trace Audit Number	000020
012	Local Transaction Time	130000
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912

TABLE 2-40 Gift Card Purchase Response Example Fields and Values

Number	Field Name	Field Value
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
037	Retrieval Reference Number	000000000000
038	Authorization Identification Response	001000
039	Response Code	10
041	Card Acceptor Terminal Identification	20
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Card Acceptor Name and Location Data	0840
054	Additional Amounts	
054.1		4002840C000000000000
054.2		4003840C000000002050

Example: Gift Card Load Response

Table 2-41 shows the fields and values for the following example message:

```
0210F23C64810EE0840000000000000000000103089999999999308520040000000005000110813
0006000090130006110849125912084001200 00A1014200314F0F0F0F0F0F0F0F0F0F0F0F0F0
F1F0F0F1F0F0F9F0404040404040404040404040F4F4F4F5F1F9F9F9F9F6F7F34040D9D84B
C9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C9404040
40E4E2C108400028F4F0F0F2F8F4F0C3F0F0F0F0F0F0F0F0F5F0F0F0F4F0
F0F3F8F4F0C3F0F0F0F0F0F0F0F0F5F0F0F0
```

TABLE 2-41 Gift Card Load Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23C64810EE08400
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	520040
004	Transaction Amount	000000005000
007	Transmission Date and Time	
007		1108
007		130006
011	Systems Trace Audit Number	000090
012	Local Transaction Time	130006
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
037	Retrieval Reference Number	000000000000
038	Authorization Identification Response	001001
039	Response Code	00
041	Card Acceptor Terminal Identification	90
042	Card Acceptor Terminal Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
43		RQ.ISSQAASM SCRIPT
43		CINCINNATI

TABLE 2-41 Gift Card Load Response Example Fields and Values

Number	Field Name	Field Value
43		USA
49	Transaction Currency Code	0840
54	Additional Amounts	
54.1		4002840C000000005000
54.2		4003840C000000005000

Example: Gift Card Unload Response

Table 2-42 shows the fields and values for the following example message:

```
0210F23C64810AE0840000000000000000001030899999999993085340000000000065001108130004000050130004110849125912084001200000A1014200314F0F0F0F0F0F0F0F0F0F0F0F5F1F5F0404040404040404040404040404040F0F9F9F9F9F9F8F0F2404040404040D9D84BC9E2E2D8C1C1E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400028F4F0F0F2F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0F4F0F0F3F8F4F0C3
F0F0F0F0F0F0F0F0F0F0F0F0F0F0000A0000000000200000D8C1F0F07F00000000000000F0F0F0F8F7F508400028F4F0F0F2F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0F0F4F0F0F3F8F4F0C3F0F0F0F0F0F0F0F0F0F0F0F0F0
```

TABLE 2-42 Gift Card Unload Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23C64810AE08400
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	534000
004	Transaction Amount	000000006500
007	Transmission Date and Time	
007		1108
007		130004
011	Systems Trace Audit Number	000050
012	Local Transaction Time	130004
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912

TABLE 2-42 Gift Card Unload Response Example Fields and Values

Number	Field Name	Field Value
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
037	Retrieval Reference Number	000000000000
039	Response Code	51
041	Card Acceptor Terminal Identification	50
042	Card Acceptor Identification	099999802
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
054	Additional Amounts	
054.1		4002840C000000000000
054.2		4003840C000000000000

Example: Gift Card Balance Inquiry Response

Table 2-43 shows the fields and values for the following example message:

```
0210F23C64810AE0840000000000000000001030899999999993085740000000000000000110814
0004000130140004110849125912084001200000A1014200314F0F0F0F0F0F0F0F0F0F0F0F0F0F0
F1F3F0404040404040404040404040F4F4F4F5F1F9F9F9F9F9F6F7F34040D9D84BC9E2E2D8C1C1
E2D440E2C3D9C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400014F4F0F0F2
F8F4F0C3F0F0F0F0F0F0F0F0F4F0F0F0
```

TABLE 2-43 Gift Card Balance Inquiry Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0210
0.3	Primary Bit Map	F23C64810AE08400

TABLE 2-43 Gift Card Balance Inquiry Response Example Fields and Values

Number	Field Name	Field Value
001	Secondary Bit Map	0000000000000000
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	574000
004	Transaction Amount	000000000000
007	Transmission Date and Time	
007		1108
007		140004
011	Systems Trace Audit Number	000130
012	Local Transaction Time	140004
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
037	Retrieval Reference Number	000000000000
039	Response Code	00
041	Card Acceptor Terminal Identification	130
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 2. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNATI
043		USA
049	Transaction Currency Code	0840
054	Additional Amounts	
054.1		4002840C000000004000

2.2.3 0220 Financial Transaction Advice Request

Table 2-44 describes the field requirements for the 0220 Financial Advice Request. See Table 1-1 for more information about the abbreviations contained in the request tables.

TABLE 2-44 0220 Financial Transaction Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	Include this field for instances of manually entered PAN or if the request is an non-original message. For P2P Encrypted transactions, Field 100.2 - Encrypted PAN replaces this field. For card network and EMVco tokens, this Field contains the token.
003	Processing Code	nP6	M	For refund transactions (that is, the value for the Processing Code is 20), merchants must limit their use of optional fields, like AVS and CVV2, to avoid denials by issuers.
004	Transaction Amount	nP12	M	
005	Settlement Amount	nP12	C	Include this field if the transaction and settlement currencies are not the same.
006	Cardholder Billing Amount	nP12	C	Include this field if the cardholder and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	

TABLE 2-44 0220 Financial Transaction Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
010	Cardholder Billing Conversion Rate	nP8	C	Include this field if the cardholder and settlement currencies are not the same.
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	The request copies this from the 01XX/02XX message.
013	Local Transaction Date	nP4	M	The request copies this from the 01XX/02XX message.
014	Expiration Date	nP4	C	Mandatory in any Host Data Capture non-original request or for key-entered card data.
015	Settlement Date	nP4	O	
016	Conversion Date	nP4	C	Include this field if the transaction and settlement currencies are not the same.
017	Capture Date	nP4	O	
018	Merchant Type	nP4	M	
019	Acquiring Institution Country Code	nP3	C	The request requires this if the country code is not 840 (United States).
022	Point of Service Entry Mode	nP4	C	The request requires this for transactions from a POS terminal. It copies it from the 01XX message.
023	Card Sequence Number	nP3	C	The request may contain this if the merchant key enters the information or for chip data.
025	Point of Service Condition Code	nP2	O	
028	Transaction Fee Amount	X+an8	C	The request requires this for those acquirers imposing a surcharge or rebate.
029	Settlement Fee Amount	X+an8	C	Include this field if the transaction and settlement currencies are not the same.
032	Acquiring Institution Identification Codee	LLd nP11	M	

TABLE 2-44 0220 Financial Transaction Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
035	Track II Data	LLd nP37	C	Only include this field for original messages of swiped transactions where Track I is not included. For P2P encrypted transactions, Field 100.3 - Encrypted Track II replaces this field.
037	Retrieval Reference Number	an12	M	The request copies this from the 01XX/02XX message.
038	Authorization Identification Response	an6	C	The request copies this from 01XX/02XX message.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	M	The request copies this from the 01XX/02XX message.
042	Card Acceptor Identification	ans15	C	The request copies this from the 02XX message.
043	Card Acceptor Name and Location Data	ans40	M	
045	Track I Data	LLL ans76	C	Only include this field for original messages of swiped transactions where Field - Track II Data is not included. For P2P encrypted transactions, Field 100.4 - Encrypted Track I replaces this field.
048	Additional Data (Private)	LLL ans255	C	If present, the request copies this from the 02XX message.
049	Transaction Currency Code	nP3	M	
051	Cardholder Billing Currency Code	nP3	C	Include if the cardholder and settlement currencies are not the same.
054	Additional Amounts	LLL ans120	C	Include if transaction-related amounts are present.

TABLE 2-44 0220 Financial Transaction Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
055	Integrated Circuit Card Data	LLL nP999	O	If present, the request copies this from 02XX message. If EMV data is available from an EMV card, the transaction should present it.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	Subfield 6 must have a value of 4 for preauthorized debit. For more information, see POS Transaction Status Indicator on page 317.
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	The request copies this from the 02XX message.
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	O	
062.5	Issuing Institution Acronym	an4	O	
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.8	From Account Qualifier	nP3	O	
062.9	From Account Qualifier	nP3	O	
062.22	Check Type	an1	O	

TABLE 2-44 0220 Financial Transaction Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.23	Deposit Type	an1	O	
062.33	Check Authorization Information (Deprecated)	LLb ans255	C	The request requires this for ECC Check Conversion, Verification, and Guarantee transactions.
062.46	Draft Locator ID	an11	C	The request copies this from the 02XX message.
062.52	Bill Payment Payee Information	an75	C	Transmits bill payment payee information on bill payment transactions only.
099	Card Institution ID Code	LLd nP11	O	
100	P2P Encryption Data	LLL ans999	C	The request only requires this for P2P encrypted transactions.
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
110	Transaction Dependent Pass Through Data	LLL ans999	O	
111	Additional EBT Data	LLL ans52	C	The request requires this for some EBT transactions.
115	Terminal Specific Data	LLLL..ans 9,999	C	The request requires this bit for merchants processing via the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	

This example show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Preauthorized Completion Request

Table 2-45 shows the fields and values for the following example message:

```
0220B23AE4012AE0843400000000060000200020000000000180007242007430131431605000724072507255411084000210A10420003141F0447708010100....D03081014327534F0F2F0F6F0F0F2F1F8F0F1F7F0F0C2F2F1F2F0F6F0F0F0F14040404040E3C5E7C1C3D640E2C5D9E5C9C3C540F8F8F740E2C1D5C4D6E2D2E8404040404040404040404040E2E8D2C5E2E5C9D3D3C5404040D4C4E4E208400014F2F0F5F7F8F4F0C3F0F0F0F0F0F0F0F0F3F5F0
F0000EF2F4404040404040404040404040400007F4F0F040F0F4F0001B5E00000000000000218017E2E6E3C8D4C2C3C2E2E6E3C8D4C2C3C2100000000000302333390A0000000000E3C5E7C1C3D640E2C5D9E5C9C3C540
```

0

TABLE 2-45 Preauthorized Completion Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0220
0.3	Primary Bit Map	B23AE4012AE08434
001	Secondary Bit Map	0000000006000020
003	Processing Code	002000
004	Transaction Amount	000000001800
007	Transmission Date and Time	0724200743
011	Systems Trace Audit Number	013143
012	Local Transaction Time	160500
013	Local Transaction Date	0724
015	Settlement Date	0725
017	Capture Date	0725
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	447708010100....D03081014327534
037	Retrieval Reference Number	020600218017
039	Response Code	00
041	Card Acceptor Terminal Identification	B212060001
042	Card Acceptor Identification	ACME
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		887 SANDOSKY
043		SYKESVILLE
043		MD

TABLE 2-45 Preauthorized Completion Request Example Fields and Values

Number	Field Name	Field Value
043		US
049	Transaction Currency Code	0840
054	Additional Amounts	This field supports up to 6 additional amounts. This example uses only one.
054.1	Additional Amount Subfield 1	2057840C000000003500
059	National Point of Service Geographic Data	24
060	Additional POS Data	
060.1	Terminal Type	400 040
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	218017
062.4	Acquiring Institution Acronym	SWTH
062.5	Issuing Institution Acronym	MBCB
062.6	Owner Settlement Agent	SWTH
062.7	Cardholder Settlement Agent	MBCB
102	Account Identification I	0000000003023339
103	Account Identification 2	0000000000
123	Merchant Name	ACME

Example: ISO Adjustment Request

Table 2-46 shows the fields and values for the following example message:

```
D4C54B0220F23C44810EE0801400000000000021201044452222999900070030000000000
0012001204130110130110130110130110120442125411011000A1042000314F1F3F0F1F1F0F1
F1F1F1F1F1F0F0F0F0F0D5F0F0E4C2F0F0F0F1F0F1404040404040F0F0F0F0F1F3F7F9
F3F7F6F0404040F3F0F1F140C1D3E3C140E5C9C5E640C4D94B4040404040E2C1D540C4C9C5C7D6
40404040C3C1E4E208400024F4F1F2E9F2F0F3F0D4F4F9F3F2F0F0F0F0F0F0F0F1
F0F0F0F0F1F2F0F0F0F0F0F0F0F0F000114000000000000002130110000000002000022
E8000000000000000000000000000000F1F3F4F0F0F0F1F2F0F0F2F0F0F0F2F101E80003
C8C3E8C4D6D3D3C1D940E3D9C5C540404040
```

TABLE 2-46 ISO Adjustment Request Example Fields and Values

Number	Field Name	Field Value
0.1	Terminal Application Header	ME.
0.2	Message Type ID	0220
0.3	Primary Bit Map	F23C44810EE08014
001	Secondary Bit Map	0000000000002120
002	Primary Account Number (PAN)	4445222299990007
004	Transaction Amount	000000001200
007	Transmission Date and Time	
007		1204
007		130110
011	Systems Trace Audit Number	130110
012	Local Transaction Time	130110
013	Local Transaction Date	1204
014	Expiration Date	4212
018	Merchant Type	5411
022	Point of Service Entry Mode	
022		01
022		10
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
037	Retrieval Reference Number	130110111111
038	Authorization Identification Response	00000N
039	Response Code	00
041	Card Acceptor Terminal Identification	UB000101

TABLE 2-46 ISO Adjustment Request Example Fields and Values

Number	Field Name	Field Value
042	Card Acceptor Identification	000013793760
043	Card Acceptor Name and Location Data	
043		3011 ALTA VIEW DR.
043		SAN DIEGO
043		CA
043		US
049	Transaction Currency Code	0840
060	Additional POS Data	
060.1	Terminal Type	4
060.2	Physical Terminal Location	1
060.3	Terminal Entry Capability	2
060.4	Merchant Type Indicator	Z
060.5	POS Card Retention Indicator	2
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	3
060.8	Chain Code	0M4932
060.9	Division Number	000
060.10	Store Number	00001000
060.11	Register/Lane Number	012
060.12	Employee Number	000000000
062	Vantiv Transaction Data	
062		400000000000000
062.2	Terminal Sequence Number	130110
062.63	Tip Amount	000000000200
115	Terminal Specific Data	

TABLE 2-46 ISO Adjustment Request Example Fields and Values

Number	Field Name	Field Value
115	Bitmap 1	E800000000000000
115	Bitmap 2	0000000000000000
115.1	Bank ID	1340
115.2	Terminal ID	001
115.3	Original Authorization Retrieval Reference Number	200200021
115.5	Optional Processing Indicators	Y
120	Additional Request Data	HCY
123	Merchant Name	ACME

2.2.4 0230 Financial Transaction Advice Response

Table 2-47 describes the field requirements for the 0230 Financial Transaction Advice Response. See Table 1-1 for more information about the abbreviations contained in the response tables.

TABLE 2-47 0230 Financial Transaction Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	Worldpay requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
002	Primary Account Number (PAN)	LLd nP19	C	If present, the response copies this from the 0220 message.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	
005	Settlement Amount	nP12	C	Include if the transaction and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	

TABLE 2-47 0230 Financial Transaction Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
011	Systems Trace Audit Number	nP6	M	If present, the response copies this from the 0220 message.
012	Local Transaction Time	nP6	M	If present, the response copies this from the 0220 message.
013	Local Transaction Date	nP4	M	If present, the response copies this from the 0220 message.
015	Settlement Date	nP4	M	
028	Transaction Fee Amount	X+an8	C	If present, the response copies this from the 0220 message.
029	Settlement Fee Amount	X+an8	C	The response only requires this if Field 28 - Transaction Fee Amount is present. Include this field if the transaction and settlement currencies are not the same.
035	Track II Data	LLd nP37	C	If present, the response copies this from the 0220 message.
037	Retrieval Reference Number	an12	M	The response copies this from the 0220 message.
039	Response Code	an2	M	
045	Track I Data	LLL ans76	C	If present, the response copies this from the 0220 message.
048	Additional Data (Private)	LLL ans255	C	If present, the response copies this from the 0220 message.
049	Transaction Currency Code	nP3	M	The response copies this from the 0220 message.

TABLE 2-47 0230 Financial Transaction Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.22	Check Type	an1	O	
062.23	Deposit Type	an1	O	
062.33	Check Authorization Information (Deprecated)	LLb ans255	C	The response requires this for ECC Check Conversion, Verification, and Guarantee transactions.
062.46	Draft Locator ID	an11	C	If present, the response copies this from the 0220 message.
101	Card Results Field	LLL ans999	O	
115	Terminal Specific Data	LLLL..ans 9,999	C	The response requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O	

This example show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Preauthorized Completion Response

Table 2-48 shows the fields and values for following example message:

```
0230B23AE4012AC0843400000000060000200020000000000180001000100000131431605000724072507255411084000210A10420003141F0447708010100....D03081014327534F0F2F0F6F0F0F2F1F8F0F1F7F0F0C2F2F1F2F0F6F0F0F0F14040404040E3C5E7C1C3D640E2C5D9E5C9C3C54008400014F2F0F5F7F8F4F0C3F0F0F0F0F0F0F0F0F3F5F0F0000EF2F4404040404040404040404040400007F4F0F040F0F4F0001B5E0000000000000218017E2
E6E3C8D4C2C3C2E2E6E3C8D4C2C3C2100000000030233390A0000000000E3C5E7C1C3D640E2C5D9E5C9C3C540
```

TABLE 2-48 Preauthorized Completion Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0230
0.3	Primary Bit Map	B23AE4012AC08434
001	Secondary Bit Map	0000000006000020
003	Processing Code	002000
004	Transaction Amount	000000001800
007	Transmission Date and Time	0100010000
011	Systems Trace Audit Number	013143
012	Local Transaction Time	160500
013	Local Transaction Date	0724
015	Settlement Date	0725
017	Capture Date	0725
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	0021
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	447708010100....D03081014327534
037	Retrieval Reference Number	020600218017
039	Response Code	00
041	Card Acceptor Terminal Identification	B22060001

TABLE 2-48 Preauthorized Completion Response Example Fields and Values

Number	Field Name	Field Value
042	Card Acceptor Identification	ACME
49	Transaction Currency Code	0840
54	Additional Amounts	This field supports up to 6 additional amounts. This example uses one.
54.1	Additional Amount Subfield 1	2057840C000000003500
59	National Point of Service Geographic Data	24
60	Additional POS Data	
60.1	Terminal Type	400 040
62	Vantiv Transaction Data	
62		5E00000000000000
62.2	Terminal Sequence Number	218017
62.4	Acquiring Institution Acronym	SWTH
62.5	Issuing Institution Acronym	MBCB
62.6	Owner Settlement Agent	SWTH
62.7	Cardholder Settlement Agent	MBCB
102	Account Identification I	0000000003023339
103	Account Identification 2	0000000000
123	Merchant Name	ACME

Example: ISO Adjustment Response

Table 2-49 shows the fields and values for the following example message:

```
D4C54B0230F23A00000E008004000000000000200010444522229999000700300000000000
0012001204130110130110130110130110120412041F1F3F0F1F1F0F1F1F1F1F1F1F8F8F5F2F8F4
F0F0084000275E4040000000000021301l0E5D5E3E5C2C1E2C5C4D3D9E3E5C9E2D50BB9C2
C1E2C5000000000200002OE000000000000000000000000000000F1F3F4F0F0F0F1F2F0F1F2F0
F0F0F7F2
```

TABLE 2-49 ISO Adjustment Response Example Fields and Values

Number	Field Name	Field Value
0.1	Terminal Application Header	ME.
0.2	Message Type ID	0230

TABLE 2-49 ISO Adjustment Response Example Fields and Values

Number	Field Name	Field Value
0.3	Primary Bit Map	F23A00000E008004
001	Secondary Bit Map	0000000000002000
002	Primary Account Number (PAN)	4445222299990007
004	Transaction Amount	000000001200
007	Transmission Date and Time	
007		1204
007		130110
011	Systems Trace Audit Number	130110
012	Local Transaction Time	130110
013	Local Transaction Date	1204
015	Settlement Date	1204
018	Merchant Type	5411
037	Retrieval Reference Number	130110111111
038	Authorization Identification Response	885284
039	Response Code	00
049	Transaction Currency Code	0840
062	Vantiv Transaction Data	
062		5E40400000000002
062.2	Terminal Sequence Number	130110
062.4	Acquiring Institution Acronym	
062.5	Issuing Institution Acronym	
062.6	Owner Settlement Agent	
062.7	Cardholder Settlement Agent	

TABLE 2-49 ISO Adjustment Response Example Fields and Values

Number	Field Name	Field Value
062.10	POS Batch Reference Number	
062.18[1]	Vantiv Network Acronym	
062.63	Tip Amount	
115	Terminal Specific Data	
115	Bitmap 1	E800000000000000
115	Bitmap 2	0000000000000000
115.1	Bank ID	1340
115.2	Terminal ID	001
115.3	Original Authorization Retrieval Reference Number	201200072

[1] By default, the response returns 62.18 on ISO STP replies.

2.3 Reversal and Response Messages

This section describes the field requirements for each of the following reversal transaction message types:

- 0420 Reversal Request on page 119
- 0430 Reversal Response on page 133

See Table 1-1 for more information about the abbreviations contained in the request and response tables.

2.3.1 0420 Reversal Request

Table 2-50 describes the field requirements for the 0420 Reversal Request. See Table 1-1 for more information about the abbreviations contained in the request tables.

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	
002	Primary Account Number (PAN)	LLd nP19	M	This is mandatory; however, for P2P Encrypted transactions, Field 100.2 - Encrypted PAN replaces this field. For token initiated reversals, the request does not include this field. For card network and EMVco tokens, this Field contains the token.

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
003	Processing Code	nP6	M	If the card issuer returns the account type, a default account type (00) in the from or to subfields may alter to the true account type on replies. For example, a debit purchase from 00 may return a value of 20 (checking) if the funds were approved from that source.
004	Transaction Amount	nP12	M	The request copies this from the 01XX or 02XX message.
005	Settlement Amount	nP12	C	The request copies this from the 01XX or 02XX message.
006	Cardholder Billing Amount	nP12	C	The request copies this from the 01XX or 02XX message.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	C	The request copies this from the 01XX or 02XX message.
010	Cardholder Billing Conversion Rate	nP8	C	The request copies this from the 01XX or 02XX message.
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	The request copies this from the 01XX or 02XX message.
013	Local Transaction Date	nP4	M	The request copies this from the 01XX or 02XX message.
014	Expiration Date	nP4	C14	If present, the request copies this from the 01XX or 02XX message. This field is mandatory in any Host Data Capture non-original requests. This is not sent to the issuer in reversals unless either the acquirer supplied them, or the issuer included these data elements in its reply to the switch.
015	Settlement Date	nP4	O	

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
016	Conversion Date	nP4	C	This is not sent to the issuer in reversals unless either the acquirer supplied them, or the issuer included these data elements in its reply to the switch.
017	Capture Date	nP4	C	If present, the request copies this from the 01XX or 02XX message.
018	Merchant Type	nP4	M	
019	Acquiring Institution Country Code	nP3	C19	The request requires this if the country code is not 840 (US).
021	Forwarding Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	C	This is not sent to the issuer in reversals unless either the acquirer supplied them, or the issuer included these data elements in its reply to the switch.
023	Card Sequence Number	nP3	C	If information is key-entered or for chip data, the request may contain this field.
025	Point of Service Condition Code	nP2	C	If present, the request copies this from the 01XX or 02XX message.
028	Transaction Fee Amount	X+an8	C	The request requires this field if it is present in an 01XX or 02XX message. It is not sent to the issuer in reversals unless either the acquirer supplied them, or the issuer included these data elements in its reply to the switch.

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
029	Settlement Fee Amount	X+an8	C	The request requires this if present in a 01XX or 02XX message. This sign should be reversed. It is not sent to the issuer in reversals unless either the acquirer supplied them, or the issuer included these data elements in its reply to the switch.
032	Acquiring Institution Identification Code	LLd nP11	M	The request copies this from a 01XX or 02XX message.
037	Retrieval Reference Number	an12	M	The request copies this from a 01XX or 02XX message.
038	Authorization Identification Response	an6	C	The request copies this from a 01XX or 02XX message.
039	Response Code	an2	M	The request copies this from a 01XX or 02XX message.
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	C	If present, the request copies this from the 02XX message.
043	Card Acceptor Name and Location Data	ans40	M	
048	Additional Data (Private)	LLL ans255	C	If present, the request copies this from the 0100 or 0200 message. Required for WIC transactions.
049	Transaction Currency Code	nP3	M	The request copies this from a 01XX or 02XX message.
051	Cardholder Billing Currency Code	nP3	C	If present, the request copies this from a 01XX or 02XX message.
054	Additional Amounts	LLL ans120	C	Include this field if transaction-related amounts are present. It is not sent to the issuer in reversals unless either the acquirer supplied them, or the issuer included these data elements in its reply to the switch.

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
059	National Point of Service Geographic Data	LLL ans999	C	If present, copied from a 01XX or 02XX message.
060	Additional POS Data	LLL ans999	M	The request copies this from a 01XX or 02XX message.
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	The request copies this from the 0110 or 0210 message.
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	O	
062.5	Issuing Institution Acronym	an4	O	
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.8	From Account Qualifier	nP3	O	
062.9	To Account Qualifier	nP3	O	
062.22	Check Type	an1	O	
062.23	Deposit Type	an1	O	
062.28	Routing Priority List	LLL ans255	O	
062.30	Preferred Debit Routing Flag	an1	O	
062.31	Card Conversion Flag	b1	O	

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.32	Special Inquiry Transaction Qualifier	an3	O	
062.33	Check Authorization Information (Deprecated)	LLL ans255	C	The request requires this for ECC Check Conversion, Verification, and Guarantee transactions.
062.46	Draft Locator ID	an11	O	
062.52	Bill Payment Payee Information	an75	C	Transmits bill payment payee information on bill payment transactions only. If the data is available, the request should send it. If not, it should pass a default value to the network.
063	Negative File/Reversal/Merchant Advice Reason Code	an2	M	
090	Original Data Elements	nP42	M	
095	Replacement Amounts	an42	C	The request requires this for a partial reversal or for a misdispense, which occurs when the EBT amount received by the ATM client differs from the EBT amount requested by the client.
099	Replacement Amounts	LLd nP11	O	
100	P2P Encryption Data	LLL ans999	C	The request requires this for P2P encrypted transactions.
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
110	Transaction Dependent Pass Through Data	LLL ans999	O	
111	Additional EBT Data	LLL ans52	C	The request requires this for some EBT transactions.
115	Terminal Specific Data	LLLL..ans 9,999	C	The request requires this bit for merchants processing via the Terminal Processing platform.
120	Additional Request Data	LLL ans999	O	

TABLE 2-50 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
121	Additional Information	LLL..ans 999	O	
123	Merchant Name	an15	O	
126	Electronic Commerce/MOTO Indicator	LLL ans 999	C	This request requires this bit for eCommerce reversals.

Example: Cash Withdrawal Reversal Request

Table 2-51 shows the fields and values for following example message:

```
0420B23AE0012AE08036000000420600002001200000000000010000501093009
093009093009050105010501541108400A1042000314150999999980012....D
9912F8F0F4F1F0F0F0F0F0F9F0F9F0F0F0F0F5F2F3404040404040404040F0
F9F0F5F4F0F2F8F6404040404040C5C2E240E3C5E2E340D9D6D6D44040404040
4040404040D9D6C3C8C5E2E3C5D940404040D5E8E4E20840000EF3F640404040
4040404040404040400007F2F1F040F2F0F0000B40000000000000000001260F0F7
020000000000000000000000000000000000000000000F0F0F0F0F0F0F0F0F5F0
F0F0F0F0F0F0F0F0F0F0F5F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F008
212321260A0000000000E6C5C7D4C1D5E24040404040404040
```

TABLE 2-51 Cash Withdrawal Reversal Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0420
0.3	Primary Bit Map	B23AE0012AE08036
001	Secondary Bit Map	0000004206000020
003	Processing Code	012000
004	Transaction Amount	000000001000
007	Transmission Date and Time	0501093009
011	Systems Trace Audit Number	093009
012	Local Transaction Time	093009
013	Local Transaction Date	0501
015	Settlement Date	0501
017	Capture Date	0501
018	Merchant Type	5411
019	Acquiring Institution Country Code	0840
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	999999980012....D9912

TABLE 2-51 Cash Withdrawal Reversal Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
037	Retrieval Reference Number	804100000909
039	Response Code	00
041	Card Acceptor Terminal Identification	00523
042	Card Acceptor Identification	090540286
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		EBS TEST ROOM
043		ROCHESTER
043		NY
043		US
049	Transaction Currency Code	0840
059	National Point of Service Geographic Data	36
060	Additional POS Data	210 200
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	001260
063	Negative File/Reversal/Merchant Advice Reason Code	07
090	Original Data Elements	
090.1	Original Message Type Identifier	0200
090.2	Original System Trace Audit Number	000000
090.3	Original Transmission Date and Time	0000000000
090.4	Original Acquiring Institution ID	00000000000000000000
095	Replacement Amounts	
095.1	Actual Transaction Amount	000000000500
095.2	Actual Amount Settlement	000000000500
095.3	Surcharge Fee, Transaction Currency Code	000000000
095.4	Surcharge Fee, Settlement Currency Code	000000000
102	Account Identification I	21232126
103	Account Identification 2	0000000000
123	Merchant Name	WEGMANS

Example: Host-Data-Capture Purchase Reversal Request

Table 2-52 shows the fields and values for the following example message:

```
538204040420B23844812AE0801600000040000000000000000000000622512231614250049231612391223591290100 00A1042000314204828510460 11....D990710166542822F1F7F0F14040404040404040F0F0C5D2F0F3F4F6F7F0F0F0F0F0F0F0F1F0F9F0F7F0F3F5F9F5404040404040F2F7F0F040F1C140E6C1D9C440C2D3E5C44040404040E6C9D3E2D6D5404040404040D5C3E4E208400024F4F1F240F2F0F3F0F7F4F5F9F4F1F2F3F0F0F0F0F3F4F6F7F0F0F1F0F0F0F0F0F6F2F1F6000B400000000000000004922F0F20200004922122316123901042000314000000000000
```

TABLE 2-52 Host-Data-Capture Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	53820404
0.2	Message Type ID	0420
0.3	Primary Bit Map	B23844812AE08016
001	Secondary Bit Map	0000004000000000
003	Processing Code	000000
004	Transaction Amount	000000006225
007	Transmission Date and Time	1223161425
011	Systems Trace Audit Number	004923
012	Local Transaction Time	161239
013	Local Transaction Date	1223
018	Merchant Type	5912
022	Point of Service Entry Mode	9010
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
035	Track II Data	482851046011....D990710166542822
037	Retrieval Reference Number	1701
039	Response Code	00
041	Card Acceptor Terminal Identification	EK0346700000001
042	Card Acceptor Identification	090703595
043	Card Acceptor Name and Location Data	
043		2700 1A WARD BLVD
043		WILSON
043		NC

TABLE 2-52 Host-Data-Capture Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
043		US
049	Transaction Currency Code	0840
060	Additional POS Data	412 203074594123000034670010000006216
062	Vantiv Transaction Data	
062		4000000000000000
062.2	Terminal Sequence Number	004922
063	Negative File/Reversal/Merchant Advice Reason Code	02
090	Original Data Elements	
090.1	Original Message Type Identifier	0200
090.2	Original System Trace Audit Number	004922
090.3	Original Transmission Date and Time	1223161239
090.4		0104200031400000000000

Example: Host-Data-Capture EMV Purchase Reversal Request

Table 2-53 shows the fields and values for the following example message:

```
0420F23C46810EE092160000004000000000001042071969........000000000000001159
0530120000100603100603053049125999051000230000A1042000314F1F7F0F140404040
40404040F1F2F3F4F5F6F0F0C5D2F0F3F4F6F7F0F0F0F0F0F0F0F1F0F9F1F0F9F5F5F9F6
4040404040040F8F8F840C5E7C5C3E4E3C9E5C540C3C5D5E3C5D940C4D9E2E34B40D7C5E3
C5D9E2C2E4D9C6D3E4E2084008530FF7........008002007D9F260847CAFEAFB47951FC
9F2701809F10120110A000032400000000000000000000000FF9F37045263063F9F360200
01950580200080009A031205239C01009F02060000000011595F2A020124820218009F1A
0201249F34031E03009F3303E0B0C89F3501228407A00000000410109F090200025F3401
01FF010200010024F4F1F540F1D7F3F0F7F0F1F1F0F0F0F0F0F0F0F0F0F0F0F0F1F0F0F1F0
F0F0F0F0F0F0F0F0000B400000000000000000000100F0F5020000010005301006000104200
0031400000000000
```

TABLE 2-53 Host-Data-Capture EMV Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0420
0.3	Primary Bit Map	F23C46810EE09216
001	Secondary Bit Map	0000004000000000
002	Primary Account Number (PAN)	42071969.....

TABLE 2-53 Host-Data-Capture EMV Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
003	Processing Code	000000
004	Transaction Amount	000000001159
007	Transmission Date and Time	
007		0530
007		120000
011	Systems Trace Audit Number	100603
012	Local Transaction Time	100603
013	Local Transaction Date	0530
014	Expiration Date	4912
018	Merchant Type	5999
022	Point of Service Entry Mode	
022		05
022		10
023	Card Sequence Number	0023
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1042000314
037	Retrieval Reference Number	1701
038	Authorization Identification Response	123456
039	Response Code	00
041	Card Acceptor Terminal Identification	EK0346700000001
042	Card Acceptor Identification	091095596
043	Card Acceptor Name and Location Data	This field uses format 1. See Table 5-18.
043		888 EXECUTIVE CENTER DR
043		ST. PETERSBUR
043		FL
043		US
049	Transaction Currency Code	0840
052	Personal Identification Number Data	08530FF7.....

TABLE 2-53 Host-Data-Capture EMV Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
055	Integrated Circuit Card Data	02007D9F260847CAFEAFB47951FC9F27 01809F10120110A0000324000000000000 0000000000FF9F37045263063F9F360200 01950580200080009A031205239C0100 9F02060000000011595F2A020124820218 009F1A0201249F34031E03009F3303E0 B0C89F3501228407A00000000410109F0 90200025F340101FF01020001
060	Additional POS Data	
060.1	Terminal Type	4
060.2	Physical Terminal Location	1
060.3	Terminal Entry Capability	5
060.4	Merchant Type Indicator	

Example: Gift Card Purchase Reversal Request

Table 2-54 shows the fields and values for the following example message:

```
0420F23C648106E0801000000042000000001030899999999993085540000000000030001108140
0000000180140000110849125912084001200000A1014200314F0F1F0F0F0F0F0F0F1F8F0404040
4040404040404040F4F4F4F5F1F5F5F0F5F5F6F7F34040D9D84BC9E2E2D8C1C1E2D440E2C3D9
C9D7E34040404040C3C9D5C3C9D5D5C1E3C940404040E4E2C108400007F0F0F140F0F0F0010000
0000000000000000000000000000000000000F0F0F0F0F0F0
F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0C4F0F0F0F0F0F0F0F0C4F0F0F0F0F0F0F0F0
```

TABLE 2-54 Gift Card Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0420
0.3	Primary Bit Map	F23C648106E08010
001	Secondary Bit Map	0000004200000000
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	554000
004	Transaction Amount	000000003000
007	Transmission Date and Time	
007		1108
007		140000

TABLE 2-54 Gift Card Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
011	Systems Trace Audit Number	000180
012	Local Transaction Time	140000
013	Local Transaction Date	1108
014	Expiration Date	4912
018	Merchant Type	5912
019	Acquiring Institution Country Code	0840
022	Point of Service Entry Mode	
022		01
022		20
025	Point of Service Condition Code	00
032	Acquiring Institution Identification Code	1014200314
038	Authorization Identification Response	010000
039	Response Code	00
041	Card Acceptor Terminal Identification	180
042	Card Acceptor Identification	4445199999673
043	Card Acceptor Name and Location Data	This field uses format 3. See Table 5-18.
043		RQ.ISSQAASM SCRIPT
043		CINCINNAT
043		USA
049		0840
060	Additional POS Data	
060.1	Terminal Type	0
060.2	Physical Terminal Location	0

TABLE 2-54 Gift Card Purchase Reversal Request Example Fields and Values

Number	Field Name	Field Value
060.3	Terminal Entry Capability	1
060.4	Merchant Type Indicator	
060.5	POS Card Retention Indicator	0
060.6	POS Transaction Status Indicator	0
060.7	POS Transaction Routing Indicator	0
090	Original Data Elements	
090.1	Original Message Type Identifier	0100
090.2	Original System Trace Audit Number	000000
090.3	Original Transmission Date and Time	0000000000
090.4	Original Acquiring Institution ID	00000000000000000000
095	Replacement Amounts	
095.1	Actual Transaction Amount	000000000000
095.2	Actual Amount Settlement	000000000000
095.3	Surcharge Fee, Transaction Currency Code	D00000000D00
095.4	Surcharge Fee, Settlement Currency Code	000000

2.3.2 0430 Reversal Response

Table 2-55 describes the field requirements for the 0430 Reversal Response.

TABLE 2-55 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The response requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	
002	Primary Account Number (PAN)	LLd nP19	M	
003	Processing Code	nP6	M	The response copies this from the 0420 message.
004	Transaction Amount	nP12	M	The response copies this from the 0420 message.
005	Settlement Amount	nP12	C	Include if the transaction and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	O	
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0420 message.
012	Local Transaction Time	nP6	M	The response copies this from the 0420 message.
013	Local Transaction Date	nP4	M	The response copies this from the 0420 message.
015	Settlement Date	nP4	M	
018	Merchant Type	nP4	O	
021	Forwarding Institution Country Code	nP3	O	
028	Transaction Fee Amount	X+an8	C	If present, the response copies this from the 0420 message.
029	Settlement Fee Amount	X+an8	C	Present only if Field 28 - Transaction Fee Amount is present or if the transaction and settlement currencies are not the same.

TABLE 2-55 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
032	Acquiring Institution Identification Code	LLd nP11	O	
037	Retrieval Reference Number	an12	M	The response copies this from the 0420 message.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	O	
042	Card Acceptor Identification	ans15	O	
048	Additional Data (Private)	LLL ans255	C	If present, the response copies this from the 0420 message.
049	Transaction Currency Code	nP3	M	The response copies this from the 0420 message.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.8	From Account Qualifier	nP3	O	
062.9	To Account Qualifier	nP3	O	

TABLE 2-55 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.22	Check Type	an1	O	
062.23	Deposit Type	an1	O	
062.33	Check Authorization Information (Deprecated)	LLb ans255	C	The response requires this for ECC Check Conversion, Verification, and Guarantee transactions.
062.46	Draft Locator ID	an11	C	If present, the response copies this from the 0420 message.
090	Original Data Elements	nP42	M	The response copies this from the 0420 message.
095	Replacement Amounts	an42	C	If present, the response copies this from the 0420 message.
101	Card Results Field	LLL ans999	O	
115	Terminal Specific Data	LLLL..ans 9,999	C	The response requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O	

Example: Cash Withdrawal Reversal Response

Table 2-56 shows the fields and values for following example message:

```
0430B23A00002A008004000000420000000001200000000000100005010930090930090930090501050115099999998001 2....D9912F8F0F4F1F0F0F0F0F0F9F0F9F0F00840001B5E00000000000000001260E6C5C7F1E3E2E3F1E6C5C7F1E2E6E3C80200000000000000000000000000000000000000000000F0F0F0F0F0F0F0F0F0F5F0F0F0F0F0F0F0F0F0F0F5F0F0F0C3F0F0F0F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0
```

TABLE 2-56 Cash Withdrawal Reversal Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0430
0.3	Primary Bit Map	B23A00002A008004
001	Secondary Bit Map	0000004200000000
003	Processing Code	012000
004	Transaction Amount	000000001000

TABLE 2-56 Cash Withdrawal Reversal Response Example Fields and Values

Number	Field Name	Field Value
007	Transmission Date and Time	0501093009
011	Systems Trace Audit Number	093009
012	Local Transaction Time	093009
013	Local Transaction Date	0501
015	Settlement Date	0501
035	Track II Data	999999980012....D9912
037	Retrieval Reference Number	804100000909
039	Response Code	00
049	Transaction Currency Code	0840
062	Vantiv Transaction Data	
062		5E00000000000000
062.2	Terminal Sequence Number	001260
62.4	Acquiring Institution Acronym	WEG1
62.5	Issuing Institution Acronym	TST1
62.6	Owner Settlement Agent	WEG1
62.7	Cardholder Settlement Agent	SWTH
90	Original Data Elements	
90.1	Original Message Type Identifier	0200
90.2	Original System Trace Audit Number	000000
90.3	Original Transmission Date and Time	0000000000
90.4	Original Acquiring Institution ID	00000000000000000000
95	Replacement Amounts	
95.1	Actual Transaction Amount	000000000500
95.2	Actual Amount Settlement	000000005000
95.3	Surcharge Fee, Transaction Currency Code	C00000000
95.4	Surcharge Fee, Settlement Currency Code	C00000000

Example: Host-Data-Capture Purchase Reversal Response

Table 2-57 shows the fields and values for the following example message:

```
538204040430B23A00002A008004000000400000000000200000000000622512231614250049231612391223122320482851046011....D990710166542822F1F7F0F1404040404040404040F0F008
```

```
40001B5E0000000000000000004922C5C3D2C4E2C5E2F2C5C3D2C4E2E6E3C8020000492212231612
39010420003140000000000
```

TABLE 2-57 Host-Data-Capture Purchase Reversal Response Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	53820404
0.2	Message Type ID	0430
0.3	Primary Bit Map	B23A00002A008004
001	Secondary Bit Map	0000004000000000
003	Processing Code	002000
004	Transaction Amount	000000006225
007	Transmission Date and Time	1223161425
011	Systems Trace Audit Number	004923
012	Local Transaction Time	161239
013	Local Transaction Date	1223
015	Settlement Date	1223
035	Track II Data	482851046011....D990710166542822
037	Retrieval Reference Number	1701
039	Response Code	00
049	Transaction Currency Code	0840
062	Vantiv Transaction Data	
62		5E00000000000000
62.2	Terminal Sequence Number	004922
62.4	Acquiring Institution Acronym	ECKD
62.5	Issuing Institution Acronym	SES2
62.6	Owner Settlement Agent	ECKD
62.7	Cardholder Settlement Agent	SWTH
90	Original Data Elements	
90.1	Original Message Type Identifier	0200
90.2	Original System Trace Audit Number	004922
90.3	Original Transmission Date and Time	1223161239
90.4	Original Acquiring Institution ID	0104200031400000000000

Example: Host-Data-Capture EMV Purchase Reversal Response

Table 2-58 shows the fields and values for the following example message:

```
0430F23A00000A8082040000004000000000001042071969........000000000000001159
0530120000100603100603053005300530F1F7F0F1404040404040404040F0F0C5D2F0F3F4F6F7
F0F0F0F0F0F0F0F10840000F02000C910A50B4BC3291184DF00012001D5E400000000000
00000100E3C8D6D5C9D5E3F1D4D7E2D4E2E6E3C800210200000010005301006000104200 0
31400000000000
```

TABLE 2-58 Host-Data-Capture EMV Purchase Reversal Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0430
0.3	Primary Bit Map	F23A00000A808204
001	Secondary Bit Map	0000004000000000
002	Primary Account Number (PAN)	42071969.....
003	Processing Code	000000
004	Transaction Amount	000000001159
007	Transmission Date and Time	
007		0530
007		120000
011	Systems Trace Audit Number	100603
012	Local Transaction Time	100603
013	Local Transaction Date	0530
015	Settlement Date	0530
037	Retrieval Reference Number	1701
039	Response Code	00
041	Card Acceptor Terminal Identification	EK0346700000001
049	Transaction Currency Code	0840
055	Integrated Circuit Card Data	02000C910A50B4BC3291184DF00012
062	Vantiv Transaction Data	
062		5E40000000000000
062.2	Terminal Sequence Number	000100
062.4	Acquiring Institution Acronym	THON
062.5	Issuing Institution Acronym	INT1
062.6	Owner Settlement Agent	MPSM

TABLE 2-58 Host-Data-Capture EMV Purchase Reversal Response Example Fields and Values

Number	Field Name	Field Value
062.7	Cardholder Settlement Agent	SWTH
062.10	POS Batch Reference Number	0021
090	Original Data Elements	
090.1	Original Message Type Identifier	0200
090.2	Original System Trace Audit Number	000100
090.3	Original Transmission Date and Time	0530100600
090.4	Original Acquiring Institution ID	01042000314000000000000

Example: Gift Card Purchase Reversal Response

Table 2-59 shows the fields and values for the following example message:

```
0430F22040010EC08404000000420000000010308999999999993085540000000000030001108140
00000018059120A1014200314F0F0F0F0F0F0F0F0F0F0F0F0F0F0F1F0F1F0F0F0F1F8F0404040
40404040404040404040F4F4F4F5F1F5F5F0F5F5F6F7F3404008400028F4F0F0F2F8F4F0C3F0F0F0
F0F0F0F0F0F9F0F0F0F4F0F0F3F8F4F0C3F0F0F0F0F0F0F0F0F3F0F0F0000A000000000200000
D8C1010000000011080000000000000000000000000000F0
F0F0F0F0F0F0F0F3F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0F0
F0F0
```

TABLE 2-59 Gift Card Purchase Reversal Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0430
0.3	Primary Bit Map	F22040010EC08404
001	Secondary Bit Map	0000004200000000
002	Primary Account Number (PAN)	3089999999999308
003	Processing Code	554000
004	Transaction Amount	000000003000
007	Transmission Date and Time	
007		1108
007		140000
011	Systems Trace Audit Number	000180
018	Merchant Type	5912
032	Acquiring Institution Identification Code	1014200314
037	Retrieval Reference Number	000000000000

TABLE 2-59 Gift Card Purchase Reversal Response Example Fields and Values

Number	Field Name	Field Value
038	Authorization Identification Response	001010
039	Response Code	00
041	Card Acceptor Terminal Identification	180
042	Card Acceptor Identification	4445199999673
049	Transaction Currency Code	0840
054	Additional Amounts	
054.1		4002840C000000009000
054.2		4003840C000000003000
062	Transaction Currency Code	
062		0000000000200000
062.43	Gift Card Restriction Value	QA
090	Original Data Elements	
090.1	Original Message Type Identifier	0100
090.2	Original System Trace Audit Number	000000
090.3	Original Transmission Date and Time	1108000000
090.4	Original Acquiring Institution ID	00000000000000000000
095.5	Original Acquiring Institution ID	
095.6		000000003000
095.7		000000000000
095.8		000000000000
095.9		000000

2.4 Reconciliation Response and Request Messages

This section describes the field requirements for each of the following reconciliation transaction message types:

- 0500 Acquirer Reconciliation Request on page 141
- 0510 Acquirer Reconciliation Response on page 142

See Table 1-1 for more information about the abbreviations contained in the request and response tables.

2.4.1 0500 Acquirer Reconciliation Request

Table 2-60 describes the field requirements for the 0500 Acquirer Reconciliation Request.

TABLE 2-60 0500 Acquirer Reconciliation Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
003	Processing Code	nP6	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	M	
060	Additional POS Data	LLL ans999	M	
062	Vantiv Transaction Data	LLL ans999	C	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

TABLE 2-60 0500 Acquirer Reconciliation Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.3	Transaction Qualifier	nP3	C	Determines the totals the response returns.
115	Terminal Specific Data	LLLL..ans 9,999	C	The request requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O	

This example shows a combination of both viewable and EBCDIC data.

Example: Host-Data-Capture Settlement Request

Table 2-61 shows the fields and values for the following example message:

```
474512030500222000000C000109200001222125123000001C5D2F0F0F3F5F5F0F0F0F0F0F0F0
F0F0F9F0F6F8F9F6F0F4404040404040002 4F4F1F240F2F0F3F0F7F4F5F9F4F1F2F3F0F0F0F0F0
F3F5F5F0F0F0F0F0F0F0F0F0F0F0F0
```

TABLE 2-61 Host-Data-Capture Settlement Request Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	47451203
0.2	Message Type ID	0500
0.3	Primary Bit Map	2220000000C00010
003	Processing Code	920000
007	Transmission Date and Time	1222125123
011	Systems Trace Audit Number	000001
041	Card Acceptor Terminal Identification	EK0035500000000
042	Card Acceptor Identification	090689604
060	Additional POS Data	412 203074594123000003550000000000000

2.4.2 0510 Acquirer Reconciliation Response

Table 2-62 describes the field requirements for the 0510 Acquirer Reconciliation Response.

TABLE 2-62 0510 Acquirer Reconciliation Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Terminal Application Header	ans 3	C	The response requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	Present if the response requires Field 124 - Transaction Dependent Data.
003	Processing Code	nP6	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0500 message.
015	Settlement Date	nP4	M	Contains data corresponding to totals.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	M	
060	Additional POS Data	LLL ans999	M	
062	Vantiv Transaction Data	LLL ans999	C62	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.3	Transaction Qualifier	nP3	C	The response require this if the 0500 message contains it.

TABLE 2-62 0510 Acquirer Reconciliation Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
115	Terminal Specific Data	LLLL..ans 9,999	C	The response requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O	
124	Transaction Dependent Data	LLL ans999	C	Contains total data.

This example shows a combination of both viewable and EBCDIC data.

Example: Host-Data-Capture Settlement Response

Table 2-63 shows the fields and values for the following example message:

```
474512030510A222000002C000100000000000000001092000012221251230000011222F0F0C5D2
F0F0F3F5F5F0F0F0F0F0F0F0F0F0F0F9F0F6F8F9F6F0F4404040404040000 7F4F0F040F2F0F00104
F1F0F1F0F0F0F2F6C3F0F0F0F0F0F0F0F4F7F2F1F6F1F0F2F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0
F0F2F0F1F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0F0F2F0F2F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0
F0F0F2F0F3F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0F0F2F0
F4F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0F0F0F3F0F1F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F3
F0F2F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0F0F3F0F3F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0
F3F0F4F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0F0F3F0F5F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0
F0F3F0F6F0F0F0F0F0C3F0F0F0F0F0F0F0F0F0F0F0F0F4F0F1F0F0F0F0F3C3F0F0F0F0F0F0F0F6F0
F0F0
```

TABLE 2-63 Host-Data-Capture Settlement Response Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	47451203
0.2	Message Type ID	0510
0.3	Primary Bit Map	A222000002C00010
001	Secondary Bit Map	0000000000000010
003	Processing Code	920000
007	Transmission Date and Time	1222125123
011	Systems Trace Audit Number	000001
015	Settlement Date	1222
039	Response Code	00
041	Card Acceptor Terminal Identification	EK0035500000000
042	Card Acceptor Identification	090689604
060	Additional POS Data	400 200

TABLE 2-63 Host-Data-Capture Settlement Response Example Fields and Values

Number	Field Name	Field Value
124	Transaction Dependent Data	
124.1	Sender Name/User ID	10100026C00000047216
124.2	Sender Address	10200000C00000000000
124.3	Sender City	20100000C00000000000
124.4	Sender State/Providence	20200000C00000000000
124.5	Sender Country	20300000C00000000000
124.6	Sender Zip Code	20400000C00000000000
124.7	Transaction Type	30100000C00000000000
124.8	Sender Reference Number	30200000C00000000000
124.9	Sender Date of Birth	30300000C00000000000
124.10	Sender Phone Number	30400000C00000000000
124.11	Sender Account Number	30500000C00000000000
124.12	Sender Funding Type	30600000C00000000000
124.13		40100003C00000006000

2.5 Network Management Request and Response Messages

This section describes the field requirements for each of the following network management transaction types:

- 0800 - Network Management Request on page 146
- 0810 - Network Management Response on page 150

See Table 1-1 for more information about the abbreviations contained in the request and response tables.

2.5.1 0800 - Network Management Request

This request allows network-level communication between two parties and has an Acquirer←→Issuer message flow.

Table 2-64 describes the field requirements for the 0800 - Network Management Request Message.

TABLE 2-64 0800 Network Management Request

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
0.1	Terminal Application Header	ans 3	C	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	M	
0.3	Primary Bit Map	b64	M	M	
001	Secondary Bit Map	b64	M	M	
007	Transmission Date and Time	nP10	M	M	
011	Systems Trace Audit Number	nP6	M	M	
070	Network Management Information Code	nP3	M	M	
115	Terminal Specific Data	LLLL..ans 9,999	C		The request requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O		121

TABLE 2-64 0800 Network Management Request

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
124	Transaction Dependent Data	LLL ans999	C	C	When key blocks are utilized, this field will be used to carry the data. Refer to Transaction Dependent Data for any additional usages.
125	Network Management Information	LLL ans999	C	C	The request requires this when Field 070 - Network Management Information Code has a value of 101.

Some of the examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Make Key Request Using ANSI X9 TR-31 Key Block

The customer will send an 0800 request to Worldpay requesting that a new key be generated. Worldpay will stage the key and return the key and check digits in an 0810 response. Once Worldpay receives an 0820 confirmation message indicating the customer applied the key, it will then apply the key itself and return an 0830 message to the customer indicating that happened.

```
0800|8220000000000000|0400000000000010|0401133355|133355|0160|000E|D2C5E8|2000
000000000000|F1F0F2
```

TABLE 2-65 Make Key Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0800
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000010
007	Transmission Date and Time	0401133355
011	Systems Trace Audit Number	133355
70	Network Management Information Code	0160
124	Transaction Dependent Data	
-	Length	000E
-	Header	KEY
-	Bitmap	2000000000000000
124.3	Encryption Key Data Format	102

Example: Sign-on Request

Table 2-66 shows the fields and values for the following example message:

```
0800822000000000000004000000000000000050113042700000500 01
```

TABLE 2-66 Sign-on Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0800
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000000
007	Transmission Date and Time	0501130427
011	Systems Trace Audit Number	000005
70	Network Management Information Code	0001

Example: Pin Key Exchange Request

Table 2-67 shows the fields and values for the following example message:

```
0800822000000000000004000000000000080501130210000004010100 14F4F8F1F5C5C4C6F4..
..............F7F0F5C4
```

TABLE 2-67 Pin Key Exchange Request Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0800
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000008
007	Transmission Date and Time	0501130210
011	Systems Trace Audit Number	000004
070	Network Management Information Code	0101
125	Network Management Information	4815EDF4.....705D

Example: Sign-on Request with Header

Table 2-68 shows the fields and values for the following example message:

```
0102030408008220000000000000040000000000000000501130427000005000 1
```

TABLE 2-68 Sign-on with Header Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
N/A	Transaction Header	01020304
0.2	Message Type ID	0800
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000000
007	Transmission Date and Time	0501130427
011	Systems Trace Audit Number	000005
070	Network Management Information Code	0001

Example: Pin Key Exchange Request with Header

Table 2-69 shows the fields and values for the following example message:

```
010203040800822000000000000000400000000000000805011302100000040101001 4F4F8
F1F5C5C4C6F4.................F7F0F5C4
```

TABLE 2-69 Pin Key Exchange Request with Header Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	01020304
0.2	Message Type ID	0800
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000008
007	Transmission Date and Time	0501130210
011	Systems Trace Audit Number	000004
070	Network Management Information Code	0101
125	Network Management Information	4815EDF4.....705D

Example: Make Key Advice Using ANSI X9 TR-31 Key Block

Worldpay generates a key, stages it, and sends an 0800 message to the customer. Worldpay will wait for a successful 0810 to apply the key. Table 2-70 shows the fields and values for the following example message.

```
0800822000000000000004000000000000100922131435000005016100 66D2C5E8E00000000000
00000050C2F0F0F8F0D7F0E3C4F0F0E2F0F0F0F0F4C5F3F4F0F6F2F0C5F7F6F7F0F7F4C2C5C4F3
F1C1F6F2F4C2C4C5F1F2C4F8F2F7F9F8C5F1C2F5C4C3F3F9F8C1C1F8C2F5C6C5F3F8C5F1F4F1F8
F1F6F0F6F0C6F7F5F3F3F6C4F1F0F2
```

TABLE 2-70 Make Key Advice Using ANSI X9 TR-31 Key Block

Number	Field Name	Field Value
0.2	Message Type ID	0800
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000010
007	Transmission Date and Time	0922131435
011	Systems Trace Audit Number	000005
070	Network Management Information Code	0161
124	Transaction Dependent Data	
-	Length	0066
-	Header	KEY
-	Bitmap	E000000000000000
124.01	Encryption Key Data	
-	Data Length	0050
-	Data	B0080P0TD00S00004E340620E767074BE D31A624BDE12D82798E1B5DC398AA8B5 FE38E141816060F
124.02	Encryption Check Digits	75336D
124.03	Encryption Key Data Format	102

2.5.2 0810 - Network Management Response

This response acknowledges the acceptance of the 0800 message type and carries the result of the request. it has an Acquirer←→Issuer message flow.

Table 2-71 describes the field requirements for the 0810 - Network Management Response message.

TABLE 2-71 0810 Network Management Response

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
0.1	Terminal Application Header	ans 3	C	C	The response requires this bit for merchants processing via the Terminal Processing platform.

TABLE 2-71 0810 Network Management Response

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
0.1	Message Type ID	nP4	M	M	
0.2	Primary Bit Map	b64	M	M	
001	Secondary Bit Map	b64	M	M	
007	Transmission Date and Time	nP10	M	M	
011	Systems Trace Audit Number	nP6	M	M	The response copies this from the 0800 message.
039	Response Code	an2	M	M	
070	Network Management Information Code	nP3	M	M	
115	Terminal Specific Data	LLLL..an s 9,999	C		The response requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O		121
124	Transaction Dependent Data	LLL ans999	C	C	When key blocks are utilized, this field will be used to carry the data. Refer to Transaction Dependent Data for any additional usages.

Some of the examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Make Key Response Using ANSI X9 TR-31 Key Block

```
0810|8220000002000000|0400000000000010|0401133355|133355|F0F0|0160|005B|D2C5E8
|C000000000000000|0048|C3F0F0F7F2D7F0E3C4F0F0E2F0F0F0F0C2F4F2F8F8F5F7C4F3C3F5F
7F6F3F0C4C4C1F5F0F4F9F3C6C3F1F3C6C4C6F8F6C4C3C3F7F7F3F1F4F3C2F3C6F2F3C2F6C4F7C
2F7F7F9F4C2|C6F7C6F8C6F0
```

TABLE 2-72 Make Key Response Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0810
0.3	Primary Bit Map	8220000002000000

TABLE 2-72 Make Key Response Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
001	Secondary Bit Map	0400000000000010
007	Transmission Date and Time	0401133355
011	Systems Trace Audit Number	133355
39	Response Code	00
70	Network Management Information Code	0160
124	Transaction Specific Data	
-	Length	005B
-	Header	KEY
-	Bitmap	C000000000000000
124.01	Encryption Key Data	
-	Data Length	0048
	Data	C0072P0TD00S0000B428857D3C57630D DA50493FC13FDF86DCC773143B3F23B6 D7B7794B
124.02	Encryption Check Digits	F7F8F0

Example: Sign-on Response

Table 2-73 shows the fields and values for the following example message:

```
08108220000002000000040000000000000005011304270000005F0F00001
```

TABLE 2-73 Sign-on Response Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0810
0.3	Primary Bit Map	8220000002000000
001	Secondary Bit Map	0400000000000000
007	Transmission Date and Time	0501130427
011	Systems Trace Audit Number	000005
039	Response Code	00
070	Network Management Information Code	0001

Example: Pin Key Exchange Reply

Table 2-74 shows the fields and values for the following example message:

```
0810822000000200000004000000000000000501130210000004F0F00101
```

TABLE 2-74 Pin Key Exchange Reply Example Fields and Values

NUMBER	FIELD NAME	FIELD VALUE
0.2	Message Type ID	0810
0.3	Primary Bit Map	8220000002000000
001	Secondary Bit Map	0400000000000000
007	Transmission Date and Time	0501130210
011	Systems Trace Audit Number	000004
039	Response Code	00
070	Network Management Information Code	0101

Example: Sign-on Response with Header

Table 2-75 shows the fields and values for the following message:

```
0102030408108220000002000000040000000000000005011304270000005F0F00001
```

TABLE 2-75 Sign-on Response with Header Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	01020304
0.2	Message Type ID	0810
0.3	Primary Bit Map	8220000002000000
001	Secondary Bit Map	0400000000000000
007	Transmission Date and Time	0501130427
011	Systems Trace Audit Number	000005
039	Response Code	00
070	Network Management Information Code	0001

Example: Pin Key Exchange Response with Header

Table 2-76 shows the fields and values for the following example message:

```
0102030408108220000002000000040000000000000005011302100000004F0F00101
```

TABLE 2-76 Pin Key Exchange Response with Header Example Fields and Values

Number	Field Name	Field Value
N/A	Transaction Header	01020304
0.2	Message Type ID	0810
0.3	Primary Bit Map	8220000002000000
001	Secondary Bit Map	0400000000000000
007	Transmission Date and Time	0501130210
011	Systems Trace Audit Number	000004
039	Response Code	00
070	Network Management Information Code	0101

2.5.3 0820 - Network Management Confirmation Advice Request

This request allows network-level communication between two parties and has an Acquirer←→Issuer message flow.

Table 2-77 describes the field requirements for the 0820 - Network Management Confirmation Advice Request Message.

TABLE 2-77 0820 - Network Management Confirmation Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
0.1	Terminal Application Header	ans 3	C	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.1	Message Type ID	nP4	M	M	
0.2	Primary Bit Map	b64	M	M	
001	Secondary Bit Map	b64	M	M	
007	Transmission Date and Time	nP10	M	M	
011	Systems Trace Audit Number	nP6	M	M	
70	Network Management Information Code	nP3	M	M	

TABLE 2-77 0820 - Network Management Confirmation Advice Request

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
115	Terminal Specific Data	LLLL..ans 9,999	C		The request requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O		
124	Transaction Dependent Data	LLL ans999	C		When you use key blocks, this field carries the data. **Note**: It is mandatory to echo both the key block and check digits from the 0810 response in the 0820 request.

Some of the examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Network Confirmation Advice Request Using ANSI X9 TR-31 Key Block

Table 2-78 shows the fields and values for the following message:

```
0820|8220000000000000|0400000000000010|0401|134622|134622|0162|005E|D2C5E8|E00
0000000000000000|0048|C3F0F0F7F2D7F0E3C4F0F0E2F0F0F0F0C2F4F2F8F8F5F7C4F3C3F5F7F6F
3F0C4C4C1F5F0F4F9F3C6C3F1F3C6C4C6F8F6C4C3C3F7F7F3F1F4F3C2F3C6F2F3C2F6C4F7C2F7F
7F9F4C2|F7F8F0F5C1F5|F1F0F2
```

TABLE 2-78 Network Confirmation Advice Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0820
0.3	Primary Bit Map	8220000000000000
001	Secondary Bit Map	0400000000000010
007	Transmission Date and Time	0401
011	Systems Trace Audit Number	134622
070	Network Management Information Code	0162
124	Transaction Dependent Data	
-	Length	005E
-	Header	KEY

TABLE 2-78 Network Confirmation Advice Request Example Fields and Values

Number	Field Name	Field Value
-	Bitmap	E000000000000000
124.01	Encryption Key Data	
-	Data Length	0048
-	Data	C0072P0TD00S0000B428857D3C57630D DA50493FC13FDF86D CC773143B3F23B6D7B7794B
124.02	Encryption Check Digits	7805A5
124.03	Encryption Key Data Format	102

2.5.4 0830 - Network Management Confirmation Advice Response

This response acknowledges the acceptance of the 0820 message type and carries the result of the request. it has an Acquirer←→Issuer message flow.

Table 2-79 describes the field requirements for the 0830 - Network Management Confirmation Advice Response message.

TABLE 2-79 0830 Network Management Confirmation Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
0.1	Terminal Application Header	ans 3	C	C	The response requires this bit for merchants processing via the Terminal Processing platform.
0.1	Message Type ID	nP4	M	M	
0.2	Primary Bit Map	b64	M	M	
001	Secondary Bit Map	b64	M	M	
007	Transmission Date and Time	nP10	M	M	
011	Systems Trace Audit Number	nP6	M	M	The response copies this from the 0820 message.
039	Response Code	an2	M	M	
070	Network Management Information Code	nP3	M	M	

TABLE 2-79 0830 Network Management Confirmation Advice Response

Bit	ISO Field Name	Data Type	Intercept Req	Processor Req	Notes
115	Terminal Specific Data	LLLL..ans 9,999	C		The response requires this bit for merchants processing via the Terminal Processing platform.
121	Additional Information	LLL..ans 999	O		
124	Transaction Dependent Data	LLL ans999	C		When key blocks are utilized, this field will be used to carry the data. Refer to Transaction Dependent Data for any additional usages.

Some of the examples show a combination of both viewable and EBCDIC data. An ellipse indicates a placeholder for other values that are included but not shown.

Example: Network Confirmation Advice Response Using ANSI X9 TR-31 Key Block

Table 2-80 shows the fields and values for the following message:

```
0830|8220000002000000|0400000000000010|0401134622|134622|F0F0|0162|005B|D2C5E8
|C000000000000000|0048|C3F0F0F7F2D7F0E3C4F0F0E2F0F0F0F0C2F4F2F8F8F5F7C4F3C3F5F
7F6F3F0C4C4C1F5F0F4F9F3C6C3F1F3C6C4C6F8F6C4C3C3F7F7F3F1F4F3C2F3C6F2F3C2F6C4F7C
2F7F7F9F4C2|F7F8F0F5C1F5
```

TABLE 2-80 Network Confirmation Advice Request Example Fields and Values

Number	Field Name	Field Value
0.2	Message Type ID	0830
0.3	Primary Bit Map	8220000002000000
001	Secondary Bit Map	0400000000000010
007	Transmission Date and Time	0401134622
011	Systems Trace Audit Number	134622
039	Response Code	00
070	Network Management Information Code	0162
124	Transaction Specific Data	
-	Length	005B
-	Header	KEY

TABLE 2-80 Network Confirmation Advice Request Example Fields and Values

Number	Field Name	Field Value
-	Bitmap	C000000000000000
124.01	Encryption Key Data	
-	Data Length	0048
-	Data	C0072P0TD00S0000B428857D3C57630D DA50493FC13FDF86D CC773143B3F23B6D7B7794B
124.02	Encryption Check Digits	7805A5

2.6 Matching Criteria

Worldpay attempts to match incoming reversals to their original debit transaction and preauthorized debits to their original authorizations.

TABLE 2-81 Host-Data-Capture Matching Criteria

Field Number	Field Name	Data Type
002	Primary Account Number (PAN) (if present)	LLd nP19
035	Track II Data (if present in original request, PAN only)	LLd ns37
041	Card Acceptor Terminal Identification (last six digits)	an6
045	Track I Data (if present, PAN only)	LLL an255
60.1	Terminal Type	an1
62.2	Terminal Sequence Number	nP6

2.7 EBT Transaction Receipt Requirements

The transaction receipt for a transaction must contain the name of the merchant in either preprinted or terminal-printed form and must contain the following:

- Beginning balance (optional)
- Ending balances
- Disposition as approved or denied. If Worldpay denies the transaction, it must contain the reason it was denied.

  See the receipt message response code descriptions in Response Code on page 278. EBT receipts must include the messages in The Receipt Messages column. Certification requires these receipt messages and must appear exactly as they are worded. The EBT processor must approve any changes to the receipt messages.
- Amount
- Type of transaction
- Name of merchant
- Calendar date and time of day the receipt initiated the transaction
- Identity of the recipient through a number that uniquely identifies the recipient
- The terminal location description specified by the applicable federal and state law regulation
- A sequence number or serial number of the transaction

FIGURE 2-2 Sample Approved Receipt

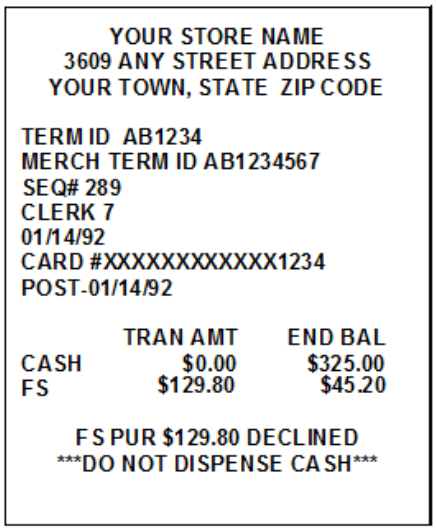
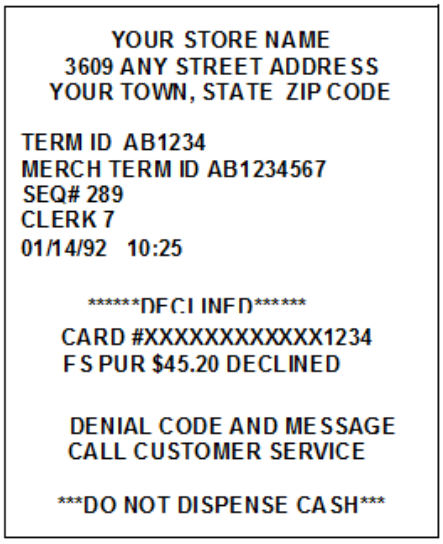


FIGURE 2-3 Sample Denied Receipt



2.8 Credit EMD Message Set

Each message type has certain field requirements. This section describes each Message Type Identifier and lists the fields required to successfully convey transactions for a Credit EMD merchant.

Worldpay can settle credit transactions as either Host Data Capture or Credit EMD, depending on which option the merchant has chosen. Credit EMD merchants send authorizations to hold funds on cardholders' accounts. The merchant is then responsible for retaining authorization information and submitting the information in an EMD file to Worldpay for settlement.

2.8.1 Authorization Request and Response Messages

Table 2-82 and Table 2-83 outline the field requirements for each authorization message type.

TABLE 2-82 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	Include this field for instances of manually-entered PAN. For P2P Encrypted transactions, Field 100.2 - Encrypted PAN replaces this field. For token initiated transactions, the request does not include this field.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	O	
013	Local Transaction Date	nP4	O	
014	Expiration Date	nP4	C	Include this field for key-entered information.

TABLE 2-82 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	C	The request requires this if the country code is not 840 (United States).
021	Forwarding Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	M	
023	Card Sequence Number	nP3	O	
025	Point of Service Condition Code	nP2	M	
032	Acquiring Institution Identification Code	LLd nP11	O	
035	Track II Data	LLd nP37	C	For machine read cards, include either Field 35 - Track II Data or Field 45- Track I Data, or Field 100.3 - Encrypted Track II for P2P encrypted transactions.
037	Retrieval Reference Number	an12	O	
041	Card Acceptor Terminal Identification	ans15	O	
042	Card Acceptor Identification	ans15	M	
043	Card Acceptor Name and Location Data	ans40	O	
044	Additional Response Data	LLL ans4	O	
045	Track I Data	LLL ans76	C	For machine read cards, include either Field 35 - Track II Data or Field 45- Track I Data or Field 100.4 - Encrypted Track I for P2P encrypted transactions.
048	Additional Data (Private)	LLL ans255	O	
049	Transaction Currency Code	nP3	C	The request requires this if the country code is not 840 (United States).
052	Personal Identification Number Data	b64	C	The request requires this if the cardholder enters a PIN at a device.

TABLE 2-82 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
053	AMEX Card Identifier	LLb ans4	O	
054	Additional Amounts	LLL ans120	C	The request requires this if additional amounts are needed or balances returned.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
057	Card Product Type	ans3	O	
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	O	See Vantiv Transaction Data **on page 332** for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.11	Driver's License Number	an32	O	
062.12	Short MICR Data	an32	O	
062.13	Full MICR Data	an36	O	
062.14	Date of Birth	n 6	O	
062.15	State Code	an 2	O	
062.16	Check Number	an 6	O	
062.17	Phone Number and ZIP Code	an 16	O	
062.19	Station Number	an 10	O	
062.22	Check Type	an1	O	
062.24	Check Auth Check Type	an1	O	

TABLE 2-82 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.25	Check Authorization Comment Field	LLL ans192	O	
062.30	Preferred Debit Routing Flag	an 1	O	
062.31	Card Conversion Flag	b 1	O	
062.38	Sales Tax Amount	N 10	O	
062.39	Check Auth Processor	an 4	O	
062.42	Fleet Additional Response Data	LLb an83	O	
062.43	Gift Card Restriction Value	an 2	O	
062.44	DCC 2-Pass Flag	an 1	O	
062.48	POSA Foreign Network	an 4	O	
062.49	UPC Data	LLb an 99	O	
062.50	Sales Tax Indicator	an 1	O	
062.54	Non-POSA UPC Data	LLb an99	O	
062.57	Check Verification ID Type	an 2	O	
062.58	Checkwriter's Name	LLb an35	O	
062.59	Social Security Number	an 9	O	
100	P2P Encryption Data	LLL ans999	C	The request requires this for P2P encrypted transactions.
110	Transaction Dependent Pass Through Data	LLL ans999	O	
112.0	Gift Card Transaction Data	LLLL ans9,999	C	The request requires this if you need to indicate the presence of subfields.
112.2	Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number	LLd nP19	C	The request requires this for Gift Card Mass transactions and Gift Card Balance transfers.
112.6	Gift Card STATUS	an1	C	This field is only applicable when Subfield 01 (Transaction Type) of 003 - Processing Code is 74.
112.7	Gift Card Alternate Account Number 2	LLd nP19	O	

TABLE 2-82 0100 Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
112.8	Gift Card Alternate Account Number 3	LLd nP19	O	
112.9	Gift Card Security Code	LLb an7	C	The request requires this if gift card security code usage in place.
118	Fleet Customer Data	LLL..an 999	O	
119	Fleet Product Data	LLL..an 999	O	
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
126	Electronic Commerce/MOTO Indicator	LLL ans999	C	The request requires this for electronic commerce transactions.

TABLE 2-83 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The response requires this if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	If present, the response copies this from the 0100 message.
003	Processing Code	nP6	M	The response copies this from the 0100 message.
004	Transaction Amount	nP12	M	The response copies this from the 0100 message.
006	Cardholder Billing Amount	nP12	C	Present for Dynamic Currency Conversion transactions.
007	Transmission Date and Time	nP10	M	The response copies this from the 0100 message.

TABLE 2-83 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
010	Cardholder Billing Conversion Rate	nP8	C10	Present for Dynamic Currency Conversion transactions.
011	Cardholder Billing Conversion Rate	nP6	M	The response copies this from the 0100 message.
012	Local Transaction Time	nP6	O	
013	Local Transaction Date	nP4	O	
014	Expiration Date	nP4	C	The response copies this from the 0100 message if the merchant manually enters the transaction.
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	C	If present, the response copies this from the 0100 message.
021	Forwarding Institution Country Code	nP3	C	If present, the response copies this from the 0100 message.
022	Point of Service Entry Mode	nP4	C	If present, the response copies this from the 0100 message.
025	Point of Service Condition Code	nP2	C	If present, the response copies this from the 0100 message.
032	Acquiring Institution Identification Code	LLd nP11	M	The response copies this from the 0100 message or generates it internally.
035	Track II Data	LLd nP37	C	If present, the response copies it from the 0100 message.
037	Retrieval Reference Number	an12	O	
038	Authorization Identification Response	an6	C	Present if Worldpay approves the transaction.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	C	If present, the response copies it from the 0100 message.

TABLE 2-83 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
042	Card Acceptor Identification	ans15	M	The response copies this from the 0100 message.
043	Card Acceptor Name and Location Data	ans40	C	The response copies this from the 0100 message.
044	Additional Response Data	LLL ans15	C	If applicable, this contains AVS result data.
045	Track I Data	LLL ans76	C	If present, the response copies this from the 0100 message.
048	Additional Data (Private)	LLL ans255	C	If present, the response copies this from the 0100 message.
049	Transaction Currency Code	nP3	C	If present, the response copies this from the 0100 message.
051	Cardholder Billing Currency Code	nP3	C	Present for Dynamic Currency Conversion transactions.
054	Additional Amounts	LLL ans120	C	The response requires this if additional amounts are needed or balances are returned.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
057	Card Product Type	ans3	C	If an 0100 authorization requests this field, the response will send it.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	O	
061	Network Specific Information	LLL ans999	O	See Field 61 - Network Specific Information for descriptions of the subfield requirements.

TABLE 2-83 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062	Vantiv Transaction Data	LLL ans999	O	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
62.2	Terminal Sequence Number	nP6	M	This returns only for Fleet.
62.4	Acquiring Institution Acronym	an4	O	This returns only for Fleet.
62.58	Checkwriter's Name	LLb an35	O	This returns only for check authorization.
101	Card Results Field	LL ans999	O	
112	Gift Card Transaction Data	LLLL ans9,999	C	The response requires this to indicate the presence of subfields.
112.2	Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number	LLd nP19	C	If present, the response copies it from the 0100 message.
112.3	Gift Card Mass Transaction Response Data	LLb, mixed, max 251	C	Sent for Gift Card Mass Transactions of 25 cards or less.
112.4	Gift Card Mass Transaction Card Total	nP 4	C	Sent for Gift Card Mass Transactions for greater than 25 cards.
112.5	Gift Card Mass Transaction Completion Date and Time	nP 10	C	Sent for Gift Card Mass Transactions for greater than 25 cards.
112.6	Gift Card STATUS	an1	C	When subfield 1 (see Table 5-3) of Field 003 - Processing Code is 74 (Gift Card STATUS function), this is the alert code on the card after the transaction. For all other Gift Card transactions, this holds the alert code if present.

TABLE 2-83 0110 Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
112.7	Gift Card Alternate Account Number 2	LLd nP19	C	If present, the response copies this from the 0100 message.
112.8	Gift Card Alternate Account Number 3	LLd nP19	C	If present, the response copies this from the 0100 message.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	

2.8.2 Financial Transaction Request and Response Messages

Table 2-84 and Table 2-84 outline the field requirements for each financial transaction request and response message types.

TABLE 2-84 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The response requires this field if the message includes any field from Field 65 through Field 128.
002	Primary Account Number (PAN)	LLd nP19	C	Include this field for instances of manually-entered PAN. • For P2P encrypted transactions, Field 100.2 - Encrypted PAN replaces this field. • For token initiated transactions, the request does not include this field. • For card network and EMVco tokens, this Field contains the token.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	
007	Transmission Date and Time	nP10	M	

TABLE 2-84 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	O	
013	Local Transaction Date	nP4	O	
014	Expiration Date	nP4	C	Include this field for key entered PAN information.
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	C	The request requires this if the country code is not 840 (United States).
021	Forwarding Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	M	
023	Card Sequence Number	nP3	O	
025	Point of Service Condition Code	nP2	M	
032	Acquiring Institution Identification Code	LLd nP11	O	
035	Track II Data	LLd nP37	C	For machine read cards, include either Field 35 - Track II Data or Field 45- Track I Data, or Field 100.3 - Encrypted Track II for P2P encrypted transactions.
037	Retrieval Reference Number	an12	O	
041	Card Acceptor Terminal Identification	ans15	O	
042	Card Acceptor Identification	ans15	M	
043	Card Acceptor Name and Location Data	ans40	O	
045	Track I Data	LLL ans76	C	For machine read cards, include either Field 35 - Track II Data or Field 45- Track I Data, or Field 100.4 - Encrypted Track I for P2P encrypted transactions.
048	Additional Data (Private)	LLL ans255	O	

TABLE 2-84 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
049	Transaction Currency Code	nP3	C	The request requires this if the country code is not 840 (United States).
052	Personal Identification Number Data	b64	C	The request requires this if the merchant enters the information at a device.
053	AMEX Card Identifier	LLb ans4	O	
054	Additional Amounts	LLL ans120	C	The request requires this if additional amounts are needed or balances returned.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
057	Card Product Type	ans3	O	
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	O	See Vantiv Transaction Data **on page 332** for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.11	Driver's License Number	an32	O	
062.12	Short MICR Data	an32	O	
062.13	Full MICR Data	an36	O	
062.14	Date of Birth	n 6	O	
062.15	State Code	an 2	O	
062.16	Check Number	an 6	O	

TABLE 2-84 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.17	Phone Number and ZIP Code	an 16	O	
062.19	Station Number	an 10	O	
062.22	Check Type	an1	O	
062.24	Check Auth Check Type	an1	O	
062.25	Check Authorization Comment Field	LLL ans 192	O	
062.30	Preferred Debit Routing Flag	an 1	O	
062.31	Card Conversion Flag	b 1	O	
062.38	Sales Tax Amount	N 10	O	
062.39	Check Auth Processor	an 4	O	
062.42	Fleet Additional Response Data	LLb an83	O	
062.43	Gift Card Restriction Value	an 2	O	
062.44	DCC 2-Pass Flag	an 1	O	
062.48	POSA Foreign Network	an 4	O	
062.49	UPC Data	LLb an99	O	
062.50	Sales Tax Indicator	an 1	O	
062.54	Non-POSA UPC Data	LLb an99	O	
062.57	Check Verification ID Type	an 2	O	
062.58	Checkwriter's Namee	LLb an35	O	
062.59	Social Security Number	an 9	O	
100	P2P Encryption Data	LLL ans999	C	The request requires this for P2P encrypted transactions.
110	Transaction Dependent Pass Through Data	LLL ans999	O	
112.0	Gift Card Transaction Data	LLLL ans9,999	C	The request requires this to indicate the presence of subfields.
112.2	Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number	LLd nP19	C	The request requires this for Gift Card Mass transactions and Gift Card Balance transfers.

TABLE 2-84 0200 Financial Transaction Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
112.6	Gift Card STATUS	an1	C	The request requires this when subfield 1 (see Table 5-3) of Field 003 - Processing Code is 74 (Gift Card STATUS function).
112.7	Gift Card Alternate Account Number 2	LLd nP19	O	
112.8	Gift Card Alternate Account Number 3	LLd nP19	O	
112.9	Gift Card Security Code	LLb an6	C	The request requires this if Security Codes are set up with Gift Card BIN.
118	Fleet Customer Data	LLL..an 999	O	
119	Fleet Product Data	LLL..an 999	O	
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	
126	Electronic Commerce/MOTO Indicator	LLL ans999	C	The request requires this for electronic commerce transactions.

TABLE 2-85 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	
002	Primary Account Number (PAN)	LLd nP19	C	If present, the request copies this from the 0200 message.
003	Processing Code	nP6	M	The request copies this from the 0200 message.
004	Transaction Amount	nP12	M	The request copies this from the 0200 message.
006	Cardholder Billing Amount	nP12	C	Present for currency conversion transactions.
007	Transmission Date and Time	nP10	M	The response copies this from the 0200 message.

TABLE 2-85 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
010	Cardholder Billing Conversion Rate	nP8	C	Present for currency conversion transactions.
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0200 message.
012	Local Transaction Time	nP6	C	If present, the response copies this from the 0200 message.
013	Local Transaction Date	nP4	C	If present, the response copies this from the 0200 message.
014	Expiration Date	nP4	C	Include this field for key entered PAN information. The response copies it from the 0200 message.
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	C	If present, the response copies this from the 0200 message.
021	Forwarding Institution Country Code	nP3	C	If present, the response copies this from the 0200 message.
022	Point of Service Entry Mode	nP4	C	If present, the response copies this from the 0200 message.
023	Card Sequence Number	nP3	O	
025	Point of Service Condition Code	nP2	C	If present, the response copies this from the 0200 message.
032	Acquiring Institution Identification Code	LLd nP11	M	The response copies this from the 0200 message or generates it internally.
035	Track II Data	LLd nP37	C	If present, the response copies it from the 0200 message.
037	Retrieval Reference Number	an12	O	
038	Authorization Identification Response	an6	C	The response returns this if Worldpay approves the transaction.
039	Response Code	an2	M	

TABLE 2-85 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
041	Card Acceptor Terminal Identification	ans15	C	If present, the response copies this from the 0200 message.
042	Card Acceptor Identification	ans15	M	
043	Card Acceptor Name and Location Data	ans40	C	If present, the response copies this from the 0200 message.
044	Additional Response Data	LLL ans15	C	
045	Track I Data	LLL ans76	C	If present, the response copies this from the 0200 message.
048	Additional Data (Private)	LLL ans255	C	If present, the response copies this from the 0200 message.
049	Transaction Currency Code	nP3	C	If present, the response copies this from the 0200 message.
051	Cardholder Billing Currency Code	nP3	C	Present for currency conversion transactions.
054	Additional Amounts	LLL ans120	C	The response requires this if additional amounts are needed or balances returned
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
057	Card Product Type	ans3	C	The response sends this if the 0100 authorization request requests it.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	
061	Network Specific Information	LLL ans999	O	See Network Specific Information on page 321 for descriptions for the subfield requirements.

TABLE 2-85 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062	Vantiv Transaction Data	LLL ans999	O	See Vantiv Transaction Data **on page 332** for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL. It is immediately followed by an 8-byte (64 bit) bit map describing the subfields present.
062.43	Gift Card Restriction Value	an2	C	The response sends this if a restriction value is set on the card.
101	Card Results Field	LLL ans999	O	
112	Gift Card Transaction Data	LLLL ans9,999	C	The response requires this to indicate the presence of subfields.
112.2	Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number	LLd nP19	C	If present, the response copies it from the 0200 message.
112.3	Gift Card Mass Transaction Response Data	LLb, mixed, max 251	C	The response sends this for Gift Card Mass Transactions with 25 cards or less.
112.4	Gift Card Mass Transaction Card Total	nP 4	C	The response sends this for Gift Card Mass Transactions with greater than 25 cards.
112.5	Gift Card Mass Transaction Completion Date and Time	nP 10	C	The response sends this for Gift Card Mass Transactions with greater than 25 cards.
112.6	Gift Card STATUS	an1	C	When subfield 1 (see Table 5-3) of Field 003 - Processing Code is 74 (Gift Card STATUS function), this is the alert code on the card after the transaction. Additionally, for all other Gift Card transactions, this will hold the alert code if present.

TABLE 2-85 0210 Financial Transaction Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
112.7	Gift Card Alternate Account Number 2	LLd nP19	C	If present, the response copies this from the 0200 message.
112.8	Gift Card Alternate Account Number 3	LLd nP19	C	If present, the response copies this from the 0200 message.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	

2.8.3 Reversal Request and Response Messages

Table 2-86 and Table 2-87 outline the field requirements for each reversal request and response message types.

TABLE 2-86 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	
002	Processing Code	LLd nP19	C	This is mandatory for the request. For P2P Encrypted transactions, Field 100.2 - Encrypted PAN replaces this field. For token initiated transactions, the request does not include this field. For card network and EMVco tokens, this Field contains the token.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	
006	Cardholder Billing Amount	nP12	C	If present, the request copies it from the 01XX or 02XX message.

TABLE 2-86 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
007	Transmission Date and Time	nP10	M	
010	Cardholder Billing Conversion Rate	nP8	C	If present, the request copies it from the 01XX or 02XX message.
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	
013	Local Transaction Date	nP4	M	
014	Expiration Date	nP4	C	If present, the request copies it from the 01XX or 02XX message.
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	C	The request copies this from the 01XX or 02XX message.
021	Forwarding Institution Country Code	nP3	C	If present, the request copies it from the 01XX or 02XX message.
022	Point of Service Entry Mode	nP4	M	
023	Card Sequence Number	nP3	O	
025	Point of Service Condition Code	nP2	M	
032	Point of Service Condition Code	LLd nP11	O	The request copies this from the 01XX or 02XX message.
037	Point of Service Condition Code	an12	O	If present, the request copies it from the 01XX or 02XX message or Worldpay generates it internally.
038	Authorization Identification Response	an6	C	If present, the request copies this from the 01XX message or the issuer generates it.
041	Card Acceptor Terminal Identification	ans15	C	If present, the request copies this from the 01XX or 02XX message.
042	Card Acceptor Identification	ans15	M	

TABLE 2-86 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
043	Card Acceptor Name and Location Data	ans40	O	
048	Additional Data (Private)	LLL ans255	O	
049	Transaction Currency Code	nP3	C	If present, the request copies this from the 01XX or 02XX message.
051	Cardholder Billing Currency Code	nP3	C	If present, the request copies this from the 01XX or 02XX message.
054	Additional Amounts	LLL ans120	C	If present, the request copies this from the 01XX or 02XX message.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	The request copies this from the 01XX or 02XX message.
061	Network Specific Information	LLL ans999	C	See Network Specific Information on page 321 for descriptions for the subfield requirements.
062	Vantiv Transaction Data	LLL ans999	O	See Vantiv Transaction Data **on page 332** for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	C	If present, the request copies this from the 01XX or 02XX message.
090	Original Data Elements	nP42	M	

TABLE 2-86 0420 Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
095	Replacement Amounts	an42	C	The request requires this for a partial reversal or for a misdispense, which occurs when the EBT amount received by the ATM client differs from the EBT amount requested by the client.
100	P2P Encryption Data	LLL ans999	C	The request requires this for P2P encrypted transactions.
110	Transaction Dependent Pass Through Data	LLL ans999	O	
112.0	Gift Card Transaction Data	LLLL ans9,999	C	The request requires this to indicate the presence of subfields.
112.2	Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number	LLd nP19	C	The request requires this for Gift Card Mass transactions and Gift Card Balance transfer.
112.7	Gift Card Alternate Account Number 2	LLd nP19	O	
112.8	Gift Card Alternate Account Number 3	LLd nP19	O	
112.9	Gift Card Security Code	LLb an7	C	The request requires this if Security Codes are set up with Gift Card BIN.
120	Additional Request Data	LLL ans999	O	
121	Additional Information	LLL..ans 999	O	

TABLE 2-87 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The response requires this field if the message includes any field from Field 65 through Field 128.

TABLE 2-87 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
002	Primary Account Number (PAN)	LLd nP19	M	The response copies this from the 0420 message.
003	Processing Code	nP6	M	The response copies this from the 0420 message.
004	Transaction Amount	nP12	M	The response copies this from the 0420 message.
006	Cardholder Billing Amount	nP12	C	Present for currency conversion transactions.
007	Transmission Date and Time	nP10	M	The response copies this from the 0420 message.
010	Cardholder Billing Conversion Rate	nP8	C	Present for currency conversion transactions.
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0420 message.
018	Acquiring Institution Country Code	nP4	O	
021	Forwarding Institution Country Code	nP3	C	If present, the response copies it from the 0420 message.
032	Acquiring Institution Identification Code	LLd nP11	O	The response copies this from the 0420 message.
035	Track II Data	LLd nP37	C	If present, the response copies this from the 0420 message.
037	Retrieval Reference Number	an12	O	
038	Authorization Identification Response	an6	C	
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	C	If present, the response copies this from the 0420 message.
042	Card Acceptor Identification	ans15	M	
043	Card Acceptor Name and Location Data	ans40	O	The response copies this from the 0420 message.
044	Additional Response Data	LLL ans15	O	
045	Track I Data	LLL ans76	C	The response copies this from the 0420 message.

TABLE 2-87 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
048	Additional Data (Private)	LLL ans255	O	The response copies this from the 0420 message.
049	Transaction Currency Code	nP3	C	If present, the response copies this from the 0420 message.
051	Cardholder Billing Currency Code	nP3	C	Present for currency conversion transactions.
054	Additional Amounts	LLL ans120	C	The response requires this if additional amounts are needed or balances returned.
055	Integrated Circuit Card Data	LLL nP999	C	If EMV data is available from an EMV card, the transaction should present it.
061	Network Specific Information	LLL ans999	O	See Network Specific Information on page 321 for descriptions for the subfield requirements.
090	Original Data Elements	nP42	O	
095	Replacement Amounts	an42	O	The response copies this from the 0420 message.
101	Card Results Field	LLL ans999	O	
112	Gift Card Transaction Data	LLLL ans9,999	C	The response requires this to indicate the presence of subfields.
112.2	Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number	LLd nP19	C	If present, the response copies it from the 0420 message.
112.3	Gift Card Mass Transaction Response Data	LLb, mixed, max 251	C	The response sends this for Gift Card Mass Transactions with 25 cards or less.
112.4	Gift Card Mass Transaction Card Total	nP 4	C	The response sends this for Gift Card Mass Transactions with greater than 25 cards.
112.5	Gift Card Mass Transaction Completion Date and Time	nP 10	C	The response sends this for Gift Card Mass Transactions with greater than 25 cards.
112.6	Gift Card STATUS	an1	C112.6	This holds the alert code on the card, if present, for reversal transactions.

TABLE 2-87 0430 Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
112.7	Gift Card Alternate Account Number 2	LLd nP19	C	If present, the response copies it from the 0420 message.
112.8	Gift Card Alternate Account Number 3	LLd nP19	C	If present, the response copies it from the 0420 message.
121	Additional Information	LLL..ans 999	O	

2.8.4 Network Management Request and Response Messages

Table 2-88 and Table 2-89 outline the field requirements for the following network management request and response message types:

- 0800 - Network Management Request

  The request allows network-level communication between two parties and has an Acquirer ←→ Issuer message flow.

- 0810 - Network Management Request Response

  This response acknowledges the acceptance of the 0800 message type and carries the result of the request. It has an Acquirer ←→ Issuer message flow.

TABLE 2-88 0800 Network Management Request

Bit	ISO Field Name	Data Type	Inter-cept Req	Notes
0.1	Terminal Application Header	ans 3	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	
070	Network Management Information Code	nP3	M	
121	Additional Information	LLL..ans 999	O	

TABLE 2-89 0810 Network Management Response

Bit	ISO Field Name	Data Type	Inter-cept Req	Notes
0.1	Terminal Application Header	ans 3	C	The request requires this bit for merchants processing via the Terminal Processing platform.
0.2	Message Type ID	nP4	M	
0.3	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	
039	Response Code	an 2	M	
070	Network Management Information Code	nP3	M	
121	Additional Information	LLL..ans 999	O	

2.8.5 Matching Criteria

Worldpay will attempt to match incoming reversals to their original transactions and preauthorizations to their original authorizations.

TABLE 2-90 Credit EMD Matching Criteria

Field Number	Field Name	Data Type
002	Primary Account Number (PAN) (if present)	LLd nP19
011	Systems Trace Audit Number	n6
035	Track II Data (if present in original request, pan only)	LLd ns37
041	Card Acceptor Terminal Identification (first four digits)	an4
042	Card Acceptor Identification (first 8 digits)	an8
045	Track I Data (if present, pan only)	LLL an255
90	Original Data Elements(reversal)	n6

worldpay

3

Message Flow Diagrams

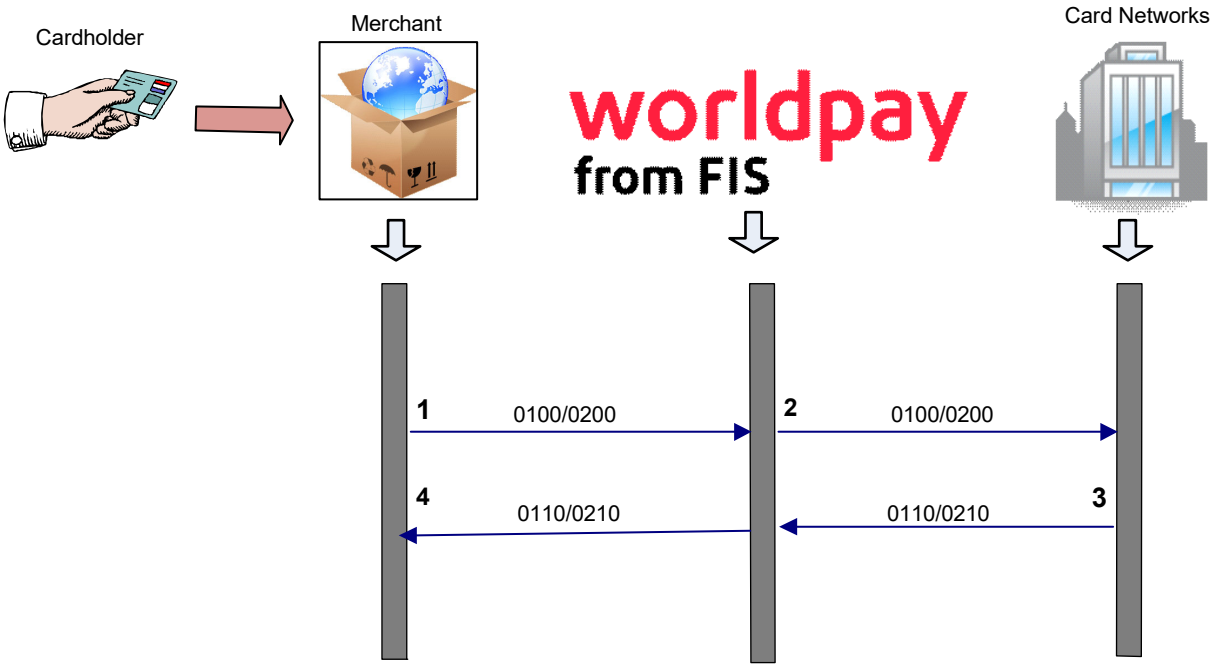
The diagrams in this chapter illustrate the transaction flows of the following message types that the Worldpay ISO Message Format supports:

3.1 Debit Authorization/Financial Transaction Request Messages

In Figure 3-1, the message scenario is as follows:

1. The intercept sends a 0100/0200 request message.
2. The processor sends a 0110/0210 request response message.
3. Worldpay routes the 0110/0210 response message to the intercept.

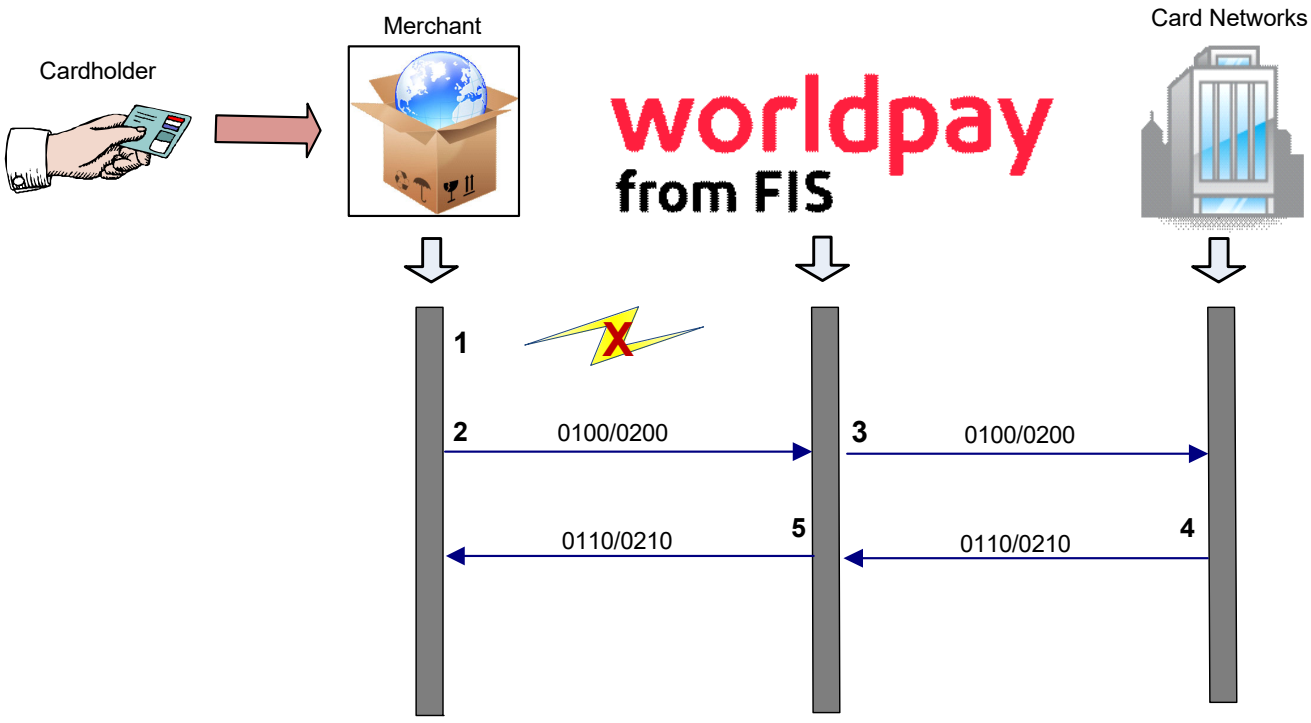
FIGURE 3-1 Debit Authorization/Financial Transaction Request with Response



In Figure 3-2, the message scenario is as follows:

1. The intercept sends a 0100/0200 request message. Worldpay does not receive the request message.
2. The intercept sends the 0100/0200 request message again.
3. Worldpay routes the 0100/0200 request message to the processor.
4. The processor sends a 0110/0210 request response message.
5. Worldpay routes the 0110/0210 response message to the intercept.

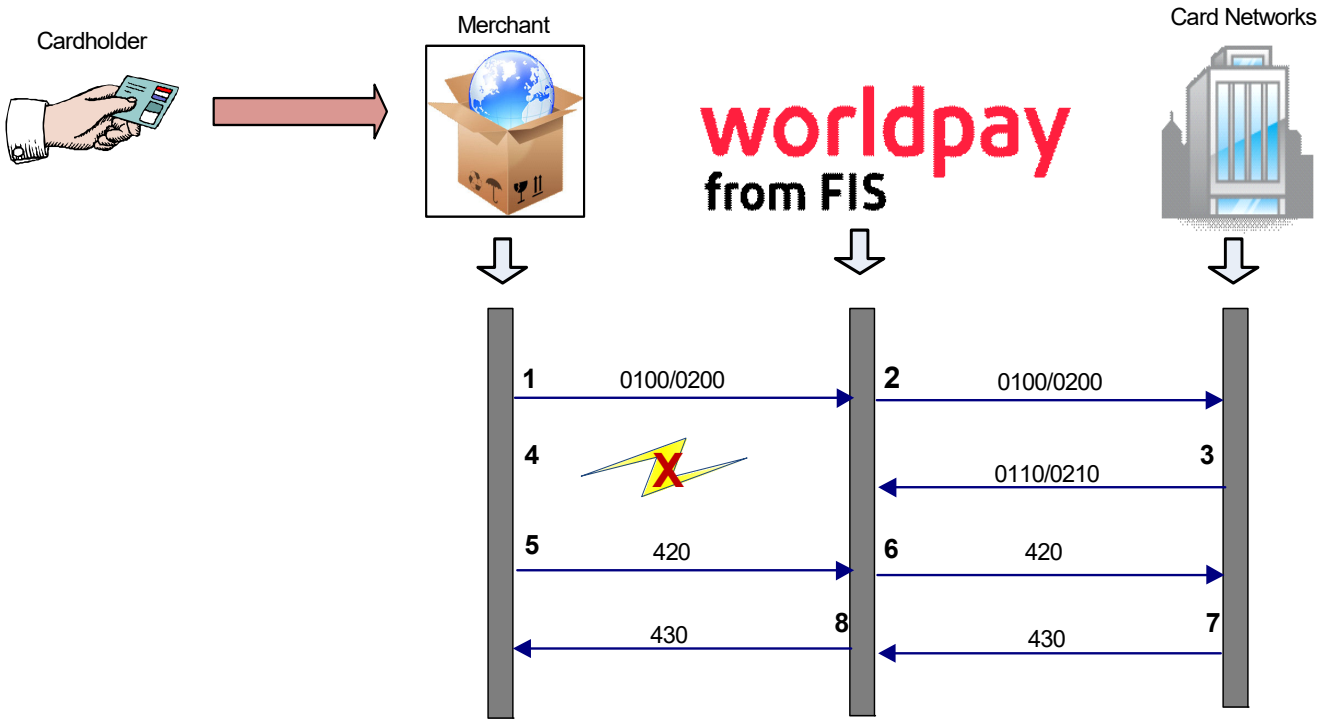
FIGURE 3-2 Debit Authorization/Financial Transaction Request With Repeat



In Figure 3-3, the message scenario is as follows:

1. The intercept sends a 0100/0200 request message to the processor.
2. Worldpay routes the 0100/2000 request message to processor.
3. The processor sends a 0110 /0210 request response message.
4. The intercept does not receive a response message within the specified time period.
5. The intercept sends a 0420 reversal request message.
6. Worldpay routes the 0420 reversal request message to the processor.
7. The processor sends a 0430 reversal request response message.
8. Worldpay routes the 0430 reversal request response message to the intercept.

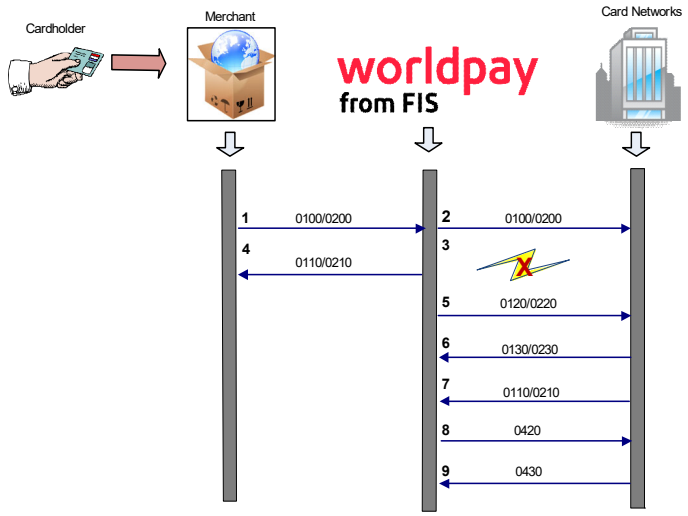
FIGURE 3-3 Debit Authorization/Financial Transaction Request Timeout With Timeout Reversal



In Figure 3-4, the message scenario is as follows:

1. The intercept sends a 0100/0200 request message.
2. Worldpay routes the 0100/0200 request message to the processor.
3. The processor does not respond within the specified time period.
4. Worldpay performs stand-in authorization for the processor and sends a 0110/0210 request response message to the intercept.
5. Worldpay sends a 0120/0220 advice message to the processor.
6. The processor sends a 0130/0230 advice response message to Worldpay.
7. The processor sends a late 0110/0210 request response message to Worldpay.
8. Worldpay sends a 0420 reversal advice message to the processor to reverse the 0110 message.
9. The processor sends a 0430 reversal advice response message to Worldpay.

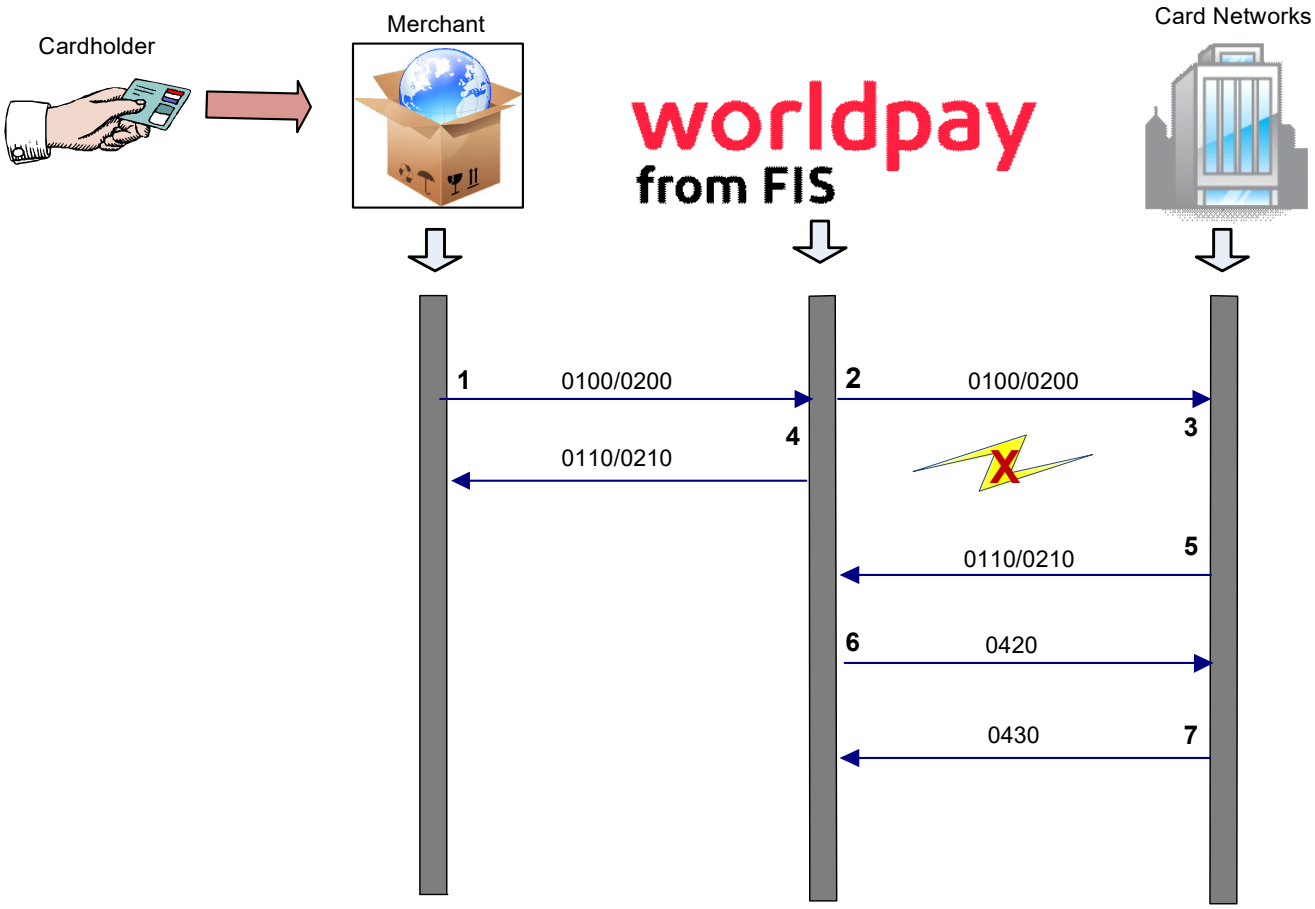
FIGURE 3-4 Debit Authorization/Financial Transaction Request Time Out with Stand In



In Figure 3-5, the message scenario is as follows:

1. The intercept sends a 0100/0200 request message.
2. Worldpay routes the 0100/0200 request message to the processor.
3. The processor does not respond within the specified time period.
4. Worldpay sends a 0110/0210 request response message to the intercept with a negative response.
5. The processor sends a late 0110/0210 request response message to Worldpay.
6. Worldpay sends a 0420 reversal advice message to the processor.
7. The processor sends a 0430 reversal advice response message to Worldpay.

FIGURE 3-5 Debit Authorization/Financial Transaction Request Time-Out Without Stand-In

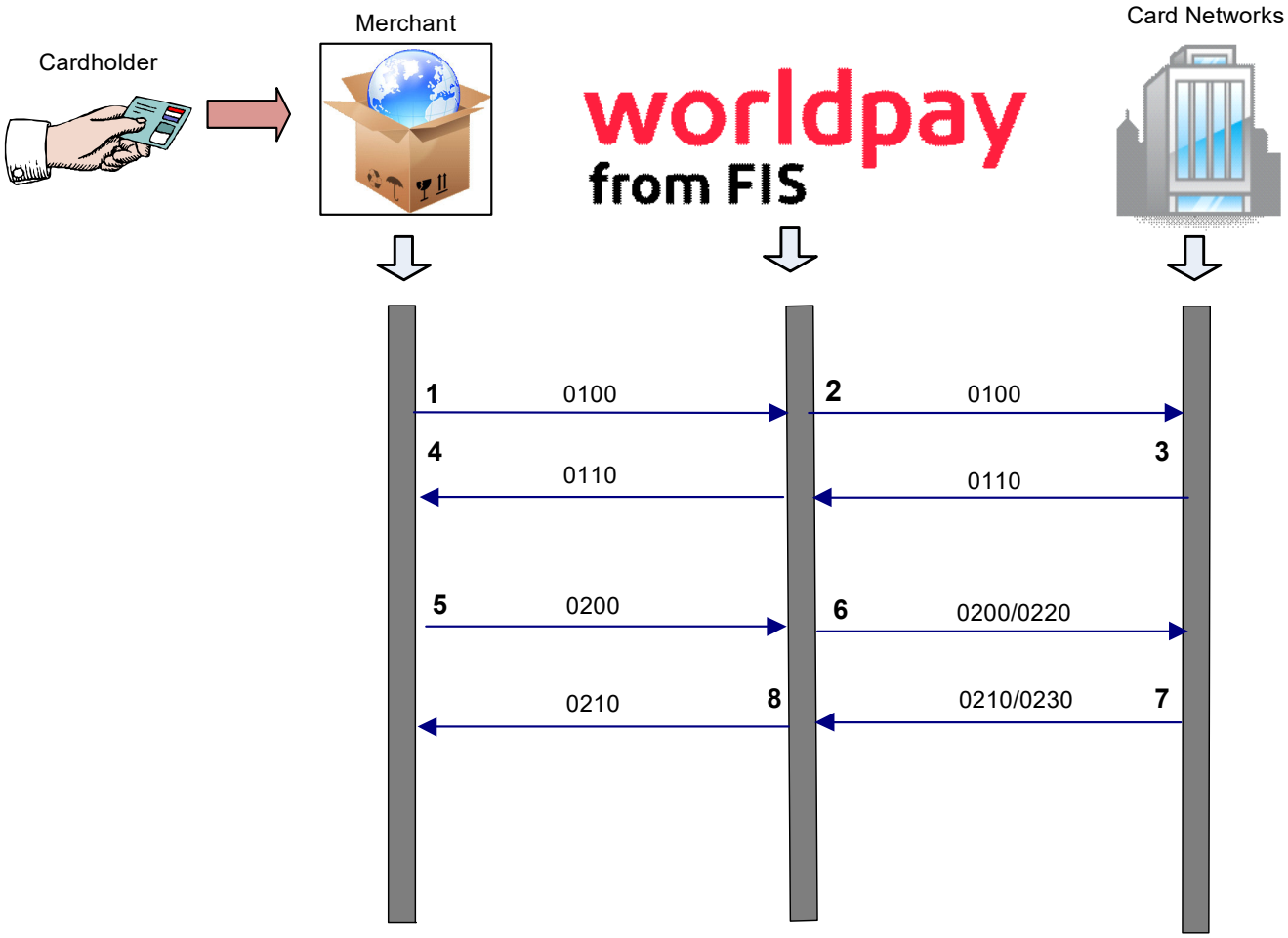


3.2 Preauthorization and Preauthorized Debit Message

In Figure 3-6, the message scenario is as follows:

1. The intercept sends a 0100 preauthorization request message.
2. Worldpay routes the 0100 preauthorization request message to the processor.
3. The processor sends a 0110 preauthorization request response message.
4. Worldpay routes the 0110 preauthorization request response message to the intercept.
5. The intercept sends a 0200 request message with the full amount of the preauthorization and the actual debit amount. Field 060 - Additional POS Data) should contain a 4 in POS Transaction Status Indicator.
6. Worldpay routes an 0200/0220 message to the processor.
7. The processor sends an 0210/0230 request response message.
8. Worldpay routes the 0210 request response message to the intercept.

FIGURE 3-6 Debit Authorization Followed By Debit

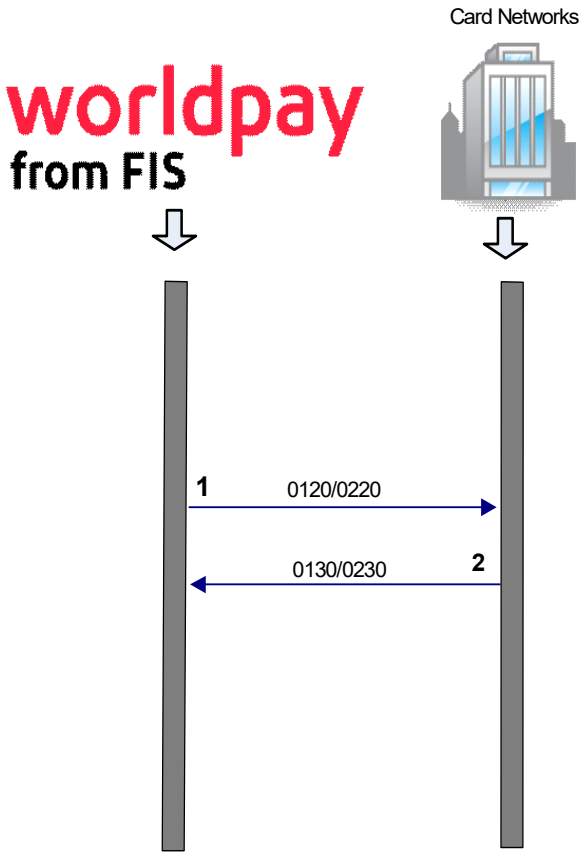


3.3 Debit Authorization/Financial Transaction Advice Message

In Figure 3-7, the message scenario is as follows:

1. Worldpay sends a 0120/0220 advice request message to the processor.
2. The processor sends a 0130/0230 advice request response message.

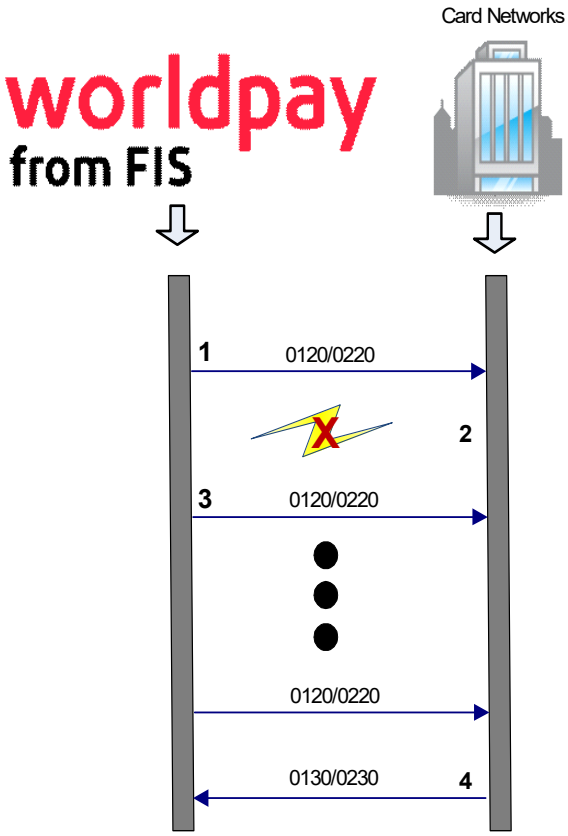
FIGURE 3-7 Debit Authorization/Financial Transaction Advice Request with Response



In Figure 3-8, the message scenario is as follows:

1. Worldpay sends a 0120/0220 advice request message to the processor.
2. Worldpay does not receive a response message within the specified time period.
3. Worldpay continues to send the 0120/0220 advice request message until the processor responds.
4. The processor sends a 0130/0230 advice request reply message.

FIGURE 3-8 Debit Authorization/Financial Transaction Advice Request With Repeat

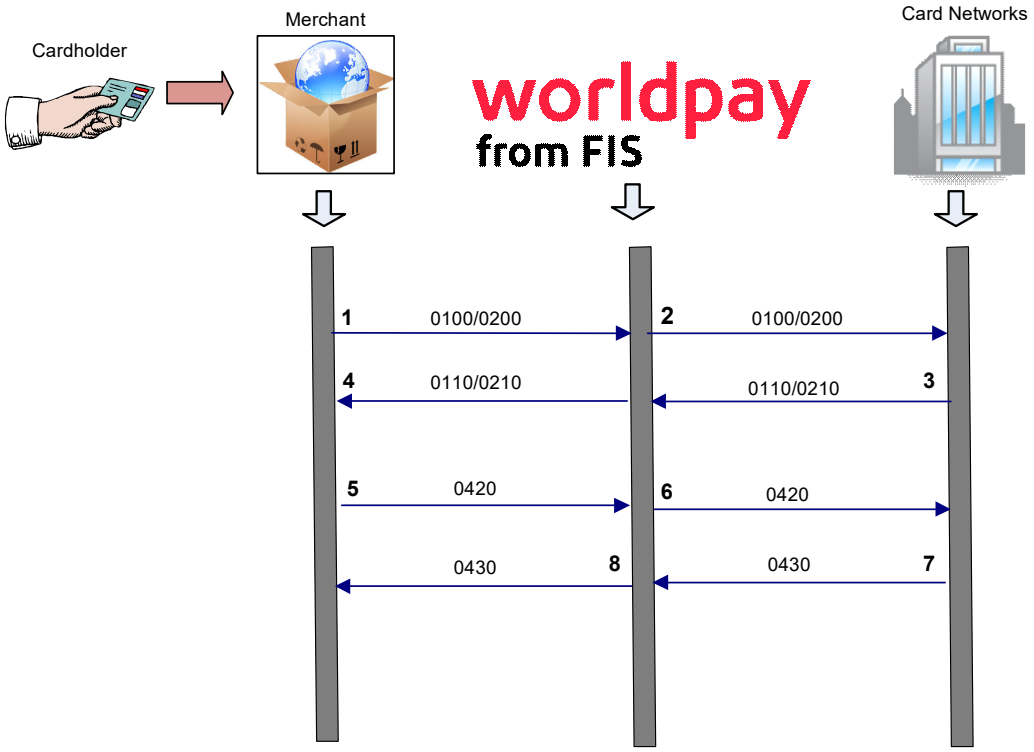


3.4 Debit Authorization/Financial Transaction Reversal Message

In Figure 3-9, the message scenario is as follows:

1. The intercept sends a 0100/0200 request message.
2. Worldpay routes the 0100/0200 request message to the processor.
3. The processor sends a 0110/0210 request response message.
4. Worldpay routes the 0110/0210 response message to the intercept.
5. The intercept sends a 0420 reversal request message.
6. Worldpay routes the 0420 reversal request message to the processor.
7. The processor sends a 0430 reversal request response message.
8. Worldpay routes the 0430 reversal request response message to the intercept.

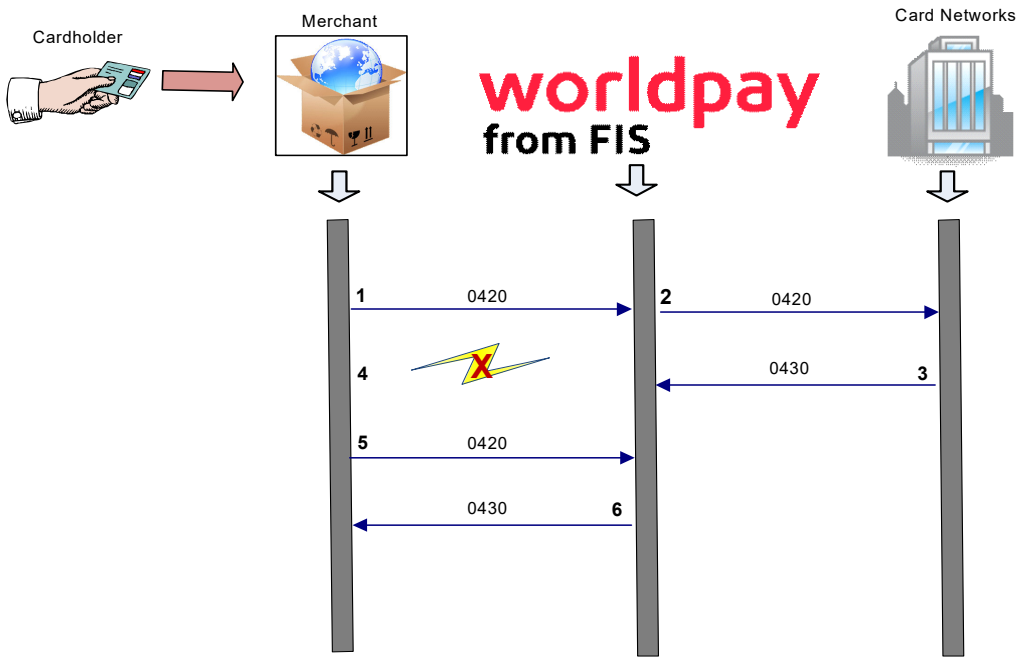
FIGURE 3-9 Debit Authorization/Financial Transaction Reversal Request With Response



In Figure 3-10, the message scenario is as follows:

1. The intercept sends a 0420 reversal request message.
2. Worldpay routes the 0420 reversal request message to the processor.
3. The processor sends a 0430 reversal request response message.
4. The intercept does not receive a response message within the specified time period.
5. The intercept continues to send the 0420 reversal request message.
6. Worldpay routes a 0430 reversal response message to the intercept.

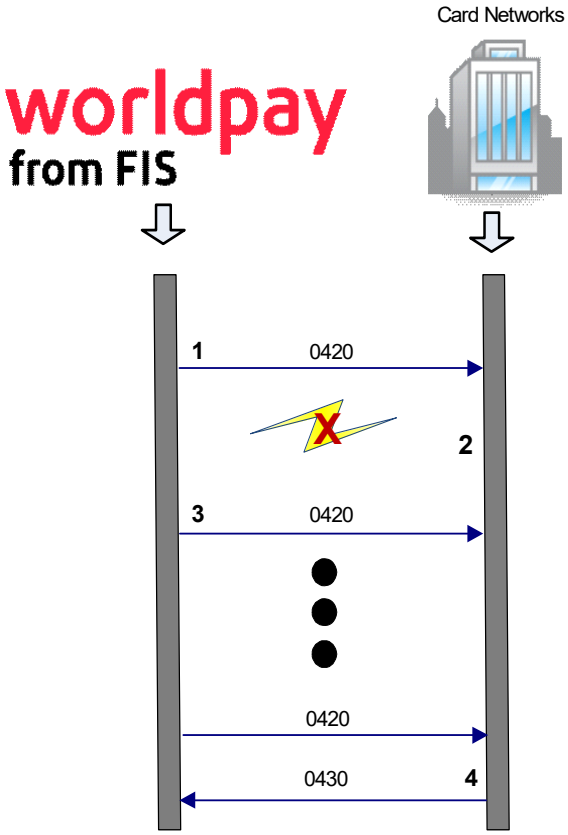
FIGURE 3-10 Debit Authorization/Financial Transaction Reversal Response Timeout With Repeat



In Figure 3-11, the message scenario is as follows:

1. Worldpay sends a 0420 reversal request message to the processor.
2. Worldpay does not receive a response message within the specified time period.
3. Worldpay continues to send the 0420 reversal request message until the processor responds.
4. The processor sends a 0430 reversal request reply message.

FIGURE 3-11 Debit Authorization/Financial Transaction Reversal Response Time Out



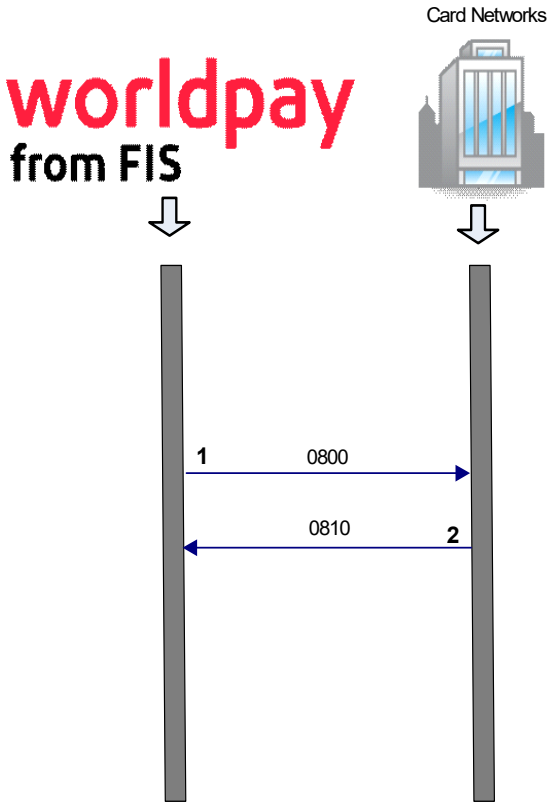
3.5 Signon Messages

The Network Management Information Code for this message is 001.

In Figure 3-12, the message scenario is as follows:

1. Worldpay sends a 0800 signon request to a host.
2. A 0810 request response message must acknowledge the 0800 request message. This signs the host on and financial transactions can flow in both directions.

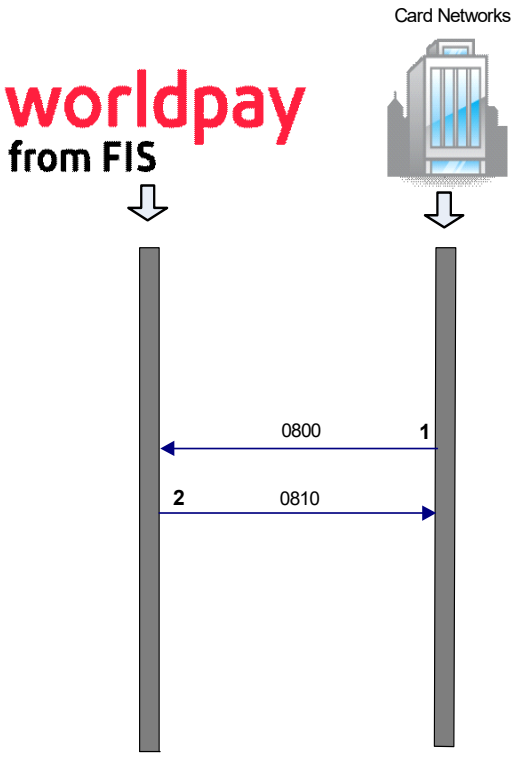
FIGURE 3-12 Signon Message - Worldpay originated



In Figure 3-13, the message scenario is as follows:

1. The issuer sends a 0800 signon request to Worldpay.
2. A 0810 request response message must acknowledge the 0800 request message. This signs the issuer on and financial transactions can flow in both directions.

FIGURE 3-13 Signon Message - non-Worldpay originated



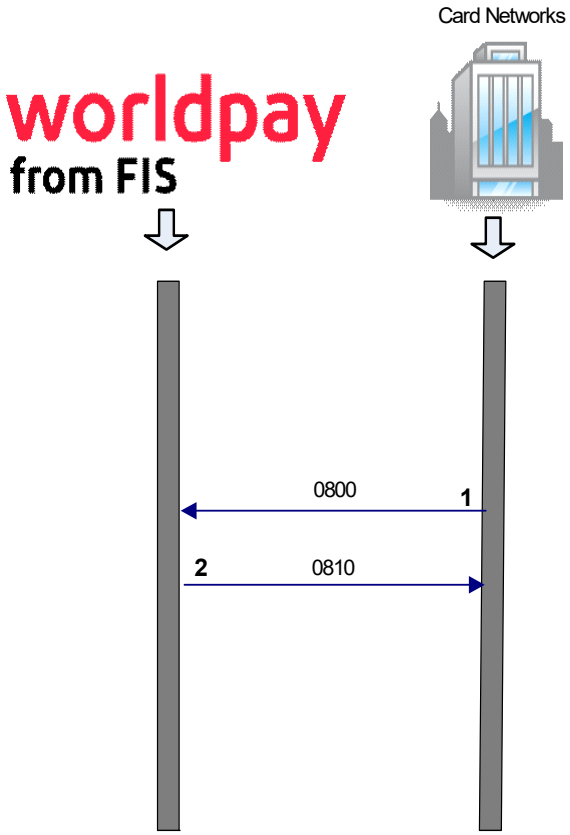
3.6 Signoff Messages

The Network Management Information Code for this message is 002.

In Figure 3-14, the message scenario is as follows:

1. The issuer sends a 0800 signoff request to Worldpay.
2. A 0810 request response message must acknowledge the 0800 request message. This signs the issuer off.

FIGURE 3-14 Signoff Message - non-Worldpay originated



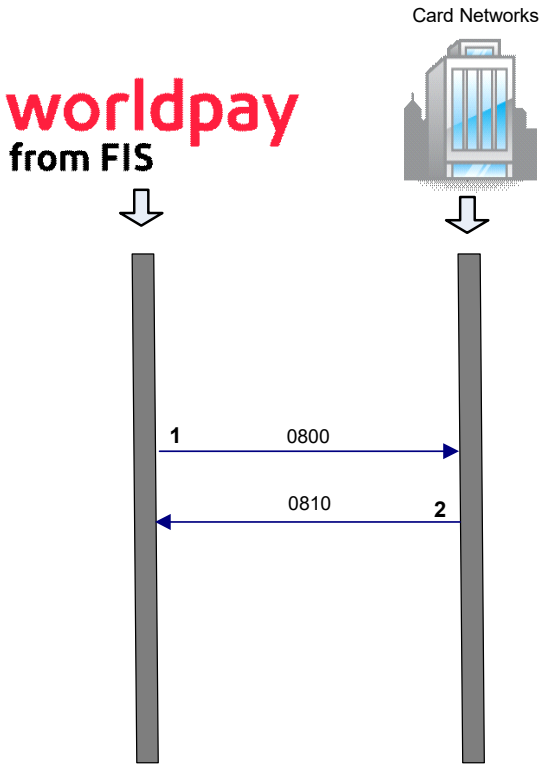
3.7 Echo Test Messages

The Network Management Information Code for this message is 301.

In Figure 3-15, the message scenario is as follows:

1. Worldpay sends a 0800 signon request to an issuer.
2. A 0810 request response message must acknowledge the 0800 request message.

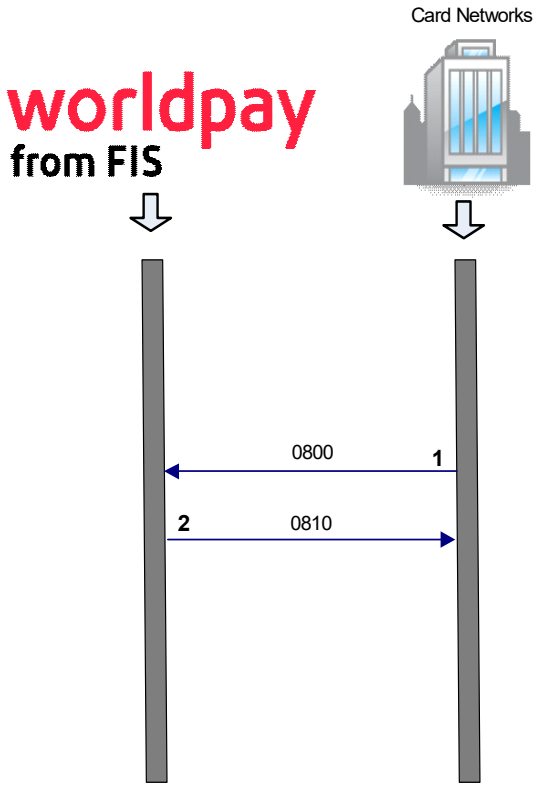
FIGURE 3-15 Worldpay Originated Echo Test Message



In Figure 3-16, the message scenario is as follows:

1. The issuer sends a 0800 signon request to Worldpay.
2. A 0810 request response message must acknowledge the 0800 request message.

FIGURE 3-16 Non-Worldpay Originated Echo Test Message



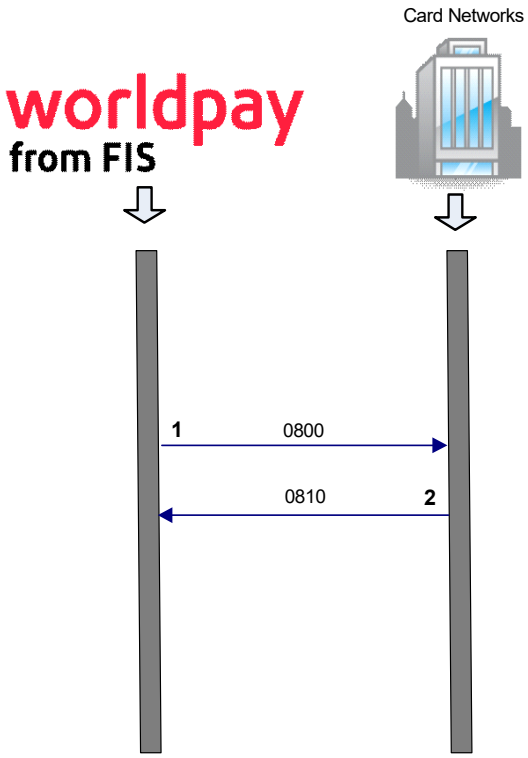
3.8 New Working Key Messages

The Network Management Information Code for this message is 101.

In Figure 3-17, the message scenario is as follows:

1. The primary endpoint, which controls the keys, originates the 0800 key change message which contains the encrypted new working key.
2. The secondary endpoint changes its working key and replies with a 0810 request response message.

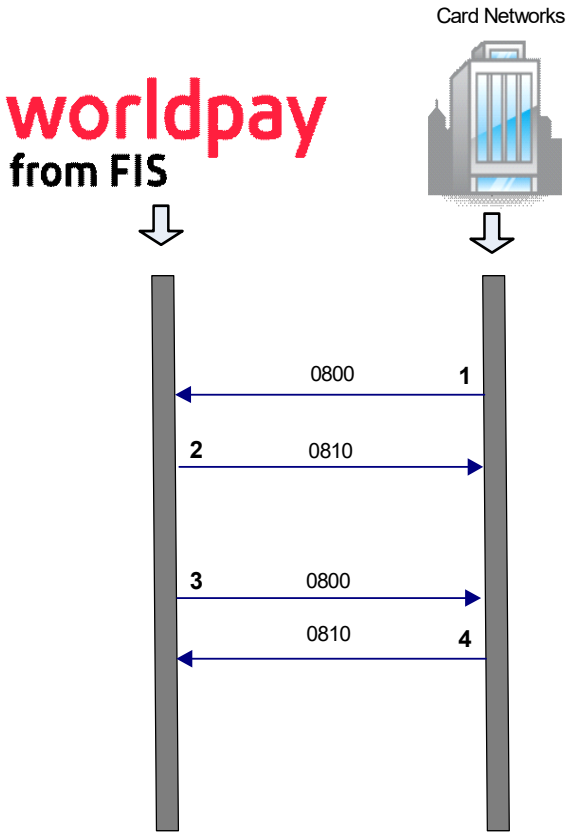
FIGURE 3-17 New Working Key Message



In Figure 3-18, the message scenario is as follows:

1. The secondary endpoint, which does not control the keys, originates the 0800 request for new working key message.
2. The primary endpoint acknowledges the request and replies with a 0810 request response message.
3. The primary endpoint, which controls the keys, originates the 0800 key change message which contains the encrypted new working key.
4. The secondary endpoint changes its working key and replies with a 0810 request response message.

FIGURE 3-18 Request For New Working Key Messages



3.9 Errored Transaction

The Network Management Information Code for this message is 900.

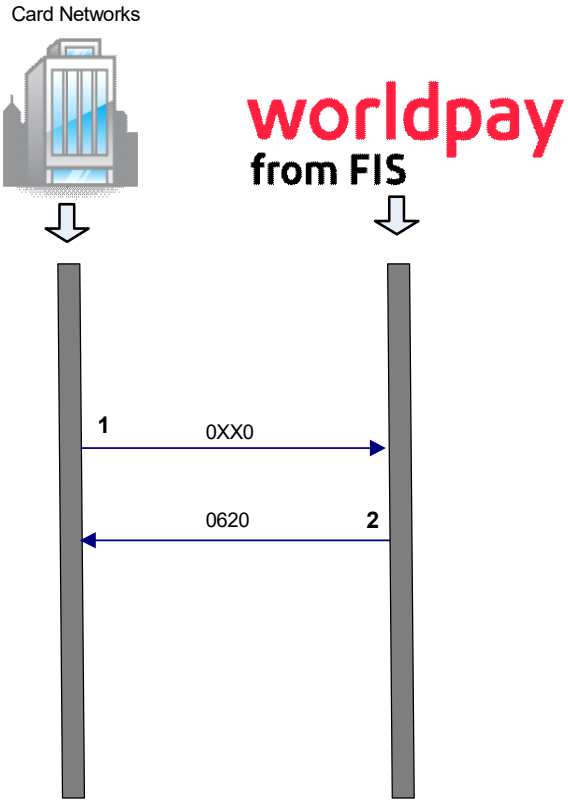
In Figure 3-19, the message scenario is as follows:

1. The host delivers a message that Worldpay cannot recognize and process.

   Upon receipt of an unrecognized message, Worldpay may format a 0620 advice (reject) message.

2. The endpoint that receives a 0620 advice (reject) message should examine Field 048 - Additional Data (Private) to determine which message was rejected.

FIGURE 3-19 Administrative Advice (Reject) Message



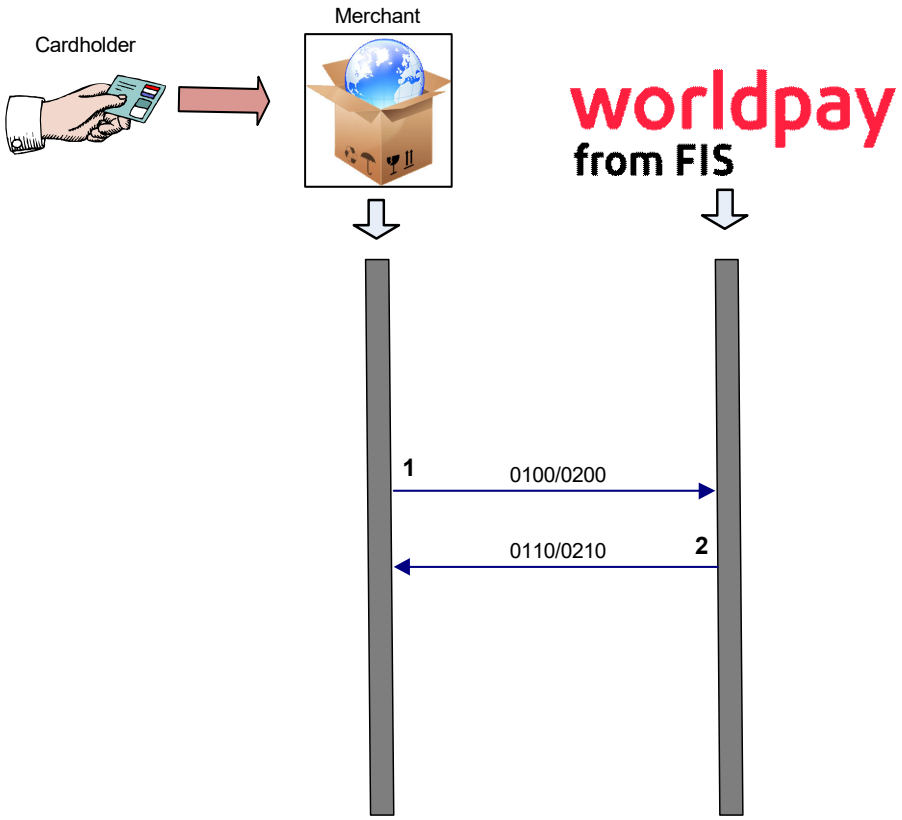
NOTE: The 0620 errored advice is strictly for use by Worldpay to send to the host in the event that it receives an invalid message. Under no circumstances should Worldpay receive a 0620 errored transaction message from the host.

3.10 Host-Data-Capture Request Messages

In Figure 3-20, the message scenario is as follows:

1. The intercept formats an 0100/0200 request message according to the Debit/Host-Data-Capture Message Set. The 0100 message is only used if the transaction is a credit card preauthorization transaction; otherwise, it uses a 0200 message. Ensure that the account code in Field 003 - Processing Code is 30 (Debit Inquiry).
2. Worldpay sends a 0110/0210 request response message.

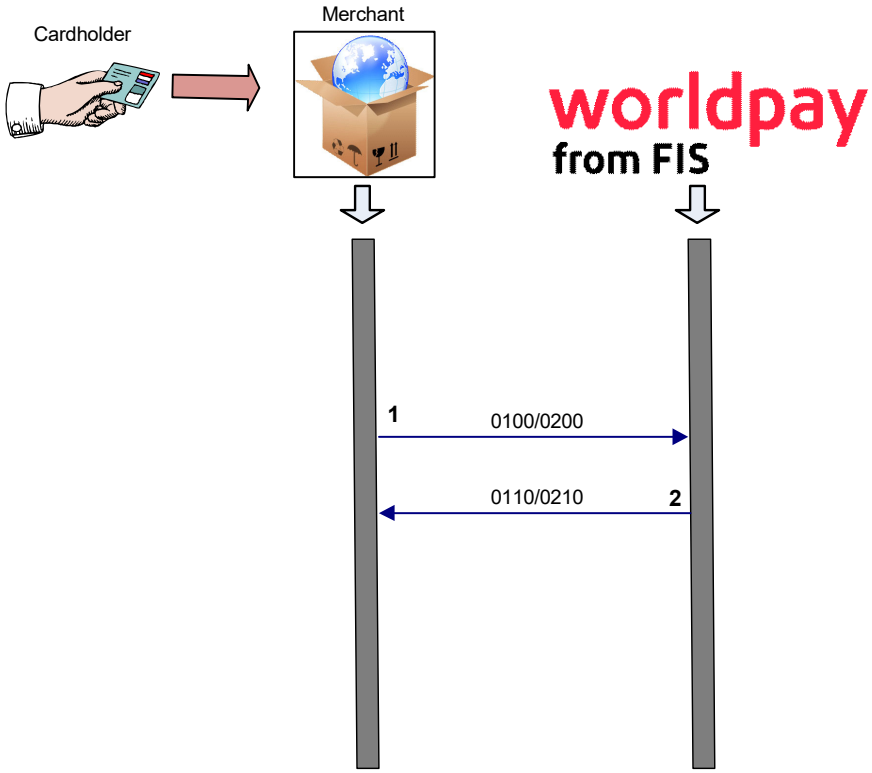
FIGURE 3-20 Credit/Fleet Card Transaction Request With Response



In Figure 3-21, the message scenario is as follows:

1. The intercept formats an 0100/0200 request message according to the Debit/Host-Data-Capture Message Set. The 0100 message is only used if the transaction is a preauthorization transaction, otherwise an 0200 message is used. Never make the account code in Field 003 - Processing Code 30.
2. Worldpay sends a 0110/0210 request response message.

FIGURE 3-21 Debit/EBT Card Transaction Request With Response



3.11 Financial Transaction With Merchant Stand-In and EBT Voucher Clear

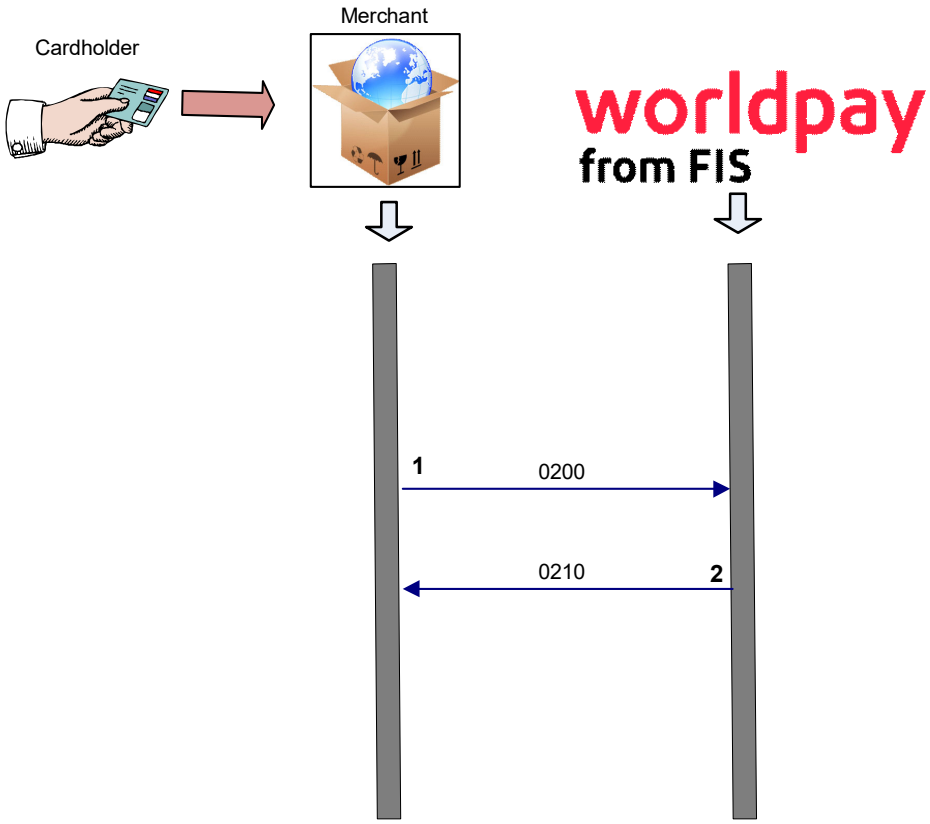
In Figure 3-22, the message scenario is as follows:

1. The intercept formats a financial transaction request message.

   Terminal Type of Field 060 - Additional POS Data should contain the terminal type of the original transaction. POS Transaction Status Indicator should contain an 8 (Merchant Stand-in down-time submission request) if the PIN is sent in the message. For PIN-less re-submissions and voucher clear transactions, it should contain a 9 (Merchant Stand-in re-submission request, PIN-less).

2. Worldpay sends a 0210 financial request response message.

FIGURE 3-22 Financial Transaction With Merchant Stand-In and EBT Voucher Clear

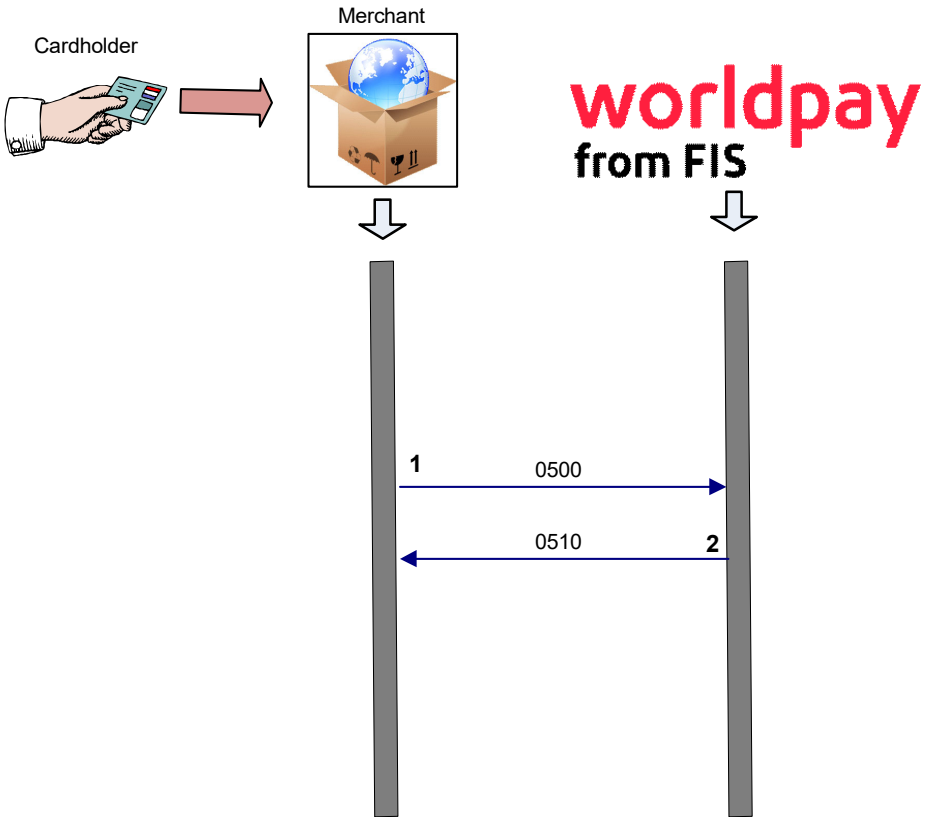


3.12 Acquirer Reconciliation Request Messages

In Figure 3-23, the message scenario is as follows:

1. The host-data-capture intercept sends a 0500 acquirer reconciliation message request to Worldpay.
2. Worldpay sends a 0510 acquirer reconciliation reply to the intercept.

FIGURE 3-23 Acquirer Reconciliation Request Messages



worldpay

4

Check Authorization

Each message type has certain field requirements. This chapter describes each Message Type Identifier and lists the fields required to successfully convey check authorization messages.

4.1 Traditional Check Authorization Messages

The section describes the check authorization request and response messages.

4.1.1 0100 - Check Authorization Request

This requests an authorization from a check authorizer for a transaction to proceed. It has the following message flow:

Acquirer →→→→ Authorizer

Table 4-1 outlines the field requirements for each message type.

TABLE 4-1 0100 Traditional Check Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this field if the message includes any field from Field 65 through Field 128.
003	Primary Account Number (PAN)	nP6	M	
004	Transaction Amount	nP12	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	
013	Local Transaction Date	nP4	M	
015	Settlement Date	nP4	M	
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	O	The request requires this field if the country code is not 840 (United States).
022	Point of Service Entry Mode	nP4	O	The request requires this for transactions from the POS device.
025	Point of Service Condition Mode	nP2	M	

TABLE 4-1 0100 Traditional Check Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
032	Acquiring Institution Identification Code	LL nP11	M	
037	Retrieval Reference Number	an12	M	This field is mandatory for HDC authorizations; however, you cannot use it for EMD.
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	O	
043	Card Acceptor Name and Location Data	ans40	O	
048	Additional Data (Private)	LLL ans255	C	
049	Transaction Currency Code	nP3	M	
059	National Point of Service Geographic Data	LLL ans999	C	
060	Additional POS Data	LLL ans999	M	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	O	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.8	From Account Qualifier	nP3	O	

TABLE 4-1 0100 Traditional Check Authorization Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.9	To Account Qualifier	nP3	O	
062.11	Driver's License Number	an32	C	
062.12	Short MICR Data	an32	C	
062.13	Full MICR Data	an36	C	
062.14	Date of Birth	n6	C	
062.15	State Code	an2	C	
062.16	Check Number	an6	C	
062.17	Phone Number and ZIP Code	an16	C	
062.19	Station Number	an10	M	
062.24	Check Auth Check Type	an1	C	
120	Additional Request Data	LLL ans999	O	
123	Merchant Name	an15	O	

4.1.2 0110 - Check Authorization Request Response

This response acknowledges the acceptance of the 0100 message and carries the result of the request. It has the following message flow:

Acquirer ←←←← Authorizer

Table 4-2 outlines the field requirements for each message type.

TABLE 4-2 0110 Traditional Check Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this field if the message includes any field from Field 65 through Field 128.
003	Secondary Bit Map	nP6	M	
004	Transaction Amount	nP12	M	The response copies this from the 010X message.

TABLE 4-2 0110 Traditional Check Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	The response copies this from the 010X message.
012	Local Transaction Time	nP6	M	The response copies this from the 010X message.
013	Local Transaction Date	nP4	M	The response copies this from the 010X message.
015	Settlement Date	nP4	M	
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	O	
032	Acquiring Institution Identification Code	LL nP11	M	The response copies this from the 010X message.
037	Retrieval Reference Number	an12	M	The response copies this from the 010X message or it is generated by the processor if not present.
038	Authorization Identification Response	an6	C	This field is sent if the transaction is approved.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	M	The response copies this from the 010X message.
042	Card Acceptor Identification	ans15	O	
043	Card Acceptor Name and Location Data	ans40	O	
048	Additional Data (Private)	LLL ans255	C	The response requires this if it receives it in the 010X message.
049	Transaction Currency Code	nP3	M	The response copies this from the 010X message.
059	National Point of Service Geographic Data	LLL ans999	C	The response requires this field if it receives it in a 010X message.

TABLE 4-2 0110 Traditional Check Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
060	Additional POS Data	LLL ans999	M	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	O	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.11	Driver's License Number	an32	C	The response requires this field if the 0100 message sends it.
062.12	Short MICR Data	an32	C	The response requires this field if the 0100 message sends it.
062.13	Full MICR Data	an36	C	The response requires this field if the 0100 message sends it.
062.14	Date of Birth	n6	C	The response requires this field if the 0100 message sends it.
062.15	State Code	an2	C	The response requires this field if the 0100 message sends it.

TABLE 4-2 0110 Traditional Check Authorization Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.16	Check Number	an6	C	The response requires this field if the 0100 message sends it.
062.17	Phone Number and ZIP Code	an16	C	The response requires this field if the 0100 message sends it.
062.19	Station Number	an10	M	
062.24	Check Auth Check Type	an1	C	The response requires this field if the 0100 message sends it.
062.25	Check Authorization Comment Field	LLL ans192	C	The response uses this field in echo check authorization messages.

4.2 Electronic Check Conversion (ECC) Messages

The check conversion message set has the following transactions it can submit in the POS check service to convert checks at the point of sale:

- Conversion Only - The authorization request message is routed to the participating drawee bank or third-party authorizing agent, which approves or declines the transaction by checking the status of the account. The merchant retains the risk of loss.
- Verification with Conversion - The authorization request message is routed to the participating drawee bank or a third party authorizing agent for verification of the probability that the customer can pay for the transaction. The participating drawee bank makes an approval or decline decision based on access to the demand deposit account and information on funds availability at the time of the request. The third-party authorizing agent makes an approval or decline decision based on its risk management database. The merchant retains the risk of loss.
- Guarantee with Conversion - The authorization request message is routed to the participating drawee bank or third-party authorizing agent to guarantee the transaction. A POS check transaction guarantor effectively buys the transaction from the merchant at a discount, eliminating the risk of loss to the merchant from customer non-payment. The guarantor makes an approval or decline decision based on access to the DDA account, a third-party risk management database, or both. The guarantor bears the risk of loss, provided all acceptance criteria have been met.

4.2.1 Special Processing Considerations

Processing Code (003)

Subfield 1 (Transaction Type) (see Table 5-3) can have any of the following values for EMC messages:

- 61 – ECC Check Conversion Only
- 62 – ECC Check Verification with Conversion
- 63 – ECC Check Guarantee with Conversion

Point of Service Entry Mode (22)

Subfield 1 (see Table 5-6) requires a value of 7 (Swiped MICR).

Vantiv Transaction Data (Bit 62)

This requires Field 062.2 - Terminal Sequence Number and Field 62.33 - Check Authorization Information (Deprecated).

4.2.2 0200 - Check Conversion Request

This requests authorization from a check authorizer for a transaction to proceed. It has the following message flow:

Acquirer →→→→ Authorizer

TABLE 4-3 0200 Electronic Check Conversion Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this field if the message includes any field from Field 65 through Field 128.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	
013	Local Transaction Date	nP4	M	
018	Merchant Type	nP4	M	
019	Acquiring Institution Country Code	nP3	C	The request requires this field if the country code is not 840 (US).
022	Point of Service Entry Mode	nP4	M	
025	Point of Service Condition Code	nP2	M	
032	Acquiring Institution Identification Code	LL nP11	M	
037	Retrieval Reference Number	an12	M	
041	Card Acceptor Terminal Identification	ans15	M	
042	Card Acceptor Identification	ans15	O	
043	Card Acceptor Name and Location Data	ans40	M	
048	Additional Data (Private)	LLL ans255	O	
049	Transaction Currency Code	nP3	M	

TABLE 4-3 0200 Electronic Check Conversion Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
054	Additional Amounts	LLL ans120	C	The request sends this field if transaction related amounts are present.
059	National Point of Service Geographic Data	LLL ans999	O	
060	Additional POS Data	LLL ans999	M	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.4	Acquiring Institution Acronym	an4	O	
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.10	POS Batch Reference Number	b16	O	
062.11	Driver's License Number	an32	O	
062.12	Short MICR Data	an32	C	The request must send some sort of MICR Data.
062.13	Full MICR Data	an36	C	The request must send some sort of MICR Data.
062.14	Date of Birth	n6	O	
062.15	State Code	an2	O	
062.16	Check Number	an6	O	

TABLE 4-3 0200 Electronic Check Conversion Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.17	Phone Number and ZIP Code	an16	O	
062.19	Station Number	an10	O	
062.22	Check Type	an1	O	
062.24	Check Auth Check Type	an1	O	
062.33	Check Authorization Information (Deprecated)	LL ans255	M	
062.36	Variable MICR Data (Deprecated)	LL ans63	C	The request must send some sort of MICR Data.
120	Additional Request Data	LLL an999	O	
123	Merchant Name	an15	O	

4.2.3 0210 - Check Conversion Request Response

This response acknowledges the acceptance of the 0200 message and carries the result of the request. It has the following message flow:

Acquirer →→→→ Authorizer

TABLE 4-4 0210 Electronic Check Conversion Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	C	The request requires this field if the message includes any field from Field 65 through Field 128.
003	Processing Code	nP6	M	
004	Transaction Amount	nP12	M	The response copies this from the 02XX message.
007	Transmission Date and Time	nP10	M	
011	Systems Trace Audit Number	nP6	M	The response copies this from the 02XX message.

TABLE 4-4 0210 Electronic Check Conversion Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
012	Local Transaction Time	nP6	M	The response copies this from the 02XX message.
013	Local Transaction Date	nP4	M	The response copies this from the 02XX message.
015	Settlement Date	nP4	M	
018	Merchant Type	nP4	O	
019	Acquiring Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	O	
032	Acquiring Institution Identification Code	LL nP11	M	The response copies this from the 02XX message.
037	Retrieval Reference Number	an12	M	The response copies this from the 02XX message or this is generated by the processor if not present.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	M	The response copies this from the 02XX message.
042	Card Acceptor Identification	ans15	O	
043	Card Acceptor Name and Location Data	ans40	O	
048	Additional Data (Private)	LLL ans255	C	The response requires this if it receives it in the 02XX message.
049	Transaction Currency Code	nP3	M	The response copies this from the 02XX message.
059	National Point of Service Geographic Data	LLL ans999	C	The response Required if received in 02XX message
060	Additional POS Data	LLL ans999	M	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

TABLE 4-4 0210 Electronic Check Conversion Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.2	Terminal Sequence Number	nP6	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.10	POS Batch Reference Number	b16	C	
062.25	Check Authorization Comment Field	LLL ans192	O	
062.33	Check Authorization Information (Deprecated)	LL ans255	M	
062.34	Returned Check Fee (Deprecated)	an3	O	
062.35	Parsed MICR (Deprecated)	LL ans50	O	

The Electronic Check Conversion Reversal Request in Table 4-5 is only sent if required by or transmitted from another network and is present if the cardholder and transaction currencies are not the same.

TABLE 4-5 0420 Electronic Check Conversion Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	
003	Processing Code	nP6	M	The request copies this from the 02XX message.
004	Transaction Amount	nP12	M	The request copies this from the 02XX message.
005	Settlement Amount	nP12	C	If present, the request copies this from the 02XX message.
006	Cardholder Billing Amount	nP12	C	If present, the request copies this from the 02XX message.
007	Transmission Date and Time	nP10	M	

TABLE 4-5 0420 Electronic Check Conversion Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
009	Settlement Conversion Rate	nP8	C	If present, the request copies this from the 02XX message.
010	Cardholder Billing Conversion Rate	nP8	C	If present, the request copies this from the 02XX message.
011	Systems Trace Audit Number	nP6	M	
012	Local Transaction Time	nP6	M	If present, the request copies this from the 02XX message.
013	Local Transaction Date	nP4	M	If present, the request copies this from the 02XX message.
015	Settlement Date	nP4	O	
016	Conversion Date	nP4	C	This is not sent to the issuer in reversals unless either the acquirer supplied them or the issuer included these data elements in its reply to the switch.
017	Capture Date	nP4	C	If present, the request copies this from the 02XX message.
018	Merchant Type	nP4	M	If present, the request copies this from the 02XX message.
019	Acquiring Institution Country Code	nP3	C	The request requires this field if the country code is not 840 (US).
021	Forwarding Institution Country Code	nP3	O	
022	Point of Service Entry Mode	nP4	M	
025	Point of Service Condition Code	nP2	C	If present, the request copies this from the 02XX message.
032	Acquiring Institution Identification Code	LL nP11	M	The request copies this from the 02XX message.
037	Retrieval Reference Number	an12	M	The request copies this from the 02XX message.
039	Response Code	an2	M	The request copies this from the 02XX message.
041	Card Acceptor Terminal Identification	ans15	M	If present, the request copies this from 02XX message.
042	Card Acceptor Identification	ans15	O	

TABLE 4-5 0420 Electronic Check Conversion Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
043	Card Acceptor Name and Location Data	ans40	M	
048	Additional Data (Private)	LLL ans255	C	If present, the request copies this from the 02XX message.
049	Transaction Currency Code	nP3	M	The request copies this from the 02XX message.
051	Cardholder Billing Currency Code	nP3	C	If present, the request copies this from the 02XX message.
054	Additional Amounts	LLL ans120	C	The request sends this if transaction related amounts are present. This is not sent to the issuer in reversals unless either the acquirer supplied them or the issuer included these data elements in its reply to the switch.
059	National Point of Service Geographic Data	LLL ans999	C	If present, the request copies this from the 02XX message.
060	Additional POS Data	LLL ans999	M	If present, the request copies this from the 02XX message.
061	Network Specific Information	LLL ans999	O	
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	The request copies this from the response.
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	O	
062.5	Issuing Institution Acronym	an4	O	

TABLE 4-5 0420 Electronic Check Conversion Reversal Request

Bit	ISO Field Name	Data Type	Intercept Req	Notes
062.6	Owner Settlement Agent	an4	O	
062.7	Cardholder Settlement Agent	an4	O	
062.10	POS Batch Reference Number	b16	O	
062.11	Driver's License Number	an32	O	
062.12	Short MICR Data	an32	C	The field must send some format of MICR Data.
062.13	Full MICR Data	an36	C	The field must send some format of MICR Data.
062.14	Date of Birth	n6	O	
062.15	State Code	an2	O	
062.16	Check Numberr	an6	O	
062.17	Phone Number and ZIP Code	an16	O	
062.19	Station Number	an10	O	
062.22	Check Type	an1	O	
062.24	Check Auth Check Type	an11	O	
062.33	Check Authorization Information (Deprecated)	LL ans255	M	
062.36	Variable MICR Data (Deprecated)	LL ans63	C	The field must send some format of MICR Data.
063	Negative File/Reversal/Merchant Advice Reason Code	an2	M	
090	Original Data Elements	nP42	M	
099	Card Institution ID Code	LLd nP11	O	
102	Account Identification I	LLd nP28	O	
103	Account Identification 2	LLd nP28	O	
120	Additional Request Data	LLL ans999	O	
123	Merchant Name	an15	O	

TABLE 4-6 0430 Electronic Check Conversion Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
0.1	Message Type ID	nP4	M	
0.2	Primary Bit Map	b64	M	
001	Secondary Bit Map	b64	M	The request requires this field if the message includes any field from Field 65 through Field 128.
003	Processing Code	nP6	M	The response copies this from the 0420 message.
004	Transaction Amount	nP12	M	The response copies this from the 0420 message.
005	Settlement Amount	nP12	C	This field is present if the transaction and settlement currencies are not the same.
007	Transmission Date and Time	nP10	M	
009	Settlement Conversion Rate	nP8	C	This field is present if the transaction and settlement currencies are not the same.
011	Systems Trace Audit Number	nP6	M	The response copies this from the 0420 message.
012	Local Transaction Time	nP6	M	The response copies this from the 0420 message.
013	Local Transaction Date	nP4	M	The response copies this from the 0420 message.
015	Settlement Date	nP4	M	
018	Merchant Type	nP4	M	
021	Forwarding Institution Country Code	nP3	O	If present, the response copies this from the 0420 message.
032	Acquiring Institution Identification Code	LL nP11	O	
037	Retrieval Reference Number	an12	M	The response copies this from the 0420 message.
039	Response Code	an2	M	
041	Card Acceptor Terminal Identification	ans15	O	If present, the response copies this from the 0420 message.
042	Card Acceptor Identification	ans15	O	

TABLE 4-6 0430 Electronic Check Conversion Reversal Response

Bit	ISO Field Name	Data Type	Intercept Req	Notes
044	Additional Response Data	LLL ans5	O	If present, the response copies this from the 0420 message.
048	Additional Data (Private)	LLL ans255	C	If present, the response copies this from the 0420 message.
049	Transaction Currency Code	nP3	M	The response copies this from the 0420 message.
061	Network Specific Information	LLL ans999	O	If present, the response copies this from the 0420 message.
062	Vantiv Transaction Data	LLL ans999	M	See Vantiv Transaction Data on page 332 for subfield descriptions concerning individual requirements. All subfields are optional unless otherwise specified or are needed for a specific product. The entire length of the data portion of the field is LLL, and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.
062.2	Terminal Sequence Number	nP6	M	
062.3	Transaction Qualifier	nP3	O	
062.4	Acquiring Institution Acronym	an4	M	
062.5	Issuing Institution Acronym	an4	M	
062.6	Owner Settlement Agent	an4	M	
062.7	Cardholder Settlement Agent	an4	M	
062.10	POS Batch Reference Number	b16	C	
062.25	Check Authorization Comment Field	LLL ans192	O	
062.33	Check Authorization Information (Deprecated)	LL ans255	M	
062.34	Returned Check Fee (Deprecated)	nP3	O	
062.35	Parsed MICR (Deprecated)	LL ans50	O	
090	Original Data Elements	nP42	M	The response copies this from the 0420 message.

worldpay

5

Message Field Definitions

This chapter describes all fields currently supported by the Worldpay ISO format. See Table 1-1 for more information about the abbreviations contained in the request and response tables.

Field 0.1 Terminal Application Header

Attributes

ans 3

Description

Use this field to supplement the standard host data capture message set for use explicitly with the Worldpay terminal processing platform.The application message requires this header to indicate that the ISO message participates in the Worldpay terminal processing platform. It comes immediately before the message id and returns in the reply message as sent. The header is made up of a message identifier (M), a character encoding set (A or E for ASCII or EBCDIC respectively) and an end sentinel (.).

For more information about terminal processing requirements, see Appendix E, "Worldpay Terminal Processing Information".

Format

Table 5-1 lists the applicable header values.

TABLE 5-1 Terminal Application Header Values

Value	Description	Comments
MA.	ISO message using ASCII character encoding	Represented as x'4D412E'
ME.	ISO message using EBCDIC character encoding	Represented as x'D4C54B'

Field 0.2 Message Type ID

Attributes

nP 4, 2 bytes

Description

This field identifies the type of interchanged message.

Format

Table 5-2 lists the allowed values.

TABLE 5-2 Message Type ID Allowed Values

Value	Description
0100	Authorization Request
0110	Authorization Reply
0120	Authorization Advice
0130	Authorization Advice Reply
0200	Financial Request
0210	Financial Reply
0220	Financial Advice
0230	Financial Advice Reply
0302	Card Issuer File Update Request
0312	Card Issuer File Update Reply
0400	Credit Reversal Request
0410	Credit Reversal Reply
0420	Debit/Host-Data-Capture Reversal/Adjustment Advice
0430	Debit/Host-Data-Capture Reversal/Adjustment Advice Reply
0500	Acquirer Reconciliation Request
0510	Acquirer Reconciliation Reply
0620	Administrative Advice
0800	Network Management Request
0810	Network Management Reply

Field 0.3 Primary Bit Map

Attributes

b 64, 8 bytes

Description

This field is a series of 64 bits that indicate the presence of data fields 1 through 64. Setting a bit to a value of 1 indicates the inclusion of the field, while setting a bit to a value of 0 indicates the absence of the field.

Format

The Primary Bit Map must follow the Message Type ID for all interchanged messages.

Field 001 Secondary Bit Map

Attributes

b 64, 8 bytes

Description

This field is a series of 64 bits that identify the presence (bit is set to 1) or absence (bit is set to 0) of Fields 65 through 128.

Format

If the interchanged message contains any fields numbered 65 through 128, you must include this field.

Field 002 Primary Account Number (PAN)

Attributes

LLd nP..19, max 11 bytes

Description

This field is a series of digits that identify a customer account or relationship.

Format

The one-byte length field indicates the actual number of digits in the PAN in binary. For a PAN with an odd number of digits, you must include a leading zero to pad the first half-byte of unused data. All non-original Host Data Capture messages require this field.

For P2P encrypted transactions, omit this field and include encrypted PAN information in Field 100.2 - Encrypted PAN.

For Worldpay token-initiated transactions, include the token and token ID fields in Field 120 - Additional Request Data instead of submitting a clear PAN in this field.

For network payment token initiated transactions, include the network token in this field and the cryptogram in Field 126 - Electronic Commerce/MOTO indicator, if applicable.

If you include the optional CR subfield in Field 120, the response does not include this field; instead, the response returns PAN information in Field 101 - Card Results Field.

Field 003 Processing Code

Attributes

nP 6, 3 bytes

Description

This field identifies the type of the transaction submitted and what accounts, if any, the transaction affects.

Format

This field contains three subfields with defined two-digit numeric codes for each of the individual sub-fields. Table 5-3, Table 5-4, and Table 5-5 provide all valid values and definitions. Zero fill any subfields that do not apply to the transaction.

TABLE 5-3 Subfield 1 - Transaction Type

Value	Message Type ID	Transaction
00	0100/0110 0120/0130 0420/0430	POS Preauthorized Request
00	0100/0110 0120/0130 0400/0410	Credit Purchase
00	0200/0210 0220/0230 0420/0430	POS Preauthorized Debit
00	0200/0210 0220/0230 0420/0430	POS Direct Debit, Credit Purchase
01	0100/0110 0200/0210 0220/0230 0400/0410 0420/0430	Withdrawal/Cash Advance/Credit Cash Advance
03	0100/0110	Traditional Check Guarantee
09	020X/0210 0220/0230 0420/0430	Purchase with Cash Back
17	0100/0110 0110/0210	Traditional Check Verification (Certegy, Echo, TeleCheck, RMRS)
20	0100/0110 0200/0210 0220/0230 0400/0410 0420/0430	Merchandise Return/Credit Merchandise Return
21	0200/0210 0220/0230 0420/0430	Deposit
30	0200/0210	Debit Inquiry
31	0100/0110 0200/0210	Balance Inquiry
32	0200/0210	Mini-Statement
33	0200/0210	Account Inquiry
37	0200/0210	Multiple Account Data Inquiry
38	0200/0210	Check Cleared Inquiry

TABLE 5-3 Subfield 1 - Transaction Type

Value	Message Type ID	Transaction
39	0200/0210	Multiple Account Balance Inquiry
40	0200/0210 0220/0230 0420/0430	Transfer
41	0200/0210 0220/0230 0420/0430	Card Holder Funds Transfer - Debit
42	0200/0210 0220/0230 0420/0430	Card Holder Funds Transfer - Credit
43	0200/0210 0220/0230 0420/0430	Bill Payment Credit
49	0200/0210	Change PIN (See Tran Qualifier)
50	0100/0110 0200/0210 0220/0230 0420/0430	Payment to Third Party (See Tran Qualifier for Signature Authorizations)
51	0200/0210 0420/0430	Gift Card Activation
52	0200/0210 0420/0430	Gift Card Reload
53	0200/0210 0420/0430	Gift Card Unload
54	0200/0210 0420/0430	Gift Card Close
55	0200/0210 0420/0430	Gift Card Purchase
56	0200/0210 0420/0430	Gift Card Refund
57	0200/0210 0420/0430	Gift Card Balance Inquiry
60	0200/0210	Customer Profile (Worldpay Internal Use)
61	0200/0210 0420/0430	ECC Check Conversion Only
62	0200/0210 0420/0430	ECC Check Verification with Conversion
63	0200/0210 0420/0430	ECC Check Guarantee with Conversion
64	0100/0110 0200/0210	Special Inquiry
65	0100/0110 0420/0430	Gift Card Preauthorization
66	0200/0210 0420/0430	Gift Card Preauthorization Completion
67	0200/0210 0420/0430	Gift Card Mass Activation
68	0200/0210	Gift Card Mass Balance Inquiry
69	0200/0210 0420/0430	Gift Card Mass Close
70	0200/0210 0420/0430	Gift Card Mass Reload
71	0200/0210 0420/0430	Gift Card Mass Unload
72	0100/0110 0400/0410	Prepaid Activation
73	0100/0110 0400/0410	Prepaid Load
74	0100/0110 0200/0210	Gift Card STATUS function

TABLE 5-3 Subfield 1 - Transaction Type

Value	Message Type ID	Transaction
75	0100/0110 0200/0210 0420/0430	Gift Card Balance Transfer
76	0200/0210 0420/0430	Gift Card Deactivation (POSA only)
78	0200/0210 0420/0430	Auto Substantiation
79	0200/0210	Healthcare Eligibility Inquiry
80	0100/0110 0200/0210	Currency Conversion Rate Lookup
81	0100/0110 0200/0210	Gift Card Mini-Statement
82	0100/0110 0200/0210	Gift Card Virtual Card Activation
83	0100/0110	Token from Card Request
84	0100/0110	Card from Token Request
85	0100/0110	Convert High Value Token to Low Value Token (Reg-ID)
89	0200/0210	Check Verification
90	0200/0210	ATM Maintenance Functions (See Tran Qualifier)
91	0200/0210	Value Added Transactions (See Tran Qualifier)
92	0500/0510	Settlement End of Day Request
93	0500/0510	Merchant Totals Inquiry (See Tran Qualifier)
94	0200/0210	Card Activation (See Tran Qualifier)

TABLE 5-4 Subfield 2 - From Account

Value	Description
00	Default Account
10	Savings Account
20	Checking Account
30	Credit Card Account
31	Revolving Credit Account
38	Installment Loan Account
39	Mortgage Loan Account
40	Gift Card Account
50	Certificate of Deposit Account
96	Cash Benefit Account

TABLE 5-4 Subfield 2 - From Account

Value	Description
97	WIC EBT Account
98	Food Stamp Account
99	Bill Payment Merchant

TABLE 5-5 Subfield 3 - To Account

Value	Description
00	Default Account
10	Savings Account
20	Checking Account
30	Credit Card Account
31	Revolving Credit Account
38	Installment Loan Account
39	Mortgage Loan Account
40	Gift Card Account
50	Certificate of Deposit Account
96	Cash Benefit Account
97	WIC EBT Account
98	Food Stamp Account
99	Bill Pay Merchant

Field 004 Transaction Amount

Attributes

nP 12, 6 bytes

Description

This field defines the amount of funds requested or remitted by the cardholder in the local currency of the transaction as represented by Field 049 - Transaction Currency Code.

Format

Right justify and zero fill this field. The location of any decimal point is implied based upon Field 49 - Transaction Currency Code.

For full or partial reversals in a Host Data Capture scenario, this amount is the original transaction amount, including any incremental authorizations.

For full or partial reversals in an EMD scenario, this amount is the approved amount of the original transaction.

For WIC purchases, this represents the amount of the transaction before the application of any coupons or discounts.

> **NOTE:** For non-POS credit card transactions, this amount is exclusive of Field 028 - Transaction Fee Amount.
>
> For POS credit card transactions, this amount is inclusive of Field 28 - Transaction Fee Amount.

Field 005 Settlement Amount

Attributes

nP 12, 6 bytes

Description

This field contains the equivalent of Field 004 - Transaction Amount in the currency represented by Field 50 - Settlement Currency Code.

Format

Worldpay currently supports only U.S. Dollars as the settlement currency; therefore; this field contains the equivalent of Field 004 - Transaction Amount in U.S. Dollars with a two digit implied decimal. When doing multi currency conversion (MCC) transactions, the response message includes this field. For MCC transactions this amount is the original foreign transaction amount converted to U.S. Dollars represented by Field 50 - Settlement Currency Code. Field 009 - Settlement Conversion Rate contains the foreign to USD conversion rate.

Notes

Field 50 - Settlement Currency Code is always 840 (U.S. Dollars). This field is optional if Field 004 - Transaction Amount is expressed in U.S. Dollars.

For WIC EBT Transactions, this field represents what was received from the WIC processor as a settlement amount.

Field 006 Cardholder Billing Amount

Attributes

nP 12, 6 bytes

Description

This field contains the equivalent of Field 004 - Transaction Amount in the currency represented by Field 51 - Cardholder Billing Currency Code. This amount is exclusive of Field 28 - Transaction Fee Amount.

The response message contains this field when doing dynamic currency conversion (DCC) transactions. For DCC full and partial reversal requests, this amount is the original transaction amount, including any incremental authorizations expressed in the cardholder's currency represented by Field 51 - Cardholder Billing Currency Code.

Format

Right justify and zero fill this value. The location of any decimal point is implied based on Field 51. For example, transactions using Japanese Yen do not contain any decimal places (1000 Yen = 000000001000) and transactions using Canadian Dollars contain two decimal places (5 Canadian Dollars = 000000000500).

Field 007 Transmission Date and Time

Attributes

nP 10, 5 bytes (MMDDhhmmss)

Description

This field indicates the date and time of the creation of the interchange message in GMT.

Format

The time and date uses Greenwich Mean Time.

Field 008 Not Used

Field 009 Settlement Conversion Rate

Attributes

nP 8, 4bytes

Description

This field defines the factor used in the conversion of Field 004 - Transaction Amount to Field 005 - Settlement Amount. Multiply the value of Field 004 by this rate to obtain the value for Field 005.

Format

The left-most digit represents the number of positions the decimal moves from the right of the conversion rate. Positions 2 through 8 define the conversion rate used (that is, 61012345 is a conversion rate of 1.012345). When doing multi currency conversion (MCC) transactions, the response message includes this field.

Field 010 Cardholder Billing Conversion Rate

Attributes

nP 8, 4 bytes

Description

This field defines the factor used in the conversion of Field 004 - Transaction Amount to Field 006 - Cardholder Billing Amount. Multiply the value of Field 4 by this rate to obtain the value for Field 006. When doing dynamic currency conversion (DCC) transactions, the response message includes this field, Also, you must include this field for DCC full and partial reversal requests of 1 pass transactions and for the second pass of 2 pass transactions.

Format

The left-most digit represents the number of positions the decimal moves from the right of the conversion rate. Positions 2 through 8 define the conversion rate used (that is, 61012345 is a conversion rate of 1.012345).

Field 011 Systems Trace Audit Number

Attributes

nP 6, 3 bytes

Description

This field is a merchant-generated number that identifies the transaction.

Format

It is a required field mirrored back in the response message.

Field 012 Local Transaction Time

Attributes

nP 6, 3 bytes (hhmmss)

Description

This is a required field that uniquely identifies the transaction within the acquirer's system, usually to match a response to a request.

Format

The value in the response must match the one sent in the request.

> **NOTE:** For check authorization acknowledgments and reversals, the local transaction time should match between the original request and the follow-up transaction in order to assist in locating the original transaction information.

Field 013 Local Transaction Date

Attributes

nP 4, 2 bytes (MMDD)

Description

This is a required field that indicates the local date that the transaction took place at the terminal. For advice and reversal transactions, this is the time that the original transaction occurred.

Field 014 Expiration Date

Attributes

nP 4, 2 bytes (YYMM)

Description

This field defines the expiration date of the card used to initiate the transactions.

Requirements

You must include this field in ll non-original Host Data Capture request messages or if you do not supply Field 45 - Track I Data or Field 35 - Track II Data. Transactions that do not include the expiration date in some form have a higher probability of decline.

> **NOTE:** The Discover network requires merchants to submit the card expiration date with each authorization request or the transaction may be subject to dispute.

Field 015 Settlement Date

Attributes

nP 4, 2 bytes (MMDD)

Description

This field is the current date for funds settlement of the transaction.

Field 016 Conversion Date

Attributes

nP 4, 2 bytes (MMDD)

Description

This field defines the effective date (month and day) of the conversion rate used to convert the Field 004 - Transaction Amount and Field 28 - Transaction Fee Amount to the settlement currency.

This field is optional if the Transaction Amount is in U.S. Dollars.

Field 017 Capture Date

Attributes

nP 4, 2 bytes (MMDD)

Description

This field defines the business date (month and day) of the acquiring terminal/system. You may use this field to determine the settlement date for the transaction.

Field 018 Merchant Type

Attributes

nP 4, 2 bytes

Description

This field defines the Merchant Category Code (MCC) or Standard Industry Code (SIC) of the merchant.

Requirements

If you omit this field, Worldpay uses the MCC from the Merchant Definition File.

Field 019 Acquiring Institution Country Code

Attributes

nP 3, 2 bytes (MMDD)

Description

This field defines the location of the acquiring institution using the 3-digit ISO 3166 country code. You can omit this field if the country code is 840 (United States), which is the default value. If the country code is something other than 840, you must include this field.

> **NOTE:** The contents of the field must reflect the country or US Territory code populated in Field 43 (Card Acceptor Name and Location Data).

Field 020 Not Used

Field 021 Forwarding Institution Country Code

Attributes

nP 3, 2 bytes

Description

This field identifies the country code of the processor that forwards the message request on behalf of the acquiring institution.

Requirements

If the country code is other than 840, you must include this field. See Currency Codes Supported by Worldpay's Multi Currency Processing (MCP) Product in Appendix A, "Additional Field Usage Information" for the valid values for this field.

Field 022 Point of Service Entry Mode

Attributes

nP 4, 2 bytes

Description

This field identifies the method used to obtain the Primary Account Number and expiration date. It also indicates the PIN capture capability of the acquiring terminal.

Requirements

If the PAN Entry Mode field is set to 90, then you must include either Field 35 - Track II Data or Field 45 - Track I Data in the message. Track I is currently only accepted for credit card authorization (that is, it is not accepted by debit or EBT networks).

If the PAN Entry Mode field is set to 91, then you must include Field 35 - Track II in the message.

If the request is a non-original message, then you must set the PAN entry mode as 02, because you should not send track data on any Host Data Capture messages.

For chip transactions, use the PAN entry mode value 05. For chip transactions that use the magnetic stripe as a fallback, use the PAN entry mode value 80. For chip transactions that use voice authorization as a fallback, use the value 79. For chip transactions that use manual entry as fallback, use the value 01.

Use PAN entry mode 10 to indicate a subsequent payment in a recurring/installment stream or card on file.

Format

Table 5-6 list the values for each of the subfields.

TABLE 5-6 Point of Service Entry Mode

Subfield	Value	Description
Subfield 1: PAN/Date Entry Mode	00	Unknown
	01	Manual Entry
	02	Magnetic Stripe Read (but not included in message)
	03	Bar Code Read (only supported for check verification and gift card)
	04	OCR Coding Read (only supported for check verification)
	05	Chip Card, CVV reliable
	07	Swiped MICR (check auth), Contactless chip (all other transactions)
	08	Contactless EMV
	09	PAN entry via electronic commerce, including remote chip, Tap to Pay (SoftPOS)
	10	Credentials on file
	79	Fallback from Chip transactions when keying the prior voice authorization
	80	Fallback from Chip to magnetic stripe
	81	PAN entry via electronic commerce, including Chip
	85	RFID (only supported for credit EMD)
	90	Magnetic Stripe Read (and transmitted intact)
	91	Contactless magnetic stripe
	94	Biometrics
	95	Chip Card, CVV may be unreliable
Subfield 2: PIN Entry Capability	0	Unknown
	1	Terminal can accept PINs
	2	Terminal cannot accept entry of PINs
	8	Terminal PIN Pad is down
	9	Reserved
Subfield 3	Unused	Fill with zeros.

Field 023 Card Sequence Number

Attributes

nP 3, 2 bytes

Description

This field contains a number that distinguishes between two or more cards encoded with the same Primary Account Number (PAN).

Format

Right-justify the field and pad it on the left with a leading zero.

Field 024 Not Used

Field 025 Point of Service Condition Code

Attributes

nP 2, 1 byte

Description

This field contains a value that describes the overall environment in which a transaction is taking place.

Format

Table 5-7 lists the values for this field.

TABLE 5-7 Point of Service Condition Code Values

Value	Description
00	Normal Transaction of This Type
01	Customer Not Present
02	Unattended terminal, Customer Operated
03	Merchant Suspicious of Transaction
05	Customer Present, Card not Present
06	Previously authorized
08	Mail/Telephone Order
10	Customer Identity Verified
51	Verification-Only Request (transaction amount must be 0)
59	Electronic Commerce Transaction

NOTE: For a Verification-Only request that is also an Electronic Commerce Transaction, use condition code 51 and do not include Field 126 - Electronic Commerce/MOTO Indicator. Field 126 is required you use condition code 59.

Field 026 Not Used

Field 027 Not Used

Field 028 Transaction Fee Amount

Attributes

x + an 8

Description

This field represents the Surcharge Fee that the acquirer charges for transaction activity in the currency of Field 49 - Transaction Currency Code.

Requirements

This value indicates that the consumer receives a transaction fee for enacting the transaction by the terminal owner.

For non-POS credit card transactions, this fee is not included in Field 004 - Transaction Amount. The consumer performing the transaction is charged for Field 004 - Transaction Amount plus Transaction Fee Amount.

For POS credit card transactions, include this fee in Field 004 - Transaction Amount. The consumer performing the transaction is charged only for the value in the Transaction Amount field.

Format

Table 5-8 lists the values for the subfields.

TABLE 5-8 Field 028 Transaction Fee Amount Subfields and Values

Subfield	Name	Values
1	Fee Sign	C - Fee is a credit to the cardholder performing the transaction. D - Fee is a debit to the cardholder performing the transaction.
2	Fee	This is the eight-digit amount in the currency of Field 49 -- Transaction Currency Code. The decimal point is assumed based upon the contents of Field 050 - Settlement Currency Code. The maximum value for the fee amount is 999.99 (five digits). Worldpay uses only the last five digits. Right-justify and zero fill the rest of the digits.

Field 029 Settlement Fee Amount

Attributes

x + an 8

Description

This field is a Surcharge Fee the acquirer charges for transaction activity in the currency of Field 50 - Settlement Currency Code (always U.S. Dollars).

Requirements

Its value indicates that the consumer is charged with a transaction fee for enacting the transaction by the terminal owner. Do not include this fee in Field 005 - Settlement Amount.

Format

Table 5-9 lists the values for the subfields.

TABLE 5-9 Field 029 Settlement Fee Amount Subfields and Values

Subfield	Name	Values
1	Fee Sign	C - Fee is a credit to the cardholder performing the transaction. D - Fee is a debit to the cardholder performing the transaction
2	Fee	This is an eight-digit amount in the currency of Field 50 - Settlement Currency Code. The decimal point is assumed based upon the contents of Field 50.

Field 030 Not Used

Field 031 Not Used

Field 032 Acquiring Institution Identification Code

Attributes

LLd nP..11, max 7 bytes

Description

This field identifies the institution acting as the acquiring bank for an interchanged transaction. It typically contains the Route and Transit Number of the acquiring institution as defined by the Federal Reserve. The implementation of the field allows other identifications of the institution which is defined by the first digit of the field.

> **NOTE:** You can use any valid value for credit card processing. Typically, you should use Worldpay's routing and transit number, 042000314, for credit authorization messages.

Format

Table 5-10 lists the subfields applicable to Acquiring Institution Code based on its purpose.

TABLE 5-10 Acquiring Institution Identification Code Subfields

Purpose	Format	Value	Description
Debit/Host-Data-Capture/Credit EMD	LLIXXXXXXXXXXX	LL	Number of digits contained in the field excluding the length
		I	Institution Identification Method
		XXXXXXXXXXX	Institution Identifier
Bank Identification Number (BIN)	LLIXXXXXX	LL	07 - Number of digits of data
		I	0 - BIN Number identifier
		XXXXXX	6-digit BIN number
Route and Transit Number	LIXXXXXXXXX	L	0A - Number of digits of data
		I	1 - Route and Transit identifier
		XXXXXXXXX	9-digit Route and Transit number
Product ID	LIXXXXXXXXX	L	0A - Number of digits of data
		I	2 - Product identifier
		XXXXXXXXX	9-digit Product ID
Private	LIXXXXXXXXX	L	0A - Number of digits of data
		I	2 - Product identifier
		XXXXXXXXX	9-digit Private information

TABLE 5-10 Acquiring Institution Identification Code Subfields

Purpose	Format	Value	Description
Credit Issuer	LLYYYYYY	LL	06 - Number of digits of data
		YYYYYY	444500 - Worldpay Identifier

Field 033 Not Used

Field 034 Not Used

Field 035 Track II Data

Attributes

LLd nP..37, max 20 bytes

Description

This field should contain the information encoded on the Track II of the magnetic stripe on the card or the bar code information for gift cards. The information should contain field separators but exclude beginning and ending sentinels and LRC characters. You must encode the separator character as X'D'.

Requirements

If the Field 22- Point of Service Entry Mode contains 90, you must include track data. If the POS Entry Mode contains 03, you must include bar code data. For credit card transactions, either Track I or Track II is read at the point of service, you should only present one for authorization. For magnetic stripe read ATM and EBT card transactions, you must include Track II, because Track I is not supported by ATM or EBT networks. You should not send Track II for credit card transactions on completion messages.

You should not include track data in any non-original Host Data Capture request messages.

Format

The one-byte length field indicates the actual number of digits in the Track II (in binary). For a Track II with an odd number of digits, you must use a leading zero to pad the first half-byte of unused data.

For P2P encrypted transactions, omit this field. Field 100.3 - Encrypted Track II includes encrypted Track II information.

Field 036 Not Used

Field 037 Retrieval Reference Number

Attributes

an 12

Description

This field yields a value generated by the message originator to associate a unique identifier to a given transaction. You can use this value to identify the transaction throughout the transaction's life cycle (authorization, reversal, and so on).

All HDC transactions require this field. For credit EMD transactions, Worldpay recommends that you do not send this field in original authorizations. If this field is not present for a credit EMD transaction, Worldpay generates a unique value for this field and return it in the response; however, you should send it in reversals using the same value that was supplied in the original authorization response.

Format

Although not a requirement, Worldpay recommends inserting the transaction date in the first four positions of the Retrieval Reference Number field in the following format: YDDD.

Field 038 Authorization Identification Response

Attributes

an 6

Description

This field contains a value generated by the authorizing processor to indicate their acceptance of the transaction.

For all approved credit card transactions, use Field 38 to pass the authorization ID response from Worldpay to the merchant acquirer. You must present the authorization ID unaltered in the credit card settlement records to the card networks to verify that on-line authorization was obtained from the card-issuing institution.

For EBT transactions, Worldpay passes the authorization ID received from the EBT network to the transaction acquirer; however, EBT networks are not required to send this field, so the transaction acquirer only receives the authorization ID if the EBT network chooses to send it to Worldpay. Unlike credit card transactions, where Field 38 is only sent for approved transactions, for EBT transactions, both approvals and denials can contain Field 38. Currently, Field 38 is not sent at all on debit transactions.

If needed, checkcard issuers can receive the authorization ID upon request.

Format

The format of this field is dictated by the authorizing processor.

Field 039 Response Code

Attributes

an 2

Description

This field indicates the result of a previous related request. It indicates approval or reason for rejection if not approved. Use it also to indicate to the device processor whether or not machines that are capable of retaining the customer's card should do so.

Format

In transaction replies, the response code must contain one of the following values with their corresponding meanings:

- For debit/host-data-capture 0220/0420 messages, it must return a response code of 00 to indicate the transaction's approval.
- For EBT transactions, see EBT Transaction Receipt Requirements on page 160.

Table 5-11 lists the debit response code mappings

TABLE 5-11 Debit Response Code Mappings

Response Code	Action	Description
00	Approve	Transaction Approved
01	Decline	Refer to Card Issuer
02	Decline	Refer to Card Issuer, Special Conditions
03	Decline	Invalid Merchant ID
04	Decline	Pick Up Card
05	Decline	Generic Authorization Decline
06	Decline	Error
07	Decline	Pick Up Card, Special Conditions
08	Approve	Honor With Identification
09	Approve	Approved - Special Conditions
10	Approve	Approved For Partial Amount (Returned only if the authorized amount is less than the requested amount.)
11	Approve	VIP Approval
12	Decline	Invalid Transaction
13	Decline	Invalid Amount

TABLE 5-11 Debit Response Code Mappings

Response Code	Action	Description
14	Decline	Invalid Account Number
15	Decline	No Such Issuer
17	Decline	Manual PAN tries exceeded
19	Decline	Re-try Transaction
20	Approve	Approved with Overdraft
21	Decline	Reversal Unsuccessful
30	Decline	Message Format Error
33	Decline	Pick Up Card - Expired
38	Decline	Allowable Number of PIN Tries Exceeded
39	Decline	No Credit Account
40	Decline	Requested Function Not Supported
41	Decline	Pick Up Card - Lost
43	Decline	Pick Up Card - Stolen
47	Decline	Remote Function Unknown
51	Decline	Insufficient Funds
52	Decline	No Checking Account
53	Decline	No Savings Account
54	Decline	Expired Card
55	Decline	Incorrect PIN
56	Decline	Cannot Process
57	Decline	Transaction not Permitted to Cardholder
58	Decline	Transaction not Permitted to Terminal
59	Decline	Multiple accounts exist for a given To/From account type specified in the processing code (Field 003 - Processing Code). The response message returns OAR data (Field 127).
60	N/A	This indicates that the customer card activation is successful and PIN selection must now occur. This is only used for Customer Selected PIN (CSP) activations.
61	N/A	This indicates that the Primary Phone Number does not match for Card Activation. This is only for card activations including the Automated Number Identification (ANI) product.

TABLE 5-11 Debit Response Code Mappings

Response Code	Action	Description
61	Decline	Exceeds Withdrawal Limit
62	Decline	Restricted Card
65	Decline	Daily Card Ticket Limit Exceeded
67	Decline	Pick Up Card
75	Decline	Allowable Number of PIN Tries Exceeded
76	Decline	Late Reversal
77	Decline	Reversal Does Not Match Original Transaction
78	Decline	No 'To' Account Specified
79	Decline	No 'From' Account Specified
80	Decline	Processor Link Out of Service, Will Cause Worldpay to Invoke Stand-in
81	Decline	PIN Key Synchronization Error
82	Decline	Invalid CVV
83	Decline	Unable to Verify PIN
85	Approve	No Reason to Decline on Verification Request
86	Decline	Cannot Verify PIN
88	Decline	Card Record Not Available
89	Decline	Invalid Authorization Code
91	Decline	Issuer or Switch Inoperative
92	Decline	Unable to Route Transaction
93	Decline	Illegal Transaction
96	Decline	System Error
98	Decline	Duplicate Transaction
99	Decline	Preferred Debit Routing Denial -> Credit transaction can be performed as debit
E1	Decline	P2PE Decryption Request Invalid
E2	Decline	P2PE Decryption Services Unavailable
E3	Decline	P2PE Decryption Failure
E4	Decline	P2PE Decryption Message Malformed
E6	Decline	Possible P2PE Decryption Failure
E9	Decline	P2PE Encryption Required

TABLE 5-11 Debit Response Code Mappings

Response Code	Action	Description
FS	Decline	Transaction declined by FraudSight
N7	Decline	CVV2 Value Mismatch
RG	Approve	P2PE Successful Registration Event
T1	Decline	Invalid 3-D Secure Password
T2	Decline	Invalid Social Security Number
T3	Decline	Invalid Mother's Maiden Name
T4	Decline	Enrollment Inquiry Declined
T5	Decline	Social Security Number Not Available
T6	Decline	Mother's Maiden Name Not Available
T7	Decline	PIN Already Exists on Database

NOTE: Keep the card for the following response codes: 04, 07, 33, 38, 41, 43, and 67.

Table 5-12 lists the credit response code mappings.

TABLE 5-12 Credit Response Code Mappings

Response Code	Action	Description
00	Approve	Transaction Approved
01	Refer	Refer to Card Issuer
02	Refer	Refer to Card Issuer, Special Conditions
03	Decline	Invalid Merchant ID
04	Decline	Pick Up Card
05	Decline	Generic Authorization Decline
06	Decline	Error
07	Decline	Pick Up Card, Special Conditions
08	Approve	Honor With Identification
10	Approve	Approved For Partial Amount
11	Approve	VIP Approval
12	Decline	Invalid Transaction
13	Decline	Invalid Amount

TABLE 5-12 Credit Response Code Mappings

Response Code	Action	Description
14	Decline	Invalid Account Number
15	Decline	No Such Issuer
17	Decline	Customer Cancellation
19	Decline	Re-try Transaction
21	Decline	Reversal Unsuccessful
25	Decline	Unable to locate record on file
27	Decline	File update field edit error
28	Decline	Update file temporarily unavailable
30	Decline	Message Format Error
32	Decline	Partial Reversal
33	Decline	Pick Up Card - Expired
38	Decline	Allowable Number of PIN Tries Exceeded
39	Decline	No Credit Account
40	Decline	Requested Function Not Supported
41	Decline	Pick Up Card - Lost
43	Decline	Pick Up Card - Stolen
46	Decline	Closed Account
51	Decline	Insufficient Funds
52	Decline	No Checking Account
53	Decline	No Savings Account
54	Decline	Expired Card
55	Decline	Incorrect PIN
56	Decline	Cannot Process
57	Decline	Transaction not Permitted to Cardholder
58	Decline	Transaction not Permitted to Acquirer
59	Decline	Suspected Fraud
61	Decline	Exceeds Withdrawal Limit
62	Decline	Restricted Card
63	Decline	Security Violation / Invalid AMEX CID
65	Decline	Exceeds Withdrawal Frequency Limit

TABLE 5-12 Credit Response Code Mappings

Response Code	Action	Description
67	Decline	Pick Up Card
68	Decline	Response Received Late
69	Decline	Bad Close (Gift Card)
70	Decline	Invalid Transaction, Contact Issuer Card Already Active (Gift Card)
71	Decline	Card Not Active (Gift Card)
72	Decline	Card Already Closed (Gift Card)
73	Decline	Over Max Balance (Gift Card)
74	Decline	Invalid Activate (Gift Card)
75	Decline	Allowable Number of PIN Tries Exceeded
76	Decline	Late Reversal
77	Decline	Reversal Does Not Match Original Transaction
78	Decline	No 'To' Account Specified
79	Decline	No 'From' Account Specified
80	Decline	Processor Link Out of Service, Will Cause Worldpay to Invoke Stand-in
81	Decline	PIN Key Synchronization Error
82	Decline	Invalid CVV
83	Decline	Unable to Verify PIN
85	Approve	No Reason to Decline on Verification Request
85	Approve	No Reason to Decline on Verification Request
86	Decline	Cannot Verify PIN
87	Approve	Purchase Amount Approved, Not Cash
88	Decline	Card Record Not Available
91	Decline	Issuer or Switch Inoperative (Mastercard)
92	Decline	Unable to Route Transaction
93	Decline	Illegal Transaction
94	Decline	Duplicate Transaction
95	Decline	Reconciliation Error
96	Decline	System Error
97	Approval	American Express Rewards Approval

TABLE 5-12 Credit Response Code Mappings

Response Code	Action	Description
98	Decline	Duplicate Transaction
99	Decline	Preferred Debit Routing Denial →Credit transaction can be performed as debit
D1	Decline	Currency Conversion Complete, No Auth Performed (1st Pass)
E1	Decline	P2PE Decryption Request Invalid
E2	Decline	P2PE Decryption Services Unavailable
E3	Decline	P2PE Decryption Failure
E4	Decline	P2PE Decryption Message Malformed
E6	Decline	Possible P2PE Decryption Failure
E9	Decline	P2PE Encryption Required
FS	Decline	Transaction declined by FraudSight
N7	Decline	CVV2 Value Mismatch
M1	Decline	Multi-Currency DCC Fail
M2	Decline	Multi-Currency Invert Fail
N0	Decline	Issuer or Switch Inoperative (Visa)
RG	Approve	P2PE Successful Registration Event
R0	Decline	Stop Payment Order
R1	Decline	Revocation of Auth Order
R3	Decline	Revocation of All Auth Orders
V1	Decline	Velocity - Excessive Count
V2	Decline	Velocity - Excessive Amount
V3	Decline	Velocity - Excessive Count/Amount
V4	Decline	Velocity - Negative File Exception
V5	Decline	Velocity - Fraud Exception
V6	Decline	Velocity - ZIP Match Failure
W1	Decline	More Prompts Required
XE	Decline	Card Escheated (Gift Card)
XD	Decline	Merchant Depleted (Gift Card)
XB	Decline	Deconverted BIN (Gift Card)
Q1	Decline	Chip Failure

NOTE: Keep the card for the following response codes: 04, 07, 33, 38, 41, 43, and 67.

Table 5-13 lists the EBT and WIC response code mappings.

TABLE 5-13 EBT and WIC Response Code Mappings

Response Code	Description	Receipt Message
00	Approved	Approved
02	Invalid Transaction	Invalid Transaction
03	Invalid Merchant	Merchant ID Invalid
05	Authorizer Not Available (time-out)	Host Not Available
13	Invalid Amount (Format Error)	Tran Amount Invalid
14	Invalid Card Number	Card Not Allowed Access
16	Voucher Expired	Voucher Expired
17	Allowable # of PAN Entries Exceeded	Tran Denied, Manual PAN Tries Exceeded
18	PIN Already Selected	PIN Already Selected
19	Invalid Card Number Re-Enter Transaction	Re-Enter Transaction
20	PIN Not Selected	PIN Not Selected
22	Unmatched Voucher Information	Unmatched Voucher Information
23	Transaction Not Defined	Transaction Not Defined
40	Function Not Available	Function Unavailable
43	Stolen Card	Card Status Problem--Pick Up
51	Insufficient Funds	Balance is $____.___
54	Expired Card	Card Expired
55	Invalid PIN	Invalid PIN - Retry
56	General Denial	Cannot Process--Call Customer Service
57	Invalid Tran for Card/Issuer/Processor	Tran Not Supported by Processor
61	Exceeds Limit	Cash Withdrawal Limit Exceeded--Card
62	Lost Card	Card Status Problem
75	PIN Tries Exceeded	Invalid PIN--Maximum Retry Limit Exceeded

TABLE 5-13 EBT and WIC Response Code Mappings

Response Code	Description	Receipt Message
81	PIN Key Synchronization Error	Cannot Process
86	Invalid Voucher Id	Invalid Voucher Id
88	Card Not Activated	Card Record Not Available
89	Invalid Auth Number	Invalid Auth Code
91	Issuer Inoperative	Processor Down
93	Invalid Tran for this Terminal	Tran Not Allowed on Device
96	System Error	System Error
98	Duplicate Transaction or Duplicate Reversal	Duplicate Transaction
E1	Decline	P2PE Decryption Request Invalid
E2	Decline	P2PE Decryption Services Unavailable
E3	Decline	P2PE Decryption Failure
E4	Decline	P2PE Decryption Message Malformed
E6	Decline	Possible P2PE Decryption Failure
E9	Decline	P2PE Encryption Required

NOTE: Keep the card for the following response code: 43.

Table 5-14 lists the check authorization response code mappings.

TABLE 5-14 Check Authorization Response Code Mappings

Response Code	Action	Description
00	Approve	Transaction Approved
01	Refer	ID/DOB Mismatch (ID-Free response)
02	Approve	ID-Free response
03	Refer	Soft Negative Caution
04	Decline	Invalid Type Of Service
05	Decline	Invalid Identification
06	Refer	ID Restrictions
07	Decline	Hard Negative Information On File
08	Approve	Check Warranted

TABLE 5-14 Check Authorization Response Code Mappings

Response Code	Action	Description
09	Refer	Over Daily Limit
10	Refer	Over Periodic Limit
11	Refer	Over Maximum Face Value
12	Refer	Over Maximum Cumulative Limit
13	Decline	Edit Errors In Message
14	Refer	Invalid Station Number
15	Decline	I/O Error, Re-Submit
16	Refer	Excessive Activity
19	Decline	Enter DL/Date-Of-Birth (ID-Free response)
20	Refer	Call Center
27	Refer	Invalid Value For Field
41	Refer	Subscriber Number Not Act
69	Refer	Call Center
72	Refer	Skip Trace Info Needed
73	Refer	Lost Or Stolen Checks
88	Refer	Rejected Code 3
89	Refer	Id Not In Driver's ID DB
90	Decline	Override optional - Exceeds daily limit
98	Decline	Invalid Micr Data
99	Decline	Line Down/Timeout

Table 5-15 lists the CIP response code mappings.

TABLE 5-15 CIF Response Code Mappings

Response Code	Action	Description
30	Decline	Message Format Error
93	Decline	Illegal Transaction
96	Decline	System Error

Field 040 Not Used

Field 041 Card Acceptor Terminal Identification

Attributes

ans 15

Description

This field contains a unique code that provides positive identification of the terminal or device originating the request.

Format

If the card acceptor terminal ID is less than 15 digits, you should left justify and blank fill it. Worldpay supports a 15-digit terminal ID in the debit and EBT environments to provide backward compatibility with other popular message formats.

> **NOTE:** Due to network compliance requirements, Worldpay suggests that merchants send terminal IDs in the formats listed in Table 5-16.

TABLE 5-16 Terminal ID Format

Chain Number	Store Number	Lane Number	Spaces
5-digits	4-digits	2 - digits	4 - digits

Field 042 Card Acceptor Identification

Attributes

ans 15, 00LLnP15, 01LLnP15

Description

For merchants, this field provides Worldpay with a number that specifically identifies the merchant location at which a transaction is being performed. Worldpay assigns this merchant number at the store level.

For financial institutions that choose to send the Card Acceptor Identification field, use this field to send in the transaction acquirer name. If a financial institution wants to see the true card acceptor id from the originating terminal, then consult Worldpay to receive this value.

For merchants utilizing the Worldpay terminal processing platform, place the full 12-digit terminal merchant number in this field and right pad it with blanks. This field, in conjunction with the Bank ID and Terminal ID in field 115, allows Worldpay to perform all necessary terminal processing lookups.

All credit card authorization requests from Worldpay merchants require this field.

Table 5-17 lists its different formats.

TABLE 5-17 Card Acceptor Identification Formats

Format	Description
ans 15	You should sent this in character form, always in 15 characters, and left justify and blank fill it.
00LLnP15	Merchants who could potentially have merchant numbers greater than 15 digits, but less than 21, can use this format. The format is packed, with the first byte always x'00', which indicates the field is in the nP format, and the second byte representing the length. Left justify the field, and zero fill it out to the full length of 15 bytes.

01LLnP15	This format is similar to the 00LLnP15 format, which is used by merchants who could potentially have merchant numbers greater than 15 digits but less than 21. This format requires a leading zero before all odd-numbered merchant numbers, and then zero fill the field to the full length of 15 bytes.
	For example, you would represent a merchant number of 1234567890123456 as the following:
	`x'00101234567890123456000000000'`
	You would represent a merchant number of 123456789 as:
	`x'00091234567890000000000000000'`

Field 043 Card Acceptor Name and Location Data

Attributes

ans 40

Description

This is a fixed-length field with three subfields identifying the Card Acceptor's location of business. Authorization messages require data from this field to achieve the best incentive interchange rates. The card acceptor name is only in Field 43 for EMD settled credit transactions. All debit transactions and host data capture settled credit transactions have only the card acceptor address in this field without the name.

Format

Table 5-18 lists the formats for this field.

For Format 1 or 3, use the two-character Alphabetic Country Code for the US Territory in Table A-1 for both the State (positions 37 -38) and Country (positions 39 - 40).

Example: Puerto Rico (Format 1 or 3)

Address: `XXXXXXXXXXXXXXXXXXXXXXX`
City: `XXXXXXXXXXXXX`
State: `PR`
Country: `PR`

For Format 2, use the three-character Alphabetic Country Code for the US Territory in Table A-1 for the country (positions 38 - 40).

Example: Puerto Rico (Format 2)

Address: `XXXXXXXXXXXXXXXXXXXXXXX`
City: `XXXXXXXXXXXXX`
Country: `PRI`

TABLE 5-18 Card Acceptor Name and Location Data Formats

Format	Format Description	Positions	Position Description
1	This format is acceptable for debit or credit (both HDC credit and EMD credit) transactions. If a state code is not applicable, then blank fill the state code field. For example, if the card acceptor is located in Canada, blank fill the state code. Do not fill the state code field with a province code.	1 - 23	Address of Unique Identification Within City of Acquiring Device
		24 - 36	Card Acceptor City
		37 - 38	Card Acceptor State Blank fill if this is not applicable.
		39 - 40	Card Acceptor Alphabetic Country Code See Appendix A, "Additional Field Usage Information".
2	This format is acceptable for EMD-settled credit transactions only	1-23	Card Acceptor Name
		24-37	Card Acceptor City
		38-40	Card Acceptor Alphabetic Country Code See Appendix A, "Additional Field Usage Information".
3	This format is acceptable for home banking transactions only.	1 - 23	Bill Payment Service Name
		24 - 36	City Where Processor is Located
		37 - 38	State Where Processor is Located
		39 - 40	Country Where Processor is Located

Field 044 Additional Response Data

Attributes

LLL ans..12

Description

This is a variable length field containing supplemental information (7 subfields) that may be utilized to enhance the action performed based on the network response. To receive incentive qualifications for interchange reduction programs for credit card transactions, you may have to include data from this field.

Requirements

For debit card transactions, all advice messages require subfield 1; subfield 3 is required on all reversal messages.

Format

Table 5-19 lists the field's subfields and values.

TABLE 5-19 Additional Response Data Subfields

Subfield	Value	Description
1 - Authorization Source (ans 1) If present, it indicates the point of authorization.	1	Stand-in - Time out response
	2	Stand-in - Below Issuer Limit
	3	Stand-in - Issuer in Suppress Inquiry Mode
	4	Stand-in - Issuer Unavailable
	5	Issuer Approval
	6	Forced Stand-in
	7	Acquirer Approval, Network Unavailable
	8	Acquirer Approval of Referral
	9	Response Provided by Automated Referral Service
	D	Referral, Authorization code manually keyed
	E	Off-line Approval, Authorization code manually keyed

TABLE 5-19 Additional Response Data Subfields

Subfield	Value	Description
2 - Address Verification Result (ans 1) These values are valid for Domestic or International AVS.	A	Address Matches, Zip Does Not
	B	Street addresses match, postal codes not verified
	C	Street addresses and postal codes not verified
	E	Edit Error or Ineligible Transaction for AVS
	N	Neither Address or Zip Matches
	P	Codes match, street addresses not verified
	Z	Five Digit Zip Matches, Address Does Not
2 - Address Verification Result (ans 1) The values are valid for Domestic AVS.	R	System Unavailable or Time-Out
	S	Address Verification Currently Not Supported
	U	Address Information Unavailable
	W	Nine Digit Zip Matches, Address Does Not
	X	Address and Nine Digit Zip Match
	Y	Address and Five Digit Zip Match
2 - Address Verification Result (ans 1) The values are valid for International AVS.	D	Street addresses and postal codes match
	F	Street address and postal codes match, UK only
	G	Address information not verified for international trans
	I	Address information not verified
	M	Street addresses and postal codes match
3 - CVV/CVV2, CVC/CVC2, CID Response Code (ans 1)	Blank	Not Processed
	M	CVV/CVV2, CVC/CVC2, CID Match
	N	CVV/CVV2, CVC/CVC2, CID No Match
	P	Not Processed
	S	CVV/CVV2, CVC/CVC2, CID Should be on Card, but Merchant Indicated Not Present
	U	Issuer Not Certified
4 - Recurring Payment Advice (ans 1)	1	Obtain new account information from issuer
	2	Try again after 72 hours
	3	Do not try again, account is closed or blocked
	4	Token requirements not fulfilled

TABLE 5-19 Additional Response Data Subfields

Subfield	Value	Description
5 - CAVV Result Code (E-commerce Transactions) (ans 1)	Blank/Not Present	CAVV not present
	0	CAVV authentication results invalid
	1	CAVV failed validation - authentication
	2	CAVV passed validation - authentication
	3	CAVV passed validation - attempt
	4	CAVV failed validation - attempt
	6	CAVV not validated
	7	CAVV failed validation
	8	CAVV passed validation
	9	CAVV failed validation
	A	CAVV passed validation
	B	CAVV passed validation - information only, no liability
	C	CAVV was not validated - attempt
	D	CAVV was not validated - authentication
6 - Auxiliary Response Code (ans 4)		The merchant decides what to put in this subfield according to network rules.
7 - Fee Program Indicator (ans 3)		The merchant decides what to put in this subfield according to network rules. If Field 120.RD = **Y** in the request message for a reversal, this field includes the reversal disposition code. This is informational only. Use the response code in field 39 to drive decision making for how to handle the reversal response. • R042/R117 - Successful Reversal • R136 - Late Reversal • R155 - Duplicate Reversal

Field 045 Track I Data

Attributes

LLL ans..76

Description

This field should contain the information encoded on Track I of the magnetic stripe on the card. The information should include field separators but exclude starting and ending sentinels, and LRC characters.

Requirements

If the Field 022 - Point of Service Entry Mode contains 90, you must include track data. You cannot pad this field with any values. If both Track I and Track II are read at the point of service, you can only pass one of the fields. Track I is currently only accepted for credit card authorizations. Debit and EBT card networks do not allow customer identification via Track I data. Non-original Host Data Capture messages should not include any track data.

For P2P encrypted transactions, omit this field. Field 100.4 - Encrypted Track I includes encrypted Track I information.

Field 046 Invalid Message Reason

Attributes

LLb nP..255

Description

This field describes the reason why a 0620 message exists.

Requirements

You must include it in all 0620 messages.

Format

Table 5-20 lists its subfields.

TABLE 5-20 Invalid Message Reason Subfields

Subfield	Attributes	Description
1	nP 2	Invalid Field Number or Record Type
2	nP 1	Subfield of Invalid Field Number or Field Number of Record Type (will be 00 if not applicable)

Field 047 Not Used

Field 048 Additional Data (Private)

Attributes

LLL ans..255

Description

This field allows the acquiring processor to pass data in a transaction message that it can use for its own purpose. This user data, if passed, returns in the corresponding authorization reply exactly as the request sent it.

Requirements

WIC transactions require this field, but it is optional for all others.

Format

Table 5-21 lists the formats for this field.

TABLE 5-21 Additional Data (Private) Format

Value	Description	Attributes
SSS	Private data usage type	an 3 bytes
AAA	Length of User Data	n 3 bytes, decimal
D . . .D	User Data	The data type varies by Private Data Usage.

Private Data Usage Type 001: Unformatted User Data

Table 5-22 lists the values for this usage type.

TABLE 5-22 Unformatted User Data Values

Value	Description
SSS	001
AAA	Length of User Data
D . . .D	This is for the unformatted user data. You can use hexadecimal or character-based information. Worldpay echoes it back in the response.

Private Data Usage Type 002: WIC Merchant ID

Table 5-23 lists the values for this usage type.

TABLE 5-23 WIC Merchant ID Values

Value	Description
SSS	002
AAA	Length of User Data
D . . .D	WIC Merchant ID (WN + LLL + WIC Merchant ID)
D . . .D	Voucher Number (voucher transactions only - VN + LLL + Voucher #)

Additional Data (Private) Field Usage Type 003: Additional Denial Information

Table 5-24 lists the values for this usage type.

TABLE 5-24 Additional Denial Information Values

Value	Description	Attributes
SSS	003	NA
DD	Worldpay Denial Code	np 1

Field 049 Transaction Currency Code

Attributes

nP 3, 2 bytes

Description

This field identifies the currency of Field 004 - Transaction Amount.

Requirements

If Transaction Amount is in a currency other than U.S. Dollars, you must include this field. If you omit this field, it uses U.S. Dollars as the currency type; that is, it assumes currency code 840.

Format

See Currency Codes Supported by Worldpay's Multi Currency Processing (MCP) Product in Appendix A, "Additional Field Usage Information" for a list of valid currency codes.

Field 050 Settlement Currency Code

Attributes

nP 3, 2 bytes

Description

This field identifies the currency of Field 005 - Settlement Amount.

Requirements

If Field 005 - Settlement Amount is expressed in a currency other than U.S. Dollars, you must include this field. If you omit this field, it uses U.S. Dollars as the currency type; that is, it uses currency code 840. The response message includes this field when doing multi currency conversion (MCC) transactions.

Format

See Currency Codes Supported by Worldpay's Multi Currency Processing (MCP) Product in Appendix A, "Additional Field Usage Information" for a list of valid currency codes.

Field 051 Cardholder Billing Currency Code

Attributes

nP 3, 2 bytes

Description

This field identifies the currency of Field 006 - Cardholder Billing Amount.

Requirements

If the Cardholder Billing Amount is in a currency other that U.S. Dollars, you must include this field. If you omit this field, it uses U.S. Dollars as the currency type; that is, it assumes currency code 840. The response message sends this field when doing dynamic currency conversion (DCC) transactions. You must send this field in 1 pass and second pass of 2 pass DCC full or partial reversal requests.

Format

See Currency Codes Supported by Worldpay's Multi Currency Processing (MCP) Product in Appendix A, "Additional Field Usage Information" for a list of valid currency codes.

Field 052 Personal Identification Number Data

Attributes

b 64

Description

This field assigns a number to the cardholder that uniquely identifies that cardholder at the Point of Sale. You must encrypt the Personal Identification Number (PIN) using DES encryption prior to transmission to Worldpay.

Requirements

You must include this field for all regional and national debit transactions sent to Worldpay. For DUKPT acquirers, the KSN is sent in Field 120 - Additional Request Data; otherwise, the DES key used to encrypt the PIN is the current working key for the authorization link. You must use hardware encryption modules to perform the encryption process.

This field returns the translated PIN block for PIN Translation Response message (0910).

You need to include Field 120's PIN-less Debit at POS Device flag (see Table 5-130 on page 471) in the request for acquiring PIN-less transactions at a POS device; otherwise, the transaction fails.

Field 053 AMEX Card Identifier

Attributes

LLb ans..4

Description

This field is sent on American Express transactions when no track data is available. It is verification to AMEX that the card is valid.

Requirements

This field must be 4 positions.

Field 054 Additional Amounts

Attributes

LLL ans..120

Description

This field supports up to six amount fields. A description as to the type of amount that is being sent in the interchanged message precedes each amount.

> **NOTE:** For Benefit Card Services transactions, field 54 can contain up to 12 amount types and be 240 bytes long. For more information, see Appendix G, "Benefit Card Services Flow Between Merchant and Worldpay".

Format

This field communicates account or transaction specific amount information in interchanged messages.

Each amount sub-field is formatted as follows:

```
AAVVCCCXNNNNNNNNNNNN
```

Table 5-25 and Table 5-26 list the additional amounts subfields and amount types.

TABLE 5-25 Additional Amounts Subfield Values

Value	Description
AA	Account type (See Table 5-5 for Subfield 3 account types.)
VV	Type of Amount (See Table 5-26.)
CCC	Currency code of balance
X	Sign (C - positive balance, D - negative balance)
NNNNNNNNNNNN	Amount (right justify and zero fill)

TABLE 5-26 Additional Amounts Amount Type

Amount Type	Description
01	Ledger Account Balance, Prepaid Card Balance
02	Available Account Balance
03	Gift Card/Healthcare Authorized Amount
04	Amount Due (Load Payment Amount on Loan Inquiries)

TABLE 5-26 Additional Amounts Amount Type

Amount Type	Description
3S	Co-pay amount
4S	Healthcare Amount
4T	Transit Amount
4U	Prescription
4V	Vision
4W	Clinic
4X	Dental
5A	Benefit Card Services OTC Requested Amount
5B	Benefit Card Services OTC Approved Amount
5C	Benefit Card Services OTC Balance Amount (for future use)
5D	Benefit Card Services Food Requested Amount
5E	Benefit Card Services Food Approved Amount
5F	Benefit Card Services Food Balance Amount (for future use)
5G	Benefit Card Services Program Discount Amount (for future use)
5I	Benefit Card Services Other Amount
5S	HIP for EBT Purchase Amount (Request Only)
5T	HIP for EBT Amount of Incentives Earned (Response Only)
5U	HIP for EBT Month to Date Incentives Earned (Response Only)
16	Available Cash from Account
18	Beginning Ledger Account Balance
40	Cash Back Amount
43	Incremental Authorization Cumulative Amount
52	WIC Coupon/Discount Amount
56	Maximum Authorized Amount/ Partial Auth Authorized Amount
57	Original Requested Amount
58	Last Transaction Amount (for transaction inquiries)
60	Early Access Available Credit
61	Early Access Current Balance
70	Money Order Amount
90	Currency Conversion Assessment Amount

TABLE 5-26 Additional Amounts Amount Type

Amount Type	Description
91	Issuer Cross-Border Assessment Amount
98	Check Amount (for checking transaction inquiries, stop payment, and deposits of check and cash)
99	Overdraft Protection Amount Used
GR	Gift Card reloadable amount
GN	Gift Card non-reloadable amount
SC	Calculated Surcharge Amount

Field 055 Integrated Circuit Card Data

Attributes

LLL ans..999

Description

This field supports ICC Data captured by the merchant terminal. This data is sent on to the network.

Format

This field consists of several subfields, followed by the TLV (tag, length, value) data. Table 5-27 lists the control and data fields.

TABLE 5-27 Integrated Circuit Card Data

Subfield	Tag	Length	Value
Dataset ID: 01 - Visa PayWave Information	9F02 - Cryptogram amount	1 byte hex data - fixed 06	Fixed 6 bytes of data
	9F10 - Issuer application data	1 byte variable length	Up to 33 bytes of data
	9F26 - Cryptogram used for auth	1 byte numeric field - fixed 08	Fixed 8 bytes of data
	9F36 - Number of transactions attempted	1 byte numeric field - fixed 02	Fixed 2 byte of data
	9F37 - Generation of cryptogram	1 byte numeric field - fixed 04	Fixed 4 bytes of data
	9F6E - Device attributes	1 byte variable length	Up to 4 bytes of data
	9F7C - Customer exclusive data	1 byte variable length	Up to 30 bytes of data
Dataset ID: 02 - EMV Data			See Appendix B, "EMV Processing Requirements".
Dataset ID: 56 - DNA Signature Data	9F52 - DNA signature data	1 byte numeric field	Fixed 40

Field 056 Not Used

Field 057 Card Product Type

Attributes

ans 3

Description

This field allows Worldpay to return the card product type to the merchant.

Requirements

This field is optional.

Format

For authorization requests, this field must be REQ.

For authorization responses, the field contains the card product type as it is defined on the BIN file obtained from the networks.

To obtain a current list of the Card Product Type values, refer to the appropriate network documentation.

Field 058 Not Used

Field 059 National Point of Service Geographic Data

Attributes

LLL ans..999

Description

This field allows additional merchant location data to pass to enhance the authorization request.

Requirements:

If you omit this field from authorization requests, Worldpay attempts to obtain the information from the Merchant Definition File.

Format

The field currently consists of three fixed-length subfields. If a value for a subfield is not available, fill the field with zeros.

Table 5-28 lists the subfields.

TABLE 5-28 National Point of Service Geographic Data

Subfield	Attributes	Description
1	an 2	Card Acceptor state or province numeric code State/Province Codes for Puerto Rico, Guam, the Virgin Islands, and Canada are not used in this field. Pass zeros for those territories.
2	an 3	Card Acceptor county code Fill with zeros.
3	an 9	Card Acceptor Zip or Postal Code Left justify and blank fill.

Field 060 Additional POS Data

Attributes

LLL ans..999

Description

This field allows the acquiring processor to supply additional data required for the successful completion of a transaction.

Requirements

All requests currently require this field. For Host Data Capture, use subfields 1-12. For EMD, use subfields 1-7. Subfield 12 is optional for reporting. Zero fill subfields 8-11 when including subfield 12.

Field 60.1 Terminal Type

Attributes

an, 1

TABLE 5-29 Terminal Type

Indicator	Description
0	Unspecified
1	Limited Amount Terminal
2	ATM (Automated Teller Machine, unattended)
3	CAT (Cardholder Activated Terminal, other than ATM)
4	ECR (Electronic Cash Register)
6	Scrip Dispensing Device
7	Telephone Device
8	HBT, Touch-Tone Phone
9	HBT, Screen Phone or PC
A	Initiated CAT Transaction
B	Customer Telephone Device (used in Gift Card transactions)
C	Web Site (used in Gift Card transactions)
D	MVISION

TABLE 5-29 Terminal Type

Indicator	Description
E	Dial POS
F	Virtual terminal
G	Incomm POSA Issuer Gift Card (incoming from Incomm)
H	Safeway POSA Issuer Gift Card (incoming from Safeway)
I	Coinstar POS Issuer Gift Card
J	Worldpay POSA Issuer Gift Card
K	Mobile Banking
L	Cloud
M	MPOS
T	SoftPOS

Field 60.2 Physical Terminal Location

Attributes

an, 1

TABLE 5-30 Physical Terminal Location

Indicator	Description
0	Unspecified
1	Terminal Located at Owner Facility
2	Terminal Not Located at Owner Facility (off premise)

Field 60.3 Terminal Entry Capability

Attributes

an, 1

TABLE 5-31 Terminal Entry Capability

Indicator	Description
0	Unspecified EMD Merchants: The value of 0 is not a valid value for EMD settlement and you should not use it for authorizations.
1	Terminal Not Used
2	Magnetic Stripe Read Capable
3	Bar Code Read Capable
4	OCR Read
5	Integrated Circuit Card Read Capable
7	Contactless Magnetic Stripe
8	Contactless EMV
9	Terminal Not Capable of Reading Card Data

Field 60.4 Merchant Type Indicator

Attributes

an, 1

Description

If unspecified, Worldpay attempts to obtain the correct value from the merchant definition file.

TABLE 5-32 Merchant Type Indicator

Indicator	Description
Blank	Unspecified
A	Railway/ Airline
B	Lodging
C	Auto Rental
D	Restaurant
E	Medical
F	Mail/ Phone Order, E-commerce
H	ATM Cash

TABLE 5-32 Merchant Type Indicator

Indicator	Description
I	Quasi-Cash
Y	Any Other Cash Transaction (not previously listed)
Z	Any Other Purchase (not previously listed)

Field 60.5 POS Card Retention Indicator

Attributes

an, 1

TABLE 5-33 POS Card Retention Indicator

Indicator	Description
0	Unspecified
1	Terminal/operator has no card capture capability
2	Terminal/operator has card capture capability
E	Dial POS
F	Virtual Terminal
G	POSA Issuer Transaction

Field 60.6 POS Transaction Status Indicator

Attributes

an, 1

TABLE 5-34 Subfield 6 (an 1) - POS Transaction Status Indicator

Indicator	Description
0	Normal request
4	Pre-authorized request
8	Merchant Stand-in down-time submission request
9	Merchant Stand-in re-submission request (PIN-less)
E	EMV Offline Request

TABLE 5-34 Subfield 6 (an 1) - POS Transaction Status Indicator

Indicator	Description
F	Partial Authorization - US and foreign amounts
H	Partial Shipment (multi-shipment processing)
J	Reauthorization of multi-shipment
P	Partial Authorization
Q	Merchant Stand-In + Partial Auth Eligible
R	Recurring Payment Transaction For use with Financial Institution Message Set
S	Estimated auth
T	Estimated auth + partial auth eligible

Field 60.7 POS Transaction Routing Indicator

Attributes

an, 1

TABLE 5-35 POS Transaction Routing Indicator

Indicator	Description
0	Unspecified/ Unknown
1	Terminal device supports credit cards only
2	Terminal device supports debit cards only
3	Terminal device supports credit and debit cards
E	This allows acquirers to process in a host data capture environment while selectively sending transactions down an EMD settlement path. It causes settlement to drop the host data capture transaction, which then expects a clearing record sent in the EMD file. It facilitates conversions from EMD to host data capture and from host data capture to EMD. Most transaction processing should not use it, because other options are available. Before using this indicator, consult with your Worldpay representative.

Field 60.8 Chain Code

Attributes

an, 6

Description

This subfield currently only supports 5 digits. Right justify and zero fill.

Field 60.9 Division Number

Attributes

an, 3

Description

Right justify and zero fill.

Field 60.10 Store Number

Attributes

The subfield supports the following formats:

- an, 8

  A character followed by store number. Right justify and zero fill. It only uses the last four characters.
- 00LLnP8

  Merchants who could potentially have store numbers greater than 4 digits but less than 10 use this format. When LL is odd, the store number should begin with a leading zero. Zero fill the field to the full length of 8 bytes. For example, a store number of 12345678 would be represented as: x'0008123456780000'. A store number of 123456789 would be represented as: x'0009012345678900'.

Field 60.11 Register/Lane Number

Attributes

an, 3

Only 2 digits are currently supported. Lane zero is invalid except for store settlement acquirer reconciliation messages. Right justify and zero fill.

Field 60.12 Employee Number

Attributes

n, 9

This is also known as clerk or operator ID. It is optionally used for reporting. Consult your conversion manager or relationship manager for usage. Right justify and zero fill.

Field 061 Network Specific Information

Attributes:

LLL ans..999

Description

This is a field comprised of multiple subfields, which enhance processing specific to a given network.

Requirements

This field is conditional based upon the type of transaction you perform or the level of online qualification you obtain. It may be present in both 0100/0200 requests, 0110/0210 responses, and the 0220 and 0230 force post check card settlement messages.

For incremental authorizations:

- VISA

  Field usage 01 - Transaction Identifier from original authorization, blank Validation Code, and an Authorization Characteristics Indicator of I.

- Mastercard

  Field usage 16 - Banknet Settlement Date and Banknet Reference Number from original authorization, and an Authorization Characteristics Indicator of I.

For recurring/installment transactions:

- VISA

  Field usage 01 - Use the Transaction Identifier returned in the authorization response for subsequent recurring/installment or card on file requests.

Format

The field is a variable-length field containing a number of possible subfields. The two byte field-use indicator determines the fields that are present. It is possible that multiple field-use/subfield combinations can exist within Field 061. Field-use indicators 4 - 7 are no longer used and have been removed.

Field-Use Indicator 01

Request and response messages use this indicator.

TABLE 5-36 Subfields 01, 02, and 03

Subfield	Attributes	Description
01	n 15	Transaction Identifier
02	an 4	Validation Code
03	an 1	Authorization Characteristics Indicator

For incremental authorizations, use the Transaction Identifier from original authorization, blank Validation Code, and an Authorization Characteristics Indicator of I.

Field-Use Indicator 02

Request and response messages use this indicator.

TABLE 5-37 Subfields 01 and 02

Subfield	Attributes	Description
01	n 4 (MMDD)	Banknet Settlement Date
02	an 9	Banknet Reference Number

Field-Use Indicator 03

Request and response messages use this indicator.

TABLE 5-38 Subfield 01 - Duration (Hotel/Auto Rental)

Subfield	Attributes	Description
01	n 2	This is 00 if not a hotel or a rental.

TABLE 5-39 Subfield 02 - Prestigious Property Indicator

Subfield	Attributes	Indicator	Description
02	an 1	Blank	Unspecified
		D	$500 Limit
		B	$1000 Limit
		S	$1500 Limit

TABLE 5-40 Subfield 03 - Market Specific Data Indicator

Subfield	Attributes	Indicator	Description
03	an 1	Blank	Unspecified
		A	Auto Rental
		B	Payment - See Field 126 - Electronic Commerce/MOTO Indicator.
		E	Electronic Commerce Transaction Aggregation
		H	Hotel
		M	Healthcare
		T	Transit

Field-Use Indicator 08

Request and response messages use this indicator. Subfield 02 and Subfield 03 are reserved for future use.

TABLE 5-41 Field-Use Indicator Subfield 01 (an 2) - Card Level Results Code (Visa)

Product ID	Description
Blanks	No product ID available
A	Visa Traditional
AX	American Express
B	Visa Traditional Rewards
C	Visa Signature
D	Visa Signature Preferred
DI	Discover
DN	Diners
E	Proprietary for ATM
F	Visa Classic
G	Visa Business
G1	Visa Signature Business
G2	Visa Business Check Card

TABLE 5-41 Field-Use Indicator Subfield 01 (an 2) - Card Level Results Code (Visa)

Product ID	Description
G3	Visa Business Enhanced
H	Visa Check Card
I	Visa Infinite
J	Reserved
J1	Visa General Prepaid
J2	Visa Prepaid Gift
J3	Visa Prepaid Healthcare
J4	Visa Prepaid Commercial
JC	JCB
K	Visa Corporate T&E
K1	Visa GSA Corporate T&E
L	Electron
M	Mastercard/Euro Card and Diners
N	Visa Platinum
N1	Visa Rewards
P	Visa Gold
Q	Private Label
Q1	Private Label Prepaid
R	Proprietary
S	Visa Purchasing
S1	Visa Purchasing with Fleet
S2	Visa GSA Purchasing
S3	Visa GSA Purchasing with Fleet
S4	Government Services Loan
S5	Commercial Transport EBT
S6	Business Loan
S7	Visa Distribution
T	Reserved/Interlink
U	Visa TravelMoney
V	V PAY

TABLE 5-41 Field-Use Indicator Subfield 01 (an 2) - Card Level Results Code (Visa)

Product ID	Description
W - Z	Reserved
0 - 9	Reserved

Field-Use Indicator 09

Request and response messages use this indicator.

TABLE 5-42 Field-Use Indicator Subfields

Subfield	Attributes	Description
01	an 15	Amex Transaction Identifier
02	an 12	Amex POS Data Codes

Field-Use Indicator 10

Request and response messages use this indicator. It is native data that Discover returns.

TABLE 5-43 Field-Use Indicator Subfield 01 (an 32)

Name	Length
Discover Processing Code	6 bytes
Discover System Trace Audit Number	6 bytes
Discover POS Entry Mode	2 bytes
Discover PIN Capability	1 byte
Discover Track II Status	2 bytes
Discover POS Data	13 bytes
Discover Response Code	2 bytes

Field-Use Indicator 12

Response messages use this indicator.

TABLE 5-44 Field-Use Indicator Subfields

Subfield	Attributes	Description
01	an 3	Length of Subfield 02
02	ans ..196	Receipt Free Text

Field-Use Indicator 13

Request and response messages use this Discover Network Reference ID indicator.

Attributes

an 15

Field-Use Indicator 14

This is the Visa Real Time Clearing Preauth Time Limit indicator. Specify hours as 0002.

Attributes

an 4

Field-Use Indicator 15

HDC request and response messages use Revolution Money Transaction ID indicator.

Attributes

an 15

Field-Use Indicator 16

Request and response messages use this indicator.

TABLE 5-45 Field-Use Indicator Subfields

Subfield	Attributes	Description
01	n 4 (MMDD)	Banknet Settlement Date
02	an 9	Banknet Reference Number
03	an 1)	Authorization Characteristics Indicator

For incremental authorizations, use Banknet Settlement Date and Banknet Reference Number from the original authorization, and set the Authorization Characteristics Indicator to I.

Example: Field-Use Indicator 16

```
160814MDSPTRUQWI
```

Field-Use Indicator 17

Response messages use this Visa Commercial Card Type indicator.

Attributes

an 1

TABLE 5-46 Field-Use Indicator 17 Card Type Values

Card Type Value	Description
B	Business card
R	Corporate card
S	Purchasing card
L	B2B settlement match edits eligible card

Field-Use Indicator 18

Request and response messages use this indicator.

TABLE 5-47 Field-Use Indicator 18 Subfields

Subfield	Attributes	Description/Values
01	an 1	Account Number Indicator • **C** - Mastercard Digital Enablement Service Device Account Number • **E** - Embossed Account Number Provided by Issuer • **L** - Pay with Rewards Loyalty Program Operator [LPO] card • **M** - Primary Account Number • **P** - PayPass Account Number • **R** - Pay with Rewards card • **V** - Virtual Card Number
02	an 20	Account Number
03	an 4	Expiration Date (YYMM)

TABLE 5-47 Field-Use Indicator 18 Subfields

Subfield	Attributes	Description/Values
04	an 3	Product Code

Field-Use Indicator 19

Use the Visa Spend Qualified Indicator in response messages.

Attributes

an 1

Field-Use Indicator 21

Response messages use this indicator.

TABLE 5-48 Field-Use Indicator 21 Subfields

Subfield	Attributes	Description
01	an 2	Mastercard DE 48, subelement 74, subfield 1 (Processing Indicator) indicates the transaction processing type.
02	an1	Mastercard DE 48, subelement 74, subfield 2 contains additional information about the issuer incurred during the cryptogram validation. This information is included in response messages if received from the network, and if requested by the merchant using Field 120 - Additional Request Data with the subfield MA (see Table 5-130) in the request message.

Field-Use Indicator 22

Response messages use this indicator.

TABLE 5-49 Field-Use Indicator 22 Subfields

Subfield	Attributes	Description
01	an … 2	Length of Payment Account Reference
02	ans … 1-35	Payment Account Reference

Field-Use Indicator 23

Request and response messages use this indicator.

TABLE 5-50 Field-Use Indicator 23 Subfields

Subfield	Attributes	Description
01	an … 11	Token requestor ID
02	an … 2	Token assurance level (00 - 99, where 00 indicates that no ID and Verification was performed on the Payment Token and where 99 indicates the highest possible assurance.
03	an … 4	Token expiration date (YYMM)
04	an … 4	Last 4 of token PAN

If Worldpay does not have token data to return, it omits Field-Use Indicator 23 from the reply, even if it was at the merchant's request. If any token data exists, Worldpay populates the missing fields with blanks. If any of the data is unavailable in a request message, then fill the subfield with blanks.

Field-Use Indicator 24

Request messages use this indicator.

TABLE 5-51 Field-Use Indicator 24 Subfields

Subfield	Attributes	Description
01	an 15	Discover Network Reference ID
02	an 12	Discover Original Authorization Amount
03	an 1	Authorization Characteristics Indicator

For incremental or split/partial shipments, use the Discover Network Reference ID from the original authorization. If Discover Original Authorization Amount is not available, fill the field with zeros. If the authorization is not incremental, leave the Authorization Characteristic Indicator blank. For an incremental authorization, set the indicator to I.

Field-Use Indicator 25

Request messages use this indicator.

TABLE 5-52 Field-Use Indicator 25 Subfields

Subfield	Attributes	Description
01	an … 2	Length of Network Retrieval Reference Number
02	ans … 1-35	Network Retrieval Reference Number

The format of the Network Retrieval Reference Number is network dependent.

Field-Use Indicator 26

Response messages use this indicator.

TABLE 5-53 Field-Use Indicator 26 Subfields

Subfield	Attributes	Description
01	an … 2	This subfield contains the Transaction Integrity Class value that the Acquirer receives in the ISO response message.

Field-Use Indicator 27

Response messages use this indicator.

TABLE 5-54 Field-Use Indicator 27 Subfields

Subfield	Attributes	Description
01	an … 2	This subfield contains the E-Commerce Indicator. This value may differ from the original value if the network downgrades the security of the transaction.

Field-Use Indicator 28

Response messages use this indicator.

TABLE 5-55 Field-Use Indicator 28 Subfields

Subfield	Attributes	Description
01	an … 1	This subfield contains the UCAF Indicator. Worldpay only returns this field for Mastercard transactions. This value may differ from the original value if the network downgrades the security of the transaction.

Field-Use Indicator 29

TABLE 5-56 Field-Use Indicator 29 Subfield

Subfield	Attributes	Description
01	an … 21	This subfield contains the Special Program Case Key. This key is required for SNAP and cash online returns for NY cardholders. Copied from the 210 message of the related approved online purchase.

Field-Use Indicator 30

Response messages use this indicator.

TABLE 5-57 Field-Use Indicator 30 Subfield

Subfield	Attributes	Description
01	an … 2	Length of the PAN Reference ID.
02	ans...1-35	PAN Reference ID

Field-Use Indicator 31

Response messages use this Visa Merchant ID indicator for the Commecial Choice program.

Attributes

an 8

Field-Use Indicator 32

EMD response message uses this Visa Agreement ID indicator.

Attributes

an 4

Field 062 Vantiv Transaction Data

Attributes

LLL..ans 999

Description

This field communicates transaction information useful for Worldpay transaction processing not accounted for in the ISO 8583 National Standard.

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield.

LLL is the entire length of the data portion of the field, and an 8-byte (64 bit) bit map describing the subfields present in the field immediately follows it.

Field 062.1 Bit Map, Secondary

Attributes

b 64, 8 bytes

Description

A series of 64 bits identifying the presence (bit is set to 1) or absence (bit is set to 0) of data elements 65 through 128. If the message contains any fields numbered 65 through 128, this is a required field.

Field 62.2 Terminal Sequence Number

Attributes

nP 6, 3 bytes

Description

This field contains a transaction sequence number associated with the acquiring terminal that identifies this transaction to the acquiring terminal. This field is mandatory.

Field 62.3 Transaction Qualifier

Attributes

nP 3, 2 bytes

Description

This field further defines the type of transaction specified in the processing code.

Table 5-58 lists the valid values

.

TABLE 5-58 Transaction Qualifier Values

Qualifier	Description
001	Current Merchant Totals (only valid for transaction type 93)
002	Return Previous Merchant Totals (only valid for transaction type 93)
003	Fleet card Transaction
004	Signature Payment
005	FastPIN Request (InComm Foreign Gift)
006	SaleActive Request (InComm Foreign Gift)
007	SaleInActive Request (InComm Foreign Gift)
008	Unlock/Lock Device (InComm Foreign Gift)
009	Recharge (InComm Foreign Gift)
010	Credit Inquiry (InComm Foreign Gift)

Field 62.4 Acquiring Institution Acronym

Attributes

an 4

Description

This field identifies the Worldpay acronym for the acquiring institution.

For intercepts, the transaction acquirer can put their Worldpay assigned acronym in this field or any other four-character acronym to help them identify the acquiring institution. Worldpay returns the acronym supplied by the acquirer in transaction replies.

For processors, Worldpay will send the Worldpay-assigned acronym of the acquiring institution.

Field 62.5 Issuing Institution Acronym

Attributes

an 4

Description

This field identifies the Worldpay acronym of the processor institution or network.

For intercepts, this field is present in transaction replies sent from Worldpay back to the acquirer. It will contain the Worldpay-assigned acronym of the issuing institution.

For processors, Worldpay will send the Worldpay-assigned acronym of the issuing institution.

For PIN Translation Requests (0900), this field identifies which issuer key translates the PIN.

Field 62.6 Owner Settlement Agent

Attributes

an 4

Description

Use this field to establish a different settlement point for the transaction other than the merchant settlement account. If another financial institution owns the merchant's terminals, this field changes the settlement point to the account at that particular financial institution.

Requirements

For intercepts, you must make special arrangements with Worldpay before using this field.

For processors, Worldpay will send the Worldpay-assigned acronym of the owner settlement agent.

Field 62.7 Cardholder Settlement Agent

Attributes

an 4

Description

Use this field to indicate a different cardholder settlement point than the processor link authorizing the transaction.

Requirements

For intercepts, this field will be present in transaction replies sent from Worldpay back to the acquirer. It contains the Worldpay-assigned acronym of the cardholder's settlement agent.

For processors, Worldpay sends the Worldpay-assigned acronym of the cardholder's settlement agent.

Field 62.8 From Account Qualifier

Attributes

nP 3, 2 bytes

Description

This identifies the From Account for the transaction.

Formats

If the account code in Field 003 - Processing Code is 99 (Bill Pay Merchant), there is only one subfield containing the merchant code; otherwise, this field contains two subfields.

TABLE 5-59 From Account Qualifier Subfields

Subfield	Attributes	Description
1	nP 2	This is the From Account code. See Table 5-4. It must contain one of the codes listed in Processing Code.
2	nP 1	This is the From Account index.

Field 62.9 To Account Qualifier

Attributes

nP 3, 2 bytes

Description

This field identifies the To Account for the transaction.

Requirements

If the account code in field 003- Processing Code is 99 (Bill Pay Merchant), there is only one subfield containing the merchant code; otherwise, this field contains two subfields.

TABLE 5-60 To Account Qualifier Subfields

Subfield	Attributes	Description
1	nP 2	This is the To Account code. See Table 5-5. It must contain one of the codes listed in Processing Code.
2	nP 1	This is the To Account index.

Field 62.10 POS Batch Reference Number

Attributes

b16, 2 bytes

Description

This field contains the batch reference number that the switch assigned.

Requirements

This field is present for Host Data Capture merchants in transaction reply messages that Worldpay sends. This field groups the online transactions into batches for later identification in settlement fields and reports.

The batch number is a hexadecimal value that increments by 1 with each batch as follows: 0001-0009, 000A-000F, 0010-0019, and so on.

Field 62.11 Driver's License Number

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

an 32

Description

This field identifies the check writer's driver's license number.

Requirements

Left justify and blank fill.

Field 62.12 Short MICR Data

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

an 32

Description

This field contains the short MICR data.

Requirements

Left justify and blank fill.

Field 62.13 Full MICR Data

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

an 36

Description

This field contains the full swiped MICR data.

Requirements

For electronic check processing, this is the unaltered raw MICR data.

Field 62.14 Date of Birth

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

n 6, 6 bytes

Description

This field contains the date of birth of the check writer or primary cardholder.

Formats

Format this field as YYMMDD.

Field 62.15 State Code

> **NOTE:** Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

an 2

Description

The field contains the state code representing the home state of the ID presented.

Formats

See Appendix A, "Additional Field Usage Information" for state codes.

Field 62.16 Check Number

Attributes

an 6

Description

This field contains the manually entered check serial number.

Formats

Left justify and blank fill this field.

Field 62.17 Phone Number and ZIP Code

> **NOTE:** Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

an 16

Description

This field contains the home phone number and ZIP code of the check writer. This field contains two subfields.

TABLE 5-61 Phone Number and ZIP Code Subfields

Subfield	Attributes	Description
1	an 7	Fill this field with the seven-digit home phone number of the check writer.
2	an 9	Fill this field with the five- or nine-digit ZIP code of the check writer. Left justify and zero fill it.

Field 62.18 Vantiv Network Acronym

Attributes

an 4

Description

This field contains the network acronym for the transaction. Issuers and acquirers can use this field to determine the source of the transaction.

> **NOTE:** By default, customers using the Worldpay terminal processing platform will receive this field. You must make special arrangements with Worldpay to receive this field for all other processors.

Field 62.19 Station Number

Attributes

an 10

Description

This field contains the number assigned to the check acceptor by the check authorization processor. For enhanced check authorization services, Worldpay will locate the station id on its internal merchant configuration file and use this in place of any passed in value. Worldpay will only use this value if it cannot locate the value on behalf of the merchant.

Field 62.20 Transaction Related Date

Attributes

an 6

Format

YYMMDD

Description

For merchant bill payments, this field contains the future payment date. For stop payments, this is the check date.

Field 62.21 New PIN

Attributes

b 64

Description

Use this field for change pin transactions. The DES key that encrypts this PIN is the current working key for the authorization link. You must use hardware encryption to perform the encryption process.

Field 62.22 Check Type

Attributes

an 1

Requirements

Use this field for check verification and deposit transactions involving a check.

TABLE 5-62 Check Type Codes

Code	Description
Blank	Unknown check type
1	Personal check
2	Payroll check
3	Government check
4	Travelers check
5	Money order
6	Cashiers check
7	Counter check
8	Two party check
9	Business

Field 62.23 Deposit Type

Attributes

an 1

Requirements

Use this field for deposit transactions.

TABLE 5-63 Deposit Type Codes

Code	Description
Blank	Unknown deposit type
0	Cash deposit
1	Check deposit
2	Cash and check deposit
3	Check deposit with cash back (currently unsupported)

Field 62.24 Check Auth Check Type

Attributes

an 1

Requirements

Use this field in Certegy ID free transactions.

TABLE 5-64 Check Auth Check Type Codes

Code	Description
C	Customer check
P	Personal check

Field 62.25 Check Authorization Comment Field

Attributes

LLL..ans 192

Description

This is a free-form comment field that check authorization transactions use. You can use this field in both requests and replies for miscellaneous comments pertaining to the transaction and for check authorization denial information.

Field 62.26 Extended Store Number

Attributes

an 10

Requirements

Use this field in third-party gift card transactions.

Field 62.27 Chain Code

Attributes

an 6

Requirements

Use this field in third-party gift card transactions.

Field 62.28 Routing Priority List

Attributes

LLb..ans 255

Description

Acquirers use this field to indicate the order in which a transaction can choose to route to networks.

Format

The format of the routing priority list entries is as follows:

```
LLXXXXYYYYZZZZ ….
```

LL is the length of the data to follow in hexadecimal format and XXXX, YYYY, ZZZZ, … are the 4 character network acronyms that you can select for the transaction. You must make the network acronyms 4 characters long and pad them on the right with blanks if necessary.

Example: Routing Priority Format

```
0CMAC3MSI AVAL
```

Field 62.29 DVRS Transfer Flag

Attributes

an 1

Requirements

Use this field in DVRS transactions.

TABLE 5-65 DVRS Transfer Flags

Flag	Description
0	No transfer ability
1	Transfer ability for audio

Field 62.30 Preferred Debit Routing Flag

Attributes

an 1

Requirements

Use this field in transactions where a customer would like Worldpay to determine if a credit transaction can be performed as a PIN-based debit transaction.

TABLE 5-66 Preferred Debit Routing Flags

Flag	Description
0	Route according to Worldpay network requirements.
1	Determine if the credit transaction can be successfully routed as debit.

Field 62.31 Card Conversion Flag

Attributes

b 1

Requirements

Use this field in transactions where a customer would like Worldpay to convert the personal access number to a different card product.

TABLE 5-67 Card Conversion Flags

Flag	Description
00	Normal card processing
01	USB Gift card conversion
02	Thornton Gift card conversion

Field 62.32 Special Inquiry Transaction Qualifier

Attributes

an 3

Requirements

Worldpay uses this field in conjunction with Field 0003 - Processing Code when subfield 1 (see Table 5-3) has a value of 64 to further distinguish the special inquiry transaction type.

TABLE 5-68 Special Inquiry Transaction Qualifiers

Qualifier	Description
000	*** Invalid transaction qualifier ***
001	Preferred debit routing inquiry
002	Cardholder Authentication
003	Remove Subscriber (Firethorn only)
004	Mobile Banking Authentication Factor Inquiry (Firethorn only)
401	3-D Secure Enrollment Inquiry
402	Get 3-D Secure Enrollment Information
404	Verify 3-D Secure Password
405	3-D Secure Attempts
406	PIN Validation Request

Field 62.33 Check Authorization Information (Deprecated)

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

LLb ..ans 255

Requirements

Worldpay uses this in check authorization transactions.

Description

Table 5-69 provides formatting options for the check authorization information. This field lets merchants and third-party authorizing agents exchange information specific to their participation in check processing services. Worldpay performs sanity checks on the field identifier and field length. You do not edit the remaining contents of this field.

The following additional rules apply:

- Merchants and acquirers may submit any combination of subfields in Field 62.33 within the defined maximum field length.
- Third-party authorizing agents and participating drawee banks may return any combination of subfields in Field 62.33 when responding to requests.
- Subfields may appear in any order within Field 62.33. The merchant and the third-party authorizing agent determine whether the request or the response requires a subfield.

TABLE 5-69 Check Authorization Information Format Requirements

Field Number/Name	Positions	Content	Usage
Length	1		Contains the length of the data contents in the entire field.
Field Identifier	2-3	**$V**	Identifies use of the field as POS check.
Free Format Text	Any	**FX**999dddd	Identifies free format text, where 999 equals the length of associated data field dddd, which equals the data content The length designator must always be three numeric characters. All of the subfields below are constructed in the same way.

TABLE 5-69 Check Authorization Information Format Requirements

Field Number/Name	Positions	Content	Usage
ID Type and Number	Any	**IC**999dddd	Identifies the type and number of the customer identification presented at the point of sale. 999 equals the length of associated data field. dddd equals the data content. If the POS captures information from multiple ID Types, you can repeat this field as often as necessary. The first two positions in this field must be a valid state code, ID type, or state abbreviation. If the value in the first two positions is a valid state code or state abbreviation, then a valid driver's license number or state ID must follow it. If the value in the first two positions is a valid ID type, then the number following it must correspond to the ID type presented.
Date of Birth	Any	**DB**999dddd	Identifies a date of birth, field length, and contents. 999 equals the length of associated data field. dddd equals the data content. The date format is mmddccyy, where: • mm - Month • dd - Day • cc - Century • yy - Year
Telephone Number	Any	**PH**999dddd	Identifies a telephone number. 999 equals the length of the associated data field. dddd equals the data content. AAANNNNNNN is the number format, where the first three positions are the area code followed by the 7-digit local number.
Dial Terminal Identification Information	Any	**DT**999@dddd	Identifies information pertaining to a dial terminal. 999 equals length of associated data field @dddd equals data content, where @ represents a terminal information flag and the length of the data field includes it.

TABLE 5-69 Check Authorization Information Format Requirements

Field Number/Name	Positions	Content	Usage
Reference Number	Any	**RN**999dddd	Identifies a reference number of any type. 999 equals the length of associated data field. dddd equals the data content.
Proprietary Response Information	Any	**RC**999dddd	Identifies proprietary response information defined by an authorizing agent, field length, and contents.
Receipt Information	Any	**RP**999dddd	Identifies customer receipt information, field length, and contents.
Callback Information	Any	**CI**999dddd	Contains non-bank authorizer name, address, and customer service telephone number. Only non-bank authorizers return this field on declines for an original requests. Following is the format for data content: name/address/telephone number. • You must separate street, city, state, and ZIP Code by a backslash (\) with a space between street, name and number. • The format for telephone number is AAANNNNNNN, where the first three positions are the area code followed by the 7-digit local number.

Field 62.34 Returned Check Fee (Deprecated)

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

nP 3

Description

This field indicates any fee associated with a returned check. Worldpay uses this in check authorization transactions.

Field 62.35 Parsed MICR (Deprecated)

NOTE: Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

LLb..ans 50

Description

This field contains the ACH information provided from parsing the MICR in the following format:

- Field length - 1 byte
- Routing and Transit Number Indicator - T
- Routing and Transit Number - Variable length
- Account Number Indicator - A
- Account Number - Variable length
- Check Number Indicator - C
- Check Number - Variable length

Worldpay uses this in check authorization transactions.

Field 62.36 Variable MICR Data (Deprecated)

> **NOTE:** Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

LLb ..ans 63

Description

This field contains MICR information obtained from a check reader. Worldpay uses this in check authorization transactions.

Field 62.37 Customer Code

Attributes

ans 17

Requirements

Worldpay only uses this for Host Data Capture.

Description

The field contains customer the code for Level 2 or Level 3 interchange rates. It identifies the purchase to the issuer and cardholder. This is a customer-supplied code that is typically a project number, cost center, or general ledger code. If you do not require it, Worldpay recommends using a value of NONE.

Field 62.38 Sales Tax Amount

Attributes

n 10, 10 bytes

Description

This field contains the sales tax amount with two decimal places implied.

The amount must be greater than zero when Field 62.50 - Sales Tax Indicator is 1, zero filled or omitted when Field 62.50 is 0, and zero filled when Field 62.50 is a value of 2. Level 2 or 3 Qualification requires this field and the value is conditional.

Field 62.39 Check Auth Processor

> **NOTE:** Use Field 124 (Usage 5) for enhanced check authorization services instead of this field.

Attributes

an 4

Description

This field specifies the check authorization network that will authorize the transaction. The value is the network's acronym. Worldpay uses this in check authorization transactions.

TABLE 5-70 Check Auth Processor Acronyms

Acronym	Description
EFX1	Certegy
ROC1	Rocky Mountain Retail
TCK1	Telecheck
SCA1	Scan

Field 62.40 Fleet Customer Data (Deprecated)

Attributes

LLb ..an 123

Description

This field contains the customer data used in fleet transactions.

NOTE: Support for fields 62.40 and 62.41 has been moved to Field 118 - Fleet Customer Data and Field 119 - Fleet Product Data. Customers adding support for Fleet processing should use fields 118 and 119. No new support will be added to fields 62.40 and 62.41.

Element Structure

This field is itself divided into subfields listed in Table 5-71.

TABLE 5-71 Fleet Customer Data Subfields

Subfield	Description	Attributes	Format
1	Driver Number	an, 12 bytes	Left justify and blank fill.
2	Vehicle Number	an, 8 bytes	Left justify and blank fill. **Note:** EMD merchants should right justify this field.
3	Odometer	an, 10 bytes	Left justify and blank fill.
4	Driver's PIN	an, 6 bytes	Left justify and blank fill.
5	Prompt Code	an, 2 bytes	Left justify and blank fill.
6	Restriction Code	an, 2 bytes	Left justify and blank fill.
7	Service Type/Level	an, 2 bytes	Left justify and blank fill. The subfield has the following values: • 0 - Self-Serve • 1 - Full-Serve • 2 - Other • 3 - Mini-Serve • 4 - Max-Serve • 9 - Unknown
8	Merchant Discount Amount	8 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.
9	Participant Discount Amount	8 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.
10	Sales Tax Amount, Non-Fuel Gross	9 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.
11	Gross Fuel Tran Amount	9 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.

TABLE 5-71 Fleet Customer Data Subfields

Subfield	Description	Attributes	Format
12	Gross Non-Fuel Tran Amount	9 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.
13	Net Non-Fuel Tran Amount	9 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.
14	Oil Company Name Code	4 bytes	The format is dollars and cents with no decimal point. Right justify and zero fill.
15	PO/Reference Number	an, 15 bytes	Left justify and blank fill.
16	Invoice Number	an, 10 bytes	Left justify and blank fill.
17	Merchant will submit Level 3 Data later	1 byte	The subfield has the following values: • **Y** - Yes • **N** - No (blank)

Field 62.41 Fleet Product Data (Deprecated)

Attributes:

LLb ..an 252 (must be a multiple of 36)

Description

Product data is used on Fleet preauthorization completions and purchases. There can be from one to seven instances of product data. The total length of the field must be a multiple of the element length. Table 5-72 describes the element structure.

> **NOTE:** Support for fields 62.40 and 62.41 has been moved to Field 118 - Fleet Customer Data and Field 119 - Fleet Product Data. Customers adding support for Fleet processing should use fields 118 and 119. No new support will be added to fields 62.40 and 62.41.

Element Structure

This field is comprised of the subfields listed in Table 5-72.

TABLE 5-72 Fleet Product Data Subfields

Subfield	Description	Attributes	Format
1	Amount	12 bytes	(Dollars and cents, no decimal point, RJ, PAD=Zero)
2	Product Type	1 byte	The subfield has the following values: • **F** - Fuel • **N** - Non-Fuel
3	Product Code	an, 6 bytes	Left justify and blank fill. See Fleet Card Product Codes on page 570.
4	Product Quantity	8 bytes	This subfield has 3 implied decimal places and a format of `nnnnn.nnn`.
5	Unit Price	8 bytes	This subfield has 3 implied decimal places and a format of `nnnnn.nnn`.
6	Unit of Measure	an, 1 byte	The subfield has the following values: • **C** - Case or carton • **G** - Gallons • **K** - Kilograms • **L** - Liters • **O** - Other • **P** - Pounds • **Q** - Quarts • **U** - Units • **Z** - Ounces

Field 62.42 Fleet Additional Response Data

Attributes

LLb ..an 83

Description

This field contains additional response data for Fleet transactions, consisting of preferred product code and up to 4 message areas.

NOTE: The field length will determine the presence of subfields 2-4.

Element Structure

This field is comprised of the subfields listed in Table 5-73.

TABLE 5-73 Fleet Additional Response Data Subfields

Subfield	Description	Attributes	Notes
Preferred Product		an, 3 bytes, fixed	
1	Message 1	an, 20 bytes, fixed	
2	Message 2	an, 20 bytes, fixed	This subfield may not be present.
3	Message 3	an, 20 bytes, fixed	This subfield may not be present.
4	Message 4	an, 20 bytes, fixed	This subfield may not be present.

Field 62.43 Gift Card Restriction Value

Attributes

an 2

Description

This field contains the gift card restriction value assigned to a specific card. You can populate this field with the desired restriction value in the activation request message (a subsequent activation reversal will reset the value). The response for all other gift card transactions returns this field.

Field 62.44 DCC 2-Pass Flag

Attributes

an 1

Description

This field indicates if the customer opted-in or opted-out of the currency conversion rate. Table 5-74 lists the available flags.

.

TABLE 5-74 DCC 2-Pass Flags

Flag	Description
Y	Need DCC Auth: Cardholder opted-in to DCC
N	Need US Dollar Authorization: Cardholder opted-out of DCC
Z	Need US Dollar Authorization: Merchant temporarily suspended DCC program

Field 62.45 Reserved for Future Use - (Tandem to IBM Messages)

Field 62.46 Draft Locator ID

Attributes

an 11

Description

This field allows HDC merchants to include the draft locator in the ISO message so that it can be logged and eventually presented in Worldpay Direct. The reply echoes back this field. This field is optional for HDC merchants only.

Field 62.47 Visa Int'l Service/Mastercard Int'l Cross-Border Assessment Flag

Attributes

an 1

Description

The field contains the flag from Visa or Mastercard indicating if a currency conversion/cross-border assessment fee was charged.

Table 5-75 lists the valid flags.

TABLE 5-75 Visa International Service / Mastercard International Cross-Border Assessment Flags

Flag	Description
Blank	Default - no international fee
C	Visa - Single Currency International Service Assessment applied to transaction
N	Mastercard - Does not qualify as a cross-border transaction

TABLE 5-75 Visa International Service / Mastercard International Cross-Border Assessment Flags

Flag	Description
S	Visa - Multi-currency International Service Assessment applied to transaction
Y	Mastercard - Qualifies as a cross-border transaction

Field 62.48 POSA Foreign Network

Attributes

an 4

Description

The field defines the network the merchant is using to authorize the POSA transaction.

Table 5-76 lists the POSA Foreign Network Indicators.

TABLE 5-76 POSA Foreign Network Indicators

Indicator	Description
FGFT	Stored Value Systems
GDOT	Green Dot
GDT2	Green Dot (Alternate)
ICOM	Incomm
MPLN	Mastercard Repower
NSPD	Netspend
SWAY	Safeway / Blackhawk
VPLN	Visa Prepaid Load Network / ReadyLink
VALT	Valutec

Field 62.49 UPC Data

Attributes

LLb ..an 99

Description

This field is for the UPC (Universal Product Code), which is also known as bar code data. Use it for POSA transactions.

Field 62.50 Sales Tax Indicator

Attributes

an 1

Description

This conditional field indicates when the transaction amount includes sales tax that is present in Field 062.38 - Sales Tax Amount. You must include this field for Level 2 and Level 3.

Table 5-77 lists the valid values.

TABLE 5-77 Sales Tax Indicator Values

Value	Description
0	Sales tax information not provided by merchant. Sales Tax Amount field is zeros or omitted.
1	Sales tax included. Sales Tax Amount field has a value greater than zero. (Required value for Level 2 Qualification.)
2	Sales tax not assessed. Either the transaction, cardholder, or municipality/ locality is not subject to sales tax. You must fill the Sales Tax Amount field with zeros.

Field 62.51 Not Used

Field 62.52 Bill Payment Payee Information

Attributes

an75

Description

This field is used to transmit the payee information related to an online bill payment.

Format

This field is fixed length 75 with three subfields within the 75 characters. Left justify and blank fill each subfield to the right. If a subfield is not available, blank fill it. The positions of the subfields are as follows:

- Position 1 to 25: Payee name
- Position 26 to 50: Payee phone number
- Position 51 to 75: Account number Payee uses to identify the payer

Example: Bill Payment Payee Information

```
'Smiths Telephone Shop    513-555-5555 3351120551                '
```

Field 62.53 Alternate PAN

Attributes

LLd ..nP 19, max 11 bytes

Description

This field includes the alternate PAN on a gift card or a subscriber identifier associated with a card. Use it for POSA and mobile banking transactions. The one-byte length field indicates the actual number of digits in the PAN (in binary). For a PAN with an odd number of digits, a leading zero is required to pad the first half-byte of unused data.

Field 62.54 Non-POSA UPC Data

Attributes

LLb ..an 99

Description

This field includes the UPC (Universal Product Code), which is also known as bar code data. Originally, it was developed for the Visa Digital TV Coupon Code; however, you can use it for other generic UPC purposes.

Field 62.55 Authorization Life Cycle (ANSI-defined)

Attributes

LLb ..an3

Description

The ANSI X9.2-1988 standard defines this data element as the Authorization Life Cycle, a value in calendar days, hours, or minutes, that identifies the time period for which an acquirer is requesting guarantee of funds.

This data element is divided into the following subelements.

- Position 1 - Life Cycle Indicator
- Position 2 to 3 - Life Cycle

Table 5-78 lists possible life cycle indicators.

TABLE 5-78 Possible Life Cycle Indicators

Value	Description
1	Calendar Days
2	Hours
3	Minutes

Field 62.56 External Merchant ID

Attributes

LLb ..an15

Description

This field includes the service entry number assigned to the acquirer by the network for cardholder loyalty programs.

Field 62.57 Check Verification ID Type

Attributes

an 2

Description

Worldpay uses this field for check verification transactions.

TABLE 5-79 Check Verification ID Types

ID Type	Description
00	Unknown
01	U.S. Driver's License
02	Canadian Driver's License
03	Mexican Driver's License
04	State ID Card
05	Canadian ID
06	Mexican ID
07	Military ID

TABLE 5-79 Check Verification ID Types

ID Type	Description
08	Law Enforcement
09	U.S. Government ID
10	Passport
11	Alien Registration Card
12	Immigration Card

Field 62.58 Checkwriter's Name

Attributes

LLb ..an35

Description

Use this field for check verification transactions. It is required for WEB/Telephone transactions going out to the ECHO check authorization network.

Field 62.59 Social Security Number

Attributes

an 9

Description

This field includes the cardholder's social security number, which Worldpay uses in check verification and cardholder authentication transactions.

If its numeric data length is less than 9, Worldpay assumes it be the end of the social security number. Left justify and blank fill.

Field 62.60 Not Used

Field 62.61 Cardholder Demographic Data

Attributes

an 1

Description

This field indicates that while sending Authorization Request to Card owning Networks, the field should use Field 043 - Card Acceptor Name and Location Data.

TABLE 5-80 Cardholder Demographic Data Values

Value	Description
0	Default - Use Worldpay Database Value
1	Use Value in ISO Field 043

Field 62.62 Convenience Fee

Attributes

nP 12

Description

This field includes the convenience fee associated with a transaction. This value is for reporting purposes only, because Field 004 - Transaction Amount includes this amount in the total.

Field 62.63 Tip Amount

Attributes

nP 12

Description

This field indicates the tip amount associated with a completion message. This value is for reporting purposes only, because Field 004 - Transaction Amount includes this amount in the total.

Field 62.64 Not Used

Field 62.65 Reserved for Future Use

Field 62.66 Transit Program Data

Attributes

nP 4

Description

This field includes the Transit Transaction Type Indicator and the Transportation Mode Indicator.

Field 62.67 Device Type

Attributes

an 2

Description

You can populate this field with the device type at the terminal.

.

TABLE 5-81 Device Type Values

Value	Description
00	Card
01	Mobile Network Operator (MNO) controlled removable secure element (SIM or UICC) personalized for use with a mobile phone or smartphone
02	Key Fob
03	Watch using a contactless chip or a fixed (non-removable) secure element not controlled by the MNO
04	Mobile Tag
05	Wristband
06	Mobile Phone Case or Sleeve
07	Mobile phone or smartphone with a fixed (non-removable) secure element controlled by the MNO, for example, code division multiple access (CDMA)
08	Removable secure element not controlled by the MNO, for example, memory card personalized for used with a mobile phone or smartphone

TABLE 5-81 Device Type Values

Value	Description
09	Mobile Phone or smartphone with a fixed (non-removable) secure element not controlled by the MNO
10	MNO controlled removable secure element (SIM or UICC) personalized for use with a tablet or ebook
11	Tablet or e-book with a fixed (non-removable) secure element controlled by the MNO
12	Removable secure element not controlled by the MNO, for example, memory card personalized for use with a tablet or e-book
13	Tablet or e-book with fixed (non-removable) secure element not controlled by the MNO
14	Mobile phone or smartphone with a payment application running in a host processor
15	Tablet or e-book with a payment application running in a host processor
16	Mobile phone or smartphone with a payment application running in the Trusted Execution Environment (TEE) of a host processor
17	Tablet or e-book with a payment application running in the TEE of a host processor
18	Watch with a payment application running in the TEE of a host processor
19	Watch with a payment application running in a host processor
20-99	Reserved for future device types. Any value in this range may occur within devices and transaction data without prior notice.

Field 62.68 POS Environment Indicator

Attributes

an 1

Description

Use this field to indicate the special status of an authorization or POS environment.

.

TABLE 5-82 POS Environment Values

Value	Description
C	Credential on File transaction for Visa
F	Final Authorization transaction for Mastercard
P	Not a Final Authorization transaction for Mastercard
R	Recurring transaction for Visa
I	Installment transaction for Visa

Field 62.69 Customer Bill-To Address

Attributes

an 112

Description

This field transmits the customer bill-to information related to an online transaction.

Left justify and blank fill each subfield to the right. If a subfield is not available, blank fill it.

TABLE 5-83 Customer Bill-To Address Subfields

Subfield	Attributes	Position and Length (Total Bytes: 112)	Description
01	ans 40	1-40	Bill-To Address Line 1
02	ans 40	41-80	Bill-To Address Line 2
03	an 18	81-98	Bill-To City
04	an 9	99-107	Bill-To Zip Code
05	an 2	108-109	Bill-To State
06	an 3	110-112	Bill-To Country

Field 62.70 Customer Ship-To Address

Attributes

an 112

Description

This field transmits the customer ship-to information related to an online transaction.

Left justify and blank fill each subfield to the right. If a subfield is not available, blank fill it.

TABLE 5-84 Customer Ship-To Address Subfields

Subfield	Attributes	Position and Length (Total Bytes: 112)	Description
01	ans 40	1-40	Ship-To Address Line 1
02	ans 40	41-80	Ship-To Address Line 2

TABLE 5-84 Customer Ship-To Address Subfields

Subfield	Attributes	Position and Length (Total Bytes: 112)	Description
03	an 18	81-98	Ship-To City
04	an 9	99-107	Ship-To Zip Code
05	an 2	108-109	Ship-To State
06	an 3	110-112	Ship-To Country

Field 62.71 Customer ID

Attributes

LLb ..ans50

Description

This field transmits the customer identification information related to an online transaction.

Field 62.72 Customer Order ID

Attributes

LLb ..ans32

Description

This field transmits the customer order identification information related to an online transaction.

Field 62.73 Customer Email

Attributes

LLb ..ans64

Description

This field transmits the customer email address related to an online transaction.

Field 62.74 Customer Phone

Attributes

n10

Description

This field transmits the customer's phone number related to an online transaction.

Field 62.75 Customer IP Address

Attributes

ans15

Description

This field transmits the customer IP address related to an online transaction. Specify a dotted decimal format. Pad each dotted decimal position with zeros on the left, for example:

128.000.000.001

Field 62.76 Customer Web Session (Browser) ID

Attributes

ans15

Description

This field transmits the customer Session (Browser) ID related to an online transaction.

Left justify and blank fill to the right.

Field 62.77 Not Used

Field 62.78 FIS Loyalty Data

Attributes (Request Message)

LLb ..ans75

Description

Use this field for FIS Loyalty requests.

Table 5-85 lists the subfields in the 062.78 request message.

TABLE 5-85 FIS Loyalty Data Request Message Subfields

Subfield	Type/Length	Description
1	an1	Use this subfield (FIS Loyalty Indicator) to determine merchant and POS eligibility and their ability to send the response information back. Valid values are: • **Y** - Indicates that a message could be sent to the FIS loyalty program for the customer for transaction discounts. • **N** - The merchant and POS are not eligible or capable of handling the FIS processing.
2	an1	Only provide this subfield (FIS Loyalty Opt In/Out Flag) on the follow-up messages after getting FIS loyalty discounts. • **Y** - When set to Y, Worldpay receives the transaction with the discounted amount. • **N** - When set to N, Worldpay does not apply the discount and attempts the transaction for the full amount.
3	an12	Discounted amount **Note (for fuel processing):** On the completion, this is the full value of discount applied to the transaction and should reflect the amount the merchant expects to be reimbursed via Loyalty processing.
4	an15	FIS Transaction ID
5	an12	Loyalty Reward ID
6	an11	Promotion ID
7	an 23	(Optional) Loyalty Sequence ID. Only provide the loyalty sequence ID on the follow-up messages after receiving FIS loyalty discounts through a different channel such as the API.
Note: Only provide subfields 3, 4, 5, and 6 on follow-up messages after getting FIS loyalty discounts. They must match information sent back in the Field 62.78 response message.		

Attributes (Response Message)

LLb ..ans50

Description

Use this field for FIS Loyalty responses.

Table 5-86 lists the subfields in the Field 062.78 response message. You must return all subfields on a subsequent customer opt-in transaction.

TABLE 5-86 FIS Loyalty Data Response Message Subfields

Subfield	Type/Length	Description
1	an12	Use this subfield (Discounted Amount) to send back the actual discount amount to the merchant and POS, so the customer can opt in/out of the discount.
2	an15	Use this subfield (FIS Transaction ID) to give the merchant the transaction ID. Worldpay requires this for follow-up messages in 062.78 to complete further processing.
3	an12	Use this subfield (Loyalty Reward ID) to indicate the Loyalty reward ID associated with this transaction.
4	an11	Use this subfield (Promotion ID) to indicate the program associated with this transaction.

Field 62.79 Extended Customer Web Session (Browser) ID

Attributes

LLb … ans 128, LJ

Description

This field transmits the customer session (browser) ID related to an online transaction (extended version).

Field 62.80 WIC Operating Environment Indicator

Attributes

an1

Description

This field directly maps to Field 22.4 of the WIC EBT formats. You can send it on any transaction type, but any non-WIC transaction will ignore it.

If you do not send this value, Worldpay assumes a value of 1 and sends it to WIC in field 22.4.

TABLE 5-87 WIC Operating Environment Values

Flag	Description
0	No terminal used
1	On premises of card acceptor, attended

TABLE 5-87 WIC Operating Environment Values

Flag	Description
2	On premises of card acceptor, unattended
3	Off premises of card acceptor, attended
4	Off premises of card acceptor, unattended
5	On premises of cardholder, unattended

Field 62.81 Transit Access Terminal Function Code (TAT)

Attributes

an3

Description

This field transmits the function code for a TAT transaction.

TABLE 5-88 Transit Access Terminal Function Codes

Code	Description
190	Account Status Check
191	ATC Synchronization (PAN request)
196	Expresspay Translation (PAN and expiration date request)

Field 62.82 FIS Loyalty Fuel Data

Attributes (Pre-auth Request Message)

LLb ..ans25

Description

Use this field for FIS Loyalty Fuel requests.

On a request, this field consists of three subfields, each one representing a possible fuel the customer can pump. Subfield 2 and 3 can repeat up to three times to allow for multiple fuel types.

Table 5-89 lists the subfields in the 62.82 request message.

TABLE 5-89 FIS Loyalty Data Fuel Request Message Subfields

Subfield	Type/Length	Description
1	an1	Unit of measure • **G** - Gallons • **L** - Liters (**not currently supported**)
2	an3	Fuel Type No editing done on this field, but Worldpay suggests using the NACS codes for the fuel it represents. For Example 111
3	an5	Cost per unit of measure. For example 2.259

NOTE: You can repeat Subfields 2 and 3 up to three times. For example:

```
62.82|      |FIS LOYALTY FUEL DATA          |1V25|C|G1112.2592222.9993333.999`
```

Attributes (Pre-auth Response Message)

LLb ..an35

Description

Use this field for FIS Loyalty Fuel responses.

Table 5-90 lists the subfields in the Field 62.82 pre-auth response message. Subfields 3 and 4 repeats for each fuel submitted in the request.

TABLE 5-90 FIS Loyalty Data Fuel Response Message Subfields

Subfield	Type/Length	Description
1	an4	Unit limit - limit of number of units eligible for rewards. For example, 20.0
2	an6	Total points used if the rewards are accepted For Example 20000.0
3	an3	Fuel Grade ID – the value of the fuel grade ID with which the rewards discount is associated. For example 111
4	an11	Unit Discount – discount related to the fuel grade in the format of dollars and cents. For example, 00.50

Example: `62.82|      |FIS LOYALTY FUEL DATA |1V34|C|20.02000.011100.5022200.5033300.50`

Attributes (Completion Request Message)

LLb ..an18

Description

Use this field for FIS Loyalty Fuel completion requests.

Table 5-91 lists the subfields in the Field 62.82 completion request message. Subfields 3 and 4 repeat for each fuel submitted in the request.

TABLE 5-91 FIS Loyalty Data Fuel Completion Request Message Subfields

Subfield	Type/Length	Description
1	an1	Unit of measure • **G** - Gallons • **L** - Liters (**not currently supported**)
2	an3	Fuel Type No editing done on this field, but Worldpay suggests using the NACS codes for the fuel it represents. For Example 111
3	an5	Original Price per Unit - The original price per unit of measure of the fuel dispensed. For example, 2.259
4	an5	Actual Price per Unit - The actual price per unit of measure of the fuel dispensed after the application of the reward. For example, 1.179
5	an4	Total Number of Units Dispensed - The total number of units of fuel dispensed. For example, 14.7

Example: `62.82|      |FIS LOYALTY FUEL DATA |1V18|C|G1112.2591.75914.7`

Field 62.83 Amex Seller ID

Attributes

n20

Description

This field transmits the Merchant Seller ID out to Amex. Left justify and blank fill to the right.

Field 62.84 Merchant Fraud Customer Name

Attributes

ans20

Description

This field transmits the Merchant Fraud Customer/Cardholder name to FraudSight. Left justify and blank fill to the right.

Field 62.85 Mastercard DSRP Cryptogram

Attributes

LLb … nP 42, 21 bytes

Description

This is the DSRP cryptogram Worldpay sends to Mastercard. It is not BASE 64 encoded.

Field 62.86 Remote Commerce Acceptor Identifier

Attributes

LLb … nP 222, 111 bytes

Description

A merchant identifier such as the merchant business website URL or reverse domain name as presented to the consumer during checkout – not BASE 64 encoded.

Field 62.87 EMD Completion Checkpoint Information

Attributes

an 46

Description

Send this field in the EMD record for each shipment associated with credit card e-commerce transactions that was converted to a debit pre-authorization. For more information, refer to the *Electronic Merchant Deposit File Reference Guide*. Utilizing internal processes, Worldpay can include the EMD records and send them out to the debit networks as pre-authorization completions for each shipment.

Worldpay returns this field to the merchant when the following criteria are fulfilled:

- The credit card request converts to a debit pre-authorization.
- The merchant utilizes EMD settlement.
- The ISO 8583 field 120.CE is set to Y in the credit card message request.

Field 063 Negative File/Reversal/Merchant Advice Reason Code

Attributes

an 2

Description

For negative file messages, this field contains a code that indicates the reason code on the negative file. For reversal messages, it contains a code that indicates the reason the reversal was generated. For advice messages, it contains the reason or nature of the advice. For subsequent transactions in a recurring/installment stream, it indicates the reason for the submission.

Requirements

For negative file messages, this field can only be present in 0312 responses when the data is available from the negative file. Reversal messages require this field. The system returns reason code 34 for reversal and advise transactions when card status is Not Present or e-Commerce, and there is suspected fraud. No edit checks occur.

Format

For negative file messages, the field must contain a valid response code. See Response Code for a list of the valid response codes.

For reversal messages, it must be one of the values in Table 5-92.

TABLE 5-92 Reversal Reason Codes

Value	Description
01	Incomplete Transaction
02	Time Out
03	Invalid Response
04	Destination Not Available
05	Clerk Canceled Transaction
06	Customer Canceled Transaction
07	Misdispense
08	Hardware Failure
34	Suspected Fraud

For advice messages, you must use one of the values in Table 5-93.

TABLE 5-93 Advice Reason Codes

Value	Description
13	Below Floor Limit Transaction
14	Online Authorization Was Not Performed
15	Clearing of an Authorized Transaction (Include the retrieval reference number, auth number, and trans ID)
16	Clearing of an Unauthorized Transaction
34	Suspected Fraud

TABLE 5-94 Subsequent Transaction Codes

Value	Description
40	Incremental
41	Resubmission
42	Delayed charge
43	Reauthorization
44	No show
45	Deferred

Field 064 Not Used

Field 065 Not Used

Field 066 Not Used

Field 067 Not Used

Field 068 Not Used

Field 069 Not Used

Field 070 Network Management Information Code

Attributes

nP 3, 2 bytes

Description

This field contains a code that indicates to Worldpay the network administrative action it should perform.

Requirements

You can only use this field in 08xx messages and 0620 messages.

Format

Table 5-95 lists the values that Worldpay currently supports.

TABLE 5-95 Network Management Information Code Values

Value	Description
001	Signon
002	Signoff
101	New Working Key
160	Make Key Request – Worldpay will generate a key for the requestor, but it will not apply it until it receives an 0820 message to indicate the requestor successfully applied it themselves. Alternatively, Worldpay can request that the customer generate a new key. The customer will then generate a key and send a change key advice with the new key. If the customer is using ANSI X9 TR-31 key blocks, then this replaces the standard triple DES options. The customer may also use these for the standard options if they choose. See Field 124 - Transaction Dependent Data (Usage 9 - Network Management Data) for more information about the enhanced network management processing.
161	Change Key Advice – If requested to build a new working encryption key, Worldpay will generate a key and send it to the requestor to apply. If Worldpay receives a successful response to the request, it will apply the key. Alternatively, the acquirer can generate a key and send it to Worldpay to apply. If Worldpay can successfully process the request, it will generate an approval back to the acquirer, then the new key takes effect. If the customer is using ANSI X9 TR-31 key blocks, then this replaces the standard triple DES options. The customer may also use these for the standard options if they choose. See Field 124 - Transaction Dependent Data (Usage 9 - Network Management Data) for more information about the enhanced network management processing.

TABLE 5-95 Network Management Information Code Values

Value	Description
162	Make Key Confirmation – The requestor sends an 0820 message to indicate it applied the key and notifies Worldpay to do the same. If the customer is using ANSI X9 TR-31 key blocks, then this replaces the standard triple DES options. The customer may also use these for the standard options if they choose. See Field 124 - Transaction Dependent Data (Usage 9 - Network Management Data) for more information about the enhanced network management processing.
163	Make Key/No Stage - Worldpay will generate a key for the requestor and will immediately apply it if successful. If the customer fails to apply the key, then they must send a new request to generate a key. If the customer is using ANSI X9 TR-31 key blocks, then this replaces the standard triple DES options. **Note**: The preferred method for requesting a key is to send management code 160 in an 0800/0810 message sequence which will generate a key to return to the customer and stage it only at Worldpay while it awaits confirmation from the customer that it has been applied at their host. The confirmation message consists of a separate 0820/0830 message sequence with the key information at which point Worldpay will apply the key. If no confirmation message is received, the current key will continue to be used until that message sequence has been completed.
164	Make Key/Schedule Future Change Key Advice - Worldpay will accept the request, respond and schedule a Change Key Advice (Network Management Code of 161) to be processed in the near future. If the customer is using ANSI X9 TR-31 key blocks, then this replaces the standard triple DES options.
180	Request for New Working Key
301	Echo Test
801	System Health Status
900	Errored Transaction (0620 only)

Field 071 Not Used

Field 072 Not Used

Field 073 Not Used

Field 074 Not Used

Field 075 Not Used

Field 076 Not Used

Field 077 Not Used

Field 078 Not Used

Field 079 Not Used

Field 080 Not Used

Field 081 Not Used

Field 082 Not Used

Field 083 Not Used

Field 084 Not Used

Field 085 Not Used

Field 086 Not Used

Field 087 Not Used

Field 088 Not Used

Field 089 Not Used

Field 090 Original Data Elements

Attributes

nP 42, 21 bytes

Description

For reversals, use this field to identify field values from the original transaction, which an issuer may need to successfully reverse in the original request.

Requirements

Only reversals, both full and partial, require this field. Dynamic currency conversion processing requires the original date and time field. This must match Field 007 - Transmission Date and Time or the reversal will not complete successfully. This field has five subfields. You should indicate the absence of data in any of the subfields by using zeros.

Field 90.1 Original Message Type Identifier

Attributes

n 4

Field 90.2 Original System Trace Audit Number

Attributes

n 6

Description

This is Field 011 (Systems Trace Audit Number) from the original transaction.

Field 90.3 Original Transmission Date and Time

Attributes

n 10

Description

This is Field 007 (Transmission Date and Time) from the original transaction.

Field 90.4 Original Acquiring Institution ID

Attributes

n 11

Description

This is Field 032 (Acquiring Institution Identification Code) from the original transaction. Pad this field to the left with zeros.

Field 90.5 Original Forwarding Institution ID

Attributes

n 11

Description

Fill the subfield with zeros.

Field 091 File Update Code

Attributes

an 1

Description

This field contains a code indicating the procedure to follow.

Requirements

You can only include this field in 03xx messages.

Format

Table 5-96 lists the values Worldpay supports.

TABLE 5-96 File Update Code Values

Value	Description
1	Add record
2	Update record
3	Delete record
5	Inquiry

Field 092 Not Used

Field 093 Not Used

Field 094 Not Used

Field 095 Replacement Amounts

Attributes

an 42

Description

This field contains the corrected amount(s) of a transaction or additional amounts in a multi-part transaction.

Requirements

Reversals for partial dispenses require this field.

Format

This field is comprised of subfields that replace the corresponding originally authorized amounts.

Field 95.1 Actual Transaction Amount

Attributes

n 12

Description

This is the completion amount for the transaction in the currency of Field 49 - Transaction Currency Code. For partial reversals or preauthorized debits, this field contains the amount that should be charged to the customer in local currency.

Requirements

For full reversals, this field must contain zeros.

Format

Right justify with leading zeros.

Field 95.2 Actual Amount Settlement

Attributes

n 12

Description

This is the completion amount for the transaction in the currency of Field 50 - Settlement Currency Code (840, which is U.S. Dollars). This field contains the Actual Transaction Amount (Subfield 1) converted to the Settlement Currency Code (always U.S. Dollars).

Format

Right justify with leading zeros.

Field 95.3 Surcharge Fee, Transaction Currency Code

Attributes

x + n 8

Description

This is the surcharge fee charged by the acquirer to the cardholder for accepting the transaction.

Format

X is a D if the charge is a debit to the cardholder and a C if the charge is a credit to the cardholder. The following 8 digits are the amount Worldpay charges to or credits to the cardholder in the currency of the Transaction Currency Code. The Transaction Currency Code must be exclusive of this fee.

Field 95.4 Surcharge Fee, Settlement Currency Code

Attributes

x + n 8

Description

This is the surcharge fee charged by the acquirer to the cardholder for accepting the transaction in the currency of Settlement Currency Code (U.S. Dollars).

Format

X is a D if the charge is a debit to the cardholder and a C if the charge is a credit to the cardholder. The following 8 digits are replacement surcharge fee (Subfield 3) converted into the currency of Settlement Currency Code (U.S. Dollars).

Field 096 Not Used

Field 097 Not Used

Field 098 Not Used

Field 099 Card Institution ID Code

Attributes

Ld..nP 11. Max. 7 bytes

Description

This field identifies the institution acting as issuing bank or processor for an interchanged transaction. It typically contains the Route and Transit Number of the card issuing institution as defined by the Federal Reserve. The implementation of this field allows other identifications of the institution which the first digit of the field defines.

Format

The format of the Card Issuer Institution Identification Code is broken down into two subfields. It has the following format:

```
LLIXXXXXXXXXX
```

where:

- `LL` - Number of digits contained in the field excluding the length
- `I` - Institution Identification Method
- `XXXXXXXXXX` - Institution Identifier

TABLE 5-97 Card Institution ID Code Formats

Type	Value	Description
Route and Transit Number	`LL`	10 - Number of digits of data
	`I`	0 - Route and Transit number identifier
	`XXXXXXXXX`	Nine digit Route and Transit number
Bank Identification Number (BIN)	`LL`	07 - Number of digits of data
	`I`	1 - BIN Number Identifier
	`XXXXXX`	Six digit BIN
Private	`LL`	0A - Number of digits of data
	`I`	9 - Private Identifier
	`XXXXXXXXX`	Nine digit Private information

Field 100 P2P Encryption Data

Attributes

LLL ans..999

Description

This field contains data that the P2P encryption process uses. The existence of this field indicates the transaction used P2P encryption.

Format

This field is divided into subfields. Similar to the basis for ISO 8583 messaging, the presence or absence of a subfield is indicated by a bitmap located at the beginning of the data portion of the field.

LLL is the entire length of the data portion of the field and a 4-byte (32 bit) bit map describing the subfields present immediately follows it.

Field 100.1 Encryption Vendor ID

Attributes

an 1

Description

This field identifies the field encryption vendor.

Format

This field has the following formats:

- **A** - Voltage
- **D** - DUKPT Field Encryption
- **E** - Verifone ADE
- **O** - OnGuard
- **P** - Onguard SDE
- **U** - Verifone

Field 100.2 Encrypted PAN

Attributes

LLb ans..19

Description

This field contains the encrypted version of the PAN.

Format

This field transmits the encrypted version of the PAN, replacing the information typically placed in ISO field 2. This field occurs in character format rather than the packed unsigned format that field 2 uses.

Field 100.3 Encrypted Track II

Attributes

DUKPT Encryption: LLb b8…40 (in blocks of 8 bytes)
Other Encryptions: LLb ans…37

Description

This field contains the encrypted version of the Track II.

Format

Use this field to transmit the encrypted version of the Track II, replacing the information typically placed in Field 35 - Track II Data. This field is presented in character format rather than the packed unsigned format used for Field 35.

Field 100.4 Encrypted Track I

Attributes

LLb ans…76

Description

This field contains the encrypted version of the Track I.

Format

Use this field to transmit the encrypted version of the Track I, replacing the information typically placed in Field 45 - Track I Data. Omit start and end sentinels.

Field 100.5 Field Encryption KSN (DUKPT Field Encryption Only)

Attributes

an 20

Description

This field contains the KSN used for field encryption.

Format

This field is used in place of Field 100.32- Encryption Key Data when KSN based field encryption is in use. The KSN represented here is different than the KSN that is used for DUKPT encryption, which is provided in Field 120 -Additional Request Data).

Field 100.6 Encrypted CVV2 (Voltage Only and OnGuard Only)

Attributes

LLb ans…25

Description

This field contains the encrypted version of the CVV2.

Format

For manually entered encrypted PAN transactions, use this field to transmit the encrypted version of the CVV2, replacing the information typically provided in Field 120 - Additional Request Data indicator C2 (see Table 5-107).

Field 100.7 Encrypted Expiration Date (OnGuard Only)

Attributes

an 4

Description

This field contains the encrypted version of the expiration date.

Format

For manually entered encrypted PAN transactions, use this field to transmit the encrypted version of the expiration date, replacing the information typically provided in Field 14 - Expiration Date.

Field 100.8 Not Used

Field 100.9 Not Used

Field 100.10 Not Used

Field 100.11 Not Used

Field 100.12 Not Used

Field 100.13 Not Used

Field 100.14 Not Used

Field 100.15 Not Used

Field 100.16 Not Used

Field 100.17 Not Used

Field 100.18 Not Used

Field 100.19 Not Used

Field 100.20 Not Used

Field 100.21 Not Used

Field 100.22 Not Used

Field 100.23 Not Used

Field 100.24 Not Used

Field 100.25 Not Used

Field 100.26 Not Used

Field 100.27 Not Used

Field 100.28 Not Used

Field 100.29 Not Used

Field 100.30 Not Used

Field 100.31 Not Used

Field 100.32 Encryption Key Data

Attributes

LLL ans…500

Description

The field contains the key data used to encrypt P2P encrypted fields.

For Voltage transactions, this field contains the Voltage encryption key in binary format.

For Verifone VTP non-transparent encryption, this field contains the eparms data used for field encryption, which is presented in character format.

For OnGuard encryption, this field contains the character representation of the KSN used for field encryption.

Field 101 Card Results Field

Attributes

LLL ans..999

Description

This field is included if the requestor wishes to suppress the PAN in the response message field 2, and instead replace it with one or more versions of the PAN. The contents of this field depends on what was included in the CR portion of Field 120 - Additional Request Data in the request message.

This field pertains only to response messages.

For Card-from-Tokenization transactions, if the CR indicator (see Table 5-138) is not included in Field 120 - Additional Request Data, then bit 1 is included in this field by default.

Format

The response message contains the bit map indicating which fields are included, followed by the data.

LLL will be the entire length of the data portion of the field and a 4-byte (32 bit) bit map describing the subfields requested /present immediately follows it.

TABLE 5-98 Card Results Field Bit Position

Bit Position	Required Verification Data
1	PAN in the clear (LL ans … 19)
2	Truncated or masked PAN (LL ans … 19)
3	Last 4 Digits of PAN (an 4)
4	Tokenized PAN (LL ans … 19). Valid only for tokenization customers.
5	First 8 digits of PAN (an8)
6 - 32	Reserved for future use

Field 102 Account Identification I

Attributes

LLd..nP 28

Description

This field is a series of digits that identify the customer account associated with the transaction. This field communicates the account number from which the funds are moving in interchanged transactions (that is, the account from which the transaction amount is debited.)

Use this field on multiple account data inquiry requests to indicate the net account number to process when additional messages are required to transmit the complete list of accounts connected to a specific card when more than 10 accounts are connected to the card being inquired upon. The type of account represented in this field is returned in the second byte of Field 003 - Processing Code. The subsequent request for additional account data must return the account code and account number.

Format

You must make the length of this field the actual length of the account number, because some valid account numbers start with leading zeros.

Field 103 Account Identification 2

Attributes

LLd..nP 28

Description

This field is a series of digits that identify the customer account associated with the transaction. This field communicates the account number from which the funds are moving in interchanged transactions (that is, the account that receives the credit for the transaction amount.)

Format

The length of this field must be the actual length of the account number, because some valid account numbers start with leading zeros.

Field 104 Transaction Specific Data

Attributes

LLL..ans 255

Description

This field contains transaction-specific data as provided by the issuer or network. It consists of one subfield only. Each subfield consists of a one-byte field use indicator, optionally followed by applicable data.

The field use indicator is H (Healthcare Data) and it is followed by a format code (an 1).

For WIC Transactions, the Field Use Indicator is W (WIC Transport Data) followed by the following:

- Optional trace number
- Space separator
- Optional response message text corresponding to bit 39

TABLE 5-99 Format Codes

Code	Description
Blank	Not specified (All tags supported)
V	Visa data

Table 5-100 lists the data tags (an, 255 bytes); a tag includes the dataset id as well as the two byte length of data to follow. Response messages may include all defined tags. One inquiry can support up to five healthcare services. Tag lengths are specified in character, decimal format

TABLE 5-100 Data Tags

Tag (FIX 2 AN)	Length (FIX 2 AN)	Value (VAR AN 255)	Content of Subelements	Format Code Use
01	09	Healthcare Provider ID	This subelement has nine numeric positions containing the medical license number of the provider.	V For Visa eligibility inquiries, incoming requests require this tag.
02	02	Service Type Code	This subelement has two character positions containing the defined standard code for healthcare treatment.	V For Visa eligibility inquiries, incoming requests require this tag.

TABLE 5-100 Data Tags

Tag (FIX 2 AN)	Length (FIX 2 AN)	Value (VAR AN 255)	Content of Subelements	Format Code Use
03	06	Payer Id/Carrier ID	This subelement has six numeric positions containing the identification of the health insurance carrier/payer.	V
04	02	Approval or Reject Reason Code	This subelement has two alphanumeric positions containing the defined codes for approval and declines of eligibility inquiries.	V

Field 105 Multiple Account Data

Attributes

LLLL..ans 9,999

Description

Worldpay returns information for all accounts of the requested type in response to a multiple account data inquiry in this field.

Format

The contents of this field is repeated for each account with the requested type. The repeated segments contain account information elements depending on the presence of a bit in the bitmap, which begins each segment.

The entire length of the data portion is LLLL.

Field 105.00 Segment Length

Attributes

LLL..ans 999

Description

This field contains the length of segment to follow for a single account.

Field 105.00 Segment Bitmap

Attributes

b 32, 4 bytes

Description

This field contains a bitmap of subfields within the current account segment.

Field 105.1 Account Type

Attributes

nP 2, 1 byte

Description

This field contains the account type. See Table 5-5 for a list of account types.

Field 105.2 Account Index

Attributes

nP 2, 1 byte

Description

This field contains the account index associated with the current account for the account type indicated in Subfield 105.01 - Account Type.

Field 105.3 Account Number

Attributes

LL..nP 28

Description

This field contains a number uniquely assigned to the account in this segment by the issuing institution for the type of account indicated in Subfield 105.01 - Account Type.

Field 105.4 Account Authorities

Attributes

b8, 1 byte

Description

This field indicates the privileges permitted to the account in this segment by the card number associated with the multiple account request.

This subfield will contain a sum of all the individual flags.

TABLE 5-101 Account Authorities Flags

Flag	Description
x80	Default account of this type
x40	Reserved for internal use

TABLE 5-101 Account Authorities Flags

Flag	Description
x20	Reserved for internal use
x10	Reserved for internal use
x08	Reserved for internal use
x04	Credit (TO) Authorized
x02	Debit (FROM) Authorized
x01	Inquiries Authorized

Field 105.5 Account Balance

Attributes

LLL..ans 90

Description

This field contains up to 5 recurrences of balances for the account described in this segment in the format:

```
TTCCCXNNNNNNNNNNNNN
```

TABLE 5-102 Account Balance Values

Value	Description
TT	Type of balance (See Additional Amounts on page 306.)
CCC	Currency code of balance
X	Sign • **C** - Positive balance • **D** - negative balance
NNNNNNNNNNNN	Amount Right justify and zero fill.

Field 106 WIC EBT Pass-Thru Field #1/Level 3 Authorization Descriptor Fields

WIC EBT Pass-Thru Field #1 (Usage 1)

Attributes

LLL..ans 999

Description

This is a variable length field containing information to be either sent to the WIC Processor from the merchant or from the WIC Processor to the merchant.

> **NOTE:** This field usage is for WIC Transactions (Field 3 = xx97xx) only.

Level 3 Authorization Descriptor Fields (Usage 2)

Attributes

LLLL...ans 2056

Description

HDC merchants can optionally utilize Usage 2 of this field to qualify for Level 3 interchanges rates. The field should include the following 106 bytes of information for up to 25 items. All fields are fixed in length, and you should pad to the right with spaces unless noted otherwise.

This field usage is for Visa and Mastercard HDC Credit transactions only.

If the total field length is not evenly divisible by 106 bytes, Worldpay ignores the field.

If any of the item segments have non-numeric data in a field designated as numeric, then Worldpay flags that individual item with an error and does not include it in the network settlement file.

> **NOTE:** Mastercard does not allow you to specify Fuel Products as Level 3.

TABLE 5-103 Authorization Descriptor Fields

Field Description	Field Length	Field Use
Item Description	35 bytes	This contains a description of the item purchased. You cannot space or zero fill it.

TABLE 5-103 Authorization Descriptor Fields

Field Description	Field Length	Field Use
Unit of Measure	12 bytes	This includes measurements such as gallon, gram, kilogram, and so on. It defaults to NMB (Number) when unknown.
Unit Price	12 bytes numeric, right justified, 0 filled	Unit Price uses the following formula: Sum {(Unit Cost * Quantity) - Discounts} +Tax, which should equal Field 004 - Transaction Amount.
Unit Price Decimal	1 byte, right justified, 0 filled	Visa only supports 4 decimal places.
Item Quantity	12 bytes numeric, right justified, 0 filled	Item Quality uses the following formula: Sum {(Unit Cost * Quantity) - Discounts} +Tax, which should equal Field 004 - Transaction Amount.
Item Quantity Decimal	1 byte, right justified, 0 filled	Visa only supports 4 decimal places.
Product Code	15 bytes	This is a description of the item purchased. You cannot space or zero fill it.
Item Discount Amount	12 bytes numeric, right justified, 0 filled	This is conditional on whether the discount is applied to the line item.
Item Discount Rate	5 byes numeric, right justified, 0 filled	This is conditional on whether the discount is applied to the line item.
Item Discount Rate Decimal	1 byte, right justified, 0 filled	Visa only supports 2 decimal places.

Benefit Card Services UPC/PLU Pass-Thru Data (Usage 3)

Attributes

LLL…ans 999

Description

Merchants will be required to send UPC/PLU data to Worldpay for eligible products. In a situation where a product sent in field 106 is not found on the APL, merchants will be required to handle partial approvals. The remaining amount for items not found on the APL will be sent back in field 54 under amount type 5I. If the message requires more composite data elements than will fit into Field 106, these additional elements are placed in Field 107, Field 108, or Field 109 as indicated. For more information, see Appendix G, "Benefit Card Services Flow Between Merchant and Worldpay".

TABLE 5-104 Usage 3 Data Format

Field Description	Field Length	Notes
UPC/PLU Tag	AN 5	*PS*\ Designates field 106 as UPC/PLU pass-thru data
Purchase Item Data Length	N 4	
UPC/PLU Indicator	N 1	• **0** - UPC • **1** - PLU
UPC/PLU Value	N 15	UPC/PLU value. Right-justified, padded with 0s
UPC/PLU Check Digit	N 1	Calculated using UPC-A check digit algorithm from GS1
Category Code	AN 2	Identifies the product/produce item at a macro level (for example, milk).
Sub-category Code	AN 3	Identifies the product/produce item at a micro level (for example, skim).
Benefit Purse Type	AN 2	Benefit purse type value as defined for requested amount type values This field is blank on requests.
Units	N 5	Quantity of package measure
Package Measure	AN 10	Ounces, Gallons, and so on
Original Item Price	N 6	
Purchase Quantity	N 5	
Discount Amount	N 6	
Coupon Amount	N 6	For future use
Coupon Quantity	N 5	For future use
Final Price	N 6	Final Price = Original Item Price x Purchase Quantity less (Discount Amount + Coupon Amount), Right justify and zero fill.
UPC/PLU Data Length	N 2	Right justify and zero fill.

TABLE 5-104 Usage 3 Data Format

Field Description	Field Length	Notes
Item Action Code	N 2	• **00** - Approved / on APL • **04** - Not Approved/Not on APL • **07** - Exceeds Available/on APL Use 00 on requests.

Field 107 WIC EBT Pass-Thru Field #2

Attributes

LLL..ans 999

Description

This is a variable length field that contains information sent to either the WIC Processor from the merchant or from the WIC Processor to the merchant. Use it for overflow. See Appendix C, "WIC EBT Pass-Thru Information" for more information.

Benefit Card Services UPC/PLU Pass-Thru Data #2 (Usage 2)

Attributes

LLL…ans 999

Description

This a variable length field that contains UPC/PLU information to be sent out to the networks for Benefit Card Services processing. This is a continuation field used to submit more product data. See Appendix G, "Benefit Card Services Flow Between Merchant and Worldpay" for more information.

Field 108 WIC EBT Pass-Thru Field #3

Attributes

LLL..ans 999

Description

This is a variable length field that contains information sent either to the WIC Processor from the merchant, or from the WIC Processor to the merchant. See Appendix C, "WIC EBT Pass-Thru Information" for more information.

Benefit Card Services UPC/PLU Pass-Thru Data #3 (Usage 2)

Attributes

LLL…ans 999

Description

This a variable length field that contains UPC/PLU information to be sent out to the networks for Benefit Card Services processing. This is a continuation field used to submit more product data. See Appendix G, "Benefit Card Services Flow Between Merchant and Worldpay" for more information.

Field 109 Benefit Card Services UPC/PLU Pass-Thru Data #4

Attributes

LLL…ans 999

Description

This a variable length field that contains UPC/PLU information to be sent out to the networks for Benefit Card Services processing. This is a continuation field used to submit more product data. See Appendix G, "Benefit Card Services Flow Between Merchant and Worldpay" for more information.

Field 110 Transaction Dependent Pass Through Data

Attributes

LLL..ans 999

Description

Use this field to pass updated data to an external database on denied transactions only.

Format

This field is divided into subfields. Similar to the basis for ISO 8583 messaging, the presence or absence of a subfield is indicated by a bitmap located at the beginning of the data portion of the field.

LLL is the entire length of the data portion of the field and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 110.1 Account Indicator Code

Attributes

b 2, 1 byte

Description

This field contains the account indicator codes applied for the transaction.

Field 110.2 Account Alert Code

Attributes

an 1

Description

This field contains the alert code applied to the transaction.

Field 110.3 Account Alert Code Date

Attributes

nP 6, 3 bytes (MMDDYY)

Description

This field contains the date that an alert code was applied to the account.

Field 110.4 Number of Consecutive Bad CVV Attempts

Attributes

nP 4, 2 bytes

Description

This field contains the number of consecutive bad CVV attempts a customer performs.

Field 110.5 Card Indicator Code

Attributes

b 2, 1 byte

Description

This field contains the card indicator codes applied for the transaction.

Field 110.6 Card Reason Code

Attributes

an 1

Description

This field contains a reason code applied for the transaction.

Field 110.7 Card Reason Code Date

Attributes

nP 6, 3 bytes (MMDDYY)

Description

This field contains the date that a reason code was applied to the card.

Field 110.8 Card Activation Date

Attributes

nP 6, 3 bytes (MMDDYY)

Description

This field contains the activation date of the card.

Field 110.9 Number of Consecutive Bad ATM PIN Attempts

Attributes

nP 4, 2 bytes

Description

This field contains the number of consecutive bad ATM PIN attempts the customer performs.

Field 110.10 Number of Consecutive Bad Audio PIN Attempts

Attributes

nP 4, 2 bytes

Description

This field contains the number of consecutive bad audio PIN attempts the customer performs.

Field 110.11 Account Processing Flag

Attributes

b 2, 1 byte

Description

This field contains flags which dictates what account is being processed when the transaction disposition changed.

TABLE 5-105 Account Processing Flags

Options	Description
80	Cluster

TABLE 5-105 Account Processing Flags

Options	Description
40	From Account
20	To Account
10	Credit Account
08	Ready Reserve
04	VCD

Field 110.12 Account Read Flag

Attributes

b 2, 1 byte

Description

This field contains flags that dictate what account is being read when the transaction disposition changed.

TABLE 5-106 Account Read Flags

Options	Description
80	Cluster
40	From Account
20	To Account
10	Credit Account
08	Ready Reserve
04	VCD

Field 111 Additional EBT Data

Attributes

LLL..ans 52

Description

This is a variable length field that contains additional information for Electronic Benefit Transactions, which must have one or both of the following formats listed in Table 5-107.

TABLE 5-107 Electronic Benefit Transaction Formats

Format	Value	Description
Benefit Transaction Format AALLLXXXXXXX	AA	Identifier EB
	LLL	Data Length It can be up to 007.
	XXXXXXX	FCS Number Left justify it.
Voucher Number Format AALLLXXXXXXXXXXXXXXX	AA	Identifier VN
	LLL	Data Length - up to 015
	XXXXXXXXXXXXXXX	Voucher Number Left justify it.

Field 112 Gift Card Transaction Data

Attributes

LLLL..ans 9,999

Description

This field communicates miscellaneous data for Gift Card transactions.

Format

This field is divided into subfields. Similar to the basis for ISO 8583 messaging, the presence or absence of a subfield is indicated by a bitmap located at the beginning of the data portion of the field.

LLLL is the entire length of the data portion of the field and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 112.1 Reserved for Future Use

Field 112.2 Gift Card Alternate Account Number 1/Mass Transaction Ending Account Number

Attributes

LLd..nP 19, max 11 bytes

Description

This field is a series of digits that identify a customer account or relationship.

Format

The one-byte length field indicates the actual number of digits in the EAN (in binary). For an Alternate Account/EAN with an odd number of digits, it requires a leading zero to pad the first half-byte of unused data.

Field 112.3 Gift Card Mass Transaction Response Data

Attributes

LLb, mixed, max 251

Description

This field contains information for all the individual transactions generated from the mass transaction. The data included in this field is the ending 4 digits of the each card number, remaining balance, and response code. This response also includes the number of approved cards in the range. The response of Mass Transactions for 25 cards or less includes this field.

Format

The one-byte length field indicates the number of bytes in the field (in binary, Max = FF). For each card in the range, there are ten bytes of data in the following format: [Last four digits of card number (unsigned packed) - 2 Bytes][Remaining balance (Packed) - 6 Bytes][response code (character) - 2 Bytes]. After the individual card data, there is 1 byte indicating the number of approved cards (unsigned packed).

Field 112.4 Gift Card Mass Transaction Card Total

Attributes

nP 4, 2 bytes

Description

This field contains the number of cards calculated from the range provided. The response of Mass Transactions for more than 25 cards includes this field.

Format

Right justify and zero fill this value. The value in this field is in decimal form with a maximum up to 9999.

Field 112.5 Gift Card Mass Transaction Completion Date and Time

Attributes

nP 10, 5 bytes (MMDDhhmmss)

Description

This field contains the estimated completion time of all cards in a Mass Transaction. The response of Mass Transactions for more than 25 cards includes this field.

Format

Greenwich Mean Time represents the time and date.

Field 112.6 Gift Card STATUS

Attributes

an 1

Description

The Issuer of a Gift Card can set a STATUS code indicating that the gift card is LOST, STOLEN or SUSPENDED. Conversely, the Issuer can un-STATUS a card - that is, change the LOST/STOLEN.SUSPENDED status of a gift card.

Restrictions

Following are the restrictions that you should meet for a successful approval:

- You can only STATUS a gift card that does not have a STATUS to L/S/U.
- You can only remove a STATUS from a gift card that has a STATUS.
- When you remove the STATUS from a gift care with a STATUS-ed gift card, the alert code it carried before you gave it a STATUS redisplays; therefore, if the card had no ALERT codes before you gave it a STATUS, it will not have any ALERT codes after you remove its STATUS.

> **NOTE:** Worldpay denies a transaction with a request to STATUS a gift card if Field 112.6 is not present.

Format

Table 5-108 lists the values that Worldpay currently supports.

TABLE 5-108 Gift Card Status Values

Value	Description
Blank	Un-STATUS: Remove any Status Code for the card.
L	LOST Gift Card
S	The card has been STOLEN
U	The card is SUSPEND-ed.

Field 112.7 Gift Card Alternate Account Number 2

Attributes

LLd ..nP 19, max 11 bytes

Description

This field is a series of digits that identify a customer account or relationship.

Format

The one-byte length field indicates the actual number of digits in the Alternate Account Number 2 (in binary). For an Alternate Account Number 2 with an odd number of digits, a leading zero must pad the first half-byte of unused data.

Field 112.8 Gift Card Alternate Account Number 3

Attributes

LLd ..nP 19, max 11 bytes

Description

This field is a series of digits that identify a customer account or relationship.

Format

The one-byte length field indicates the actual number of digits in the Alternate Account Number 3 (in binary). For an Alternate Account Number 3 with an odd number of digits, a leading zero must pad the first half-byte of unused data.

Field 112.9 Gift Card Security Code

Attributes

LLb ..ans 12

Description

This field authenticates the plastic used in the transaction. Similar to the CVV2 value, Worldpay denies the transaction if you use an invalid code. Additionally, three failed Security Code attempts place a lock on the card. You can only remove it with a successful transaction where the security code is not present nor does it require it. If the code is present, whether it is required or not, Worldpay validates it.

While setting up a new gift card program, the issuer must specify the security code length (4-12 digits) and conditions where the security code is required. Two parameters, the processing code (DE 3, subfield 1) and the POS Condition Code (DE 25), are available to identify transactions where the code is required. For example, an issuer may require the code on all e-commerce activations (DE 25=59, DE 3.1=51), and Purchases (DE=*, DE 3.1= 55), but optional on all others. A relationship manager can give further clarification.

Format

The one-byte length indicates the number of Security Code digits that follow. The value can be between four and 12 digits inclusive.

Field 112.10 Gift Card Capability

Attributes

LLb ..ans 255

Description

This field defines the allowed processing for a merchant's POS device.

Format

Table 5-109 lists the formats that Worldpay currently supports.

TABLE 5-109 POS Device Formats

Type	Formats	Description
PIDN (Premier Issue Dual Number Cards) capable POS device	xxxI	
	xxx	Identifier PDN
	I	Indicator Y
Gift Card Currency Conversion Capable Device	xxxI	
	xxx	Identifier CUR
	I	Indicator Y

Field 112.11 Gift Card PIDN Converted Account Number

Attributes

LLd ..nP 19, max 11 bytes

Description

Worldpay only populates this field if the POS device can receive the information (see Field 112.10 - Gift Card Capability). The PIDN (Premier Issue Dual Number) converted account number defines the account number held on the Worldpay database and is printed on the face of the gift card.

Format

The one-byte length field indicates the actual number of digits in the gift card PIDN converted account number (in binary). For an account number with an odd number of digits, you must pad the first half-byte of unused data with a leading zero.

Field 112.12 Not Used

Field 112.13 Not Used

Field 112.14 Not Used

Field 112.15 Virtual Gift Card Data

Attributes

LLd ..nP 19, max 13 bytes

Description

This field passes the account number length and BIN for a gift card for a particular merchant. In the response, Field 002 - Primary Account Number (PAN) returns the gift card account number.

Format

The one-byte length field is followed by virtual gift card data. The virtual gift card data is a one-byte gift card account number length followed by a one-bye virtual gift card BIN length followed by the virtual gift card BIN. If the gift card BIN is an odd number of digits, zero fill and right justify it.

Example: Virtual Gift Card Data Format

`051006308540`

Where:

`05` - Field 112.15 length (LLVAR)

`10` - Virtual Gift Card Account Number Length (hex data)

`06` - Virtual Gift Card BIN Length

`308540` - Virtual Gift Card BIN

Example: Virtual Gift Card Data Format

`06100703085401`

Where:

`06` - Field 112.15 length (LLVAR)

`10` - Virtual Gift Card Account Number Length (hex data)

`07` - Virtual Gift Card BIN Length

`03085401` - Virt. Gift Card BIN (right justified, zero fill hex data)

Field 112.16 Terms and Conditions Version Number

Attributes

nP 1

Description

This subfield contains the Terms and Conditions Version number in the request data for InComm foreign Gift Card messages.

Format

Valid values are 00-99 in the request message.

Field 112.17 Digital Delivery Data

Attributes

LLLd ..an max 510 characters

Description

This subfield contains the data returned in the response message for Digital Delivery Data for InComm foreign Gift Card messages.

Format

It contains alphanumeric characters in the response data.

Field 112.18 Terms and Conditions

Attributes

LLLd ..an max 510 characters

Description

This subfield contains the data returned in the response message for Terms and Conditions for InComm foreign Gift Card messages based on Field 112.16 - Terms and Conditions Version Number in the request message.

Format

It contains alphanumeric characters in the response data.

Field 113 Not Used

Field 114 Not Used

Field 115 Terminal Specific Data

Attributes

LLLL..ans 9,999

Description

Use this field to supplement the standard host data capture message set for use explicitly with the Worldpay terminal processing platform. To authorize transactions on the Worldpay terminal processing platform, Worldpay requires this field along with the terminal application header and the 12-digit terminal merchant ID.

For more information about terminal processing requirements, see Appendix E, "Worldpay Terminal Processing Information".

Format

This field is comprised of subfields. Similar to the basis for ISO 8583 messaging, two bit maps located at the beginning of the data portion of the field indicate the presence or the absence of a subfield. The entire length of the data portion of the field is LLLL.

Two 8-byte (64 bit) bit maps that describe the subfields present immediately follow it. They are mandatory for the request and the response.

Field 115.1 Bank ID

Attributes

n 4

Description

This code identifies the acquiring institution (that is, the merchant bank, merchant grouping, or merchants' hierarchy) for the associated merchant number for Worldpay.

This is mandatory for the request and the response.

Field 115.2 Terminal ID

Attributes

n 3

Description

This identifies the terminal at the merchant (card acceptor) location at which the merchant entered the transaction.

This is mandatory for the request and the response.

Field 115.3 Original Authorization Retrieval Reference Number

Attributes

n 9

Description

This provides a way to send an original authorization retrieval reference number. It lets the host retrieve the original authorization information, if still available, to supplement settlement data. Worldpay returns this on all terminal transactions. The terminal should retain this for follow-up messages. All follow-up messages (incremental authorizations, reversals, and so on) require this field in order for matching to occur.

This is conditional for the request and mandatory for the response.

Field 115.4 Masked Account Number

Attributes

LL an..19

Description

The terminal saves the masked account number, replacing all but the last 4 digits with four Xs (XXXX) for use on follow-up messages.

This is optional for the request.

Field 115.5 Optional Processing Indicators

Attributes

LL ans..1

Description

This is optional for the request.

Field 115.5.1 Host Capture Adjustment Capability Flag

Attributes

LL ans..1

Description

This is optional for the request. When the batch is open, you must set this flag.

- Set this to **N** if the front-end device does not support the capability.
- Set this to **Y** if the front-end device can generate adjustment transactions.

  Only set this flag to **Y** on terminal applications that intend to enable adjustment transactions. If set to **Y**, it turns off the auto-close feature on the host.
- Any other values are interpreted as **N**.

Field 116 Additional Authentication Data

Attributes

LLL..ans 100

Description

This field contains additional authentication data provided by the source of the authentication. The layout of this field varies based on the type of authentication data.

This is required when you use biometrics to authenticate the cardholder for the purpose of retrieving account information.

Format

TABLE 5-110 Additional Authentication Data Format

Bytes	Description	Value
Bytes 1-2	Length of data to follow	
Bytes 3-4	Authentication Data Type	01 - Biometrics
Bytes 5-102	Authentication Data - The source of the authentication provides the authentication data to uniquely identify the transaction or to indicate additional authentication data to be used by the network or issuer.	Length <=98 This is variable length authentication data that the authentication source provides.

Field 117 Fleet Additional Restriction/Prompt Request Block

Attributes

LLL..an 999

Description

Usage 1 - This field is served to pass information required or requested by Wright Express as part of the Host Bast Prompting and Available Product Restrictions Support. Multiple blocks can be included in the field as needed.

Usage 2 - This field allows a Visa 2.0 issuer to have dynamic control of the purchase and only allow the restriction they pass back in the authorization response message.

Format

TABLE 5-111 Available Products Block

Value	Data Type	Description
AP	a	Field Identifier
3 bytes	n	Product Block Length
2 bytes	n	Restriction Code – see WEX Specifications for Product Restriction Code Table
5 bytes	n	Restriction Code Amount
5 bytes	n	Restriction Code Quantity
1 byte	a	Restriction Code Unit of Measure (for the RC Quantity)
4 bytes	n	Cash limit
5 bytes	n	Invoice Total Limit
4 bytes	n	Miscellaneous Total Limit
4 bytes	n	Additive Total Limit
4 bytes	n	Repair Amount Limit
25 bytes	a	Customer Name
15 bytes	a	Customer City
5 bytes	a	Customer State

NOTE: All numeric values are represented as whole numbers, padded to the left with zeros. All alphabetic fields are left-justified and padded to the right with spaces.

TABLE 5-112 Host-Based Customer Prompts Requested

Value	Description
HP	Field Identifier
3 bytes	Length of prompt field
1 - 10 bytes	List of additional prompt codes requested. See Field 118 Fleet Customer Data for a list of prompt codes

TABLE 5-113 Visa Host-Based Purchase Restrictions

Value	Description
VF	Field Identifier
3 bytes	Length of restriction field
16 bytes (binary)	This field can be returned in the response message (0110) when Field 120 subfield VF indicates host-based restrictions in the request (0100). It will be pass through of Visa Response Message Field 125, Dataset 68, tag '0E'. If the 0110 response message contains this data, you must also pass it in the subsequent completion message (0220).

Field 118 Fleet Customer Data

Attributes

LLL..an 999

Requirements

Use this field in Fleet transactions.

Description

This field contains Fleet transaction customer data.

Format

TABLE 5-114 Fleet Customer Data Format

Bytes	Description
1 - 2	Length of data to follow
3 -10	Bitmap 1
Bytes 11+	Subfields

Subfield 1: Customer Prompted Data

Attributes

LLb … an 255

Format

TABLE 5-115 Customer Prompted Data Formats

Type	Element	Description
Field Format `<LL><INFO>`	`LL`	Length of data to follow Byte 1
	`INFO`	Customer Prompted Information Bytes 2+
Repeating Information Format `<CODE> <LL> <DATA>`	`CODE`	Customer prompted code Byte 3 (see Table 5-116)
	`LL`	Length of data to follow Byte 4
	`DATA`	Customer prompted data Bytes 5+

TABLE 5-116 Customer Prompted Data Codes

Code	Description
00	User ID (see note 2 below)
01	Vehicle ID (see note 2 below)
02	Vehicle Tag
03	Card ID/Driver Number (see note 2 below)
04	Odometer (see note 3 below)
05	Driver License Number WEXP no longer supports this code.
06	Driver License State/Province Abbreviation
07	Driver License Name
08	Work Order/P.O. Number (see note 4 below)
09	Invoice Number (see note 4 below)
0A	Trip Number
0B	Unit Number
0C	Trailer Hours/Refer Hours
0D	Date of Birth
0E	ZIP/Postal Code
0F	Data
10	Entered Data (alphanumeric, see note 7 below)
11	Cash Back Amount
12	Job Number
13	Maintenance ID
14	Department
15	VIN
16	Driver's PIN
17	Prompt Code
18	Pump Number
19	Site Transaction Number
1A	Hubometer
1B	Trailer Number (see note 6 below)

TABLE 5-116 Customer Prompted Data Codes

Code	Description
1C	Fleet Employee Number (see note 5 below)
1D	Entered Data (alphanumeric, see note 8 below)

Notes for Visa 2.0:

1. The "Fleet Service Prompt" value from the magstripe or tag "DF30" from the chip can be used by issuers to determine which codes must be prompted for each transaction. These are detailed below (after the notes).
2. Either prompt code 00 (User ID), 01 (Vehicle ID), or 03 (Driver ID) must be included if prompted for Field 48 Usage 36 of the Visa message. Visa allows up to 17 bytes (any remaining digits after 17 will be truncated).
3. Prompt code 04 (Odometer) must be included if prompted for Field 104, Dataset 5C, tag '0B' of the Visa message. Visa allows up to 7 digits; any digits after the first 7 will be truncated.
4. Either prompt code 08 (Work Order/P.O. Number) or 09 (Invoice Number) must be included if prompted as one of these two fields will be used for Field 62.7 of the Visa message. Visa allows up to 25 bytes (any remaining digits after 25 will be truncated). This field is alphanumeric.
5. Prompt code 1C (Fleet employee number) must be included if prompted for Field 104, Dataset 5C, tag '1F11' of the Visa message. Visa allows up to 12 characters; any character after the first 12 will be truncated.
6. Prompt code 1B (Trailer number) must be included if prompted for Field 104, Dataset 5C, tag '1F12' of the Visa message. Visa allows up to 16 characters; any characters after the first 16 will be truncated.
7. Prompt code 10 (Entered Data) must be included if prompted for Field 104, Dataset 5C, tag '1F13' of the Visa message. Visa allows up to 20 characters; any characters after the first 20 will be truncated.
8. Prompt code 1D (Entered Data 2) must be included if prompted for Field 104, Dataset 5C, tag '1F14' of the Visa message. Visa allows up to 20 characters; any characters after the first 20 will be truncated.

Fleet Service Prompt (Numeric 1)

- 0 = Reserved (No Prompt Required)
- 1 = ID and Odometer Reading
- 2 = Vehicle ID and Odometer Reading
- 3 = Driver ID and Odometer Reading
- 4 = Odometer Reading
- 5 = No Prompt
- 6 = ID (Six Digit Numeric Vehicle, Driver, or Generic ID)
- 7 - 9 = Reserved (No Prompt Required)

Prompting (tag DF30) (Optional)

Optionally, issuers may personalize their chip cards to prompt for one or more Visa Fleet data elements using prompting (tag DF30). When personalized on the chip card, the terminal can use tag DF30 to prompt the user to enter the Visa Fleet data into the terminal during the transaction. For example, issuers can personalize the tag to prompt for the driver's ID and odometer reading. During the transaction the terminal reads these data elements from the tag and prompts the cardholder or clerk to enter the information into the terminal at the POS.

The issuer receives the data obtained from the cardholder in the authorization and clearing messages.

The prompting data element, which can be defines at the card level are:

- Vehicle ID, Driver ID, or Generic ID
- Odometer
- Fleet Work Order/Purchase Order Number
- Fleet Trailer Number
- Fleet Employee Number
- Fleet Additional Prompted Data 1 (determined by issuer)
- Fleet Additional Prompted Data 2 (determined by issuer)

Subfield 2: Service Level

Attributes

an - 1 byte

TABLE 5-117 Service Level Codes

Code	Description
F	Full Service
N	Mini Service
O	Other Non-Fuel
S	Self Service
X	Maxi Service

Subfield 3: Restriction Code

Attributes

an, 2 bytes

Format

Left justify and blank fill.

Subfield 4: Oil Company Name

Attributes

an, 4 bytes

Format

Left justify and blank fill.

Subfield 5: Vehicle Number (WEXP Purchase Device Sequence Number)

Attributes

an, 5 bytes

Format

Left justify and blank fill.

Subfield 6: Fleet Settlement Indicator

Attributes

an, 1 byte

Description

This flag indicates the Fleet settlement program that the customer uses with Worldpay.

TABLE 5-118 Fleet Settlement Indicator Flags

Flag	Description
0	EMD
1	Host data capture

Subfield 7: Odometer Prompt

TABLE 5-119 Odometer Flags

Flag	Description
0	Odometer is not required to complete transaction
1	Odometer is required to complete transaction

Subfield 8: Receipt Text

TABLE 5-120 Receipt Text Format

Type	Element	Description
Field Format <LL> <INFO>	LL	Length of data to follow Byte 1
	INFO	Receipt text data Bytes 2+

NOTE: The | character signifies a new line on receipt.

Subfield 9: Print/Display Text

Attributes

an, 1 byte

Format

INFO: Print/Display Text

TABLE 5-121 Print/Display Text Flags

Flag	Description
Y	Print price per gallon on customer receipt
N	Do not print price per gallon on customer receipt

Subfield 10: Level 3 Data Submission Indicator

Attributes

an, 1 byte

Description

This flag indicates whether or not the merchant intends to submit Level 3 data using a batch file at some subsequent time.

TABLE 5-122 Level 3 Data Submission Indicator Flags

Flag	Description
Y	Level 3 data will be submitted
N	Level 3 data will not be submitted

Field 119 Fleet Product Data

Attributes

LLL..an 999

Requirements

Use this field in Fleet transactions.

Description

For Fleet transactions, this field contains product data that identifies information relevant to the purchase.

Format

TABLE 5-123 Fleet Product Data Format

Bytes	Description
Bytes 1 - 2	Length of data to follow
Bytes 3 -10	Bitmap 1
Bytes 11+	Subfields

Subfield 1: Merchant Discount Amount

Attributes

n, 8 bytes

Format

This field is dollars and cents without a decimal point. Right justify and zero fill it.

Subfield 2: Participant Discount Amount

Attributes

n, 8 bytes

Format

This field is dollars and cents with no decimal point. Right justify and zero fill it.

Subfield 3: Sales Tax Amount, Non-Fuel Gross

Attributes

n, 9 bytes

Format

This field is dollars and cents with no decimal point. Right justify and zero fill it.

Subfield 4: Gross Fuel Transaction Amount

Attributes

n, 9 bytes

Format

This field is dollars and cents with no decimal point. Right justify and zero fill it.

Subfield 5: Gross Non-Fuel Transaction Amount

Attributes

n, 9 bytes

Format

This field is dollars and cents with no decimal point. Right justify and zero fill it.

Subfield 6: Net Non-Fuel Transaction Amount

Attributes

n, 9 bytes

Format

This field is dollars and cents with no decimal point. Right justify and zero fill it.

Subfield 7: Product Code Set

Attributes

an, 3 bytes

Code

001 - NACS

> **NOTE:** For Visa 2.0, merchants can continue to send NACS codes while certifying for Visa 2.0. FIS Worldpay will translate these to the appropriate Visa codes before building Visa field Field 104, Dataset 5C, tag '1F10', and before settling with the Visa network.

Subfield 8: Product Information (Deprecated)

Attributes

LLb … an 238 (enough for 7 product records of 34 bytes each)

Description

This is a repetitive field, a maximum of 7 iterations, containing information pertinent to identifying the merchandise purchased.

> **NOTE:** If coding for ISO fleet for the first time, use subfield 14 rather than subfield 8, because it allows for more product codes.
>
> Also, while this field will be supported for Visa 2.0, FIS Worldpay recommends moving to the use of field 119.14 instead, since allows up to the 9 product codes (1 fuel and 8 non-fuel) that Visa 2.0 supports.

Format

TABLE 5-124 Product Information Format

Bytes	Description
1 - 2	Length of data to follow
Bytes 3+	Subfields

TABLE 5-125 Product Information Subfields

Subfield	Description	Attributes	Format	Codes (if applicable)
1	Amount	n, 12 bytes	Use dollars and cents with no decimal point. Right justify and zero fill.	
2	Product Type	an, 1 byte		• **F** - Fuel • **N** - Non-Fuel

TABLE 5-125 Product Information Subfields

Subfield	Description	Attributes	Format	Codes (if applicable)
3	Product Code	an, 3 bytes	Right justify and zero fill.	For the most up-to-date NACS codes, refer to the NACS website.
4	Product Quantity	n, 8 bytes	The format is `nnnnn.nnn` with 3 implied decimal places.	
5	Unit Price	n, 8 bytes	The format is `nnnnn.nnn` with 3 implied decimal places.	
6	Unit of Measure	an, 1 byte		• **C** - Case or Carton • **G** - Gallons • **K** - Kilograms • **L** - Liters • **O** - Other • **P** - Pounds • **Q** - Quarts • **U** - Units • **Z** - Ounces

Subfield 9: Maximum Amount

Attributes

LLb … an 255

Field Format

TABLE 5-126 Field Formats

Type	Value	Description	Byte
Field Format `<LL> <INFO>`	`LL`	Length of data to follow	Byte 1
	`INFO`	Maximum Amount Information Bytes	2+

TABLE 5-126 Field Formats

Type	Value	Description	Byte
Repeating Information Format <CODE> <LL> <DATA>	CODE • 00 - Maximum Amount • 01 - Maximum Oil Amount • 02 - Maximum Parts/Services Amount • 03 - Maximum Miscellaneous Amount	Maximum Amount Code	Byte 3
	LL	Length of data to follow	Byte 4
	DATA	Amount of Data	Bytes 5+

Subfield 10: Authorization Source

Attributes

an, 1 byte

Format

Blank fill.

Subfield 11: Batch Close Information

Attributes

LLb … an 255

TABLE 5-127 Field Formats

Type	Value	Description	Byte
Field Format <LL> <INFO>	LL	Length of data to follow	Byte 1
	INFO	Batch Close Information	2+

TABLE 5-127 Field Formats

Type	Value	Description	Byte
Repeating Information Format `<CODE> <LL> <DATA>`	`CODE`	Batch Field Code	Byte 3
	`LL`	Length of data to follow	Byte 4
	DATA • 01 - Batch Date • 02 - Transaction Count • 03 - Total Gallons • 04 - Total Non-Fuel Dollars	Batch Close data	Bytes 5+

Subfield 12: Preferred Product

Attributes

an, 3 bytes

Format

Blank fill.

Subfield 13: Fleet Date/Time Stamp

Attributes

n, 12 bytes

Format

YYMMDDhhmms

Subfield 14: Product Information

Attributes

LLL … an 306 (enough for 9 product records of 34 bytes each)

Description

This subfield is exactly like subfield 8 but with an extended length field (increased from 1 to 2 bytes). It is a repetitive field that allows for a maximum of 9 iterations for WEXP and Visa 2.0 transactions, and 8 for other fleet networks. Just like subfield 8, it contains information pertinent to identifying the merchandise purchased.

NOTE: Do not use the sale tax product code for Voyager, Visa Fleet, or Mastercard fleet transactions; instead use Field 119.3 - Sales Tax Amount. For WEX, FleetOne and FleetCor, use product code 950 for sales tax.

Format

TABLE 5-128 Product Information Format

Bytes	Description
1 - 2	Length of data to follow
Bytes 3+	Subfields

TABLE 5-129 Product Information Subfields

Subfield	Description	Attributes	Format	Codes (if applicable)
1	Amount	n, 12 bytes	Use dollars and cents with no decimal point. Right justify and zero fill.	
2	Product Type	an, 1 byte		• **F** - Fuel • **N** - Non-Fuel See note 1 below.
3	Product Code	an, 3 bytes	Right justify and zero fill.	For the most up-to-date NACS codes, refer to the NACS website. For Visa 2.0, see note 5 below.
4	Product Quantity	n, 8 bytes	The format is `nnnnn.nnn` with three implied decimal places.	See note 3 below.
5	Unit Price	n, 8 bytes	The format is `nnnnn.nnn` with three implied decimal places.	See note 4below.

TABLE 5-129 Product Information Subfields

Subfield	Description	Attributes	Format	Codes (if applicable)
6	Unit of Measure	an, 1 byte		• **C** - Case or Carton • **G** - Gallons • **K** - Kilograms • **L** - Liters • **O** - Other • **P** - Pounds • **Q** - Quarts • **U** - Units • **Z** - Ounces See note 2 below.

Notes for Visa 2.0

1. Visa Field 104, Dataset 5C, tag '01' will be derived from field based on the product types included in each product record.
2. Visa Field 104, Dataset 5C, tag '04' will be derived from the unit of measure field for the fuel product.
3. Visa Field 104, Dataset 5C, tag '05' will be mapped from the quantity field for the fuel product.
4. Visa Field 104, Dataset 5C, tag '06' will be mapped from the unit cost field for the fuel product.
5. Product codes in field 119.14.3 of the product records will be used to populate both Visa field 104, Dataset 5C, tag '1F10' (fuel) and fields Field 104, Dataset 5C, tags '1F01-08' (up to 8 non-fuel products). Merchants should continue to send NACS codes in field 119.14.3 of the ISO message.

Subfield 15: VAT Tax Rate

Attributes

n, 4 bytes

Description

VAT or tax rate (in percentage) for fuel purchased. Two decimal places are implied.

> **NOTE:** For Visa 2.0, this maps directly to Visa field 104, Dataset 5C, tag '0E'. Visa requires it for fuel purchases.

Subfield 16: Customer VAT Registration Number

Attributes

n, 13 bytes

Description

Cardholder or company VAT registration number.

> **NOTE:** For Visa 2.0, field 104, Dataset 5C, tag '19'. It is an optional field for Visa, but will be passed on if included in the merchant message.

Field 120 Additional Request Data

Attributes

LLL..ans 999

Description

This field is mandatory for the following:

- All authorization requests that require address verification.
- You must pass a KSN in a transaction for use in DUKPT PIN processing.

This field may contain one or more of the formats in Table 5-130.

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Additional Response Data (Request Only)	AALLLI	• AA – Identifier AR • LLL – Data length; Maximum = 001 • I – Response indicator (Y or N) When the response indicator is Y, Worldpay responds with additional reject/response data from the network in this ISO field 120.AR Example request data: AR001Y	
Additional Response Data (Response Only)	AALLLaa	• AA – Identifier AR • LLL – Data length; Maximum = 002 • aa – Additional response data Valid values are: • **01** - Invalid Fleet ID • **02** - Invalid Driver ID • **03** - Invalid Vehicle Number Example response data: AR00201	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable

Address Verification Format	`AAZZZZZZZZZAAAAAAAA AAAAAAAAAAA`	• `AA` - Identifier AV
		• `ZZZZZZZZZ` - This is the cardholder's ZIP or Postal Code. It must follow the format for cardholder's county where the card was issued as follows:
		  • Canada – The Postal Code must be in the standard alphanumeric format (for example, A1B 2C3), left justified and padded to the right with spaces. All alphabetic characters must be uppercase. The single space between the first three and last three alphanumeric characters is required.
		  • United Kingdom – The Postcode must be in the standard 6-to-8 byte alphanumeric format – including the single space between the two blocks of characters (for example, AA9A 9AA), left justified and padded to the right with spaces. All alphabetic characters must be upper case. The single space between the two blocks of alphanumeric characters is required.
		  • United States – The ZIP Code must be either 5 digits (standard format) or 9 digits (Zip+4 format), left justified and padded to the right with spaces.
		  • All other countries – Provide the Postal Code as received, left justified and padded to the right with spaces.
		• `AAAAAAAAAAAAAAAAAAA` - Cardholder Address
		Left justify and blank fill this value.
		The Address Verification Result value will be returned in ISO Field 44.2 in the response message.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Alternate Merchant ID	AMPPLLXXXXXXXXXXXXXXXXXXX	• AM - Identifier AM • PP - Product. CP = Chase Pay • LL - Data Length - up to 20 • XXXXXXXXXXXXXXXXXXX - Alternate Merchant ID	
American Express Transaction Qualification Data	AAI	• AA - Identifier AX • I - Indicator Y Field 61 - Network Specific Information, Division Number returns the data.	
Basket Total	AADDDDDDDDDDDD	• AA - Identifier BT • DDDDDDDDDDDD – 12 digit Basket Total Amount The total dollar amount of the basket total that qualifies for the rewards in the authorization.	
Benefit Card Services Transaction Request	AAI	• AA - Identifier OP • I - Identifier Y This flag designates the transaction as a Benefit Card Services transaction.	
Billing Characteristic Indicator - Request Message	AAI	• AA - Identifier BC • I - Identifier Y If available, the acquirer requests the response message to pass back billing characteristic data.	HDC only

Billing Characteristic Indicator - Response Message	AAI	• AA - Identifier **BC**
		• DDDDDD - Tagged Billing Data is as follows:
		  • Interlink Transaction - FPI returns
		  • STAR Transaction - STAR Billing data returns
		  • NYCE Transaction - NYCE Billing data returns	

Card Level Product Results Code Indicator	AAI	• AA - Identifier CL • I - Indicator AN 1. 1 - Field 61 - Network Specific Information, Field-Use Indicator 08, returns the data in Subfield 1 (Card Level Results Code - Visa).	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable

Card Results Field (Request Only)	AAIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	• AA - Identifier CR
		• I - Use one of the following values:
		  • **Y** - Send PAN in the clear in field 101.
		  • **N** - Do not send PAN in the clear in field 101.
		• I - Use one of the following values:
		  • **Y** - Send truncated or masked PAN in field 101.
		  • **N** - Do not send the truncated or masked PAN in field 101.
		• I - Use one of the following values:
		  • **Y** - Send last 4 digits of PAN in field 101.
		  • **N** - Do not send last 4 digits of PAN in field 101.
		• I - Use one of the following values:
		  • **Y** - Send tokenized PAN in field 101.
		  • **N** - Do not send tokenized PAN in field 101
		• I - Use one of the following values:
		  • **Y** - Send first 8 digits of PAN in field 101.
		  • **N** - Do not send first 8 digits of PAN in field 101.
		• IIIIIIIIIIIIIIIIIIIIIIIIIIIIII - Reserved for future use
		You must includes this and set it either as blanks or **N**.	

Customer Discretionary Data	AAUUU...UUUVVV…VVVWWW…WWW	• AA - Identifier UD • UUU…UUU - User defined field 1 (35 bytes) • VVV…VVV - User defined field 2 (20 bytes) • WWW…WWW - User defined field 3 (20 bytes) If you use the UD tag, it must include all 75 bytes of user data. Blank fill any remaining data.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable

CVV2/CVC2/Discover CID Data Format	AACCCCPFFF	• AA - Identifier C2
		• CCCC - CVV2/CVC2 Value
		Right justify and blank fill. (Non-Blank if and only if CVV2/CVC2 Presence Indicator is 1).
		• P - CVV2/CVC2 Presence Indicator. Use one of the following:
		  • **0** - CVV2/CVC2 Bypassed or Not Provided
		  • **1** - CVV2/CVC2 Value Present
		  • **2** - CVV2/CVC2 Value Illegible
		  • **9** - CVV2/CVC2 Value Not On Card
		• FFF - Filler
		The American Express CID value uses Field 053 - AMEX Card Identifier.	

DCC Return Rate Lookup	AAI	• AA - Identifier CQ • I - Identifier R - Request a rate lookup for a return transaction.	EMD only
Debit Optimization Request Indicator	AAI	• AA - Identifier DO • I - Indicator AN 1 Identifier R - This is a Debit Optimization request. It converts a PIN Debit Transaction to a Signature Credit if it is justified. Response information returns in Field 120 - Additional Request Data. **Note**: For the response message, this field will contain a value of Y for transactions converted to signature credit and a value of N for transactions that were not converted.	
Deferred Billing Indicator	AAI	• AA - Identifier DB • I - Identifier Y	
Digital Secure Remote Payment (DSRP) Indicator	AAI	• AA – Identifier RP • I – Identifier Y Sent in for Digit Secure Remote Payment transactions	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Discover Data Request Indicator	AAI	• AA - Identifier AD • I - Indicator AN 1 Y - Field 61 - Network Specific Information, Field-Use Indicator 10 returns the data.	
Discover Network Reference ID Request Indicator	AAI	• AA - Identifier DS • I - Indicator AN 1 Y - Field 61 - Network Specific Information, Field-Use Indicator 13 returns the data.	
DUKPT Key Serial Number (KSN) Format	AALLLSSSSSSSSSSSSSSSSSSSS	• AA - Identifier KS • LLL - Data Length; Maximum = **020** • SSSSSSSSSSSSSSSSSSS - DUKPT Key Serial Number Right justify and character fill with F. Worldpay only supports 16 digits at this time.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
eCommerce Discretionary Data	AABBB…BBBCCC…CCCDDD…DDDEEE…EEEFFF…FFFGGG…GGGHHH…HHH	• AA - Identifier EC • BBB…BBB - affiliate (ans 25) Refer to the affiliate element in the *Worldpay cnpAPI Reference Guide* for more information. • CCC…CCC - authorizationID (ans 36) Refer to the authorization element *Worldpay cnpAPI Reference Guide* for more information. • DDD…DDD - customerId (ans 50) Refer to the customerId element *Worldpay cnpAPI Reference Guide* for more information. • EEE…EEE - reportGroup (ans 25) Refer to the reportGroup element in the *Worldpay cnpAPI Reference Guide* for more information. • FFF…FFF - campaign (ans 25) Refer to the campaign element in the *Worldpay cnpAPI Reference Guide* for more information. • GGG…GGG - merchantGroupingId (ans 25) Refer to the merchantGroupingId element in the *Worldpay cnpAPI Reference Guide* for more information. • HHH…HHH - merchantOrderId (ans 25) Refer to the OrderId element in the *Worldpay cnpAPI Reference Guide* for more information. **Note**: Worldpay requires all bytes of each field if you use the <EC> tag. Fill any remaining data with blanks.	
EMD Pre-authorization Conversion Request Indicator	AAI	• AA - Identifier CE • I - Identifier Y	
Existing Debt Indicator	AAI	• AA - Identifier ED • I - Identifier 9	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
EMD Settlement	AAI	• AA - Identifier ES • I - Identifier Y This identifies an acquirer as an EMD settlement merchant. Worldpay will analyze the processing code to determine if the transaction is EMD eligible and will retain all host data capture transactions for settlement while expecting a clearing record sent in the EMD file for all other items. If the acquirer wants to settle in an EMD environment, then they must send all transactions with this indicator. **Note**: This applies to ISO over the Internet processing only.	
Generate Surcharge Amount Request	AAI	• AA - Identifier GS • I - Indicator Y The merchant requests a surcharge to be generated (requires previous registration) and appended to the transaction amount. The generated amount returns in Field 54 (Additional Amounts) with the amount type SC.	
HIP for EBT Redemption Option	AAI	• AA - Identifier RO • I - Indicator AN 1 **Y** - Redeem Now **N** - Redeem Later	
Host Capture Advice Indicator	AAI	• AA - Identifier HC • I - Indicator AN 1 Identifier Y - Front-end device can generate adjustment transactions. Each transaction in the host capture sequence should contain this flag so that appropriate processing can be performed. If the transaction contains a tip, Field 062.63 - Tip Amount should include the tip. **Note:** For Terminal Specific Transactions (STP), use 115.5.1 Host Capture Adjustment Capability Flag in place of this flag.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Incremental Preauthorization Flag	AAI	• AA - Identifier IA • I - Indicator Y Designates a subsequent authorization as incremental to an originally authorized amount.	
Low Value CVV2 Token	AALLLLLLLLLLLLLLLLL	• AA - Identifier LC • LLLLLLLLLLLLLLLLL - Low Value CVV2 Token (Fixed length of 18 bytes) **Note:** The low value CVV2 token is a temporary token with an expiration time that is used in conjunction with eProtect (a card not present or eCommerce security product). Our clients (merchants) customers can present the token in a card not present online environment instead of a clear CVV2. See EMVco Tokens on page 8 for more information about this field.	
Low Value Token for PIN	AALLLVVVVVVVVVVVVVVVVVV	• AA - Identifier LP • LLL - Data Length (should always be 018) • VVVVVVVVVVVVVVVVVVV - Low Value Token for PIN This is a temporary token with expiration time that you use in conjunction with eProtect (a card not present or eComm security product). Our clients' (merchants) customers in a card not present online environment present an LVT Token for PIN in lieu of a PIN block.	HDC only
Merchant Advice Code (Request Only)	AALLLI	• AA – Identifier AC • LLL – Data length; Maximum = 001 • I – Response indicator (Y or N) When the response indicator is Y, Worldpay responds with Merchant Advice Code data from the network in this ISO field 120.AC Example request data: AC001Y	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Merchant Advice Codes (MAC's) (Response Only)	AALLLaa	• AA – Identifier AC • LLL – Data length; Maximum = 002 • aa – Merchant Advice Code Valid values are: • **01** - Updated/additional information needed • **02** - Cannot approve at this time, try later • **03** - Do not try again • **04** - Token request not fulfilled • **21** - Payment Cancellation • **22** - Not qualified for product Example response data: AC00201	
Mastercard Chip Card Additional Info Request indicator	AAI	• AA - Identifier MA • I - Indicator AN1 Identifier Y - If Worldpay receives this from the network, Field 61 - Network Specific Information, Field-Use Indicator 21, Worldpay returns Mastercard Additional Processing Info for Chip Cards.	
Mastercard Rewards Participant Indicator	AAI	• AA - Identifier MC • I - Indicator AN 1 Y - Field 61 - Network Specific Information, Field-Use Indicator 12 returns the data.	
Merchant Customer Exchange Transaction Data	AAMMMMMMMMMMMMTTTTT….TTTTIIIIIIIIIII	• AA - Identifier MD • MMMMMMMMMMM - Merchant Reference ID (12 bytes) • TTTT….TTTT - Checkout Token (40 bytes) • IIIIIIIIIII - Tender ID (12 bytes)	HDC only
Merchant E-mail Address	AALLLDD…DD	• AA -Identifier EM • LLL - Data length-up to 064 • DD . . . DD - E-mail address	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Merchant Fraud - FraudSight (Request Only)	AALLLI	• AA – Identifier MF • LLL – Data length; Maximum = 001 • I – Response indicator (Y or N) When the response indicator is **Y**, Worldpay responds with the Merchant Fraud – FraudSight (Response Only) data in the ISO field 120.MF.	
Merchant Fraud - FraudSight (Response Only)	AALLLabbbbbb	• AA – Identifier MF • LLL – Data length; Maximum = 007 • a – Risk Status where 0 is pass, 1 is review, 2 is fail, 3 is unknown, 4 is fail (but, do not deny – informational) • bbbbbb – FraudSight Score Example request data: `MF001Y` Example response data: `MF00710.9876`	
Merchant Name Override Request Indicator (EMD Message Set Only)	`AAI`	• `AA` - Identifier MN • `I` - Identifier Y This is a request to use the Merchant Name supplied in Field 123 - Merchant Name of the input message.	EMD only
Merchant Phone Number	`AALLLDD…DD`	• `AA` - Identifier PH • `LLL` - Data length-up to 020 • `DD . . . DD` - Phone number	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Multi-Clearing Information	AALLLNNCCX	Allows for multiple shipments within 7 calendar days of the initial authorization to clear in settlement. • AA - Identifier CM • LLL - Data length • NN - Multiple Clearing Sequence Number (00-99) indicating which shipment is being sent. Use 00 for initial Auth. • CC - Multiple Clearing Sequence Count (01-99) indicating the total number of shipments • X - Final shipment? (Y/N) **Note:** All elements are required on each submission of a multi-clearing transaction. Examples: CM0050002N - Initial authorization with 2 items to ship CM0050102N - Shipment 01 of 02, not final shipment CM0050202Y - Shipment 02 of 02, final shipment	HDC only
Native RAFT API Transaction ID	AAGGGGGGGGGGGGGGGGGGGGG	• AA - Identifier GU GG..GG - Native RAFT API Transaction ID **Note**: This is a fixed length, 16 byte value assigned and used in API environments to uniquely identify the transaction being performed. This lets both ISO customers and APIs intermingle transactions as needed and also is a way to associate non-original transactions to their initial authorization.	
Network Retrieval Reference Number	AAI	• AA - Identifier NR • I - Identifier Y • Y - Field 61 Network Specific Information Field-Use Indicator 25 returns the data.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
PAN Mapping Indicator	AAI	• AA - Identifier PM • I - Identifier Y Field 61 - Network Specific Information, Field-Use Indicator 18 returns PAN mapping data if possible.	
PAN Reference ID	AAI	• AA - Identifier PA • I - Indicator AN 1 **Y** - The data returns in Field 61 - Network Specific Information in Field-Use Indicator 30	
Payment Account Reference Request Indicator	AAI	• AA - Identifier PA • I - Indicator AN 1 Y - The data returns in Field 61 - Network Specific Information in Field-Use Indicator 22.	
PIN-less Debit at POS Device Flag - Request Message	AAI	• AA - Identifier NP • I - Identifier Y The acquirer requests that a debit transaction process as a PIN-less debit transaction at a POS device. Omit Field 52 - Personal Identification Number Data.	HDC only
PINless POS Conversion Indicator	AAI	• AA - Identifier PL • I - Indicator AN 1 Identifier R - This is a PINless POS conversion request. Response information returns in Field 120 - Additional Request Data. **Note**: This field will contain a value of Y for transactions converted to PINless POS and a value of N for transactions that were not converted back in the response message.	
Processing Time	AAI	• AA - Identifier PT (Internal Use Only)	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Raw Network Data	AALLLDD..DD	• AA - Identifier RN • LLL - Length to follow • DD..DD - Data to follow Request Message Layout and Format: • Identifier of Y to request the raw network data (AN1) Response Message Layout and Format: Raw network Data to Follow: • Response Code (AN3) • AVS Results (AN1) • CVV/CVC/CID Result (AN1) • Recurring Payment Result (AN1) • CAVV Result (AN1) • Up to first 6 Additional Amounts (AN120) This field allows the acquirer to retrieve raw network information upon request without any translations taking place.	
Registration ID	AALLLRRRRRRRRRRRRRRRRRRR	• AA - Identifier RG • LLL - Data Length (up to 019) • RRRRRRRRRRRRRRRRRRR - Registration ID (right justify) This is a temporary token with expiration time that you use in conjunction with eProtect (a card not present or eComm security product). Our clients' (merchants) customers in a card not present online environment present a registration ID in lieu of PAN and optional CVV information. Field 120 - Additional Request Data of the response message includes the RG subfield.	
Regulation Data Indicator - Request Message	AAI	• AA - Identifier RI • I - Identifier Y - The acquirer requests issuer regulation data if available.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable

Regulation Data Indicator - Response Message	AAI	• AA - Identifier RI
		• FDDDDDDDDDD
		  • **F** - Issuer regulation flag as defined:
		  • **0** - Standard, Exempt or unspecified
		  • **1** - Standard, Non-Exempt, fraud
		  • **2** - Standard, Non-Exempt, no fraud
		  • **3** - Premium, Exempt
		  • **4** - Premium, Non-Exempt, fraud
		  • **5** - Premium, Non-Exempt, no fraud
		  • **DDDDDDDDDD** - Network pass-thru data indicating the raw network regulation data passed back to Worldpay in the network response.
			HDC only

Remaining Balance Request	AAI	• AA - Identifier RB • I - Identifier Y	
Return E-Commerce Indicator (deprecated)	AAI	• AA - Identifier EI • I - Identifier Y Worldpay returns the E-Commerce Indicator in Field 126 - Electronic Commerce/MOTO Indicator. (This value may differ from the original value if the network downgrades the security of the transaction.) **Note**: This identifier is deprecated in favor of Return E-Commerce Indicator and UCAF Indicator (EU).	
Return E-Commerce Indicator and UCAF Indicator	AAI	• AA - Identifier EU • I - Identifier Y Worldpay returns the e-Commerce Indicator in Field 61.27. Worldpay returns the UCAF Indicator in Field 61.28 for only Mastercard transactions.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Reversal Disposition Request	AAI	• AA - Identifier RD • I - Identifier Y If you include this field in the request, the system includes the reversal disposition code in field 44.6 of the response message. **Note:** HDC only - the system ignores this field for ISO EMD requests.	
Settlement Data Request Indicator	AAI	• AA - Identifier SV • I - Identifier Y Request to return back network data in Field 61 - Network Specific Information for settlement. Currently, it supports Field-Use Indicator 01, Field-Use Indicator 02, Field-Use Indicator 09 and Field-Use Indicator 13. **Note:** You can use this field for a merchant processing transactions via Host Data Capture that settle via EMD. It is required for those merchants processing Visa transactions, so the merchant receives the Visa Transaction Identifier in replies.	
Settlement Type Request Indicator	AAI	• AA - Identifier ST • I - Indicator AN 1 **R** - Visa Real Time Clearing **Note:** Field 44 - Additional Response Data (Subfield 7) of the response message returns the Fee Program Indicator.	HDC only

Shipping Indicator	AAI	• AA - Identifier SH
		• I – Shipping Indicator. Use one of the following:
		  • **1** - Direct Delivery
		  • **2** - Customer Pickup
		  • **3** - Commercial Shipping
		  • **9** - Other
		  • **0** - Data Not Available
		This indicator was created for use with Online EBT transactions. The default value is 0 (Data Not Available).	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Signature Capture Token (Response Only)	AAIIIIIIIIIII	• AA - Identifier SC • IIIIIIIIIII - Signature Capture token (11 bytes)	HDC only
Signature Capture Token Request Indicator	AAI	• AA - Identifier RT • I - Indicator AN 1 Identifier Y - Field 120 - Additional Request Data returns the Signature Capture token with the identifier of SC.	HDC only
Soft Descriptor Data	AAUUU...UUUVVV…VVVWWW…WWW	• AA - Identifier SD • UUU…UUU - Merchant Name (25 bytes - cannot be blank) • VVV…VVV - Merchant City (13 byes - cannot be blank) • WWW…WWW - Merchant State (2 bytes - cannot be blank) This option gives HDC merchants the ability to dynamically update the merchant information that shows up on a cardholder's statement. The POS sends Soft Descriptors for the Merchants Name (DBA), City, and State. This information is sent as part of the Authorization and follows through to Settlement (Worldpay-settled merchants only) and used for posting as the merchant data on the cardholders statement.	
SoftPOS Device Type Indicator	AAI	• AA - Identifier TP • I - Indicator AN 1 Use this indicator to capture the device ecosystem and provide any checks for additional data that may be necessary for a Tap To Pay transaction.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
SoftPOS Virtual Terminal ID	AALLLVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV	• AA - Identifier SI • LL - Data Length (If length is not 032, left justified and pad with spaces) Used to identify a SoftPOS Mobile Applicatioin on an Enabled Device used to conduct a transaction (regardless of whether it is declined or subject to adjustment, return, or chargeback), during the relevant calendar day. Multiple Active Virtual Terminals exist on a single Enabled Device.	
Synchrony Promo Data	AALLLRRRRRRRRRRRRRRRRRR	• AA - Identifier SP • LLL Data Length - up to 107 • DDDD…DDDD - Synchrony Promo Data - Left Justified, TLV data; Blank filled This field is a private use field to send and receive promotional sales information for Synchrony. For request tags to use, see Table 5-131. For response tags, see Table 5-132.	
Synchrony Additional Private Data	AALLLPPP…PPP	• AA - Identifier PD • LLL - Data length up to 255 • PPP...PPP - Private Data dependent on specific transaction requirements. Each usage is identified at the end of this section. Refer to the Synchrony Message Specifications for an up-to-date list of valid values.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Terminal Classification Code (Request Only) **Note:** Applies to transactions that originate from a mobile device.	AAXX	• AA - Identifier SF • XX – Terminal Classification Code • AC - mPOS Accessory/dongle with contact and contactless interfaces with or without PIN pad • AS - mPOS Accessory/dongle with contact and contactless interfaces and PIN on Glass support (SCRP, Software-based PIN on COTS) • CC - Contactless Payment of COTS (CPoc) – Mobile device based contactless only mPOS without PIN support • CS - Contactless Payment of COTS (CPoc) – Mobile device based contactless only mPOS with PIN on Glass support	
Terminal Identification Data Format	AALLLMM…MMPP…PPVVVVVV	• AA - Identifier TM • LLL - Data Length 026 • MM…MM - Terminal/POS Device/Make/Model Name (an10). Left justify and blank fill. • PP…PP - Terminal Application Name (an10). Left justify and blank fill. • VVVVVV - Terminal Application Version (an6). Left justify and blank fill. **Note**: Worldpay requires this data whenever it is available for any transaction using an EMV-capable terminal.	
Terminal Serial Number	AAXXXXXXXXXXXXXXXX	• AA - Identifier 'TS' • XXXXXXXXXXXXXXX - Terminal Serial Number Left justify and blank fill.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Token Date Field	AADDDDDDDD	• AA - Identifier TD • DDDDDDDD - Token Date (MMDDYYYY) **Note:** For stand-alone token-from-card and card-from-token transactions, you can use the token date in place of a token ID. This applies to Worldpay Legacy Reverse Crypo only. A new OmniToken does not require a token date and ID.	
Token ID Field	AADDDDDD	• AA - Identifier TI • DDDDDD - Tokenized ID Field The token ID is included with the token in responses for Worldpay Legacy Reverse Crypto customers only, and token initiated request messages may or may not include it. For customers using the new OmniToken, response messages only use the token ID to indicate a tokenization failure (in which case the token value is not present, and the token ID contains ZZZZZZ).	
Token Requestor ID Information	AAI	• AA - Identifier TQ • I - Identifier Y The Token requestor ID returns in Field 61 - Network Specific Information in Field-Use Indicator 23.	
Tokenized Data Request Indicator	AAI	• AA - Identifier TR • I Use one of the following values: • **Y** - Send the Token and the Token ID in Reply Message. • **N** - Do not send the Token. **Note:** Token ID is for Worldpay Legacy Crypto only. Token ID is not included with the new OmniToken.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Tokenized PAN Field	AADDDDDDDDDDDDDDDDDDDDDD	• AA - Identifier TK • DDDDDDDDDDDDDDDDDDDDDD - Tokenized Data Field (22 bytes, padded to the right with spaces) When you initiate a transaction using a token, field 2 does not include the PAN. Worldpay recommends that merchants provide an expiry date with every transaction that a token initiates. Expiration Date is one of the simplest methods for Fraud Prevention in place. They are mandated by operating agreements with card brands to help protect against fraud. Issuing banks may likely decline online purchases and purchases over the phone that do not contain an expiry date. For high value token to low value token transactions, the TK subfield is required in Field 120.	
Transaction Integrity Class	AAI	• AA - Identifier IC • I - Indicator Y Network Specific Information (Field-Use Indicator 26) contains the Transaction Integrity Class value returned from the network.	
Translated PAN	AADDDDDDDDDDDDDDDDDDD	• AA - Identifier XP • DDDDDDDDDDDDDDDDDDD - Translated PAN (19 Bytes, padded to the right with spaces) This is a proprietary use field specific for PIN translation transactions, when translated PAN is required for PIN translation	
US Relationship Participant Indicator	AAI	• AA - Identifier US • I - Identifier Y	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Visa 2.0 Fleet Restrictions Requested (Request Only)	AAI	• AA - Identifier VF • I - Indicator AN 1 This flag is a required field for Visa 2.0 transactions. Visa 2.0 Fleet merchants use it, in the authorization and completion message (0100/0220), to indicate which controls they can support at their POS. • 1 – Chip-Bases Restrictions • 2 – Host-Based Restrictions • 3 – Both Chip-and Host Based All other values are ignored.	
Visa Commercial Card Type Request Indicator (EMD Message Set)	AAI	• AA - Identifier CT • I - Identifier Y This requests the commercial card type to be returned when available. Field 61 - Network Specific Information, Field-Use Indicator 17 returns the value.	
Visa Secure Token	AAI	• VSR - Request Visa Secure token • VSY - If returned, Visa Secure Token is present • VSN - If returned, Visa Secure Token is not present	
Visa Spend Qualified Indicator	AAI	• AA - Identifier SQ • I - Identifier Y Returns Visa Spend Qualifier Indicator in Field 61 - Network Specific Information, Field-Use Indicator 19 when available.	
Wallet ID	AAWWW	• AA - Identifier WI • WWW - Mastercard-assigned Wallet ID This field is a three byte alphanumeric value that cannot contain all zeros, spaces, or special characters.	

TABLE 5-130 Additional Request Data Formats

Name	Format	Description	EMD/HDC Capable
Wright Express Prompt/Product Support	AAI	• AA - Identifier WX • I - Use one of the following values: H (Host-based prompts supported), R (Product Restriction Block supported), or B (both host-based prompts and product restriction block supported).	
Wright Express Host Based Prompting Second Pass Indicator	AAI	• AA - Identifier W2 • I - Use Y to indicate the second pass authorization for a host-based prompting scenario. The second message should include the additional prompts requested in the first pass response.	
Reserved	AAI	• AA - Identifier OC • I - Identifier x	

Synchrony Promo Request and Response Tags

TABLE 5-131 Synchrony Promo Request Tags

Description	Tag	Format	Length
Promo needed/result	70	b	1
ETC Transaction Type	60	an	2
ETC Descriptor Code	61	an	8
ETC Ticket Terms/Promotional Codes/Invoice Number	62	an	4
ETC MOTO/EComm indicator	63	an	2
Cash Over Partial Auth/Partial Cash Acceptance ID	64	an	1

TABLE 5-132 Synchrony Promo Response Tags

Description	Tag	format	Length
Promo needed/result	70	b	1
Promo APR flag	72	b	1
After Promo Flag	73	b	1
During Promo APR	7F02	b	3
After Promo APR	7F03	b	3

TABLE 5-132 Synchrony Promo Response Tags

Description	Tag	format	Length
Promo Duration	7F51	an	40
Promo Description	7F52	an	40

Synchrony Additional Private Data Usages

Use Usage 1 for payments that contain a transaction processing code (Processing Code) of 50 and a transaction qualifier value of 004 (Transaction Qualifier). Table 5-133 and Table 5-137 list the valid values that you can send in positions 1 -2 (Payment Source) and positions 3 - 4 (Payment Type).

TABLE 5-133 Payment Source (Positions 1 - 2)

Value	Description
00	Unknown
01	Teller
02	ATM
03	Retailer
04	Online Banking
05	Mail
06	Western Union
07 - 49	Reserved for future use

TABLE 5-134 Payment Type (Positions 3 -4)

Value	Description
00	Unknown (default)
01	Check
02	Money Order
03	Cash
04	Credit Card
05	Debit Card
06	Electronic Funds Transfer
07	Wire Transfer
08	Coupon

TABLE 5-134 Payment Type (Positions 3 -4)

Value	Description
09	Mixed Tender
10	ACH Check
11	Drop to Draft Check

Example: Payment Using Credit Card at a Teller

```
PD 004 01 04
```

Spaces are included between each piece of data for clarity in the above example.

Field 121 Additional Information

Attributes

LLL..ans 999

Description

This field contains various pieces of data to help supplement the transaction request and response. It is built in a TLV (tag, length, value) manner and tags can be sent in any order. Any tags that your system does not recognize should be ignored and processing should continue with the remaining tags as additional tags can be added at any time. All data in the field is in character format.

TABLE 5-135 TLV Format

Format	Data Type	Length
Tag	an	2 bytes
Length	n	3 bytes
Data	ans	Variable

TABLE 5-136 Data Fields

Tag	Description	Attributes	Notes
01	Processing Flags	ans 1..6	• Position 01: Y/N flag indicating the acquirer supports field 121 response tags. • Position 02: Y/N flag indicating that Tag 02 (Return Data) should be sent in the reply if applicable. • Position 03: Y/N flag indicating the acquirer supports receiving the Mastercard 3-D Secure original authorization data in the reply for settlement purposes. This currently includes tag 04 (Security Level Indicator) and/or tag 05 (UCAF/AAV Data). • Position 04: Y/N flag indicating if the transaction is a prior authorized transaction. • Position 05: Y/N flag indicating the customer wants to receive all available data associated with the Worldpay embedded or intelligent scheme token management service (TMS), if applicable. • Position 06: Y/N flag indicating the customer wants to bypass the Worldpay embedded or intelligent scheme token management service (TMS) on this transaction only.

TABLE 5-136 Data Fields

Tag	Description	Attributes	Notes
02	Return Data	Subtag EI: ans 1..10 Subtag RN: ans 1..58	Field containing various pieces of return information in TLV format. The TLV format for this tag is built as a 2-Byte Tag with a 2-Byte Length followed by variable data. Tags can be in any order and can be added at any time. Systems should ignore any unknown tags and continue on to the next tag. Tag Description EI - Additional error information if available. RN - Field containing response text to provide additional information to assist in debugging the transaction if available.
03	Trace Data		The trace data provides a means to pass data back and forth between acquirer and processor. Each specific use case is listed below. Use 01: EBT processors can return specific information pertaining to the disposition of the transaction such as response text and transaction identifiers. For SNAP and online cash EBT returns, this value must be retained on purchases and provided on the return in order to allow the EBT network to match the transactions.
04	Security Level Indicator	an 2	Contains the electronic commerce security level provided to Mastercard. In the authorization. This field contains both the security protocol and cardholder authentication values for settlement purposes. On follow up messages such as completions and reversals, Worldpay will attempt to restore the original value from the authorization but the acquirer can send the value to ensure that the value is retained should something happen to prevent the value from being restored.
05	UCAF/AAV Data	an 32	Contains the UCAF/AAV Data provided to Mastercard in the authorization. On follow up messages such as completions and reversals, Worldpay will attempt to restore the original value from the authorization but the acquirer can send the value to ensure that the value is retained should something happen to prevent the value from being restored.

TABLE 5-136 Data Fields

Tag	Description	Attributes	Notes
06	Additional Request Data	Subtag AI: ans 1..6 Subtag AN: ans 1..50 Subtag AV: ans 1..50 Subtag RN: ans 1..20 Subtag TI: ans 1..20	Field containing various pieces of request data in TLV format. The TLV format for this tag is built as a 2-Byte Tag with a 2-Byte length followed by variable data. Tag Descriptions AI - POS Application ID AN - POS Application Name AV - POS Application Version RN - Customer Reference Number TI - Gateway Transaction ID
07	3D Secure Protocol	an 1	This value contains the current version of 3D secure software being used. Refer to the Mastercard processing specifications for a full list of valid values. Common Values: • 1 – 3D Secure Version 1.0 (3DS 1.0) • 2 – EMV 3D Secure (3DS 2.0)
08	3D Secure Directory Server Transaction ID	ans 36	This value is generated by the 3D secure server during the authentication transaction and passed back to the merchant along with the authentication results.
09	Embedded or intelligent Scheme Token Management System (TMS)	Subtag NT: n 1..20 Subtag NC: ans 1..40	This field contains various pieces of network token return data should the customer request it. The TLV format for this tag is built as a 2-Byte Tag with a 2-Byte length followed by variable data. Tag Descriptions NT - Network Token NC - Network Cryptogram

Field 122 USB Log Record Data

This field is for Worldpay internal use only.

Attributes

LLL ans..35

Description

This field contains additional data that must be present in EF log records.

Format

The field is a variable length field. Its subfield values are all fixed-length. Left justify and blank fill the stack.

TABLE 5-137 USB Log Record Data Subfields

Subfield	Attributes	Description
1	b 8, 1 byte	Denial Code
2	b 16, 2 bytes	Billing ID
3	an 32	Stack

Field 123 Merchant Name

Attributes

an 15

Description

This field contains the name of the acquiring merchant.

Format

Left justify and blank fill the name.

Field 124 Transaction Dependent Data

Attributes

LLL ans..999

Description

Refer to each individual usage descriptions in this section for requirements.

> **NOTE:** With usage 4, a three character ANS header following the LLL length denotes new usages. This leaves 996 characters to use in the field. This does not effect usages 1, 2, and 3.

Usage 1 - Reconciliation Data

Attributes

LLL ans..999

Requirements

For usage 1, this field returns totals to the Acquirer in the 0510 Reconciliation Reply message.

Reconciliation Requests Format

Totals are returned for each transaction category that had at least one transaction during the totals period. Each totals sub-field is formatted as follows:

```
AAACCCCCXNNNNNNNNNNN
```

> **NOTE:** The business date corresponding to these totals will be returned in Field 15 - Settlement Date.

TABLE 5-138 Reconciliation Requests Format

Value	Description
AAA	Totals Type Code (See Table 5-139.)
CCCCC	Number of Transactions of this Type Right justify and zero fill.
X	Sign • **C** - Positive amount • **D** - Negative amount
NNNNNNNNNNN	Amount in US $ (implied 2-digit decimal) Right justify and zero fill.

TABLE 5-139 Totals Type Codes

Totals Type Code	Description
101	Debit Card Sales
102	Debit Card Refunds
201	EBT Food Stamp Sales
202	EBT Food Stamp Refunds
203	EBT Cash Benefit Sales
204	EBT Cash Benefit Refunds

TABLE 5-139 Totals Type Codes

Totals Type Code	Description
205	WIC EBT Sales
301	Visa/Mastercard Sales
302	Visa/Mastercard Refunds
303	Discover Card Sales
304	Discover Card Refunds
305	Other Credit Card Sales
306	Other Credit Card Refunds
307	Private Label Card Sales
308	Private Label Card Refunds
401	Cash Back
501	ECC Conversion Sales
502	ECC Conversion with Verification Sales
503	ECC Conversion with Guarantee Sales
601	PINless POS Sales
602	PINless POS Refunds
610	ACH Debit
611	ACH Refunds

Usage 2 - Gift Card Mini-Statement Data

Attributes

LLL ans..999

Requirements

The response message (0110/0210) requires this field for approved Gift Card Mini-Statement transactions.

> **NOTE:** Unlike Usage 2, do not send this field in the request message.

Gift Card Mini-Statement Messages Format

The first two bytes of the field header are the number of detail lines available (b 2). There is a maximum of 10 lines. The second part of the field header is the number of columns available (b 2). It is always set to 0035. The transaction details follow this. They must take the format listed in Table 5-140.

TABLE 5-140 Format A: Gift Card Transaction Detail - Reserved for Future Use

Field	Attributes	Description
Detail Length	b 1, 1 byte (must be 35)	Length of data to follow
Transaction Type	ans 2 (must be G1)	Gift Card free form text option 1
Transaction Date	ans 6	MMDDYY
Transaction Time	ans 4	HHMM
Function Code	ans 3	
Response Code	ans 2	
Tran Amount	ans 12	
Merchant Name	ans 24	

Usage 3 - Cap One Private Label Data

Attributes

LLL ans..3 (header : 'CAP') + ans..996

Requirements

This field is used in transactions out to Cap One using their private label credit card network.

Format

This field is itself divided into subfields. Similar to the basis for ISO messaging, the presence or absence of a subfield is indicated by a bitmap located at the beginning of the data portion of the field.

LLL will be the entire length of the data portion of the field, a 3-byte header to denote usage (CAP), and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 124.1 Cardholder Name

Attributes

an50, LJ blank filled

Description

This field contains the cardholder name.

Field 124.2 Cardholder Shipping Address 1

Attributes

an35, LJ blank filled

Description

This field contains the first part of the cardholder address line.

Field 124.3 Cardholder Shipping Address 2

Attributes

an35, LJ blank filled

Description

This field contains the second part of the cardholder address line.

Field 124.4 Cardholder City

Attributes

an19, LJ blank filled

Description

This field contains the cardholder city.

Field 124.5 Cardholder State

Attributes

an3, LJ blank filled

Description

This field contains the cardholder state.

Field 124.6 Cardholder Zip Code

Attributes

an9, LJ blank filled

Description

This field contains the cardholder zip code.

Field 124.7 Cardholder Country Code

Attributes

an3, LJ blank filled

Description

This field contains the cardholder country code.

Field 124.8 IP Address

Attributes

an39, LJ blank filled

Description

This field contains the originating IP address.

Field 124.9 Item Department

Attributes

an27, LJ blank filled

Description

This field has a ANNNNNNNN.The first character is the category code. The remaining 8 digits represent the amount in cents. This field can contain up to three category codes/amounts.

TABLE 5-141 Category Codes

Value	Description.
E	Electronics
J	Jewelry
G	Gift Card
P	Power tools

Field 124.10 Invoice Number

Attributes

an15, LJ blank filled

Description

This field contains the invoice number and is for commercial purposes.

Field 124.11 Login Status

Attributes

an1, LJ blank filled; Y/N value

Description

This field contains the login status.

Field 124.12 Returned Account

Attributes

an19, LJ blank filled

Description

This field contains the returned account from the private label network for card not present transactions initiated by other means.

Field 124.13 Tender/Payment Type

Attributes

an2

Description

This field identifies the payment type used to perform the transaction.

TABLE 5-142 Tender/Payment Values

Value	Description.
01	Check
02	Money Order
03	Cash
06	EFT
07	Wire Transfer
08	Traveler's Check
09	Cashier Check
10	Debit Card

TABLE 5-142 Tender/Payment Values

Value	Description.
20	Credit Card
30	Gift Card

Field 124.14 Number of SKUs

Attributes

n4

Description

This field identifies number of SKUs on a transaction.

Field 124.15 Extended Authorization Number

Attributes

an8

Description

This field contains the extended authorization number returned from the network on an approved transaction.

Field 124.16 Card Program Type

Attributes

an1

Description

This field identifies the type of program that applies to the private label card.

TABLE 5-143 Card Program Type Values

Value	Description.
T	Contractor
M	Commercial
O	Other

Field 124.17 Check Authorization Provider

Attributes

an4

Description

Use this field to uniquely identify the transaction within the acquirer's system, which is usually to match a response to a request.

Field 124.18 Capital One Tracking ID

Attributes

an12

Left justify and blank fill.

Description

Use this field to assist in the matching authorizations to settlement activity.

Usage 4 - Cardholder Funds Transfer Information

Attributes

LLL ans..3 (header : 'CFT') + ans..996

Requirements

This field is used in Visa OCT/Moneysend/PayPal funds transfer transactions to facilitate the transfer of money between parties.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field locates the presence or absence of a subfield.

LLL will be the entire length of the data portion of the field, a 3-byte header to denote usage ('CFT'), and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 124.1 Sender Name/User ID

Attributes

an30, LJ blank filled

Description

This field contains the name of the entity funding the transaction.

Field 124.2 Sender Address

Attributes

an50, LJ blank filled

Description

This field contains the street address of the entity funding the transaction.

Field 124.3 Sender City

Attributes

an25, LJ blank filled

Description

This field contains the city of the entity funding the transaction

Field 124.4 Sender State/Providence

Attributes

an3, LJ blank filled

Description

This field contains the state/providence of the entity funding the transaction.

Field 124.5 Sender Country

Attributes

an3, LJ blank filled

Description

This field contains the country code of the entity funding the transaction.

Field 124.6 Sender Zip Code

Attributes

an10, LJ blank filled

Description

This field contains the zip code of the entity funding the transaction.

Field 124.7 Transaction Type

Attributes

an4, LJ blank filled

Description

This field contains the type of funds transfer transaction to take place. Accepted values depend on the network and processing code (Field 3.1 - Cardholder Funds Transfer Credit or Debit). Table 5-144 lists the currently accepted values.

TABLE 5-144 Transaction Type Values

Value	Description
VAA	Account to Account
VBB	Business to Business
VBI	Money transfer - bank-initiated
VBP	Non-card bill payment
VCC	Cash claim
VCI	Cash in
VCO	Cash out
VCP	Card bill payment
VFD	Funds disbursement
VGD	Government disbursement
VGP	Gambling payout
VLO	Loyalty and offers
VMA	Mobile air time payment
VMD	Merchant disbursement
VMI	Money transfer - merchant-initiated
VMP	Face-to-face merchant payment 4
VOG	Online gambling payout
VPD	Payroll/pension disbursement
VPG	Payment to government
VPP	Person to person
VPS	Payment for goods and services
VTU	Top-up for enhanced prepaid loads
VWT	Wallet transfer

Field 124.8 Sender Reference Number

Attributes

an16, LJ blank filled

Description

This field contains a transaction reference number that is provided by the originator to uniquely identify the entity funding the transaction.

Field 124.9 Sender Date of Birth

Attributes

an8

Description

This field contains the date of birth of the entity funding the transaction in YYYYMMDD format.

Field 124.10 Sender Phone Number

Attributes

an20, LJ blank filled

Description

This field contains the account number of the entity funding the transaction.

Field 124.11 Sender Account Number

Attributes

an34, LJ blank filled

Description

This field contains the account number of the entity funding the transaction.

Field 124.12 Sender Funding Type

Attributes

an3, LJ blank filled

Description

This field contains the type of account associated with the entity funding the transaction. Table 5-145 lists the possible values.

TABLE 5-145 Sender Type Values

Value	Description
V01	Credit Card Account
V02	Debit Card Account
V03	Prepaid Card Account
V04	Cash
V05	Deposit Access Account (Checking/Savings)

Field 124.13 Sender Account Type Code

Attributes

an2

Description

This field contains the account type code for the sender account sent in field 124.11 (Sender Account Number). Table 5-146 lists the possible values.

> **NOTE:** If a value is not sent in or the value sent in by the merchant is in the list below, the value defaults to **00** – Other.

TABLE 5-146 Sender Account Type Code Values

Value	Description
00	Other (Default)
01	RTN + Bank Account
02	IBAN
03	Card Account
04	Email
05	Phone Number
06	Bank Account Number (BAN) + Bank Identification Code (BIC)
07	Wallet ID
08	Social Network ID

Usage 5 - Enhanced Check Authorization

Attributes

LLL ans..3 (header : 'ECK') + ans..996

Requirements

Worldpay uses this field for processing both paper and electronic check authorization transactions and requires it for performing enhanced check services. This field supersedes any other check fields in the message. Refer to each network's operating regulations for specific requirements for each field.

Format

This field is divided into subfields. Similar to the basis for ISO 8583 messaging, the bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield is.

LLL is the entire length of the data portion of the field. It has a 3-byte header to denote usage (ECK) and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 124.1 Check Authorization Provider

Attributes

an 4, left justify and blank fill

Description

This field contains the name of the entity that will authorize the transaction.

TABLE 5-147 Field 124.1 Value

Value	Description
EFX2	Certegy

Field 124.2 Service Type ID

Attributes

an 10, left justify and blank fill

Description

This field contains the requested enhanced service.

TABLE 5-148 Field 124.3 Values

Value	Description
30	FM1
40	FM2
80CG	ECC Sale
81CG	ECC Auth Only
82CG	ECC ACK
83CG	ECC Void

Field 124.3 MICR Reader Status

Attributes

an 10, left justify and blank fill

Description

This field contains the type of MICR provided.

TABLE 5-149 Field 124.2 Values

Value	Description
1002	TAC MICR Format
TOAD	TOAD MICR Format

Field 124.4 MICR Data (full or keyed)

Attributes

LL ans..95

Description

This field contains the captured MICR.

Field 124.5 State/Province Code or ID Type

Attributes

an 2, left justify and blank fill

Description

This constant 2-character field contains the letters or numbers which identify either the State Code for the Driver's License or another form of consumer identification. Refer to the network processing specifications for a list of valid values.

Field 124.6 Driver's License/ID Number

Attributes

LL an..50

Description

This field contains the customer's driver's license or form of identification captured at the time of authorization.

Field 124.7 Customer Name

Attributes

LL an..50

Description

This field contains the customer's name.

Field 124.8 Customer Social Security Number

Attributes

n 9

Description

This field contains the customer's social security number.

Field 124.9 Customer Date of Birth

Attributes

n 8, CCYYMMDD

Description

This field contains the customer's date of birth.

Field 124.10 Customer Postal Address

Attributes

LL ans..50

Description

This field contains the customer's mailing address.

Field 124.11 Customer Postal/ZIP Code

Attributes

an 10, LJ blank filled

Description

This field contains the customer's mailing postal/zip code.

Field 124.12 Customer Phone Number

Attributes

n 10

Description

This field contains the customer's phone number.

Field 124.13 Merchant Invoice/Reference Number

Attributes

LL an..30

Description

This field contains the invoice or reference number for tracking the transaction.

Field 124.14 Product/Class Code

Attributes

LL an..40

Description

This is fixed length 40-character field and it is divided into the following subfields:

- Class: 4 characters, right justify and zero fill to the left.
- Subclass: 4 characters, right justify and zero fill to the left.
- Future use: 32 characters for future expansion, space-fill.

Field 124.15 Network/ACH Reference Number

Attributes

LL an..30

Description

This field contains the authorization network's reference number(s) for tracking purposes.

The Certegy layout is as follows:

- Bytes 01-15: ACH Reference Number
- Bytes 16-30: Certegy Unique ID

Field 124.16 Returned Check Fee

Attributes

n 9

Description

This field contains the amount of the service fee that will be debited from the consumer's account by ACH or site draft should the consumer’s financial institution return EFT. Right justify and zero fill the amount.

Field 124.17 Network Response Code

Attributes

an 5, left justify, blank fill

Description

This field contains the network's response code should any additional action be required.

Field 124.18 Check Type

Attributes

an 2

Description

This field contains the type of check being used for authorization.

TABLE 5-150 Field 124.18 Values

Value	Description
01	Personal Check
02	Company Check
03	Government Check
04	Travelers Check
05	Money Order
06	Cashiers Check
07	Counter Check
08	Two Party Check
09	Business Check
10	Payroll Check

Usage 6 - AliPay Transaction Data

Attributes

LLL ans..3 (header : 'ALI') + ans..996

Requirements

This field is used in AliPay transaction to help facilitate the authorization of transactions between Worldpay and AliPay.

The presence of this field on request messages will force route the transaction to AliPay regardless of any other message factors.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield. LLL will be the entire length of the data portion of the field. A 3-byte header denotes usage ('ALI') and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 124.1 Quantity of Goods

Attributes

nP 12, 6 bytes

Usage

Request Message

Description

This field contains the quantity of goods.

Field 124.2 Transaction Name

Attributes

LLb..AN 255

Usage

Request Message

Description

This field contains the name of the transaction shown in the transaction record list.

Field 124.3 Buyer Identity Code

Attributes

LLb..AN 32

Usage

Request Message

Description

This field contains a dynamic code with 16 - 24 digits to identify Alipay users. This code must be read from the Alipay wallet of the user in real time.

Field 124.4 Identity Code Type

Attributes

AN 16, LJ blank filled

Usage

Request Message

Description

This field contains an identity code type with a value of QRcode or barcode. This is an extension of the normal entry mode.

Field 124.5 Memo

Attributes

LLb..AN 255

Usage

Request Message

Description

This field contains transaction notes, refund reason, and so.

Field 124.6 Partner Transaction ID

Attributes

AN 64, LJ blank filled

Usage

Response Message

Description

This field contains a transaction ID generated by Worldpay. Worldpay uses it for locating transaction information on the AliPay site. Any follow-up messages (reversals, queries, and so on) will utilize this field to find the original.

Field 124.7 Error Description

Attributes

LLb..AN 48

Usage

Response Message

Description

This field contains the reason for the failed request.

Field 124.8 Buyer Login ID

Attributes

LLb..ANS 64

Usage

Response Message

Description

This field contains the Alipay login ID of the buyer. It can be an email address or mobile number. The ID is partially masked for privacy.

Field 124.9 Buyer User ID

Attributes

AN 16, left justify and blank fill

Usage

Response Message

Description

This field contains the Alipay account number.

Field 124.10 Exchange Rate

Attributes

AN 17, left justify

Usage

Response Message

Description

This field contains the conversion rate of the provided currency. The conversion happens at the time when the Alipay trade order is created.

Field 124.11 Transaction Amount of Currency

Attributes

nP 12, 6 bytes

Usage

Response Message

Description

This field contains the transaction amount in the provided currency. It is the exact amount that the buyer has paid.

Field 124.12 Discount Amount

Attributes

nP 12, 6 bytes

Usage

Response Message

Description

This field contains the discount amount redeemed in the settlement currency if the transaction uses coupons.

Field 124.13 Original Partner Transaction ID

Attributes

AN 64, left justify, and blank fill

Usage

Request Message

Description

This field contains the transaction ID that Worldpay generates, which locates transaction information on the AliPay site. Any follow-up messages (reversals, queries, and so on) will use this field to find the original.

Usage 7- Real Time Account Updater Information

Attributes

LLL ans..3 (header : 'RAU') + ans..996

Requirements

Use this field to request and receive a replacement PAN, Expiration Date, or both from a network for card on file transactions.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield.

LLL is the entire length of the data portion of the field with a 3-byte header to denote usage ('RAU') and an 8-byte (64 bit) bit map describing the subfields present immediately follows it.

Field 124.1 PAN/Expiration Date Replacement Request

Attributes

an 1, LJ

Usage

Request Message

Description

This field should contain a Y to request an updated PAN, Expiration Date, or both from the network.

Field 124.2 Replacement PAN

Attributes

ans 20, LJ

Usage

Response Message

Description

This field contains the following components: a one byte hex length of the replacement PAN and a 19 byte field that contains a left justified blank filled PAN

TABLE 5-151 Replacement PAN

Field	Position	Attribute
PAN Length	1	nP
PAN	2-20	ans, left justified, Blank filled

Field 124.3 Replacement Expiration Date

Attributes

an 4, YYMM

Usage

Response Message

Description

This field contains the replacement expiration date of the cardholder.

Field 124.4 Account Status

Attributes

ans 1

Usage

Response Message

Description

This field contains one of the following values from the network if available:

- **A** - Account Number change

  The account number or account number and expiration date are being updated.
- **C** - Closed Account
- **E** - Expiration Date updated
- **Q** - Contact Cardholder

Field 124.5 Error Code

Attributes

ans 6

Usage

Response Message

Description

This field contains one of the following error codes from the network if available:

- **VAU001** - Transaction did not qualify because the transaction contains token
- **VAU002** - Real Time AU is supported only for branded PAN
- **VAU003** - Real Time AU is not supported for this network
- **VAU004** - Transaction is not original purchase or bill payment
- **VAU005** - Transaction contains CVV2
- **VAU006** - Transaction is not a qualifying transaction type
- **VAU007** - Real Time AU is not supported for this Merchant Category Code (MCC)
- **VAU008** - Acquirer of processor is not activated for Real Time VAU
- **VAU009** - Issuer does not support Real Time AU
- **VAU010** - Issuer or Visa blocked the merchant
- **VAU011** - Pre-authorized Payment Cancellation Service (PPCS) stop payment order for this transaction
- **VAU012** - Credentials in the authorization request is the latest AU data

Field 124.6 Token Request Indicator

Attributes

an 1

Usage

Request Message

Description

Left justify this field. It should contain a T to request the replacement PAN and include a token in the response data.

Field 124.7 Replacement PAN Token

Attributes

ans 20

Usage

Response Message

Description

This field should contain the following components: a one-byte hex length of the replacement PAN token and a 19 byte field that contains the left justified and blank filled token.

TABLE 5-152 Replacement PAN Token

Field	Position	Attribute
Token Length	1	nP
Token	2-20	ans Left justify and blank fill.

Field 124.8 Replacement PAN Usage Indicator

Attributes

an 1, LJ

Usage

Response message

Description

Left justify this field. It should contain a Y in the response message if the replacement PAN was used to obtain the authorization. In this case, the original PAN was used and declined, and the transaction was authorized using the replacement/new PAN.

Usage 8 - Amazon Pay Information

Attributes

LLL ans…3 (header AMZ) + ans 996

Requirements

Use this field for Amazon Pay transactions in order to send/receive information necessary to detokenize an Amazon pay token. You can omit Field 2 - PAN and Field 14 - Expiration Date from an Amazon Pay transaction.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield. LLL is the entire length of the data portion of the field. A 3-byte header to denote usage (AMZ) and an 8-byte (64 bit) bit map describing the subfields present immediately follow it.

Field 124.1 Amazon Pay Token

Attributes

1 byte length (hex) followed by token

Usage

Request Message

Description

This should contain the token Amazon provided to detokenize a purchase.

Field 124.2 Amazon Pay Open/Closed Loop

Attributes

1 byte

- **O** - Open loop
- **C** - Closed loop

Usage

Response Message

Description

This field indicates whether or not the transaction is open loop or closed loop. Amazon sets this. The value is returned on a purchase.

Field 124.3 Amazon Pay Merchant Order Number

Attributes

1 byte length (hex) followed by Amazon Pay merchant order number

Usage

Request Message

Description

This field contains the Amazon Pay merchant order number. Worldpay requires It for all Amazon Pay transactions, and it is a unique ID for each Amazon Pay transaction.

Field 124.4 Amazon Pay Merchant ID

Attributes

1 byte length (hex) followed by Amazon Pay merchant ID

Usage

Request Message

Description

This mandatory field should contain whatever Identification that was registered with Amazon to link the transaction to the merchant.

Field 124.5 Amazon Pay Charge ID

Attributes

1 byte length (hex) followed by Amazon Pay Charge ID

Usage

Request/Response Message

Description

This field will contain the unique Charge ID provided by Amazon on the decryption call. Worldpay uses it as a reference number to this transaction. You must provide it on all reversals and refunds.

Field 124.64 Amazon Pay Reason Code

Attributes

2 byte reason code (Character)

Usage

Response Message

Description

This field contains the reason an Amazon Pay transaction declines. The value 00 reflects a successful transaction. Anything other than 00 indicates a decline.

TABLE 5-153 Amazon Pay Reason Codes

Reason Code	Description
00	Successful Amazon Pay Transaction
01	The merchant did not pass their Amazon Pay merchant number in Field 124.4.
02	The merchant did not pass a systems trace audit number in Field 011.
03	There was an error contacting the Amazon service.
04	There was an error resolving the Amazon Pay token.
05	A duplicate charge ID was detected.
06	The Charge ID/PAN mapping was not found on the reversal/refund.
07	The merchant is not enrolled in Amazon Pay with FIS.
099	Internal error

Usage 9 - Network Management Data

Attributes

LLL ans…3 (header KEY) + ans 996

Requirements

Use this field to transmit key encryption data.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield. LLL is the entire length of the data portion of the field. A 3-byte header denote usage (KEY) and an 8-byte (64 bit) bit map describes the subfields present immediately follow it.

Field 124.1 Encryption Key Data

Attributes

LLL ans..512

Usage

08xx series messages

Description

This should contain the encryption key data in the format specified in Field 124.3 (Encryption Key Data Format).

Field 124.2 Encryption Check Digits

Attributes

an6

Usage

08xx series messages

Description

This should contain the check digits associated with the encrypted key data.

Field 124.3 Encryption Key Data Format

Attributes

an3

Usage

08xx series messages

Description

This should contain one of the following values which designate the format of the encryption key data.

TABLE 5-154 Encryption Key Data Format

Value	Description
101	ECB Mode Cryptogram
102	ANSI X9 TR-31 Key Block

Field 124.4 Master Key Index

Attributes

n3

Usage

Request/Response Messages

Description

This provides a means to generate multiple master keys for a particular Key Label. If this value is provided during key exchange processing, it must be sent on all successive authorizations. By default, index 001 will be used.

> **NOTE:** This is not a common setup. It is intended for special use cases such as ISO over the Internet processing where the customer isn't processing over dedicated links. Consult with your relationship manager before using this field.

Field 124.5 Working Key Index

Attributes

n3

Usage

Request/Response Messages

Description

This provides a means to generate multiple working keys for a particular Key Label. If this value is provided during key exchange processing, it must be sent on all successive authorizations. By default, index 001 will be used.

> **NOTE:** This is not a common setup. It is intended for special use cases such as ISO over the Internet processing where the customer isn't processing over dedicated links. Consult with your relationship manager before using this field.

Field 124.6 Key Type to Return

Attributes

n3

Usage

08xx series messages

Description

This identifies the type of key to return during key exchange processing. By default, PIN Key will be used if not provided.

> **NOTE:** This is not a common setup. It is intended for special use cases such as ISO over the Internet processing where the customer isn't processing over dedicated links. Consult with your relationship manager before using this field.

TABLE 5-155 Key Type to Return Format

Value	Description
101	PIN Key
102	MAC Key

Field 124.7 Key Label Acro

Attributes

an4

Usage

Request/Response messages

Description

This is the label that will be associated with all processing with the requested master key and working key sessions. If this value is provided during key exchange processing, it must be sent on all successive authorizations.

> **NOTE:** This is not a common setup. It is intended for special use cases such as ISO over the Internet processing where the customer isn't processing over dedicated links. Consult with your relationship manager before using this field.

Usage 10 - System Health Status Information

Attributes

LLL ans…3 (header HCK) + ans 996

Requirements

Use this field to transmit health status information requested by the acquirer.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield. LLL is the entire length of the data portion of the field. A 3-byte header denotes usage (HCK) and an 8-byte (64 bit) bit map describes the subfields present immediately follow it.

Field 124.1 Health Status Buffer

Attributes

LLL ans..512

Usage

08xx series messages with Field 70, Network Management Information Code, value of 801

Description

This field contains a TLV (tag, length, value) representation of each portion of the information returned to the user regarding the system health status requested. This field can be utilized to make decisions at the host as to whether the current connection is stable and should be continued to be used. Additional tags and text can be added so the user should be able to handle any variations of data returned.

TABLE 5-156 TLV Format

Format	Data Type	Length
Tag	an	2 bytes
Length	n	2 bytes
Value	ans	Variable

TABLE 5-157 Data Fields

Tag	Description	Sample Text
01	System Connected To	RAFT=028
02	Current System Health HEALTHY (YES) - Current system is up and running as expected. UNHEALTHY (NO) - Current system has at least one resource that has been flagged for follow-up. MAINTENANCE (MNT) - Current system is in maintenance.	RAFTHEALTHY=YES RAFTHEALTHY=NO RAFTHEALTHY=MNT

Usage 11 - Valutec Information

Attributes

LLL ans..3 (header VLT) + ans..996

Requirements

This field is used in Valutec transaction to help facilitate the authorization of transactions between Worldpay and Valutec.

Format

This field is itself divided into subfields. Similar to the basis for ISO 8583 messaging, a bitmap located at the beginning of the data portion of the field indicates the presence or absence of a subfield. LLL is the entire length of the data portion of the field. A 3-byte header to denote usage (VLT) and an 8-byte (64 bit) bit map describing the subfields present immediately follow it.

Field 124.1 Program Type

Attributes

an 7

Usage

Request Message

Description

Valid values are:

- **Gift**
- **Loyalty**

Field 124.2 Card Program

Attributes

an 2

Usage

Request Message

Description

This parameter specifies the card program when using the CreateCard transaction type.

TABLE 5-158 Card Program Parameter Values

Value	Description
01	Original Gift Card Program
02	Promotional Card (Test)
03	Original Combo Card Program
04	Auto Rewards (Loyalty Only)
05	Original Loyalty Card Program

Field 124.3 Replaced Card

Attributes

an 20

Usage

Request Message

Description

This parameter specifies the card number of the card being replaced.

Field 124.4 Cardless Value

Attributes

an 16

Usage

Request Message

Description

This parameter specifies the 10-digit phone number of the cardholder and 6-digit corporate MID value used in place of a PAN.

Field 124.5 Point Balance

Attributes

an 9

Usage

Response Message

Description

This parameter specifies the value of points associated with the card.

Field 124.6 Reward Level

Attributes

an 1

Usage

Response Message

Description

This parameter specifies the value of the level of reward associated with the card.

Field 124.7 Extended Authorization Number

Attributes

an 9

Usage

Request/Response Message

Description

This is the value generated by Valutec to match authorizations, returned on approvals of non-inquiry transactions. It is used for matching in reversals to Valutec, and should be sent in a reversal request.

Field 124.8 Total Type

Attributes

an 11

Usage

Request Message

Description

This is the parameter for requesting the host totals to be returned in this field.

Valid values are:

- **PreviousDay**
- **CurrentDay**

Field 124.9 Total Sales

Attributes

an 5

Usage

Response Message

Description

This is the parameter for the total number of sales for the period requested.

Field 124.10 Total Sales Amounts

Attributes

an 9

Usage

Response Message

Description

This is the total amount of sales for the period requested.

Field 124.11 Total Activations

Attributes

an 5

Usage

Response Message

Description

This is the total number of activations for the period requested.

Field 124.12 Total Activation Amount

Attributes

an 9

Usage

Response Message

Description

This is the total amount of activations for the period requested.

Field 124.13 Total Reloads

Attributes

an 5

Usage

Response Message

Description

This is the total number of reloads for the period requested.

Field 124.14 Total Reload Amount

Attributes

an 9

Usage

Response Message

Description

This is the total amount of reloads for the period requested.

Field 124.15 Total Voids

Attributes

an 5

Usage

Response Message

Description

This is the total number of voids for the period requested.

Field 124.16 Total Void Amount

Attributes

an 9

Usage

Response Message

Description

This is the total amount of void for the period requested.

Field 124.17 Total Deactivations

Attributes

an 5

Usage

Response Message

Description

This is the total number of deactivations for the period requested.

Field 124.18 Total Deactivations Amount

Attributes

an 9

Usage

Response Message

Description

This is the total amount of deactivations for the period requested.

Field 124.19 Extended Customer Account

Attributes

ans 42

Usage

Request Message

Description

This field contains the following components: a two-byte character length of the customer account and a 40 byte field that contains a left justified blank filled account number.

TABLE 5-159 Replacement PAN

Field	Position	Attribute
Account Number Length	1-2	n
Account Number	3-42	n, left justified, blank fill

Field 125 Network Management Information

Attributes

LLL ans..999

Description

This field communicates a new encrypted working key and corresponding check digits in key change administrative messages.

If the customer is using ANSI X9 TR-31 key blocks, then this field will be replaced by Field 124 (Transaction Dependent Data, Usage 9 - Network Management Data).

Requirements

Network management messages with a network management code of 101 (key change message) must contain this field.

Single DES Format

If present and when single DES is in use, make this field 20 digits long (LLL = 020) and format it into the subfields in Table 5-160.

TABLE 5-160 Single DES Format

Subfield	Attributes	Description
1	an 16	This is a new working key encrypted under a key exchange key for the link.
2	an 4	This is a new working key check digits, which you can obtain by encrypting a string of 16 zeros with the new working key.

Triple DES Format

If present and when triple DES is in use, you must make this field 36 digits long (LLL = 036) and format it into the subfields in Table 5-161.

TABLE 5-161 Triple DES Format

Subfield	Attributes	Description
1	an 32	This is a new working key encrypted under a key exchange key for link.
2	an 4	This is a new working key check digits, which you can obtain by encrypting a string of 16 zeros with the new working key.

Field 126 Electronic Commerce/MOTO Indicator

Attributes

LLL ans..999

Requirements

All electronic commerce transactions must include this field. You can also use it to distinguish various types of transactions for bill payment. Reversals of electronic commerce transactions must include this field.

Syntax

```
<EC><I><DATA>
```

> **NOTE:** In Table 5-162, values 05 and 07 are also used for network tokenization. For more information, refer to the ISO 8583 Apple Pay™ In-App\Web Transaction Guide.

TABLE 5-162 Byte Electronic Commerce/MOTO Indicator <EC>

Value	Description
01	Single transaction - default for bill payments
02	Recurring transaction
03	Installment payment
04	Unknown MOTO
05	Verified by Visa authenticated, Mastercard Secure Code with AAV data, Discover with CAVV data, or AMEX with AEVV data.
06	Verified by Visa attempts processing, Mastercard Secure Code with or without AAV data, Discover with or without CAVV data, or AMEX with or without AEVV data.
07	Electronic commerce, but neither Verified by Visa, Mastercard Secure Code, Discover without CAVV data, or AMEX without AEVV data.
08	The cardholder's payment card data was transmitted to the merchant using no security method.
09	Used by non-U.S. merchants to designate Secure Electronic Transaction (SET) purchases. U.S. Issuers should not receive ECI of 9, unless the value was the result of a processing error or a miscoded value.
10	Recurring transaction (first transaction of a recurring payment series)
20	Token Initiated (AMEX only)

Table 5-163 lists the valid values for the variable data following the electronic commerce indicator. This data is only included for specific electronic commerce transactions that require it; otherwise, only the <EC> value is sent in.

You must place all data in a standard hexadecimal format and not in Base 64 encoded.

For Apple Pay In-app implementations, you should use the 3-D Secure Data field with the data for each network brand that you place in a hexadecimal format.

TABLE 5-163 Electronic Commerce Indicator Values for Variable Data

Value <I>	Description <DATA>
1	Cardholder Certificate Serial Number
2	Merchant Certificate Serial Number
3	Visa Transaction ID (XID) Syntax: DDD..DDD where: DDD..DDD = 20 byte XID (optional for Verified by Visa)
4	Cardholder Authentication Verification Value (CAVV) Syntax: DDD..DDD where: DDD..DDD = 20 byte CAVV (Required for Verified by Visa)
5	Universal Cardholder Authentication Field (UCAF) Syntax: DDD..DDD where: DDD..DDD = 20 byte UCAF (Required for Mastercard Secure Code - not BASE 64 encoded)
6	3-D Secure Data (variable) Syntax: XXDDD…DDD where: XX = Length of data to follow (1 byte hex) DDD…DDD = Variable Data Variable Data Formats: • American Express → AEVV + XID (optional) • Discover → CAVV • Mastercard → AAV • Visa → CAVV + XID (optional)

worldpay

6

Services

This chapter provides program and service specific message information. Use this chapter in conjunction with Chapter 5, "Message Field Definitions" to add support for the various products and services supported by the ISO 8583 message format.

This chapter discusses the following message information:

6.1 Gift Card Field Usage Description

This section discuss basic general and amount field usage.

6.1.1 Basic General Field Descriptions

Table 6-1 describes the fields that have gift card specific information in them on basic gift card transactions. This section does not necessarily cover all fields required for any gift card transaction.

TABLE 6-1 Gift Card Fields

Field	Description of Gift Card Use
Field 2 - Primary Account Number	The gift card account number is passed in this field.
Field 3 - Processing Code	Different processing codes are used in subfield 1 of Field 3 to indicate the different types of Gift Card transactions.
Field 4 - Amount, Transaction	The gift card requested transaction amount. This amount can vary from the actual authorized amount passed back in Field 54 Additional Amounts, Amount Type 03.
Field 12 - Time, Local	The local time of the gift card transaction. For reversals, the time in this field must exactly match the time sent in on the original transaction.
Field 13 - Date, Local	The local date of the gift card transaction. For reversals, the date in this field must exactly match the date sent in the original transaction.
Field 14 - Date, Expiration	The expiration date of the gift card. If the gift card does not expire, then send 4912 in this field.
Field 22 - Point of Service Entry Mode	For gift card transactions a value of 03 = Bar Code Read is support for bar coded gift cards.
Field 35 - Track II Data	Gift card track II data or gift card bar code data is sent in this field.
Field 38 - Authorization Identification Response	An authorization number may or may not be sent depending on transaction type and program setup parameters for your gift card program.
Field 39 - Network Response Code	There are response codes that are unique to the gift card product.
Field 45 - Track I Data	Gift card track I data if applicable.

TABLE 6-1 Gift Card Fields

Field	Description of Gift Card Use
Field 54 - Additional Amounts	Usages 02 - Available Balance (Always Used), 03 - Authorized Amount (Always Used), and 40 Cash Back Amount (Only Used on Purchase Full Depletion Transactions) may be used in gift card transactions.

6.1.2 Amount Field Usage

Table 6-2 lists the amount fields that are key to the processing of a gift card transaction.

TABLE 6-2 Key Gift Card Transaction Processing Fields

Field	Description of Gift Card Use
Field 4, Transaction Amount	Used to relay the requested amount of the transaction
Field 54, Additional Amounts	Amount Code 02, Available Account Balance - used to relay the remaining balance of the gift card account
Field 54, Additional Amounts	Amount Code 03, Gift Card Authorized Amount - used to relay the true amount of the authorization.

Table 6-3 lists the fields present in the each of the different types of gift card transactions and how the fields populate. (Reversal transactions follow same table entries as their respective authorizations).

TABLE 6-3 Population of the Present Gift Card Fields

Transaction Type	Field 4	Field 54, 02	Field 54, 03
Gift Card Activation Request, Swiped	Activation Amount	Unused	Unused
Gift Card Activation Response	Activation Amount	Balance on Account	Activation Amount
Gift Card Balance Inquiry Request	$0.00	Unused	Unused
Gift Card Balance Inquiry Request	$0.00	Balance on Account	Unused
Gift Card Purchase Request	Purchase Amount	Unused	Unused
Gift Card Purchase Response	Purchase Amount	Balance on Account	Purchase Amount

TABLE 6-3 Population of the Present Gift Card Fields

Transaction Type	Field 4	Field 54, 02	Field 54, 03
Gift Card Purchase Request	Refund Amount	Unused	Unused
Gift Card Purchase Reversal Response	Refund Amount	Balance on Account	Refund Amount
Gift Card Load Request	Amount to Add	Unused	Unused
Gift Card Load Response	Amount to Add	Balance on Account	Amount Added
Gift Card Unload Request	Amount to Subtract	Unused	Unused
Gift Card Unload Response	Amount to Subtract	Balance on Account	Amount Subtracted
Close Request	$0.00	Unused	Unused
Close Reply	$0.00	$0.00	Account Balance Before Close

6.2 Incremental Authorization and Partial Reversals

For the ISO 8583 message format, most fields sent in by the merchant are just as they are for regular purchases. The fields in this section are those that warrant special attention for incremental authorizations.

6.2.1 Original Authorization Transaction

This is an example of an original authorization for Hotel or Auto.

TABLE 6-4 Original Authorization Transaction Fields

Field	Description
4	This is the amount originally authorized, for example, $500.00.
60	For subfield 04, use B for lodging or C for auto rental.
61	Use one of the following for the field use indicator (03): `nn H` or `nn A` where: `nn` is the additional number of days, for example, 02 `H` is the Market Specific Data designation for Hotel `A` is the Market Specific Data designation for Auto

6.2.2 Incremental Authorization Transaction 1 - Visa

This is an example of a Visa incremental authorization for Hotel or Auto.

> **NOTE:** For a Mastercard incremental authorization, use all the fields below, except use Field 61.16 (Field-Use Indicator 16) instead of Field 61.

TABLE 6-5 Incremental Authorization Transaction 1 - Visa

Field	Description
4	This is the additional amount being authorized, over and above the, original authorized amount, for example, $200.00.
37	Retrieval Reference Number (field 37) must be unique.
60	For subfield 04, use B for lodging or C for auto rental.

TABLE 6-5 Incremental Authorization Transaction 1 - Visa

Field	Description

61	Only use this Field for Visa incremental authorizations.
	Field use indicator 01 has the following format:
	`ttttttttttttttt  I`
	where:
	• `ttttttttttttttt` is the Visa trans ID returned in the original transaction
	• `I` designates Incremental Auth
	Optionally, you can send field use indicator 03 in either of the following formats:
	`nn H` or `nn A`
	where:
	• `nn` is the additional number of days, for example, 02
	• `H` is the Market Specific Data designation for Hotel
	• `A` is the Market Specific Data designation for Auto

6.2.3 Incremental Authorization Transaction 2 - Visa

This is an example of a Visa incremental authorization for Hotel or Auto.

TABLE 6-6 Incremental Auth Transaction 2 - Visa

Field	Description
4	This is the additional amount being authorized, over and above the, original authorized amount, for example, $100.00.
37	Retrieval Reference Number (field 37) must be unique.
60	For subfield 04, use B for lodging or C for auto rental.
61	Field use indicator 01 has the following format: `ttttttttttttttt  I` • `ttttttttttttttt` is the Visa trans ID returned in the original transaction • `I` designates Incremental Auth Optionally, you can send field use indicator 03 in either of the following formats: `nn H` or `nn A` where: • `nn` is the additional number of days, for example, 02 • `H` is the Market Specific Data designation for Hotel • `A` is the Market Specific Data designation for Auto

6.2.4 Partial Reversal

Table 6-7 depicts a scenario when you perform the original authorization in the case of card present. When you perform the original authorization in the case of card not present, Visa requires an ACI indicator of P; thus, you should send Field 61 - Network Specific Information in the original authorization message with an ACI indicator of P.

> **NOTE:** For a Mastercard partial reversal, use all the fields below, except use Field 61.16 (Field-Use Indicator 16) instead of Field 61.1.

TABLE 6-7 Partial Reversal

Field	Description
4	This is the original transaction amount, plus any incremental auths, for example, $800.00.
37	Retrieval Reference Number (field 37) from the original transaction.
60	Subfield 4 must be B for lodging or C for auto rental.
61.1	You only send this field for Visa partial reversals. Field use indicator 01 must be as follows: **`tttttttttttttt ?`** where: `tttttttttttttt` is the Visa trans ID returned in the original transaction `?` designates the Auth Characteristics Indicator returned in the transaction
90.1	Original Message Type ID (0100)
95.1	Replacement transaction amount This is the settlement amount, for example, $750.00.

6.3 Visa Debt Repayment

To participate in this program, the merchant must register with VISA using MCC 6012 (Loan Payments – Financial Institution) or 6051 (Loan Payments – Non Financial Institution) and obtain the VISA-assigned MVV (Merchant Verification Value).

Visa only allows this program for VISA consumer debit - check cards. VISA declines all consumer credit cards transactions identified as debt repayment. VISA may return code 57 (Transaction not permitted to cardholder).

To set up Visa debt repayment, ensure the request message includes the following fields and values:

1. Set Field 003 (Processing Code) to **003000**.
2. Set Field 18 (Merchant Type) to a Merchant Category Code (MCC) of **6051** or **6012**.
3. Set Field 25 (Point of Service Condition Code) to **08** (Mail/Telephone Order).
4. Using Field-Use Indicator 3, set Field 61 (Network Specific Information) to a value of **0300 B**.
5. Set the Existing Debt Indicator of Field 120 (Additional Request Data) to **ED9**.
6. Set Field 126 (Electronic Commerce/MOTO Indicator to **02** (Recurring transaction).

Visa defines consumer debit cards as the following:

- Visa Check Card
- Visa Prepaid Card bearing both the Visa Flag Symbol and Visa TravelMoney Wordmark
- Visa Check Card II Cards
- Visa Buxx
- Visa Payroll
- Visa Gift Card
- Visa Incentive Card
- Visa Employee Benefit Cards (Prepaid Card products for Visa Flexible Savings Account, Visa Health Savings Account, Visa Health Reimbursement Account, and you can combine Visa Transit within a single BIN)
- Other Visa Prepaid Cards

6.4 Multi-Currency/Dynamic Currency

This section describes the multi-currency and dynamic currency conversion processes.

6.4.1 Multi-Currency Conversion Process

Worldpay does not support full or partial reversal requests.

TABLE 6-8 Multi-Currency Conversion Process Fields

Message Type	Field	Description
Request	04	Amount, Transaction - Foreign amount
	49	Currency Code, Transaction - Foreign currency code
Response	04	Amount, Transaction - Foreign amount
	05	Amount, Settlement - U.S. Dollar amount
	09	Conversion Rate, Settlement
	49	Currency Code, Transaction - Foreign currency code
	50	Currency Code, Settlement - U.S. Dollar currency code (0840)

6.4.2 Dynamic Currency Conversion Process

Processing for Dynamic Currency Conversion (DCC) follows the same specifications for credit card processing with the addition of a few fields, which are present on the reply. Table 6-9 lists the fields that you use to complete the DCC process.

TABLE 6-9 Dynamic Currency Conversion Process Fields

Message Type	Field	Descriptions
Request	04	Amount, Transaction - U.S. currency
	49	Currency Code, Transaction - U.S. currency code
Response	04	Amount, Transaction - U.S. currency
	06	Amount, Cardholder Billing - Foreign currency
	10	Conversion Rate, Cardholder Billing
	49	Currency Code, Transaction - U.S. currency code
	51	Currency code, Cardholder Billing - Foreign currency code

TABLE 6-9 Dynamic Currency Conversion Process Fields

Message Type	Field	Descriptions
Reversal Matching Based On	02	Primary Account Number
	04	Amount, Transaction - U.S. currency
	90	Original Data Elements - Original date and time (90.3)

6.5 RFID (Radio Frequency IDentification)

RFID (Radio Frequency IDentification) is wireless data collection technology that uses electronic tags for storing data. Like bar codes, they identify items, but unlike bar codes you do not have to bring them close to the scanner for reading. The scanner reads RFID tags when they are within the proximity of a transmitted radio signal. RFID is also referred to as a contact-less transaction, which you can process as contact-less chips and contact-less magnetic stripes.

TABLE 6-10 Field 22 POS Entry Mode Codes

Code	Description
07	Contact-less Chip (Non-US)
91	Contactless Magnetic Stripe (US)

TABLE 6-11 Field 60.3 Terminal Entry Capability

Code	Description
3	Contact-less Magnetic Chip (Non-US)
4	Contact-less Magnetic Stripe (US)

6.6 Authorized Amount Fields

This section describes the authorized amount fields for preauthorization, gift card, remaining balance/available balance, and credit card partial authorization transactions.

6.6.1 Pre-Authorization Transaction

TABLE 6-12 Pre-Authorization Amount Fields

Request	Response
Field 4: Pre-authorization request amount	Field 4: Original request amount
	Field 54: Authorized amount (amount code = 56)

6.6.2 Gift Card Transactions

TABLE 6-13 Gift Card Transaction Amount Fields

Request	Response
Field 4: Request amount	Field 4: Original request amount
	Field 54: Available amount (amount code = 02)
	Field 54: Authorized amount (amount code = 03)
	Field 54: Cash back amount (amount code = 40)

You cannot use Field 54 for gift card mass transactions.

Field 54.03 (authorized amount) is not used for gift card balance inquiries or Mini-Statement transactions.

Field 54.40 (cash back amount) is only used for gift card purchases.

6.6.3 Remaining Balance/Available Balance Transactions

TABLE 6-14 Remaining Balance/Available Balance Transactions Amount Fields

Request	Response
Field 4: Request amount	Field 4: Original request amount
	Field 54: Authorized amount (amount code = 56)

6.6.4 Credit Card Partial Authorization Transactions

By default, the Original Requested Amount is sent in field 4 and the Partial Authorized Amount in field 54.56. EMD merchants can send the Partial Authorized Amount in field 4 and the Original Requested Amount in field 54.57. If an EMD merchant wants to send fields this way instead, they must request it, so Worldpay can set it up.

TABLE 6-15 Credit Card Partial Authorization Transaction Amount Fields

Request	Response
Field 4: Request amount*	Field 4: Original requested amount
Field 60, Subfield 6: Terminal Partial Authorization Support Indicator = 'P	'Field 39: Response code = '10' for partial auth
	Field 54: Partial Authorized amount (amount code = 56)*

6.7 Healthcare Support

This section describes how merchants can submit purchases from a Healthcare/Transit account.

6.7.1 Healthcare Auto Substantiation

Table 6-16 lists the function that lets merchants submit purchases from a Healthcare/Transit account.

TABLE 6-16 Healthcare Auto Substantiation

Field	Description	Value
3 (request/response)	Transaction Type	78 (Auto Substantiation) This is only mandatory for host-data-capture merchants; EMD merchants can send in the standard 00 transaction type.
4 (request/response)	Transaction Amount	
54 (request)	Amount Code	Following are the valid values: • 4S (Healthcare) • 4T (Transit) • 4U (Prescription) • 4V (Vision) • 4W (Clinic) • 4X (Dental
60 (request)	POS Transaction Status Indicator	P (specifies Partial Auth capability)
61 (request)	Market Specific Data Indicator	M (Healthcare T (Transit))

6.7.2 Healthcare Eligibility Inquiry

Table 6-17 lists the function that lets merchants submit purchases from a Healthcare/Transit account.

TABLE 6-17 Healthcare Eligibility Inquiry

Field	Description	Value
3 (request)	Transaction Type	'79' Eligibility Inquiry
54 (request)	Additional Amount (Amount Code)	3S
104 (response)	Transaction Specific Data	Variable

6.8 International Fees

Both Mastercard and Visa charge a fee to card issuers for cardholder international fees. Most of these fees appear on the customer's monthly bill from Worldpay.

Nothing needs to occur if the bank/credit union does not want to pass the fee onto the customer. The bank just pays the fee each month on their bill.

If the bank wants to pass on the fee to the customer, then they have several options. In all of these options, the bank's monthly bill still incurs a debit on their monthly bill; however, they are collecting the funds from their cardholders to pay that bill. Following are the options:

- The bank looks at their international fee report each month and manually debits the cardholders for the fees.
- Worldpay helps the core identify which transactions were truly international and the fee associated with each transaction. The core processor can either use the online message, the activity file, or the posting file to determine how to charge the customer.
- Worldpay sets up a fee assessment. This is similar to our normal fee assessment program; however, Worldpay can add in a charge for international transactions. Then the financial institution just needs to run the Worldpay posting fee assessment file and it debits the cardholder and credit an account at the bank. Note that the signature fee assessment for international fees does not use our standard fee codes and is fairly inflexible.
- Some Visa financial institutions are set up with something called an OIF. This is an optional international fee and is a field on the Visa MIQ. If this was set up, then Visa just raises the transaction amount that settles to the customer 1% and does not pass through the fee to the financial institution. This is a bad option, because the fee is not broken out to Worldpay; thus, the cardholder cannot see the separate charge for the international transaction. This is against Reg E.

Visa/Plus

As part of the Visa Release effective April 4, 2008, all Issuer Visa, Plus, and Interlink transactions are assessed an International Service Assessment (ISA) fee by Visa on purchase and cash disbursement transactions from non-US merchants. As a result, Visa's ISA fees on single and multi-currency transactions are as follows:

- The Visa ISA Single Currency Rate is.80% of the destination amount on U.S. Issuer Visa, Plus, and Interlink international transactions. The Visa Indicator for Online Message is C. A single currency transaction is a transaction where the source currency and the destination currency are the same; Visa does not perform currency conversion.
- The Visa ISA Multicurrency Rate is 1.0% of the destination amount on U.S. Issuer Visa, Plus, and Interlink international transactions. The Visa Indicator for Online Message is S. A multi-currency transaction is a transaction where the source currency and the destination currency are different; Visa does perform a currency conversion.

Mastercard/Maestro/Cirrus

All Mastercard, Maestro and Cirrus issuers are assessed a fee by Mastercard when their cardholder performs a transaction outside the US. This fee, a Cross Border Assessment, is 80 basis points (0.8%) of the transaction and is called the Cross Border Assessment. Mastercard settles this fee through Weekly Consolidated Billing, which for most issuers is passed through on their Worldpay invoice. This 0.8% fee is not sent to Worldpay in the online message; thus, Worldpay cannot pass it along to the issuer at the time of the transaction.

All Mastercard, Maestro, and Cirrus cardholders are assessed a fee by Mastercard when Mastercard performs a currency conversion to settle a transaction. This fee, Currency Conversion Assessment (CCA), is 20 basis points (0.2%) of the transaction. This fee is part of transaction settlement. Mastercard requires itemization of this fee on cardholder statements.

Example: Mastercard/Maestro/Cirrus International Fees

A $200 transaction that took place in Paris, France that was authorized in Euro currency would have a $0.40 Currency Conversion Assessment charged to the cardholder and a $1.60 International Cross Border Assessment charged to the issuer.

If the same transaction were authorized in US dollars, then only the $1.60 International Cross Border Assessment would be charged to the issuer.

worldpay

A

Additional Field Usage Information

This appendix describes the following:

A.1 Numeric Country and Currency Codes Currently Supported

Table A-1 lists the currently supported codes. (For a complete list of country and currency codes, refer to the ISO document 3166.)

TABLE A-1 Numeric Country and Currency Codes Currently Supported

Name of Country	Currency Code	Decimal Places	Alphabetic Currency Code	Country Code	Alphabetic Country Code 3 char	Alphabetic Country Code 2 char
Australia	036	2	AUD	036	AUS	AU
Austria	040	2	ATS	040	AUT	AT
Belgium	056	0	BUF	056	BEL	BE
Canada	124	2	CND	124	CAN	CA
Czech Republic	203	2	CZK	203	CHR	CZ
France	250	2	FRF	250	FRA	FR
Germany	280	2	DEM	276	DEU	DF
Greece	300	0	GRD	300	GRC	GR
Guam	840	2	USD	316	GUM	GU
Hong Kong	344	2	HKD	344	HKG	HK
Hungary	348	2	HUF	348	HUN	HU
Iceland	352	0	ISK	352	ISL	IS
Indonesia	360	0	RPA	360	IDN	ID
Italy	380	0	ITL	380	ITA	IT
Japan	392	0	JPY	392	JPN	JP
Korea	410	0	KRW	410	KOR	KR
Luxembourg	442	0	LUF	442	LUX	LU
Netherlands	528	2	NLG	528	NLD	NL
Poland	985	2	PLN	616	POL	PL
Puerto Rico	840	2	USD	630	PRI	PR
Singapore	702	2	SID	702	SGP	SG
Spain	724	0	ESP	724	ESP	ES
Switzerland	756	2	CHF	756	CHE	CH
Taiwan	901	2	NTD	158	TWN	TW

TABLE A-1 Numeric Country and Currency Codes Currently Supported

Name of Country	Currency Code	Decimal Places	Alphabetic Currency Code	Country Code	Alphabetic Country Code 3 char	Alphabetic Country Code 2 char
United Kingdom	826	2	GBP	826	GBR	GB
United States	840	2	USD	840	USA	US
Virgin Islands	840	2	USD	850	VIR	VI
* Euro (currency)	978	2	EUR			

A.2 U. S./Canadian State/Province Codes

TABLE A-2 U. S. State Codes

Code	Numeric Code	State / Province	Code	Numeric Code	State / Province
AL	01	Alabama	AK	02	Alaska
AZ	04	Arizona	AR	05	Arkansas
CA	06	California	CO	08	Colorado
CT	09	Connecticut	DE	10	Delaware
DC	11	Washington, D.C.	FL	12	Florida
GA	13	Georgia	GU	N/A	Guam
HI	15	Hawaii	ID	16	Idaho
IL	17	Illinois	IN	18	Indiana
IA	19	Iowa	KS	20	Kansas
KY	21	Kentucky	LA	22	Louisiana
ME	23	Maine	MD	24	Maryland
MA	25	Massachusetts	MI	26	Michigan
MN	27	Minnesota	MS	28	Mississippi
MO	29	Missouri	MT	30	Montana
NE	31	Nebraska	NV	32	Nevada
NH	33	New Hampshire	NJ	34	New Jersey
NM	35	New Mexico	NY	36	New York
NC	37	North Carolina	ND	38	North Dakota
OH	39	Ohio	OK	40	Oklahoma
OR	41	Oregon	PA	42	Pennsylvania
PR	N/A	Puerto Rico	RI	44	Rhode Island
SC	45	South Carolina	SD	46	South Dakota

TABLE A-2 U. S. State Codes

Code	Numeric Code	State / Province	Code	Numeric Code	State / Province
TN	47	Tennessee	TX	48	Texas
UT	49	Utah	VT	50	Vermont
VA	51	Virginia	VI	N/A	Virgin Islands
WA	53	Washington	WV	54	West Virginia
WI	55	Wisconsin	WY	56	Wyoming

TABLE A-3 Canadian Province Codes

Code	State / Province	Code	State / Province
AB	Alberta	NS	Nova Scotia
BC	British Columbia	ON	Ontario
MB	Manitoba	PE	Prince Edward Island
NB	New Brunswick	PQ	Quebec
NF	Newfoundland	SK	Saskatchewan
NT	Northwest Territories	YT	Yukon Territory

A.3 Fleet Card Product Codes

TABLE A-4 Fleet Card Product Codes

Description	Worldpay Code
Regular Leaded	01
Unleaded 86 octane	19
Unleaded 87 octane	03
Unleaded 88 octane	21
Unleaded 89 octane	05
Unleaded 90 octane	11
Unleaded 91 octane	30
Unleaded 92 octane	07
Unleaded 93 octane	32
Unleaded 94 octane	36
Unleaded 5.7% Gasahol 87 octane	02
Unleaded 5.7% Gasahol 89 octane	04
Unloaded 5.7% Gasahol 92-93 octane	06
Unleaded 7.7% Gasahol 87 octane	08
Unleaded 7.7% Gasahol 89 octane	09
Unloaded 7.7% Gasahol 92-93 octane	10
Unleaded 10% Gasahol 87 octane	12
Unleaded 10% Gasahol 89 octane	13
Unleaded 10% Gasahol 92-93 octane	16
Unleaded Reformulated 86-87 octane	37
Unleaded Reformulated 88-89 octane	38
Ethanol 5	27
Ethanol 7	28
Ethanol 10	29
Ethanol 85	25
Methanol 5	17
Methanol 7	18

TABLE A-4 Fleet Card Product Codes

Description	Worldpay Code
Methanol 10	24
Methanol 85	33
Regular Diesel	14
Premium Diesel	15
Dyed Diesel	35
Kerosene	26
Propane	20
Compressed Natural Gas	23
Uncompressed Natural Gas	22
LPG	31
CNG	39
Other Fuel	34
Cigarettes Tobacco	50
Heath & Beauty	51
Soda	52
Beer/Wine	53
Milk/Juice	54
Restaurant	55
Environmental Charge - disposal fees for batteries, motor parts	58
Car Rental	59
Oil	60
Accessories	61
Batteries	62
Antifreeze	63
Solvent	40
Fluids & Coolants	64
Tire and tube	65
Tire and tube repairs	66
Air Hoses & Belts	67
Tires	68

TABLE A-4 Fleet Card Product Codes

Description	Worldpay Code
Lube & Oil Change	69
Oil Filters	70
Air Filters	41
Parts - parts charged separately from labor	71
Labor - labor charged separately from parts	75
Service - parts and labor charged together	73
Non Contracted	42
Maintenance/Tune Up	74
Repairs	72
Car Wash	76
Wash and Lube	77
Wash and Polish	78
Transmission Service	43
Brake Service	44
Towing/Emergency Road Service	79
Out Of Gas	45
Lockout	46
Stall	47
Engine Service	92
Air Conditioning Service	93
Fuel Injector Cleaner Service	48
Radiator Service	49
Tire Rotation	56
Front/Rear Differential Service	57
Body Work	94
State Inspection	80
Coupon - negative value	81
Location Discount - negative value	95
Participant Discount - negative value	96
Sales Tax	82

TABLE A-4 Fleet Card Product Codes

Description	Worldpay Code
Miscellaneous Merchandise	83
Food	85
Storage	86
Federal Excise Tax on Tires/Tubes	87
Glass	88
Bulbs	89
Wiper Blades	90
Tires/Batteries/Accessories	91
Breathers/PCV Valves	97
Fuel Additives	84

A.4 Currency Codes Supported by Worldpay's Multi Currency Processing (MCP) Product

TABLE A-5 Currency Codes Supported By Worldpay's Multi Currency Processing (MCP) Product

Currency	Currency Code	Minor Units
Australian Dollar	0036	2
Bahamian Dollar	0044	2
Bermudian Dollar	0060	2
Brazilian Real	0986	2
Canadian Dollar	0124	2
Chinese Yuan	0156	2
Danish Krone	0208	2
Euro	0978	2
Hong Kong Dollar	0344	2
New Israeli Shekel	0376	2
Japanese Yen	0392	0
Mexican Peso	0484	2
New Zealand Dollar	0554	2
Norwegian Krone	0578	2
British Pound Sterling	0826	2
Singapore Dollar	0702	2
South African Rand	0710	2
South Korean Won	0410	0
Swedish Krona	0752	2
Swiss Franc	0756	2
New Taiwan Dollar	0901	2

worldpay

B

EMV Processing Requirements

The POS application and the chip card involved in the transaction determine EMV chip card data. You must include this tag data for all chip card transactions, including offline approvals, which use E in POS Transaction Status Indicator of Field 60 - Additional POS Data in the message. You can find any corresponding response data in Field 55 - Integrated Circuit Card Data of the response message.

Note that there are specific values for EMV used in Field 22 - Point of Service Entry Mode, as well as corresponding POS Data Code values in Field 60 Terminal Entry Capability for the terminal entry capability.

B.1 Tag, Length, Value Format

The information that supports the ICC data is all in the TLV (Tag, Length, Value) format, which is as follows:

- Tag

  The tag can be one or two bytes long. The last five bits, which are bits 4-8, of the first byte of the tag determine the number of bytes the tag will use. If these five bits are all set to 1, the next byte is part of the tag. If all five bits are not set to 1, the next byte is not part of the tag.

- Length

  The length can be one or two bytes long. The number of bytes used to specify the length is determined by the first bit of the first byte of the length position. If the first bit of the length position is zero (0), the length is carried in the next seven bits of the first byte and the length position is only one byte long. The length of the data element is in the range of 1-127. If the first bit of the length position is 1, the next seven bits contain the number of subsequent bytes used for the length. The length of the data element is in the range of 1-255.

- Value

  This is the actual chip card data.

Use only valid tags as per the EMVCO standards. Worldpay bypasses unknown tags. Table B-1 and Table B-2 lists the tags that are required and conditional. The involved network or issuer can decline invalid tag data.

> **NOTE:** The presence of tag data does not eliminate the standard message requirements for other fields. For example, you must still populate Field 004 - Transaction Amount in a message even though tag 9F02 is sent.

Note the following:

- Populate tag 5F34 data in Field 23 - Card Sequence Number.
- Send tag 5A (PAN) in Field 002 - Primary Account Number (PAN).

  Do not include it in the chip data.
- Send tag 5F24 (Expiration date) in Field 014 - Expiration Date.

  Do not include it in the chip data.
- Send tag 57 (Track 2) in Field 35 - Track II Data

  Do not include it in the chip data.

B.1.1 Request Message Required Tags

Table B-1 lists the EMV data that you can send in Field 55 - Integrated Circuit Card Data of the request message. Note the following: an is alphanumeric, b is binary, and n is numeric.

TABLE B-1 Required Tags

Description	Tag	Format	Length
Amount, Authorized	9F02	n 12	6
Application Cryptogram	9F26	b	8
Application Interchange Profile	82	b	2
Application Transaction Counter (ATC)	9F36	b	2
Cryptogram Information Data	9F27	b	1
Dedicated File (DF) Name	84	b	5 - 16
Issuer Application Data	9F10	b	1 - 32
Software Versions (Kernel)	FF21	an	1 - 20
Terminal Capabilities	9F33	b	3
Terminal Country Code	9F1A	n 3	2
Terminal Verification Results	95	b	5
Transaction Currency Code	5F2A	n 3	2
Transaction Date	9A	n 6	3
Transaction Type	9C	n 2	1
Unpredictable Number	9F37	b	4
Version Header (current value 0001)	FF01	n 4	2

B.1.2 Request Message Conditional Tags

Table B-2 lists the EMV data that you can send in Field 55 - Integrated Circuit Card Data of the request message. You must send the tags in Table B-2 if present. Note the following: an is alphanumeric, b is binary, and n is numeric.

TABLE B-2 Conditional Tags

Description	Tag	Format	Length
Additional Terminal Capabilities	9F40	b	5
Amount, Other (Cashback -zero for non-cashback transactions)	9F03	n 12	6
Application Identifier - ICC	4F	b	5 - 16
Application Identifier - Terminal	9F06	b	5 - 16
Application Priority Indicator	87	b	1

TABLE B-2 Conditional Tags

Description	Tag	Format	Length
Application Usage Control	9F07	b	2
Application Version Number - ICC	9F08	b	2
Application Version Number - Terminal	9F09	b	2
Cardholder Verification Method (CVM) Results	9F34	b	3
Card Sequence Terminal Number	5F34	b	1
Contactless Capability	FF22	an 1	1
Customer Exclusive Data	9F7C	b	1 - 32
Form Factor Indicator	9F6E	b	32
Interface Device (IFD) Serial Number	9F1E	an 8	8
Issuer Action Code - Default	9F0D	b	5
Issuer Action Code - Denial	9F0E	b	5
Issuer Action Code - Online	9F0F	b	5
Issuer Country Code	5F28	n 3	2
Issuer Script Results (Reversals only)	9F5B	b	1 - 21
POS Entry Mode	9F39	n 2	1
Terminal Capability Flag	FF20	an 1	1
Terminal Type	9F35	n 2	1
Transaction Category Code	9F53	b	1
Transaction Sequence Counter	9F41	n 4 - 8	2 - 4
Transaction Status Information	9B	b	2
Transaction Time	9F21	HHMMSS	3

B.1.3 EMV Request Example for Field 55

TABLE B-3 EMV Request Example for Field 55

Field	Tag	Length	Value
Application Cryptogram	9F26	08	47CAFEAFB47951FC
Cryptogram Information Data	9F27	01	80
Issuer Application Data	9F10	12	0110A000032400000000000000000000 00FF

TABLE B-3 EMV Request Example for Field 55

Field	Tag	Length	Value
Unpredictable Number	9F37	04	5263063F
Application Transaction Counter	9F36	02	0001
Terminal Verification Results	95	05	8020008000
Transaction Date	9A	03	120523
Transaction Type	9C	01	00
Amount, Authorized	9F02	06	000000001159
Transaction Currency Code	5F2A	02	0124
Application Interchange Profile	82	02	1800
Terminal Country Code	9F1A	02	0124
CVM Results	9F34	03	1E0300
Terminal Capabilities	9F33	03	E0B0C8
Terminal Type	9F35	01	22
Dedicated File (DF) Name	84	07	A0000000041010
Application Version Number	9F09	02	0002
Card Sequence Terminal Number	5F34	01	01
Version Header	FF01	02	0001

In this request example:

Length of field 55 (128 bytes) - 0080
Dataset ID (02 = EMV) - 02
Length of EMV data (125 bytes) - 007D
EMV data -
9F260847CAFEAFB47951FC9F2701809F10120110A000032400000000000000000000000FF9F3704
5263063F9F3602000195058020008000 9A031205239C01009F02060000000011595F2A02012482
0218009F1A0201249F34031E03009F3303E0B0C89F3501228407A00000000410109F090200025F
340101FF01020001

B.1.4 Response Message Optional Tags

Table B-4 lists EMV Data that can be sent back in Field 55 - Integrated Circuit Card Data of the response message.

TABLE B-4 Response Message Optional Tabs

Description	Tag	Format	Length
Authorization Response Code	8A	an 2	2
Issuer Authentication Data	91	b	1 - 17
Issuer Script Template 1	71	b	1 - 127
Issuer Script Template 2	72	b	1 - 127
Issuer Script Command	86	b	1 - 255
Issuer Script Identifier	9F18	b	4
Issuer Script Results	9F5B	b	1 - 21

TABLE B-5 EMV Response Example for Field 55

Field	Tag	Ln	Value
Issuer Authentication Data :	91	0A	50B4BC3291184DF00012

where:

Length of field 55 (15 bytes) - 000F

Dataset ID (02 = EMV) - 02

Length of EMV data (12 bytes) - 000C

EMV data - 910A50B4BC3291184DF00012

worldpay

C

WIC EBT Pass-Thru Information

The following WIC EBT Pass-Thru fields comprise one or more composite data elements with each one containing three subelements:

- Field 106 - WIC EBT Pass-Thru Field #1/Level 3 Authorization Descriptor Fields
- Field 107 - WIC EBT Pass-Thru Field #2
- Field 108 - WIC EBT Pass-Thru Field #3

Table C-1 lists these subelements.

TABLE C-1 WIC EBT Subelements

Subelement	Attributes	Description
EBT data dataset identifier	an 2	Describes the type of EBT data for the composite element.
EBT data data length	n 3	Specifies the length of the additional data information specified by the dataset identifier.
EBT data information	ans..994	Contains the actual data provided for the dataset identifier indicated.

Field 106 can contain as many complete composite data elements as will fit within the total 999 positions of the bit. Where indicated by the specification, if the message requires more composite data elements than will fit into Field 106, these additional composite elements are placed in Field 107, Field 108 or both as indicated.

C.1 EBT Data Data Identifiers

The section describes the following EBT data data identifiers:

- Earliest WIC Benefit Expiration Date - EF
- Earliest WIC Benefit Expiration Date - 12 (WIC Michigan and WIC Virginia only)
- WIC Prescription Balance Info - EA
- WIC UPC Purchase Info - PS
- WIC UPC Exception/Denial Info - PS

C.1.1 Earliest WIC Benefit Expiration Date - EF

TABLE C-2 Earliest WIC Benefit Expiration Date - EF

EBT Data Data Identifier	EBT Data Data Length	EBT Data Information (Type)	EBT Data Information (Field Description)
EF	008	n 8	Based across all the WIC Prescription Balance Info returned in Fields 22, 23 and 24, this is the earliest date that one or more of the benefits will expire on in YYYYMMDD format.

C.1.2 Earliest WIC Benefit Expiration Date - 12 (WIC Michigan and WIC Virginia only)

TABLE C-3 Earliest WIC Benefit Expiration Date - 12 (WIC Michigan and WIC Virginia only)

EBT Data Data Identifier	EBT Data Data Length	EBT Data Information (Type)	EBT Data Information (Field Description)
12	008	n 8	Based across all the WIC Prescription Balance Info returned in Fields 22, 23, and 24, this is the earliest date that one or more of the benefits will expire on in YYYYMMDD format. Prior to 2015, this field was used in place of the EF field for WIC Virginia and WIC Michigan. Any merchant certifying WIC after 12/31/2014 should consider this record type obsolete.

C.1.3 WIC Prescription Balance Info - EA

TABLE C-4 WIC Prescription Balance Info - EA

EBT Data Data Identifier	EBT Data Data Length	EBT Data Information (Type)	EBT Data Information (Bitmap)	EBT Data Information (Field Description)
EA	014	Bitmap (an 4)	-	Character bitmap, 1420
		n 2	4	Category (19 for CVB)
		n 3	6	Sub-Category
		n 5	11	Quantity allowed; 999v99

C.1.4 WIC UPC Purchase Info - PS

TABLE C-5 WIC UPC Purchase Info - PS

EBT Data Data Identifier	EBT Data Data Length	EBT Data Information (Type)	EBT Data Information (Bitmap)	EBT Data Information (Field Description)
PS	034	Bitmap (an 4)	-	Character bitmap, 4620
		n 17	2	UPC/PLU data Left pad with zero. The first position indicates one of the following: • **0** - UPC • **1** - PLU This is the exact length (from the right-most digit) specified in UPC/PLU data length bit 11.
		n 6	6	Item Price - Store price per quantity unit, 9999v99 For CVB items, you must set this to 000100.
		n 5	7	Purchase Quantity, 999v99 For CVB items, this is the price of the item, in penny benefit units (that is, $1.50 is 00150). For weighted items, this is the total weight. For all other normal items (non-CVB and non-weighted), this is the number of UPC/PLUs purchased (that is, one non-weighted UPC/PLU is 00100).
		n 2	11	UPC/PLU data length This is the length of the UPC/PLU starting from the right-most digit.

C.1.5 WIC UPC Exception/Denial Info - PS

This type of record only returns if there is an exception condition or a denial of a UPC/PLU occurred. This record will not be sent for fully approved UPC/PLU's that do not exceed max price.

TABLE C-6 WIC UPC Exception/Denial Info - 'PS'

EBT Data Data Identifier	EBT Data Data Length	EBT Data Information (Type)	EBT Data Information (Bitmap)	EBT Data Information (Field Description)
'PS'	'047'	Bitmap (an 4)	-	Character bitmap, 4620
		n 17	2	UPC/PLU data Left pad with zeros. The first position indicates one of the following: • **0** - UPC • **1** - PLU This is the exact length (from right-most digit) specified in UPC/PLU data length bit 11.
		n 6	6	Item price - Approved price for the item, (9999v99) If the Item Action Code is 00, the product was approved but it exceeded the maximum price. This will contain the maximum price which is less than the Original Item Price. If the Item Action Code is not 00, then this will be 000000. **Note**: CVB items do not use a maximum price and are limited only by the quantity of benefits available.
		n 5	7	Purchase Quantity - The quantity of the original PS Purchase Info record affected by this exception/denial record (999v99) • For CVB items, this is the price of the item affected in penny benefit units (that is, $1.50 is 00150.) • For weighted items, this is the total weight affected. • For all other normal items (non-CVB and non-weighted), this is the number of UPC/PLUs affected (that is, one non-weighted UPC/PLU is 00100).
		n 2	8	Action Item Code
		n 6	9	Original requested Item Price of UPC/PLU (9999v99)
		n 5	10	Original requested Purchase Quantity (999v99)
		n2	11	UPC/PLU data length; length of the UPC/PLU starting from the right-most digit

worldpay

D

ISO 8583 Apple Pay™ In-App\Web Transactions

With the advent of Apple Pay, a crucial part of a merchant's payment acceptance strategy should be to encompass wallet support. This appendix describes what changes and development merchants need to perform to accept these purchases when connecting to Worldpay's RAFT front-end system.

The In-App/Web experience differs from the In-Store experience due to the packaging of the data. Apple Pay first packages both the EMVCo token and transaction cryptogram into a single 3D Secure (3DS) encrypted data element and returns only the 3DS package versus the individual data elements. This means merchants must decrypt and parse the 3DS package before Worldpay can process the transaction. Unlike the In-Store transaction, the In-App/Web transaction always includes the full untruncated cryptogram.

This appendix covers configuring In-App/Web Apple Pay transactions and configuring support for Apple Pay for In-App/Web Transactions using eProtect.

D.1 Apple Pay In-App/Web Merchant Decryption

Merchant applications that support Apple Pay must submit a PkPaymentRequest to Apple Pay's PassKit interface to receive a PkPaymentToken. The PkPaymentToken bundle contains the Payment Data which is described in the Apple documentation (also see the Apple developer's site).

Table D-1 lists the payment data keys and their values after decryption.

TABLE D-1 Payment Data Key Values

Payment Key Data	Value	Description
`applicationPrimaryAccountNumber`	String	Device primary account number of the card that funds the transaction
`applicationExpirationDate`	Date as string	Card expiration date in the YYMMDD format
`currencyCode`	String	ISO 4217 currency code
`transactionAmount`	Number	Transaction amount
`cardholderName`	String	Cardholder name (optional)
`deviceManufacturerIdentifier`	String	Hex-encoded device manufacturer identifier
`paymentDataType`	String	3DSecure or EMV
`paymentData`	Payment data dictionary	Device primary account number of the card that funds the transaction

NOTE: The `paymentDataType` data key has either a 3DSecure or EMV value. Visa, Mastercard and American Express state that EMV is for future use only. They have no EMV implementation yet. All In-App transactions should use 3DSecure as the `paymentDataType` value.

D.1.1 Submitting an ISO 8583 Authorization Request Message

To submit an In-App authorization request to the RAFT front-end:

1. Decrypt and parse the PkPaymentToken using the following detailed payment data keys (3-D Secure):
   - `onlinePaymentCryptogram` - This string value is the online payment cryptogram as defined by 3-D Secure.
   - `eciIndicator` - This optional string value is the ECI indicator as defined by 3-D Secure; however, it is mandatory for Worldpay. You must always populate it.

   See the Apple developer's site for additional information about the PKPaymentToken and decryption.
2. Map the Payment Data elements to specific ISO 8583 fields.

NOTE: Visa requires AVS verification; thus, it is a best practice to include the address and zip code for all transactions.

3. Populate other ISO 8583 fields with specific values that enable Worldpay to interpret the transaction as an Apple Pay /e-Commerce transaction.

Table D-2 lists the mapping between the PaymentDataKeyValues and the ISO 8583 fields.

TABLE D-2 PaymentDataKeyValues and ISO 8583 Mappings

Payment Data Key Value	ISO 8583 Field
`applicationPrimaryAccountNumber`	Field 02 - Primary Account Number
`applicationExpirationDate`	Field 14 – Date, Expiration
`currencyCode`	Field 49 - Currency Code, Transaction
`transactionAmount`	Field 4 - Amount, Transaction
`CardholderName`	ISO8583 does not have a corresponding field, nor is one needed to process the transaction.
`deviceManufacturerIdentifier`	ISO8583 does not have a corresponding field, nor is one needed to process the transaction.
`paymentDataType`	ISO8583 does not have a corresponding field, nor is one needed to process the transaction.
`paymentData`	Field 126 - Electronic Commerce/MOTO Indicator You can also use this field to distinguish various types of transactions for bill payment.

NOTE: You must set Field 22 (Point of Service Entry Mode) to 81 (PAN entry via electronic commerce) for all Apple Pay In-App/Web transactions.

D.1.2 Using Field 126 (Electronic Commerce/MOTO Indicator)

Worldpay provides a network agnostic solution for the Apple Pay cryptogram; therefore, merchants do not have to identify the network belonging to the transaction. All electronic commerce transactions must contain Field 126.

Field 126 has a data type of LLL...ans 999, a length of 0-999, and has the following syntax:

```
<EC><I><DATA>
```

To use Field 126 to set up payment data:

1. In the first two bytes, specify the length indicator.
2. In the next two bytes, pass Secure Code transaction identifier (<EC>) contained in the wallet payload provided by the wallet issuer. The values are most likely 05 or 07.

NOTE: Always send the value the applet gives you. If the applet does not supply a value, use 20 for American Express transactions and 05 for all other transactions.

3. Set the next one byte to 6, which is 3-D Secure Data (variable), in the following format:

   `XXDDD…DDD`

   where:

   `XX` is the length of data to follow (1 byte hex)

   `DDD…DDD` is the onlinePaymentCryptogram.

   Following are the variable data formats:

   - Mastercard – AAV
   - Visa – CAVV + XID (optional)
   - American Express – AEVV + XID (optional)
   - Discover – CAVV

4. In the next 19-40 bytes (<DATA>), supply the `paymentData` provided by Apple converted to hexadecimal.

   Table D-3 lists the cryptogram lengths for each card.

TABLE D-3 Card Cryptogram Lengths

Card	Cryptogram Length
Mastercard	19 - 21 bytes
Visa	20 bytes
American Express	40 bytes The interface references Token A and Token B blocks. Fill Token A block with a 20 byte cryptogram, and fill Token B with all zeros.
Discover	20 bytes

NOTE: Only include variable data, <DATA>, for the specific electronic commerce transactions that require it; otherwise, you only need to send the <EC> value.

D.2 Apple Pay for In-App/Web Using eProtect

This section describes how to format the Registration ID to the applicable message interface specification. Your payment processing system submits these transactions after your customer clicks the submit button on your checkout page and then sends the transactions to Worldpay with the low value token returned by eProtect. Worldpay maps the low value token to the OmniToken and card number.

> **NOTE:** The Registration ID is a temporary identifier that facilitates the mapping of a token to a card number. It expires within 24 hours of issuance. If you do not submit an Authorization or Sale containing the low value token within 24-hours, the transaction fails.

Table D-4 represents data available at the time of publication, and it is subject to change. See the latest Apple documentation for current information.

TABLE D-4 Supported Browser Versions

Apple Device	Operating System	Browser
iPhone 6 and later iPhone SE	iOS 10 and later	Safari only
iPad Pro iPad Air 2 and later iPad Mini 3 and later	iOS 10 and later	
Apple Watch *Paired with iPhone 6 and later*	Watch OS 3 and later	
iMac *Paired with any of the above mobile devices with ID Touch for authentication*	macOS Sierra and later	
MacBook *Paired with any of the above mobile devices with ID Touch for authentication*	macOS Sierra and later	

Following are the basic steps that occur when a consumer initiates an Apple Pay purchase using your website:

1. When the consumer selects the Apple Pay option from your app/webpage, your client makes use of the Apple PassKit Framework to request payment data from Apple Pay.
2. Upon receiving the request, Apple creates a PKPaymentToken using your public key. The PKPaymentToken includes a network (Visa, Mastercard, Discover, or American Express) payment token, sometimes referred to as the network token or the DPAN, and a cryptogram.
3. Apple Pay returns the Apple PKPaymentToken to JavaScript code running in your application or website.

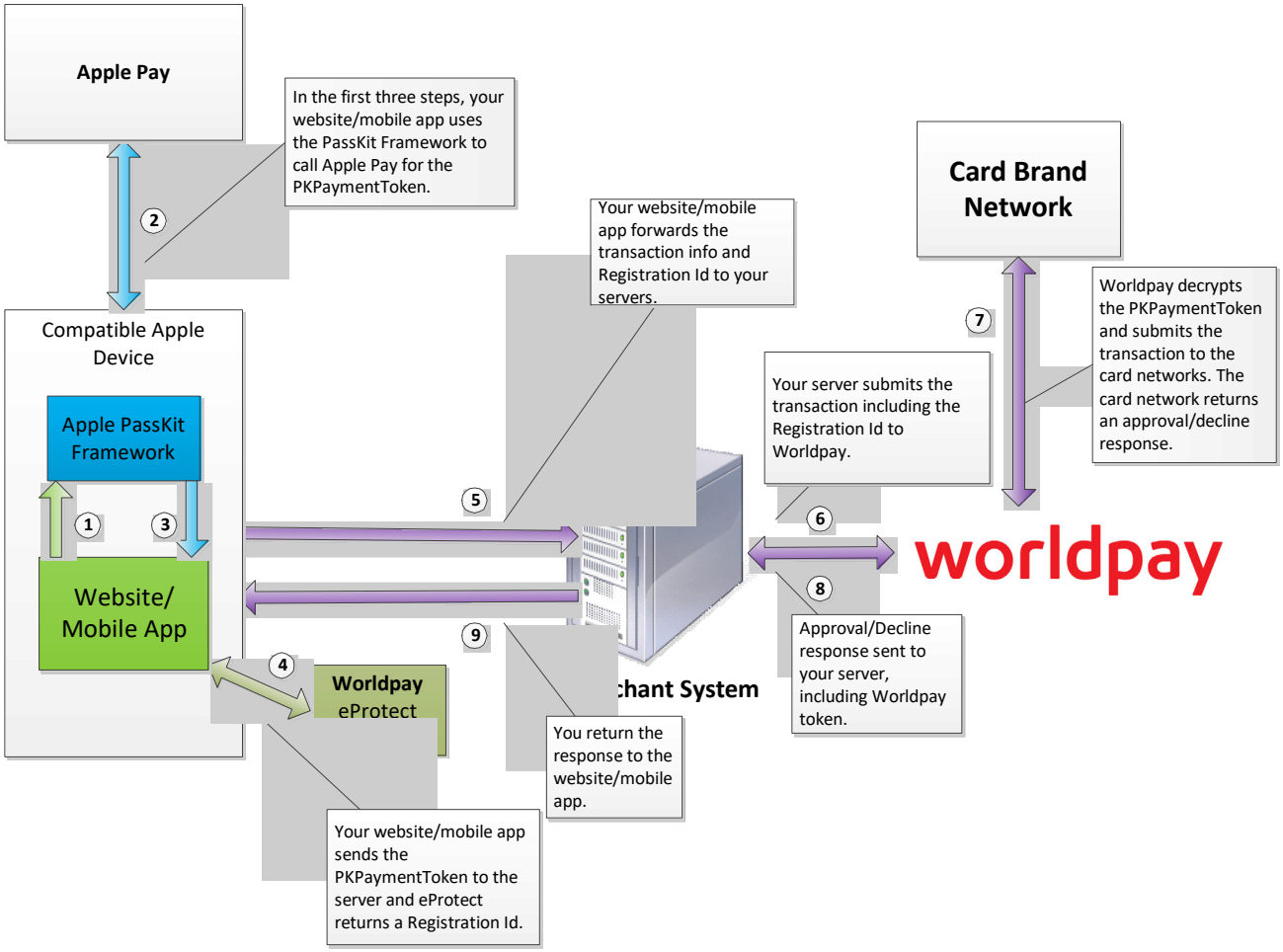
4. For a mobile implementation, your iOS application forwards the PKPaymentToken to the eProtect server via a HTTP POST. For a website implementation, your website sends the PKPaymentToken to our secure server via the JavaScript Browser API.

   In both cases, eProtect returns a Registration ID.

5. Your website or mobile application forwards the transaction data along with the Registration ID to your order processing server just like it would for any eProtect transaction.
6. Your server constructs and submits a standard cnpAPI Authorization/Sale transaction using the Registration ID and sets the `<orderSource>` element to `applepay`.
7. Using the private key, Worldpay decrypts the PKPaymentToken associated with the Registration ID and submits the transaction with the appropriate information to the card networks for approval.
8. Worldpay sends the Approval/Decline message back to your system. This message is the standard response and includes the Worldpay token.
9. You return the Approval/Decline message to your website or mobile application.

Figure D-1 shows the high-level process flow.

FIGURE D-1 Apple Pay Process with eProtect



D.3 Using the Worldpay Mobile API for Android Pay

NOTE: This section is an excerpt from the Worldpay eCommerce Technical Publication, *Worldpay eCommerce Solution for Android Pay*. Refer to the full document for further information.

This is the recommended and typical method of implementing Android Pay for Web and Mobile Applications. The steps that follow, along with Figure D-2, illustrate the high level flow of messages associated with an Android Pay purchase, when utilizing the Worldpay eProtect service.

NOTE: This process assumes you have integrated with Google using the method that returns the Worldpay low-value token (`paypageRegistrationId`) from Google following the Full Wallet request. For more information, see Google's tutorial (select Vantiv gateway) at: https://developers.google.com/pay/api/web/guides/tutorial#full-example. Google also provides the ability to test with test cards at: https://developers.google.com/pay/api/web/guides/resources/test-card-suite.

1. When the consumer clicks the Android Pay button in your application, the action triggers a `MaskedWalletRequest` to Google. In the `MaskedWalletRequest`, you must set a new object `PaymentMethodTokenizationParameters` indicating that you are using Worldpay. Use the following code sample as a guide to setting this field.

Setting the PaymentMethodTokenizationParameters

```
PaymentMethodTokenizationParameters parameters =
PaymentMethodTokenizationParameters .newBuilder()
.setPaymentMethodTokenizationType(PaymentMethodTokenizationType.PAYMENT_GATEWAY)
.addParameter("gateway","vantiv")
.addParameter("vantiv:merchantPayPageId",payPageId)
.addParameter("vantiv:merchantOrderId",orderId)
.addParameter("vantiv:merchantTransactionId",id)
.addParameter("vantiv:merchantReportGroup",reportGroup)
.build();
```

IMPORTANT: You must use the same **`orderId`** value on all calls (i.e., Google, Register Token, Authorization, Sale, etc.). Failure to use the same **`orderId`** can prevent customers from tracking their orders using the Android Pay application.

Setting New Object in the MaskedWalletRequest

```
MaskedWalletRequest request = MaskedWalletRequest.newBuilder()
.setMerchantName(Constants.MERCHANT_NAME)
.setPhoneNumberRequired(true)
.setShippingAddressRequired(true)
```

```
.setCurrencyCode(Constants.CURRENCY_CODE_USD)
.setEstimatedTotalPrice(cartTotal)
.setCart(Car.newBuilder()
.setCurrencyCode(Constants.CURRENCY_CODE_USD)
.setTotalPrice(cartTotal)
.setLineItems(lineItems)
.build())
.setPaymentMethodTokenizationParameters(parameters)
.build();
```

The information returned by Google in the `MaskedWallet` object may include a masked card number (last-four digits exposed) and shipping information. The consumer has the option of changing this information. If any info changes, Android Pay returns an updated `MaskedWallet` object.

2. Upon confirmation of the order by the consumer your application initiates a `FullWalletRequest` to Google.
3. After receiving the `FullWalletRequest` from your application, Google submits the card information to Worldpay eComm eProtect. The eProtect servers return a low-value token (`paypageRegistrationId`).
4. Google returns the low-value token (paypageRegistrationId) to your application under the tokenizationData.token field along with the Full Wallet information.

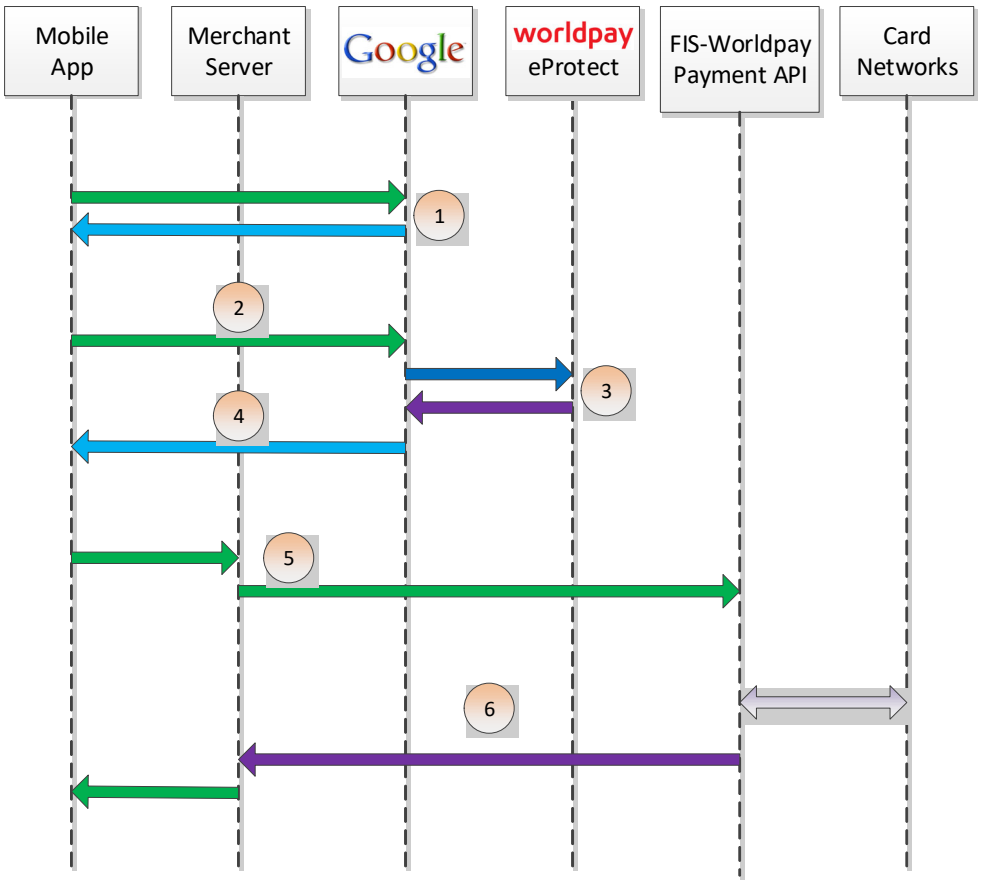
> **NOTE:** It is not necessary to set the expiration date in the Authorization/Sale.

5. Your applications sends the transaction information to your servers along with the low-value token. Your servers submit the 0100 or 0200 message to Worldpay. You must set the `orderSource` to `androidpay` in the transaction. Note that it is not necessary to set the expiration date in the Authorization/Sale.

> **NOTE:** Instead of submitting an 0100 or 0200 message, you can submit a Register Token transaction to convert the low-value token to a Worldpay high-value token. You would then use the high-value token in subsequent transactions submitted to Worldpay.

6. Worldpay processes your transaction normally and returns the results along with a high-value token.

FIGURE D-2 High Level Message Flow for Android Pay using eProtect



D.4 ISO 8583 Transaction Example

The following example contains an authorization request with the Registration ID in Field 120. If you are planning on converting a Registration ID to a network token with an Apple Pay or Android Pay cryptogram, set field 25 to 59, which indicates eCommerce. Note that you can send the Registration ID (low value token) without using 59 in field 25.

Example: Request

```
PARSE FORMAT:  MISD            USER:  O3     DATE:  10/16/14    TIME:  14.45.35
NUM  |FLDNAME |FIELD DESCRIPTION               |LEN |T|FIELD VALUE
-----|--------|--------------------------------|----|-|-------------------------
N/A  |MSGTYPE |MESSAGE TYPE                    |F2  |H|0200`
N/A  |BITMAP1 |FIRST BITMAP                    |B8  |H|B238648108E080B4`
 1   |BITMAP2 |SECOND BITMAP                   |B8  |H|0000000000000120`
 3   |MISDPRCD|PROCESSING CODE                 |F3  |H|003000`
 4   |MISDTRNA|AMOUNT, TRANSACTION             |F6  |H|000000001000`
 7   |MISDTMDT|TRANSMISSION DATE AND TIME      |F5  |H|`
 7   |        |TRANSMISSION DATE (MMDD)        |F2  |H|1015`
 7   |        |TRANSMISSION TIME (HHMMSS)      |F3  |H|091508`
11   |MISDSTAN|SYSTEM TRACE AUDIT NUMBER       |F3  |H|091508`
12   |MISDLCTM|LOCAL TRANSACTION TIME(HHMMSS)  |F3  |H|091508`
13   |MISDLCDT|LOCAL TRANSACTION DATE (MMDD)   |F2  |H|1015`
18   |MISDMRHT|MERCHANT TYPE                   |F2  |H|5541`
19   |MISDAQCC|ACQUIRER INST. COUNTRY CODE     |F2  |H|0840`
22   |MISDPOSE|POS ENTRY MODE                  |F2  |H|`
22   |        |PAN/DATE ENTRY MODE             |F1  |H|01`
22   |        |PIN ENTRY CAPABILITY            |F1  |H|20`
25   |MISDPOSC|POS CONDITION CODE              |F1  |H|00`
32   |MISDAIID|ACQUIRING INST ID CODE          |1V10|H|1042000314`
37   |MISDRRN |RETRIEVAL REFERENCE NUMBER      |F12 |C|218510080021`
41   |MISDTMID|TERMINAL ID                     |F15 |C|XXX12345        `
42   |MISDCAID|CARD ACCEPTOR INSTITUTION ID    |F15 |C|123456789        `
43   |MISDTMAD|CARD ACCEPTOR NAME/LOCATION     |F40 |C|`
43   |        |STREET ADDRESS                  |F23 |C|123 MAIN ST                `
43   |        |CITY                            |F13 |C|CINCINNATI    `
43   |        |STATE                           |F2  |C|OH`
43   |        |COUNTRY                         |F2  |C|US`
49   |MISDCCTR|CURRENCY CODE, TRANSACTION      |F2  |H|0840`
57   |        |PRODUCT TYPE                    |F3  |C|REQ`
59   |MISDPGEO|NATIONAL POS GEOGRAPHIC DATA    |2V14|C|2600049770     `
60   |MISDARRC|ADDITIONAL POS DATA             |2V36|C|`
60.1 |        |TERMINAL TYPE                   |F1  |C|4`
60.2 |        |PHYSICAL TERMINAL LOCATION      |F1  |C|1`
60.3 |        |TERMINAL ENTRY CAPABILITY       |F1  |C|2`
60.4 |        |MERCHANT TYPE INDICATOR         |F1  |C| `
60.5 |        |POS CARD RETENTION INDICATOR    |F1  |C|0`
60.6 |        |POS TRANS STATUS INDICATOR      |F1  |C|P`
60.7 |        |POS TRANS ROUTING INDICATOR     |F1  |C|0`
60.8 |        |CHAIN NUMBER                    |F6  |C|012345`
60.9 |        |DIVISION NUMBER                 |F3  |C|000`
60.10|        |STORE NUMBER                    |F8  |C|00000123`
60.11|        |LANE NUMBER                     |F3  |C|082`
60.12|        |EMPLOYEE NUMBER                 |F9  |C|000000000`
62   |MISDREF |5/3 TRANSACTION DATA            |2V23|C|`
62   |        |5/3 TRANSACTION DATA BITMAP 1   |B8  |H|4000000404004000`
62.2 |        |TERMINAL SEQUENCE NUMBER        |F3  |H|091508`
62.30|        |PREFERRED DEBIT ROUTING FLAG    |F1  |C|0`
62.38|        |SALES TAX                       |F10 |C|0000000035`
62.50|        |SALES TAX ADDENDUM FLAG         |F1  |C|1`
120  |MISDADDD|ADDITIONAL REQUEST DATA         |2V24|C|RG0197239326028935438868'
123  |MISDMRHN|MERCHANT NAME                   |F15 |C|VANTIV TEST
```

Example: **Response**

The following example contains a response with the OmniToken in field 120.

```
PARSE FORMAT:  MISD             USER:  O3     DATE:  10/16/14    TIME:  14.42.39
NUM  |FLDNAME  |FIELD DESCRIPTION               |LEN |T|FIELD VALUE
-----|--------|--------------------------------|----|-|--------------------------
N/A  |MSGTYPE  |MESSAGE TYPE                    |F2  |H|0210`
N/A  |BITMAP1  |FIRST BITMAP                    |B8  |H|B23A64010EF080B4`
 1   |BITMAP2  |SECOND BITMAP                   |B8  |H|0000000000000120`
 3   |MISDPRCD|PROCESSING CODE                  |F3  |H|003000`
 4   |MISDTRNA|AMOUNT, TRANSACTION              |F6  |H|000000001000`
 7   |MISDTMDT|TRANSMISSION DATE AND TIME       |F5  |H|`
 7   |         |TRANSMISSION DATE (MMDD)        |F2  |H|1015`
 7   |         |TRANSMISSION TIME (HHMMSS)      |F3  |H|091508`
11   |MISDSTAN|SYSTEM TRACE AUDIT NUMBER        |F3  |H|091508`
12   |MISDLCTM|LOCAL TRANSACTION TIME(HHMMSS)   |F3  |H|091508`
13   |MISDLCDT|LOCAL TRANSACTION DATE (MMDD)    |F2  |H|1015`
15   |MISDSTLD|SETTLEMENT DATE (MMDD)           |F2  |H|1016`
18   |MISDMRHT|MERCHANT TYPE                    |F2  |H|5541`
19   |MISDAQCC|ACQUIRER INST. COUNTRY CODE      |F2  |H|0840`
22   |MISDPOSE|POS ENTRY MODE                   |F2  |H|`
22   |         |PAN/DATE ENTRY MODE             |F1  |H|01`
22   |         |PIN ENTRY CAPABILITY            |F1  |H|20`
32   |MISDAIID|ACQUIRING INST ID CODE           |1V10|H|1042000314`
37   |MISDRRN  |RETRIEVAL REFERENCE NUMBER       |F12 |C|218510080021`
38   |MISDATID|AUTH. IDENTIFICATION RESPONSE    |F6  |C|493936`
39   |MISDRSPC|RESPONSE CODE                    |F2  |C|00`
41   |MISDTMID|TERMINAL ID                      |F15 |C|XXX12345        `
42   |MISDCAID|CARD ACCEPTOR INSTITUTION ID     |F15 |C|123456789       `
43   |MISDTMAD|CARD ACCEPTOR NAME/LOCATION      |F40 |C|`
43   |         |STREET ADDRESS                  |F23 |C|123 MAIN ST                `
43   |         |CITY                            |F13 |C|CINCINNATI    `
43   |         |STATE                           |F2  |C|OH`
43   |         |COUNTRY                         |F2  |C|US`
44   |MISDRDTA|ADDITIONAL RESPONSE DATA         |2V4 |C|`
44.1 |         |AUTHORIZATION SOURCE            |F1  |C| `
44.2 |         |ADDRESS VERIFICATION RESULT     |F1  |C| `
44.3 |         |CVV2/CVC2 RESPONSE CODE         |F1  |C|N`
44.4 |         |RECURRING PAYMENT ADVICE        |F1  |C| `
49   |MISDCCTR|CURRENCY CODE, TRANSACTION       |F2  |H|0840`
57   |         |PRODUCT TYPE                    |F3  |C|A C
59   |MISDPGEO|NATIONAL POS GEOGRAPHIC DATA     |2V14|C|2600049770     `
60   |MISDARRC|ADDITIONAL POS DATA              |2V7 |C|`
60.1 |         |TERMINAL TYPE                   |F1  |C|4`
60.2 |         |PHYSICAL TERMINAL LOCATION      |F1  |C|0`
60.3 |         |TERMINAL ENTRY CAPABILITY       |F1  |C|0`
60.4 |         |MERCHANT TYPE INDICATOR         |F1  |C| `
60.5 |         |POS CARD RETENTION INDICATOR    |F1  |C|0`
60.6 |         |POS TRANS STATUS INDICATOR      |F1  |C|0`
60.7 |         |POS TRANS ROUTING INDICATOR     |F1  |C|0`
62   |MISDREF  |5/3 TRANSACTION DATA            |2V29|C|`
62   |         |5/3 TRANSACTION DATA BITMAP 1   |B8  |H|5E40000000000000`
62.2 |         |TERMINAL SEQUENCE NUMBER        |F3  |H|091508`
62.4 |         |ACQUIRING INST ACRONYM          |F4  |C|MPSM`
62.5 |         |ISSUING INST ACRONYM            |F4  |C|VISN`
62.6 |         |OWNER SETTLEMENT AGENT          |F4  |C|MPSM`
62.7 |         |CARDHOLDER SETTLEMENT AGENT     |F4  |C|VISN`
62.10|         |POS BATCH REFERENCE NUMBER      |F2  |H|0000`
120  |MISDADDD|ADDITIONAL REQUEST DATA          |2V24|C|TK1234567890120007      `
123  |MISDMRHN|MERCHANT NAME                    |F15 |C|VANTIV TEST
```

worldpay

E

Worldpay Terminal Processing Information

This appendix describes the requirements for connecting specifically to the Worldpay Terminal Processing hosts using TCP/IP. TCP/IP is the protocol of choice for most Worldpay customers due to reduced overhead and shorter transaction times. Much of the reduced transaction time comes from eliminating the dialing and modem synchronization instead relying on a dedicated connection.

A POS application can transmit authorization and clearing (settlement) messages over the TCP/IP connection using the ISO message set for host capture. For more information about the TCP/IP protocols, refer to RFC 1122 Requirements for Internet Hosts - Communication Layers.

> **NOTE:** This section is not intended for use with standard host-to-host processing. Contact your Worldpay Relationship Manager for approval before coding to the Worldpay Terminal Processing Host.

E.1 Message Construction

The POS application interfaces to the Worldpay host using a leased line connection and the TCP/IP protocol. It must prefix each request with a 21-byte TPS header, which includes a field indicating the length of the message to follow in the supported format.

Following are the general considerations for TCP/IP communications:

- Each authorization/upload request should begin with a new socket connection.
- It allows only one transaction in flight at a time per bank/merchant/terminal/lane.
- Unless the POS device or application times out, each request ends with an approval, a decline or an error response.
- After the POS application receives the host response, the connection should close.
- Eliminate the STX, ETX and LRC from the request. The IP protocol handles these.
- Eliminate ACKing the host's authorization response. The IP protocol handles these.
- Eliminate ENQ code. ENQ characters are only sent in dial implementations.

E.2 TPS Header Format Specification

This section defines the message construction for authorization requests and responses between POS devices (or applications) and the Worldpay host. It is not intended as a specification for message formats but rather as a template for building requests using the message set.

E.2.1 Requests to Worldpay Online Systems

TABLE E-1 Requests to Worldpay Online Systems

Field Number	Field Description	Field Type	Offset	Field Length	Required Values
1	Message Originator	a	0	2	BT
2	Message Length	n	2	4	nnnn This is the length (decimal) of the message beginning with field 4. You must right-justify and zero fill it.
3	Echo Data	an	6	15	This is the discretionary data from controller or protocol converter that the response echoes. This field is available to the controller/terminal application for purposes like response routing.
4	Request Message	per spec	21	variable	This is the request message as defined in Chapter 2, "Host Data Capture and Credit EMD Message Sets".

E.2.2 Responses from Worldpay Online Systems

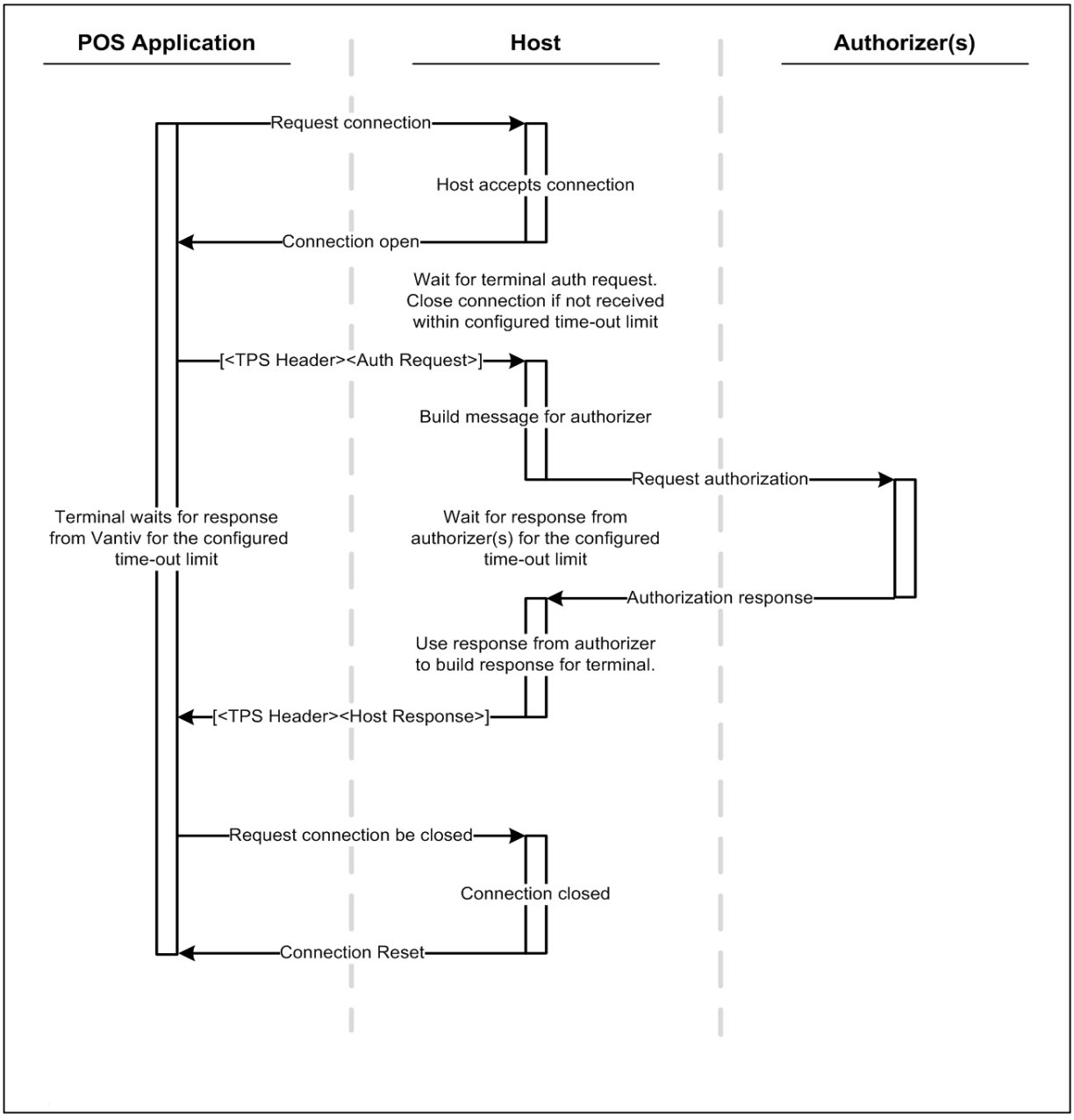
TABLE E-2 Responses from Worldpay Online Systems

Field Number	Field Description	Field Type	Offset	Field Length	Required Values
1	Message Originator	a	0	2	BT
2	Message Length	n	2	4	nnnn This is the length of the message beginning with field 4. You must right-justify and zero fill it.
3	Echo Data	an	6	15	This comes from the request.

TABLE E-2 Responses from Worldpay Online Systems

Field Number	Field Description	Field Type	Offset	Field Length	Required Values
4	Response Message	per spec	21	variable	This is the response message from the Worldpay Online System as defined in Chapter 2, "Host Data Capture and Credit EMD Message Sets".

FIGURE E-1 TCP/IP Authorizations Flow



worldpay

E.3 Additional Processing Requirements

Note the following:

- Field 0.1 Terminal Application Header - The application message requires this header to indicate that the ISO message participates in the Worldpay terminal processing platform.
- Field 115 Terminal Specific Data - Use this field to supplement the standard host data capture message set for use explicitly with the Worldpay terminal processing platform.

worldpay

F

ISO 8583 Access over the Internet

Client applications can successfully convey ISO 8583 messages over the Internet by performing some additional tasks. You must also work with Worldpay personnel to set up Internet access to ISO 8583 to ensure proper certification and authentication occur.

This appendix describes the following:

F.1 Message Set Considerations for Accessing ISO 8583 over the Internet

Note the following:

- There is no need for signon or echo messages.
- To use EMD, see Table 5-118 for the EMD Settlement indicator.

F.2 Communication

ISO 8583 access over the Internet makes use of several Internet technologies. For more information about the HTTP and TLS protocols, refer to the following documents:

- RFC 1945 Hypertext Transfer Protocol HTTP/1.0
- RFC 2616 Hypertext Transfer Protocol HTTP/1.1
- RFC 5246 The TLS Protocol
- RFC 4648 Base64 Encoding

F.3 Authorization Platform

The Worldpay authorization platform comprises the following logical environments:

- Production - The Production environment is only for processing live transactions.
- Test/QA - The Test/QA environment is for the application development and certification phases.

Both use production ISPs and production-classified network equipment within the Worldpay data centers.

Any client authorized to use this platform establishes a connection over TLS and uses HTTP for message delivery (HTTPS). Negotiated encryption, as dictated by the TLS protocol, secures all interactions between the client software and the Worldpay authorization platforms. Worldpay assigns authentication credentials, and they must appear in the HTTP message header for authentication.

Following are the general considerations and requirements for communications:

- Preface each authorization request with an HTTP header.
- You must meet authentication requirements. See Authentication.
- You must meet the formatting requirements for the ISO 8583 messages. See Transaction Message Processing.
- You can send multiple authorization requests on the same TCP/IP session before you receive responses to previous requests, but the following conditions apply:
  - Preface each authorization request with a properly formatted HTTP header.
  - You cannot send multiple authorization requests with a single HTTP header.
  - Responses are not guaranteed to arrive at the client in the same order the requests were sent; therefore, the client software must use the proper elements of the ISO 8583 response messages to match the responses to the original requests.
  - The client application should not permit more than 20 requests to be outstanding without responses on a single TCP/IP session.
- Unless the client application times out, each request ends with an approval, a decline, or an error.
- The client application should have configurable time-out value parameters. Worldpay recommends a timeout value of at least 25 seconds.
- Use configurable DNS name(s) not IP addresses.
- If you perform certificate validation, do not hard code or parameterize the CA. The Worldpay certificates are routinely reissued prior to expiration, and it is possible that different CAs will sign them in the future.
- There are only server-side certificates.
- The platform has multiple access points. TLS traffic can enter Worldpay through two data centers and a total of four ISPs. From an application standpoint, this means that different TCP/IP sessions can take different paths to reach the host.
- Worldpay does not permit persistent connections. The host will close connections based on HTTP conventions.

F.3.1 Production Environment

The main production environment uses a single URL and has many features designed to help eliminate service interruptions.

Worldpay uses the following criteria to accept ISO 8583 TLS connections over the Internet:

- You must load the client ID into the client application software.
- You must use one of the specified production URLs.
- Your client application must adhere to the ISO 8583 message set.
- You must configure your client application with valid merchant numbers.

The host for the Production environment is:

```
https://ws.vantiv.com
```

Since this environment uses multiple data centers and ISPs, the DNS name `ws.vantiv.com` can resolve to different IP addresses. If in use, it open firewalls or route restrictions at the customer locations or at their corporate office to allow traffic through to Worldpay's range of addresses. This range is 64.57.144.0/20 (64.57.144.0 with a subnet mask of 255.255.240.0) and encompasses all possible IP addresses.

Configure firewalls with IP addresses and not DNS names. It is possible for a firewall and the client application at the same customer location to get different IP addresses when resolving DNS names. If this happens, the firewall stops the application's attempt to connect to the host.

Additionally, most client software should perform checks to validate the TLS certificate. This requires access to the Certificate Signing Authority (CA). Currently, Worldpay uses Entrust for its certificates; thus, connecting to the following URLs may require additional privileges:

- `crl.entrust.net`
- `crl2.entrust.net`
- `ocsp.entrust.net`

> **NOTE:** Worldpay has the option to change the Certificate Authority (CA) at any time; therefore, do not hard code or parameterize it. The application must adhere to the RFCs, allowing dynamic changes to the CA.

F.3.2 Test/QA Environment

This environment uses some of the same hardware and redundancies as the production environment. Since it only handles test and certification traffic, it does not have the same levels of redundancy and failover. Traffic routes through just one data center and can only terminate to one host.

The host for the Test/QA environment is:

```
https://ws-cert.vantiv.com
```

If firewalls or route restrictions are in use at your location or at your corporate office, you should open them to allow traffic through the ranges of addresses listed in Production Environment.

Additionally, some client software may perform checks to see if TLS certificates are valid to the Certificate Signing Authority (CA). If you want to allow the client software to reach the CA, you may need additional privileges.

F.4 Authentication

Each instance of a client application must perform an authentication API call prior to performing transactions. You must perform the authentication call in order to establish the identify of a client application and then you can use the resulting credentials for many transactions.

F.4.1 Authentication Token Types

Use the following types of authentication tokens to permit access to Worldpay's ISO 8583 systems using the Internet:

- Client ID

  The client ID is a character string with a length of 32. Client application use it to authenticate to the Worldpay systems prior to performing transactions. Worldpay personnel assign it to the client software. The client ID does not expire, and you can install it in an unlimited number of instances of an application.

  Keep the client ID secure and never log it or display it in full to end users. If necessary, you can display the first 10 characters to end users for troubleshooting purposes. Parameterize the client ID, so you can change it if necessary. Worldpay assigns a client ID for testing and certification and a different client ID for production.

- Authorization ID

  The authorization ID is a character string with a length of up to 500. The client application obtains it from the Worldpay authentication API, and it is necessary to perform transactions.

  The authorization ID does not expire. You can use it for an unlimited number of transactions, but each instance of a client application should obtain its own authorization ID rather than using a single value for multiple instances. In addition, the client application should be able to call the Worldpay authentication API in order to obtain a new authorization ID if necessary.

  Like the client ID, keep the authorization ID secure. Never log it or display it to end users. If necessary, you can display the first 20 characters to end users for troubleshooting purposes.

F.4.2 Authentication Process

The authentication process requires that the client application call a Worldpay authentication API. The authentication API takes a client ID as input and returns an authorization ID if the API successfully authenticates the client ID.

To authenticate the client application, you must send an HTTP message with a simple JSON message to the Worldpay authentication API. When successful, the response will contain an HTTP header with a JSON message. Parse the JSON message to find the authentication ID and save the authentication ID for later use in transaction processing. The authentication ID is good for an unlimited number of transactions, and it is not necessary to renew it on a regular basis.

F.4.3 Authentication API

The authentication API uses the same host names as transaction processing, but the path is different. Following are the full URLs:

- Testing/Certification

  `https://ws-cert.vantiv.com/merchant/payments/authRaft/v1/authId/generate`

- Production

  `https://ws.vantiv.com/merchant/payments/authRaft/v1/authId/generate`

F.4.4 Authentication Request

The authentication request consists of an HTTP header followed by a simple JSON message. It must contain the following required elements:

- The following path: `/merchant/payments/authRaft/v1/authId/generate`
- A Content-Type header with the following value: `application/json`
- An Authorization header containing the software application's assigned client ID
- A Host header containing the Worldpay host name
- A JSON message after the HTTP header

  The only field required is the client ID in a field named `clientId`.

Example: Authentication Request Message

```
POST /merchant/payments/authRaft/v1/authId/generate HTTP/1.1<CR><LF>
Content-Type: application/json<CR><LF>
Authorization: 8bc39a9b9f34494c89b80bfa5bf06386<CR><LF>
Content-Length: 51<CR><LF>
Host: ws-cert.vantiv.com<CR><LF>
<CR><LF>
{ "clientId" : "8bc39a9b9f34494c89b80bfa5bf06386" }
```

Note the following about the example:

- You must supply the client ID (highlighted in the example) twice, once in the Authorization header and once in the JSON message. The value above is only an example. You must obtain this value from Worldpay.
- You must terminate each header line in the HTTP header by a carriage return character and a line feed character. These bytes are `0D0A` in hexadecimal, but they display as `<CR><LF>` in the example.
- The HTTP header also terminates with a second set of carriage return and line feed characters after the last HTTP header line with the sixth line showing nothing but a `<CR><LF>`.

F.4.5 Authentication Response

The authentication response consists of an HTTP header followed by a simple JSON message, which is like the request. You should process the response message to find the HTTP response code. A successful authentication yields an HTTP 200 response code. When an HTTP 200 response code is present in the JSON message after the HTTP header, parse it to obtain the contents of the `authId` field.

Example: Authentication Response Message

```
HTTP/1.1 200 OK<CR><LF>
Content-Type: application/json; charset=UTF-8<CR><LF>
Date: Fri, 1 Nov 2019 12:24:17 -0400<CR><LF>
Content-Length: 255<CR><LF>
<CR><LF>
{
"authId":"aXY6IEY3RTE4MjkxRjg2OUY4MzgxQkYxN0RBMDgwOEZERjhGO2tpOiAyO2F1dGhTdHJpbmc6IDIxZjR3TlVlOEZuaXFGengyaW1LQysvdWorTksvSG10cVU3RTlSYTFScCtLS0w4OWtlN3BsSU9McnFZT2J5MlVrVnViVzVydVQ4dWkrdEdKajB0OFU2MUVIZHUyMDB4Y2ZjVnpGdGJCbHdnPTs=",
"result":"Success" }
```

Note the following about the example:

- You must save the `authId` (highlighted) in the client application and submit it later in the Authorization HTTP header for each transaction.
- Each header line in the HTTP header must terminate with a carriage return character and a line feed character. These bytes would be `0D0A` in hexadecimal but display as `<CR><LF>` in the example.
- The HTTP header also terminates with a second set of carriage return and line feed characters after the last HTTP header line with the fifth line showing nothing but a `<CR><LF>`.

F.5 Transaction Message Processing

This section describes the request message construction and the processing of the response message.

F.5.1 Request Message Construction

The client application should build each ISO 8583 request according to the guidelines in this document before preparing it for transport to Worldpay over the Internet. After you build the request, take the following steps before sending it to the Worldpay host:

1. Prefix the request message with a header that indicates the character set used to build the character fields in request message. You must build the header using the same character set as the message.
   - Prefix the request message with `MA.` when you are using the ASCII character set to construct the request message. Encode the `MA.` using a hexadecimal value of `4D412E`.
   - Prefix the request message with `ME.` when you are using the EBCDIC character set to construct the request message. Encode the `ME.` using a hexadecimal value of `D4C54B`.
2. Once you prefix the ISO 8583 request message with the proper header (`MA.` or `ME.`), you must base64 encode it. This ensures that all non-printable data properly transports to the host. You must perform the base64 encoding with padding, and you must preserve that padding when the message sends.
3. After you prefix the request message with the proper header and base64 encode it, you must prefix it with an HTTP header. The HTTP header must contain:
   - A path of `/merchant/payments/authRaft/v1/authId/transaction`
   - The Content-Type header with a value of `application/octet-stream`
   - An Authorization header with a valid `authID`

     See the Authentication section for more information.
   - A Host header that contains the Worldpay host name
   - The Content-Length header with the correct length of the base64 encoded message
   - No chunked encoding

F.5.2 Response Message Processing

The client application should process response messages from the host in the reverse order of the construction for request messages.

The response message processing is as follows:

1. The client application processes the HTTP header to obtain the HTTP response code and the length of the response message.
2. The client application checks for an HTTP response code of 200.

   This means that the host system received the request and processed it. This does not mean that it is an approved transaction. The ISO 8583 response message must be parsed according to the message specification to determine transaction approval.

   If the HTTP response code is not 200, there is a problem preventing the host from processing the transaction request. Some common values are as follows:

- HTTP 400 Bad Request – There is a problem with the formatting of the HTTP header, the base64 encoding, or the character set headers (`MA.` or `ME.`). Generally, an HTTP 400 would not return for formatting errors within the ISO 8583 request message.
- HTTP 401 Unauthorized – This means that the request was not authorized. Obtain a new `authID` according to the instructions in the Authentication section. If the problem persists, contact a Worldpay representative to assist you with troubleshooting.

3. After the client application verifies that the HTTP response code is 200, it must use the Content-Length in the response to find the end of the response message.
4. Once the client application isolates the response message after the HTTP header, it must base64 decode it.

   Once it base decodes the response message, it is in the ISO 8583 format with the character set header (`MA.` for an ASCII response or `ME.` for an EBCDIC response). The response returns using the same character set as the request.
5. The client application can now parse the ISO 8583 response according to the message specification.

F.5.2.1 Request Message Example

Example: Request Message - Prior to Transport over the Internet to the Worldpay Host

The following example is in hexadecimal format and uses the ASCII character set.

```
0200F238648108E0809400000000000000100104445222299990007003000000
0005000011011021361021361021361101541108400100000A10420003143136
34353234363233393233383030303039313030303920202020303933033333538
303220202020202054455354205354 4F5245202020202020202020202020202043
494E43494E4E4154492020204F4855530840524551002434313220313033303 0
303030303030303030303039313030303039303030303030303030000B400000
000000000010213600464144594156343532303920202020202020202020202020
202020202020202020202020415859434C31445359504C52544B343131313131
363530303639313131312020202020
```

The message has a MA. prefix, because it uses the ASCII character set. Following is the same message with that addition highlighted:

```
4D412E0200F238648108E0809400000000000000100104445222299990007003 0
000000000500001101102136102136102136110154110840010000 0A10420003
143136343532343632333932333830303030393130303039202020203039303 3033
333538303220202020202054455354205354 4F5245202020202020202020202020
202043494E43494E4E4154492020204F4855530840524551002434313220313 0
333030303030303030303030303039313030303039303030303030303030000B
400000000000000010213600464144594156343532303920202020202020202020
202020202020202020202020202020415859434C31445359504C52544B343131
313131363530303639313131312020202020
```

The next step is to base64 encode the message. Following is the result is of base64 encoding:

```
TUEuAgDyOGSBCOCAlAAAAAAAAAEAEERFIiKZmQAHADAAAAAABQAAEQEQITYQITYQITYRAVQRCEABAAAKEEIAAxQ
xNjQ1MjQ2MjM5MjM4MDAwMDkxMDAwOSAgICAwOTAzMzU4MDIgICAgICBURVNUIFNUT1JFICAgICAgICAgIE
NJTkNJTk5BVEkgICBPSFVTCEBSRVEAJDQxMiAxMDMwMDAwMDAwMDAwOTEwMDAwOTAwMDAwMDAwMAALQAAAA
AAAAAAQITYARkFEWUFWNDUyMDkgICAgICAgICAgICAgICAgICAgICBBWFlDTDFEU1lQTFJUSzQxMTExMTY1
MDA2OTExMTEgICAgICA=
```

It must now add an HTTP header to the message. Following is the message above with an HTTP header:

```
POST /merchant/payments/authRaft/v1/authId/transaction HTTP/1.1<CR><LF>
Content-Type: APPLICATION/OCTET-STREAM<CR><LF>
Authorization: aXY6IEM1NEY0MDIxREMzRTFGOUQxODkyQTg0QUQ4OU<CR><LF>
Host: ws-cert.vantiv.com<CR><LF> Content-Length: 368<CR><LF>
<CR><LF>
TUEuAgDyOGSBCOCAlAAAAAAAAAEAEERFIiKZmQAHADAAAAAABQAAEQEQITYQITYQITYRAVQRCEABAAAKEEIAAxQ
xNjQ1MjQ2MjM5MjM4MDAwMDkxMDAwOSAgICAwOTAzMzU4MDIgICAgICBURVNUIFNUT1JFICAgICAgICAgIE
NJTkNJTk5BVEkgICBPSFVTCEBSRVEAJDQxMiAxMDMwMDAwMDAwMDAwOTEwMDAwOTAwMDAwMDAwMAALQAAAA
AAAAAAQITYARkFEWUFWNDUyMDkgICAgICAgICAgICAgICAgICAgICBBWFlDTDFEU1lQTFJUSzQxMTExMTY1
MDA2OTExMTEgICAgICA=
```

Note the following about the HTTP message above:

- The client application must terminate each header line in the HTTP header with a carriage return character and a line feed character. These bytes would be `0D0A` in hexadecimal but display as `<CR><LF>` in the example.
- The client application must also terminate the HTTP header with a second set of carriage return and line feed characters after the last HTTP header line with the fifth line showing nothing but a `<CR><LF>`.

F.5.2.2 Response Message Example

Example: Response Message - HTTP Response Received from the Worldpay Host Before Any Deconstruction

```
HTTP/1.1 200 OK<CR><LF>
Date: Fri, 01 Nov 2019 14:21:36 GMT<CR><LF>
Server: RAFT/08<CR><LF>
Content-Type: application/octet-stream<CR><LF>
Content-Length: 00372<CR><LF>
<CR><LF>
TUEuAhDyOmQBDvCAvAAAAAAAAAEgEERFIiKZmQAHADAAAAAABQAAEQEQITYQITYQITYRAREBVBEIQAEAChBCAAM
UMTY0NTI0NjIzOTIzNjk2NTgwMDA4MDAwMDkxMDAwOSAgICAwOTAzMzU4MDIgICAgICBURVNUIFNUT1JFICAgIC
AgICAgICAgIENJTkNJTk5BVEkgICBPSFVTAAQgWSAgCEBEIEQADjM5ICAgNDUyMDIzMTAyAAc0MDAgMDgwAAQwO
EYgACFeQEAAAAAAABAhNlZOVFZCQVNFTVBTTVZJU04PoUJBU0UAG1RLNDExMTExNjUwMDY5MTExMSAgICAgIFBM
TkFNRVggVEVTVCBNSUQgIA==
```

Note the following about the HTTP message above:

- The response code is 200 meaning that the host processed the request message. It does not mean that it is an approved transaction.
- The message must terminate each header line in the HTTP header with a carriage return character and a line feed character. These bytes would be `0D0A` in hexadecimal but display as `<CR><LF>` in the example.
- The message must also terminate the HTTP header with a second set of carriage return and line feed characters after the last HTTP header line with the fifth line showing nothing but a `<CR><LF>`.

After the client application checks the HTTP Response code and removes the HTTP headers, it has the following base64 encoded ISO 8583 message:

```
TUEuAhDyOmQBDvCAvAAAAAAAAAEgEERFIiKZmQAHADAAAAAABQAAEQEQITYQITYQITYRAREBVBEIQAEAChBCAAM
UMTY0NTI0NjIzOTIzNjk2NTgwMDA4MDAwMDkxMDAwOSAgICAwOTAzMzU4MDIgICAgICBURVNUIFNUT1JFICAgIC
AgICAgICAgIENJTkNJTk5BVEkgICBPSFVTAAQgWSAgCEBEIEQADjM5ICAgNDUyMDIzMTAyAAc0MDAgMDgwAAQwO
EYgACFeQEAAAAAAABAhNlZOVFZCQVNFTVBTTVZJU04PoUJBU0UAG1RLNDExMTExNjUwMDY5MTExMSAgICAgIFBM
TkFNRVggVEVTVCBNSUQgIA==
```

After base64 decoding, the message has `MA.` header (highlighted) and the raw ISO 8583 response message:

```
4D412E0210F23A64010EF080BC0000000000000120104445222299990007003
0000000005000011011021361021361021361101110154110840010000A104200
031431363435323436323339323336393635383030303830303030393130303
039202020203039303333353830322020202020205445535420535445245202
020202020202020202020204349 4E43494E4E4154492020204F48555300042059
20200840442044000E333920202034353230323331303200073430302030383
000430384620002 15E4040000000000010213656 4E5456424153454D50534D56
49534E0FA142415345001B544B34313131313136353030363931313131202020
202020504C4E414D45582054455354204D49442020
```

After removing the `MA.` header, there is an ISO 8583 response message that you can parse according to the message specification:

```
0210F23A64010EF080BC0000000000000120104445222299990007003000000
000500001101102136102136102136110111015411084001000A104200031431
363435323436323339323336393635383030303830303030393130303039202
020303930333335383032202020202020544553542053544F52452020202020
202020202020202043494E43494E4E4154492020204F48555300042059202008
40442044000E333920202034353230323331303200073430302030383000043
038462000215E4040000000000010213656 4E5456424153454D50534D5649534E
0FA142415345001B544B34313131313136353030363931313131202020202020
504C4E414D45582054455354204D49442020
```

worldpay

G

Benefit Card Services Flow Between Merchant and Worldpay

This appendix describes the following for the Benefit Card Services flow between a merchant and Worldpay:

G.1 Field Definition Changes

Merchants may be required to send Worldpay UPC/PLU data for networks to identify approved products in addition to additional amounts for each purse. Worldpay will identify eligible Benefit Card Services BINs as flagged by the networks in the master merchant BIN file. Merchants will receive a separate BIN entry for Benefit Card Services eligible BINs. If a merchant sends in UPC/PLU data on a non-Benefit Card Services eligible bin, Worldpay will deny the transaction with a Denial 14 (Invalid Card).

All Benefit Card Services transactions must include the OP tag in Field 120.

G.1.1 Field 54 - Additional Amounts

The format for field 54 remains the same. There are new amount types in addition to those defined in Table 5-26 for field 54 positions 3-4 that merchants are required to send and receive.

Use an account type of 00 (Default Account, field 54 positions 1-2) for Benefit Card Services transaction requests. For debits/purchases, make the sign for each amount (position 8) D. For returns/credits, make the sign for the credited purse to C. Worldpay will expand Field 54 to support up to 12 amounts only for Benefit Card Services transactions.

G.1.1.1 Amount Types - Benefit Purse Amounts

Some of the new amount types exchange amounts between two benefit purses for the following types of amounts: requested amount, approved amount, and balance amount.

TABLE G-1 Benefit Purse Amounts

Benefit Purse	Request	Approved	Balance (Reserved)
OTC	5A	5B	5C
Food (Healthy Choice)	5D	5E	5F

Merchants performing integrated Approved Product List (APL) evaluation may populate requested amount types in messages out to Worldpay. The network may update requested amounts following UPC/PLU data validation. Worldpay includes the approved amounts in reply messages.

G.1.1.2 Amount Type 5G - Program Disclose Amount

You can send amount type 5G as an aggregate of all the applicable individual discounts for the given product data. This amount type can also be passed back in reply messages.

G.1.1.3 Amount Type 5I – Other

Worldpay can return amount type 5I in reply messages back to the merchant for the following reasons:

- Transaction amount remainder as the difference between amount requested in field 4 (Transaction Amount) and the total qualified benefit amounts.
- Amounts for which no UPC/PLU data was delivered from the merchant to Worldpay.
- Amounts for which no qualified benefit program was identified when evaluating the Approved Product List (APL) for the available benefits assigned to the BIN.

G.1.2 Field 106-109 – UPC/PLU Pass-Thru (Usage 3)

Merchants will be required to send UPC/PLU data to Worldpay for eligible products. In a situation where a product sent in field 106 is not found on the APL, merchants will be required to handle partial approvals.

The remaining amount for items not found on the APL will be sent back in field 54 under amount type 5I. If the message requires more composite data elements than will fit into Field 106, these additional elements are placed in Field 107, Field 108, or Field 109 as indicated. Field 106 usage 3 has the following data format:

LLL…ans 999

TABLE G-2 Field Descriptions

Field Description	Field Length	Notes
UPC/PLU Tag	AN 5	*PS*\ Designates field 106 as UPC/PLU pass-thru data
Purchase Item Data Length	N 4	
UPC/PLU Indicator	N 1	• 0 - UPC • 1 - PLU
UPC/PLU Value	N 15	UPC/PLU value. Right-justified, padded with 0s
UPC/PLU Check Digit	N 1	Calculated using UPC-A check digit algorithm from GS1
Category Code	AN 2	Identifies the product/produce item at a macro level (for example, milk)
Sub-category Code	AN 3	Identifies the product/produce item at a micro level (for example, skim)
Benefit Purse Type	AN 2	Benefit purse type value as defined for requested amount type values This is blank on requests.
Units	N 5	Quantity of package measure

TABLE G-2 Field Descriptions

Field Description	Field Length	Notes
Package Measure	AN 10	Ounces, Gallons, and so on.
Original Item Price	N 6	
Purchase Quantity	N 5	
Discount Amount	N 6	
Coupon Amount	N 6	For future use
Coupon Quantity	N 5	For future use
Final Price	N 6	Final Price = Original Item Price x Purchase Quantity less (Discount Amount + Coupon Amount) Right justify and zero fill.
UPC/PLU Data Length	N 2	Right justify and zero fill.
Item Action Code	N 2	• 00 - Approved / on APL • 04 - Not Approved/Not on APL • 07 - Exceeds Available/on APL Use 00 on requests.

Example: A Single Item in Element 106

```
*PS*\0077000000003813700577ccscc  00040COUNT     000599000010000000000000000000005991100
Tag = c'*PS*\'
Length = c'0077'
UPC/PLU Indicator = c'0'
UPC/PLU Value = c'000000381370057'
UPC/PLU Check Digit = c'7'
Category Code = c'CC' (Placeholder value)
Sub-category Code = c'SCC' (Placeholder value)
Benefit Purse = c'  '
Units = c'00040'
Package Measure = c'Count     '
Original Item Price = c'000599'
Purchase Quantity = c'00001'
Discount Amount = c'000000'
Coupon Amount = c'000000'
```

```
Coupon Quantity = c'00000'

Final Price = c'000599'

UPC/PLU Data Length = c'11'

Item Action Code = c'00'
```

G.1.3 Field 120 - Additional Request Data

Field 120 contains a new request flag to designate a transaction as an Benefit Card Services transaction. Every Benefit Card Services transaction must include this flag. The layout of the flag is as follows:

TABLE G-3 Request Flag Layout

Name	Format	Description
Benefit Card Services Transaction Request	AAI	• AA - Identifier OP • I - Identifier Y This flag designates the transaction as an Benefit Card Services transaction.

G.2 Reversal Processing

Benefit Card reversal processing may require the merchant to send in both field 54 and 106-108 in the request with the same data that was received in the original authorization. Field 54 should be included with data echoed from the 0210 response message when available. For partial reversals, field 54 is required. For full reversals, field 54 is not required but should be sent if available. If additional amounts are not available, UPC data can be sent in fields 106-109 instead. The Benefit Card Services transaction flag in field 120 must be included on reversals or merchandise returns. This is in addition to the typical reversal field requirements.

G.3 Example Field Definitions

This section provides example scenarios for Field 54 and Field 106.

G.3.1 Example 1 - Purchase Request with OTC Data Approval

Example: Field 54

Request to Worldpay:

```
005A840D000000000599
```

Response from Worldpay:

```
005A840D000000000599005B840D000000000599
```

Example: Field 106

Request to Worldpay:

```
*PS*\00770000000813700577CCSCC  00040Count     00059900001000000000000000000005991100
```

Response from Worldpay:

```
*PS*\00770000000813700577CCSCC  00040Count     00059900001000000000000000000005991100
```

G.3.2 Example 2 - Purchase Request with Food Data with Insufficient Benefit

Example: Field 54

Request to Worldpay:

```
005D840D000000000249
```

Response from Worldpay:

```
005D840D000000000249005E840D000000000000
```

Example: Field 106

Request to Worldpay:

```
*PS*\00770000000783400679CCSCC  00001QUART     00024900001000000000000000000002491100
```

Response from Worldpay:

```
*PS*\00770000000783400679CCSCC  00001QUART     00024900001000000000000000000002491100
```

G.3.3 Example 3 - Purchase Request with Food and OTC Data Approval

Example: Field 54

Request to Worldpay:

```
005A840D000000000599005D840D000000000249
```

Response from Worldpay:

```
005A840D000000000599005D840D000000000249005B840D000000000599005E840D000000000249
```

Example: Field 106

Request to Worldpay:

```
*PS*\0154000000003813700577CCSCC  00040Count
0005990000100000000000000000000059911000000000079834006 79CCSCC  00001QUART
0002490000100000000000000000000002491100
```

Response from Worldpay:

```
*PS*\0154000000003813700577CCSCC  00040Count
0005990000100000000000000000000059911000000000079834006 79CCSCC  00001QUART
0002490000100000000000000000000002491100
```

G.3.4 Example 4 - Purchase Request with Insufficient OTC, Sufficient Food (Partial Approval)

Example: Field 54

Request to Worldpay:

```
005A840D000000000599005D840D000000000249
```

Response from Worldpay:

```
0056840D0000000008485A840D000000000599005D840D000000000249005B840D000000000003205E840D0
00000000249
```

Example: Field 106

Request to Worldpay:

```
*PS*\0154000000003813700577CCSCC  00040Count
0005990000100000000000000000000059911000000000079834006 79CCSCC  00001QUART
0002490000100000000000000000000002491100
```

Response from Worldpay:

```
*PS*\0154000000003813700577CCSCC  00040Count
0005990000100000000000000000000059911000000000079834006 79CCSCC  00001QUART
0002490000100000000000000000000002491100
```

G.3.5 Example 4.A - Full Reversal of Example 4

Example: Field 54

Request to Worldpay:

```
0056840D0000000008485A840D000000000599005D840D000000000249005B840D000000000003205E840D0
00000000249
```

Response from Worldpay:

```
Balance amounts are not sent back in reversals.
```

Example: Field 106

```
Field 106 is not required to send in for reversals.
```

G.3.6 Example 4.B - Partial Reversal of Example 4 (Only Cancelling OTC Portion)

Example: Field 54

Request to Worldpay:

```
0056840D0000000008485A840D000000000599005D840D000000000249005B840C000000000003205E840D0
00000000249
```

Response from Worldpay:

```
Balance amounts are not sent back in reversals.
```

Example: Field 106

```
Field 106 is not required to send in for reversals.
```