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Lync ISO 8583 Message Specification (LISO)

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About This Guide

This document defines the message formats service providers use to send authorization or transaction requests to the Worldpay Authorization System.

Intended Audience

This document is intended for the host-based vendor and Integrated Systems.

Revision History

This document has been revised as follows:

TABLE 1   Document Revision History

Doc. Version	Description	Location(s)
1.3	Renamed document from "ISO 8583 Host Capture Message Specification (LISO)" to "Lync ISO 8583 Message Specification (LISO)".	All
1.2	Added value 45 - Deferred to DE60.2, Table 5-39.	Chapter 5
1.1	In Table 5-62, updated the lengths for the following: Department number and Job Number.	Chapter 5
1.0	This is a new guide.	N/A

Document Structure

This manual contains the following sections:

Chapter 1, "Introduction"

This chapter provides an overview of the message formats.

Chapter 2, "Best Practices"

This chapter includes best practices and definitions that are useful for developers.

Chapter 3, "Worldpay ISO 8583 Host Message Format"

This chapter defines the message formats that service providers should use to send authorization or transaction requests to the Worldpay Authorization System.

Chapter 4, "Message Overview"

This chapter provides an overview of the message structure.

Chapter 5, "Data Elements Descriptions"

The chapter describes all the data elements.

Chapter 6, "Message Formats"

This chapter provides a matrix for each request/response.

Appendix A, "Reject Reason Codes"

This appendix defines reason codes that may be sent in the transaction responses.

Appendix B, "Field Matrix"

This appendix defines all possible fields for the message formats.

Appendix C, "Additional Amounts (DE54)"

This appendix describes the account and amount type codes for DE 54.

Appendix D, "Additional Codes and Response Literals Returned from the Host"

This appendix lists action codes and response literals for the following: Network Administration, ATM, Debit, Credit, Fleet, Gift, Prepaid Card, and EBT/eWIC.

Appendix E, "Measurement and Service Codes"

This appendix provides valid values for common measurements and service codes.

Appendix F, "Card Type Identifiers"

This appendix provides the codes that credit card types and the various transactions use.

Appendix G, "Processing Codes"

This appendix lists the processing codes used for each type of transaction. The transaction types are arranged in order from most used to least used.

Appendix H, "Product Codes"

This appendix lists the product codes for each type of transaction.

Appendix I, "Track Information"

This appendix lists the track information by payment type.

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Appendix J, "Merchant Type Code"

This appendix lists a description of the merchant type codes.

Appendix K, "Card Acceptor State Codes"

This appendix lists each state's two-letter designation.

Appendix L, "Check State Codes and ID Types"

This appendix lists the state codes and ID types for Canada, USA, and US territories.

Appendix M, "AVS Results Codes"

This appendix lists the AVS results codes for Visa, Mastercard, Discover, and American Express.

Appendix N, "Card Verification Value (CVV) Result Codes"

This appendix lists the CVV result codes for Visa, Mastercard, Discover, and American Express.

Appendix O, "Certegy Check Processing Addendum"

This appendix contains information certegy check processing information as it applies to transactions.

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

TABLE 3   Technical Publications Contact Information

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Introduction

This document defines the message formats that service providers use to send authorization or transaction requests to the Worldpay Authorization System.

All message formats are based on the ISO 8583:1987 specification. This guide assumes that readers are generally familiar with this message protocol. Any unqualified references to ISO 8583 in this document relate to the 1987 edition.

The ISO 8583 message format is valid for non-Master Merchant setups. It is also valid for Master Merchant setups, which Worldpay reserves for future use.

1.1   ISO 8583 Message

The ISO (Independent Standards Organization) 8583 Standard for Financial Transaction Card Originated Messages-Interchange message specifications is the International Organization for Standardization standard for systems that exchange electronic transactions made by cardholders using payment cards.

The ISO 8583 message comprises the following:

- Message type indicator
- Bit Maps indicating which data elements are present
- Data elements, which are the fields of the message

1.1.1   Supported Transaction Types

The Worldpay ISO 8583 Host Message Format supports the following transaction types:

- Purchases
- Purchase Card Data
- Cash withdrawal/advance
- Adjustments
- Deposits
- Transfers
- Balance inquiries
- Purchases with cash back
- Pre-authorization/Auth Only
- Cash withdrawal/advance adjustment
- Purchases with cash back adjustments
- Refunds
- Refund adjustments
- Pre-note only payment to ACH (Reserved for Future)
- Pre-note only payment from ACH (Reserved for Future)
- Payment to ACH, payment from ACH (reserved for Future)
- MO/TO
- E-commerce
- Card verification
- Time out reversal
- Completions/Captures

1.1.2   Supported Payment Types

The Worldpay ISO 8583 Host Message Format supports the following payment types:

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- Checks
- Credit

  This includes Visa, Mastercard, Discover, and American Express.

- Debit
- EBT
- Fleet

  This includes Wright Express, Voyager, Visa Fleet, MasterCard Fleet, FuelLynk, Fleet One, and Fuelman.

- Gift Cards, Prepaid Card, Gift Card, Private Label Gift Cards, and Stored-Value systems

1.1.3 Supported Industry Types

The Worldpay ISO 8583 Host Message Format supports the following industry types:

- Retail
- Restaurant
- Lodging
- Rental
- Petroleum
- MO/TO
- E-commerce
- Grocery
- Financial institutions

1.1.4 TCP/IP

The Worldpay ISO 8583 Host Message Format supports the TCP/IP communication protocol.

1.1.5 Supported Encryption Methods

The Worldpay ISO 8583 Host Message Format supports the following PIN encryption methods:

- DUKPT
- Triple DES
- Master Session

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Best Practices

This chapter includes best practices and definitions that are useful for developers. It includes the following

- Address Verification
- Business Day
- Cardholder Verification
- Check Processing
- Credit Additional Authorization Processing
- Debit Partial Authorization
- Gift Cards
- Master Merchant
- Offline Stand-in Options
- Prepaid Cards and Mastercard Prepaid Cards
- VISA Merchant-initiated Credential On File Transactions
- Void and Reversals
- Worldpay Communications

Note the following:

- You can find specific information about fleet cards (prompting, restrictions, track layouts, and so on) in the *Worldpay Card Specifications* document.

- For fixed-length alphanumeric fields, you always left justify and pad them to the specified length with space characters (0x20). For fixed length numeric fields, you always right justify them and pad to the specified length with zeros (0x30). You do not have to pad variable length fields.

- Amount fields are in the lowest currency value unless otherwise specified. For transactions in dollars, the amounts are in pennies. Amount fields always contain positive or absolute values.

2.1   Address Verification

Address Verification Service (AVS) data is the address and/or zip code of the cardholder. You can include this data for any credit card transaction. The address has a maximum size of twenty (20) characters and a minimum value of zero (0). The zip code has a maximum size nine (9) numeric characters. AVS data is not valid for fleet, debit, or EBT cards. Prompting can be configured by card type, entry method, and desired information.

If the transaction is declined by the network, the AVS Result Code field does not need to be checked; continue with the normal denial transaction processing.

When a transaction is approved and AVS was sent, the AVS Result Code field is checked. If the AVS Result Code field indicates a match of the sent data or that AVS is unavailable for that card, the transaction should be considered approved and continue with normal processing.

If the transaction is at the pump (pre-auth) and there is a problem on the AVS response code (varies by prompts/entry), it should send the cardholder inside with `See Attendant`, and a reversal should be sent to cancel the pre-auth. The clerk should see the specific AVS error on the terminal and payment should be run as an inside transaction.

If the transaction was inside, the error displays to the clerk with a prompt to accept or deny the transaction. If the clerk denies the internal transaction based on the AVS error, a transaction reversal for that transaction is sent to the host. If the clerk chooses to approve the transaction, a receipt prints. Another option is to have the result print on the receipt and the clerk can check the receipt to determine if the transaction needs to be reversed. If that method is used, the clerk must key the transaction reversal.

> **NOTE:** Store policy dictates if a transaction is approved or denied based on the AVS response.

2.2   Business Day

The Worldpay business day begins at 04:00AM and ends at 003.59AM the following day.

F At 04:00AM on 01/01 the business day for 01/01 begins and runs through 03:59AM on 01/02.

2.2.1   Day Close

A merchant may choose to end the business day at a specified time other than 04:00AM. This time should be provided when the merchant is registered with Worldpay. The Merchant Terminal Cutoff must be a valid 24 hour time from 00:00 to 23:59. The cutoff time specified is the time on the Worldpay host when the merchant wishes to end the business day.

If the Merchant Cutoff time is 4:00AM or earlier (00:00 through 04:00), the new business day is today's date. If the Merchant Cutoff time is after 4:00 AM (04:01 through 23:59), the new business day is tomorrow's date.

Additionally, a merchant may choose to manually close the business day by using the 0500 Reconciliation Request with a processing code of 610000. The merchant may close the day by sending the 0500

Day Close request any time before the specified or default cutoff time. If the day close message has not been received by the specified cutoff time, the Worldpay Host will close the merchant's business day upon receipt of the first transaction at or after the specified or default cutoff time.

Should the merchant choose to manually close the business day by sending the 0500 Day Close request, the 0510 response will include the merchant's Net Settlement Amount for the day closed. The merchant may also request and receive additional totals by Transaction Type and/or Card Type.

If the merchant fails to send the day close request, they may request and receive the previous day's Net Settlement Amount by sending the 0500 Host Totals Request.

2.3   Cardholder Verification

CVV2 data is requested on manually-entered, credit transactions. CVV2 data is printed on the back of the card, following the account number. The value is three (3) -four (4) numeric digits. This data is not valid for fleet, debit, or EBT cards. This is known as CVV2 or CID, depending on the card type. Prompting is configured by card type and entry method.

If the transaction is declined by the network, the CVV2 Result Code field does not need to be checked and normal denial transaction processing can continue.

When a transaction is approved and CVV2 data was sent, the CVV2 Result Code field is checked. If the CVV2 Result Code field indicates a match of the sent data or that CVV2 is unavailable for that card, the transaction is considered approved and normal processing continues.

If the transaction is at the pump (pre-auth) and there is a problem with the CVV2 response code, the pump displays `See Attendant` and it requires no other automatic processing. The specific CVV2 error is displayed to the clerk on the device and payment is conducted as an inside transaction. If the transaction is conducted inside, the error displays to the clerk with a prompt to accept or deny the transaction. If the clerk denies the internal transaction based on the CVV2 error, a transaction reversal for that transaction is sent to the host. If the clerk approves the transaction, the receipt prints. The result also can be printed on the receipt and the clerk can check the receipt to determine if the transaction needs to be reversed. If that method is used, the clerk must key the transaction reversal.

> **NOTE:** Store policy dictates if a transaction is approved or denied based on the CVV2 response.

2.4   Check Processing

Check processing through Worldpay normally requires one or more of the following:

- Institution ID, the company to which the check authorization should be routed.

- State code or ID type

- Driver's license or other ID number

- Date of birth

- Check type

The check's Magnetic Ink Character Recognition (MICR) information is sent to the host in the Data Element 35: Track 2 Data. The Account Type denotes the type of check being processed. The entry method is manually keyed if the account information is keyed or swiped, if the account information is read through a MICR reader. A new set of action codes and response literals are returned in the response. Totals for converted checks are added to the debit totals.

> **NOTE:** All check options contained in this specification are not available for all of the different check services. Refer to your specific check service specification for valid features and response codes.

For more information, see Appendix O, "Certegy Check Processing Addendum".

2.5　Credit Additional Authorization Processing

This section discusses partial and estimated authorization processing.

2.5.1　Credit Partial Authorization Transaction Processing

A credit partial authorization transaction allows a card issuer or authorizer to approve an amount less than the amount requested by the merchant. The Additional Authorization indicator (Subelement 61.11: Unique Identifier (UID) Indicator) is used to notify the card issuer that the request may be authorized for an amount less than the amount requested.

2.5.2　Credit Estimated Authorization Transaction Processing

An estimated authorization transaction is a transaction where the final amount is not known at the time of authorization. The Additional Authorization indicator (see Subelement 61.11: Unique Identifier (UID) Indicator) is used to notify the issuer that the final amount is not known at the time of authorization. (Supported only for VISA PAN and token processing)

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2.6   Debit Partial Authorization

For debit partial authorization, the response code in DE39 will be 000; debit partial authorizations are identified by comparing the original amount in DE4 of the request to the approved amount in DE4 of the response

Debit partial authorization is assumed for outside fuel transaction. The partial authorization flag is required for all outside fuel transactions. The fuel dispenser should only dispense fuel up to the approved partial amount.

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2.7   Gift Cards

Activation transactions require an amount to be placed on the card. The card balance is returned in the response for approved and some denied transactions. If the response is to try a lesser amount (non-pump transaction) and the current card balance returned in the response is non-zero, retry the authorization request with the available balance. The remaining balance on the ticket needs a different payment method.

During a Gift Card purchase, the device prompts for the gift card to be swiped at the time the line item is entered. The track data from the swipe and the amount is sent to the host as an activation only after the ticket has been settled. This could occur after the ticket is cashed out or after an approval for the final amount of the ticket is received from the network. The receipt indicates if the activation was successful.

> **NOTE:** Any POS that supports Blackhawk or InComm transactions must support printing the PLU level detail for each gift card purchased on the receipt.

Stand-in processing is not valid for any Gift card transactions.

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2.8   Master Merchant

Master merchant is not supported at this time. Master merchant is when a merchant intends to have multiple store locations under one terminal ID.

> **IMPORTANT:** The merchant must handle all transferring of funds to the appropriate location.

2.8.1   Non-Master Merchant

Non-master merchant is when a merchant intends to have only one location under one terminal ID.

2.9   Offline Stand-in Options

Offline store and forward (SAF) and force post functionality is a means of standing in for transactions in the event of network downtime or interruption of the host communications link. The POS/Merchant Switch has two ways to process a transaction where a stand-in has been performed. SAF and force post are optional features. The stand-in amounts are decided by the merchant and defines the maximum dollar value that the POS or Switch will stand in for. These features are not valid for debit, gift, or phone cards.

2.9.1   Force Post

The request is approved by stand-in and an authorization number is generated by the POS or Switch. That request is sent in a 0220 message to the Worldpay host once connectivity is reestablished. The request is approved, but this does not guarantee the merchant will receive funds for the transaction. This only indicates that Worldpay received the 0220 message.

2.9.2   Store and Forward

The transaction is approved by stand-in and stored as a 0200 (sale transaction). Once connectivity is reestablished, the transaction is sent to the networks for an approved or declined response.

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2.10   Prepaid Cards and Mastercard Prepaid Cards

The prepaid Mastercard process begins when a consumer purchases an activation kit from the merchant and the merchant loads value to the card. When additional value is needed to be placed on the card, the consumer takes the card to the store in order for the merchant to conduct load-card item. The second item, the merchant fee, is automatically added to the ticket.

2.10.1   Activation

The activation kit has a barcode and a magnetic swipe. The barcode contains the information about the cost for the activation kit. The terminal prompts for the swipe of the kit or the activation-card. No load fee is charged with the initial purchase and load of the card. After the kit is swiped, the value to be placed on the card is entered. After the ticket is paid in full, the activation/load transaction is sent to the host and an activation receipt is printed for the consumer. Subsequent loads to the card do not have value restriction.

The merchant load fee is a variable that the store modifies as needed. It is not sent from the host.

Any line item transaction reversals of the load-card should also include the merchant load fee. For later transaction reversal loads, the load fee amount must be carefully observed since the load fee might have changed. A load can only be voided if the card has not been used. This load must match the last load. If the void and load do not match, the transaction is denied.

2.10.2   Transaction Types

Valid transactions for Prepaid Cards and Mastercard prepaid cards include:

- Activation/load
- Void activation/load
- Balance inquiry
- Sales
- Void sales
- Returns
- Void returns

The activation card is not valid for purchases or returns. The Mastercard prepaid card can be used for any transaction. The approval and decline codes are the same as the codes for Gift cards.

2.11   VISA Merchant-initiated Credential On File Transactions

This section describes the following:

- Industry-Specific Business Practices
- Standing Instructions for the Initial Cardholder-initiated Transaction
- Credential on File Transactions

2.11.1   Industry-Specific Business Practices

This section includes industry-specific business practices.

2.11.1.1   Reauthorization Transaction

A reauthorization is a purchase made after the original purchase and can reflect a number of specific conditions.

Split shipment is the most common type of reauthorization. A split shipment occurs when the goods are not available for shipment at the time of the cardholder's purchase. A separate authorization is conducted to ensure that the cardholder funds are available when the goods become available to ship.

A reauthorization is also used when an estimated authorization amount is presented and the merchant wants to authorize the final amount.

2.11.1.2   Resubmission Transaction

This is an event that occurs when the original purchase occurred, but the merchant was unable to obtain authorization at the time the goods or services were provided. A resubmission is only valid when the original authorization presented was declined for insufficient funds.

There are a limited number of merchant categories approved to use this type of merchant-initiated transaction and a resubmission is only valid for a limited number of days after the cardholder's purchase.

2.11.1.3   Delayed Charges

A delayed charge is an account charge associated with an agreement between a cardholder and a merchant for services rendered. Delayed charges are typical in hotel and car rental industries.

2.11.1.4   Incremental Authorization Transaction

This is a continuation of the cardholder's purchase where the originally approved amount can be modified to reflect the scope of the cardholder and merchant agreement. An incremental authorization is typically found in hotel and rental environments, where the cardholder has agreed to pay for any service incurred during the duration of the contract, typically a hotel stay or car rental.

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2.11.1.5   No Show Transaction

A no show is a transaction where the merchant is enabled to charge for services that the cardholder entered into an agreement to purchase, but did not meet the terms of the agreement, typically used in hotels for a single-night stay.

2.11.2   Standing Instructions for the Initial Cardholder-initiated Transaction

This section includes standing instructions provided by the customer in the initial consumer-initiated transaction.

2.11.2.1   Installment Payment

An installment payment is the result of standing instructions governed by a contract between the cardholder and the merchant to charge a specific amount, based on a defined interval.

2.11.2.2   Recurring Payment

A recurring payment is the result of standing instructions governed by a contract between the cardholder and the merchant to charge a specific or variable amount, based on a defined interval.

2.11.2.3   Unscheduled Stored Credential

An unscheduled stored credential transaction is the result of standing instructions governed by a contract between the cardholder and the merchant to charge on an as-needed basis. For example, in the case of a snow plow service, charging for service after a storm.

2.11.2.4   Other Credential On File

These charges may be initiated by a merchant to fulfill a contract or instruction provided by the cardholder in an initial cardholder-initiated transaction.

2.11.3   Credential on File Transactions

Growth in digital commerce and the emergence of new business models have led to an increase in consumer transactions where customers' payment credentials, such as accounts, are on file with the merchant. Visa is introducing new identifiers in the authorization message, which will enable issuers to uniquely identify such transactions and provide differentiated treatment.

2.12   Void and Reversals

Voids and reversals are used to cancel transaction requests. To cancel requests with a 0100 or 0200 message type, use a 0400 reversal message with a Data Element 60 value of 207 (see Data Element 60: Message Reason Code). To cancel a 0220 request message, use a void processing code as well as the original data for the following data elements: 2, 11, 12, 13, 14, 42. For more information on processing codes, see Appendix G, "Processing Codes" on page 146.

2.12.1   0100 Message Reversal

When reversing a 0100 message, the 0400 message can be sent any time within the same business day as the original authorization. Do not send a 0220 completion message for an authorization if there is a chance it may be reversed. Once a 0220 is sent, the transaction cannot be reversed.

2.12.2   0200 Message Reversal

When reversing a 0200 message, the 0400 message needs to be sent within 10 minutes of the original sale. Since Worldpay sends several settlement batches per day to Visa and Mastercard, not conforming to the 10 minute rule may result in the reversal having no effect due to the transaction already being settled by the time the reversal is processed.

2.12.3   Time Out Reversal

This section describes the following:

*   0100 and 200 Messages - Pre-Auth and Sales
*   0220 Messages - Completion
*   Time-Out Reversals for All Industries and Card Types
*   Request Time Out Values
*   Resubmissions
*   Echo Messages (ISO 8583)

2.12.3.1   0100 and 200 Messages - Pre-Auth and Sales

Worldpay supports the Time Out Reversal (TOR). The merchant switch or payment gateway generates a TOR when the transaction timed-out at the Point of Sale or the Host lost communications with the Point of Sale prior to receiving the authorization response from Worldpay. The TOR should be sent on the next communication session to the host. Reversal that are not sent within 10 minutes of the original transactions may not be reversed if the original was approved and already sent out for settlement.

Time-out reversals enable the cancellation of a transaction through the host if the response was unable to be returned to the terminal in a timely manner. These transactions will contain the information required to allow the Host to match the Reversal to the original transaction.

The Message Type Indicator (MTI) sequence for the TOR Reversal Request/Response will be 400/410. TORs are valid for original, non-admin/financial messages only.

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2.12.3.2   0220 Messages - Completion

TOR cannot be sent for a completion message. A completion request that times out, must be resubmitted at the very next communication session to the host. The completion re-submittal should be the next transaction that follows the transaction that timed out. For the completions that are resubmitted, the completion needs to contain the same data elements (STAN, APPROVAL code, time stamp, etc.) as the original completion that timed out.

2.12.3.3   Time-Out Reversals for All Industries and Card Types

- All non-admin/financial messages sent to Host that do not receive a response (except for completion messages), require that a TOR be sent on the next communication session to the Host.
- If no response is received to a TOR request sent to the Host, the POS will retransmit the TOR request.
- The sending of TOR request continues up to five times, or until there is a valid response to each TOR.
- If the TOR request is attempted five times without a valid response from the Host, the initiating device, or gateway, should report the transaction for manual investigation.
- When a TOR is received, if the original transaction is found and it is approved (in the current batch), the count and amount of that transaction are subtracted from the totals.
- If the TOR is for a different batch, or the original transaction is not found, it is reported at the host for manual investigation.
- If a completion request is sent to the host and a response is not received, the POS does not need to send a TOR. The POS should resend the completion.

2.12.3.4   Request Time Out Values

Request time out values for IP devices or switches that are one hop away from Worldpay.

- ATM - 30 seconds
- Credit - 25 seconds
- Debit - 30 seconds
- EBT - 25 seconds
- Fleet - 25 seconds
- Gift - 35 seconds
- Check - 35 seconds

Add 5 seconds for each additional hop.

Figure 2-1 depicts merchants who support check processing.

FIGURE 2-1   Merchant Check Processing Scenario

2.12.3.5   Resubmissions

There are times when you must resubmit a transaction, for example, if a completion transaction times out. Adhere to the following rules when you resubmit transactions:

- Resubmission timer - The very next communication session to the host

- Retry count - Not greater than 5 attempts

2.12.3.6   Echo Messages (ISO 8583)

Echo messages can be sent when the switch is idle; no transactions for at least 90 seconds.

2.12.4   Misuse of Authorization System Fees

Visa has instituted Misuse of Authorization System Fees. These fees are charged when an authorization is not completed or reversed within the allotted time period.

- Completions should be sent within 10 days of the authorization; with the exception of T&E transactions, which can be sent up to 72 hours after the authorization

- Reversals must be sent within 10 minutes of the authorization

- In addition to the misuse of the authorization fee, the cardholder's open to buy amount is limited by the open authorization until the issuer releases that authorization.

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2.13 Worldpay Communications

Worldpay supports TCP/IP protocol. The following section documents the required protocol dependent message headers and trailers. TCP/IP communication should use the standard TCP/IP message flow with the protocol level ACK /NAK.

The following time out values apply:

- Credit only - 25 second time out
- Debit only - 35 seconds for debit only.

2.13.1 Protocol-Dependent Fields

TABLE 2-1 TCP/IP

Field	Size/Type	Cond	Description
Header	2	Reqd	Binary number-message byte count of data that follows. If the message data is 75 bytes, this value would be 0x004B.
Bytes 0-1	2	Reqd	
...	...	...	Message data
Trailer			
Reqd			None

2.13.2 Host Totals

The merchant may request their current Net Settlement Amount along with totals by transaction type and/or card type at any time during his or her business day by sending the 0500 Host Totals request.

The Worldpay host maintains the totals as follows:

- Current Business Day (see Data Element 97: Amount Net Settlement):
  - Net Settlement Amount
- Previous Business Day (see Data Element 97: Amount Net Settlement):
  - Net Settlement Amount
- Current Business Day by Transaction Type (see Data Element 120: Host/Settlement Totals:
  - Number of Transactions (debits and credits)
  - Net Transaction Amount
- Current Business Day by Card Type: Type (see Data Element 120: Host/Settlement Totals):
  - Number of Transactions (debits and credits)
  - Net Transaction Amount

2.13.2.1   Transaction Types

Worldpay supports the following transaction types: Credit Card Debit Card, eWIC, EBT Cash, EBT Food, Gift/Prepaid Card, Fleet and ACH (check conversion, eCheck, and so on).

2.13.2.2   Card Types

Worldpay supports the following card types: Visa, MasterCard, American Express, Discover, Fuelman, Fleet One, Voyager, WEX (Wright Express), InComm, Blackhawk, SVS and Other Card Types (not listed).

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Worldpay ISO 8583 Host Message Format

The chapter describes the following:

- Message Types
- Transaction Types
- Character Code
- Network Management Messages
- Key Management
- Transaction Flow
- Stand-Alone Device

3.1   Message Types

Worldpay uses the following message types:

- 0100/0110 messages are for pre-authorization/auth only
- 0220/0230 messages are for completion/capture transaction
- 0200/0210 messages are for credit, debit, ATM, EBT messages, eWIC and all other financial transactions
- 0400/0410 messages are for reversal transactions and time out reversal transactions
- 0500/0510 messages are for settlement/reconciliation
- 0620 messages are for rejected message types
- 0800/0810 messages are for network management messages

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3.2   Transaction Types

The standard POS transaction set comprises pre-authorization, purchase, cash advance/withdrawal, purchase with cash, cardholder requested void (transaction reversal), time out reversals, and refund balancing.

3.3   Character Code

The character code for all fields in these messages is ASCII. Fields defined as binary in ISO 8583 (for example, Bit Maps) are to be transmitted in ASCII hexadecimal representation (for example, the binary value 10110100 is transmitted as the two ASCII characters B4). Relevant field lengths are defined as twice their ISO 8583 defined values as a consequence.

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3.4   Network Management Messages

Network management messages are used as a security control and operation of the interface between the POS system/device and the Worldpay host. The POS system/device can initiate these messages.

Echo Test Network Management messages are supported by Worldpay. Worldpay will send an appropriate response if it receives one of these messages. The vendor will normally initiate these sequences.

3.5   Key Management

Key Management Network messages are exchanged to request, generate or repeat Key Exchange Keys. The vendor is responsible for generating a new Key Exchange request.

A new key (Network Management Information Code 162) will be generated at the request of the merchant host, whenever the relevant Worldpay interface process is started. When a new key is generated, Worldpay will authorize transactions under the old key until acceptance of the new key.

Worldpay will also generate a new key at the request from the merchant host (encryption error).

3.6 Transaction Flow

The following series of diagrams explain the transaction flow for the different types of transactions listed in this specification document.

3.6.1 Transaction Requests (0100, 0200 and 0220)

There are two different scenarios for the transaction flow for transaction requests 0100, 0200, 0220: stand-alone devices and gateway acquirer.

3.7   Stand-Alone Device

Figure 3-1 shows the stand-alone device scenario.

FIGURE 3-1   Stand-Alone Device
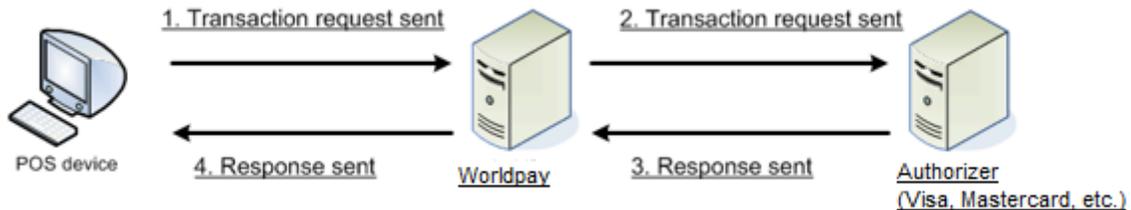
3.7.1   Gateway Acquirer

Figure 3-2 shows the gateway acquirer scenario.

FIGURE 3-2   Gateway Acquirer

3.7.2   Transaction Requests (0500 and 0800)

The flow for 0500 and 0800 transaction requests follow one of the following scenarios: stand-alone devices and gateway acquirers.

FIGURE 3-3   Stand-Alone Devices
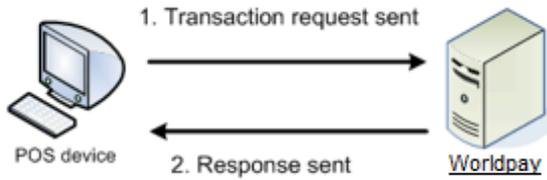
FIGURE 3-4   Gateway Acquirer

Steps 1 – 2: Transaction request sent.
Steps 3 – 4: Response sent.
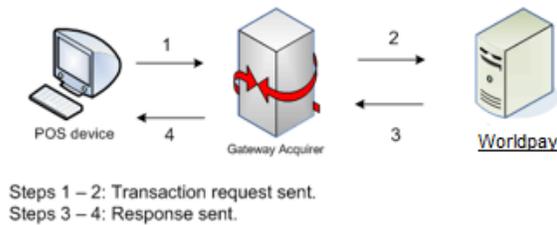
3.7.3   Reversal 0400

The POS device starts a timer when a transaction goes to the host,. The gateway device should then wait for the transaction to process. See Request Time Out Values. If the host or merchant does not acknowledge the transaction as successful during the allotted amount of time, the POS device or gateway must generate the 0400 request to avoid duplication of charges to the merchant.

Figure 3-5 illustrates the transaction flow for a 0400 request. If Worldpay matches the 0400 message to an authorized transaction that has not settled yet, Worldpay sends a reversal to the Network and acknowledges the reversal and sends 0410 to the merchant POS.

FIGURE 3-5   Transaction Flow for an 0400 Request
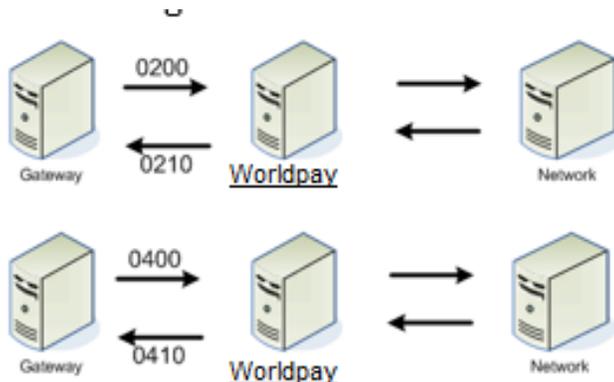
If Worldpay detects a format error in any received message, it will return the message to the originator, using a 0620 message type and echo the first 255 bytes of transaction data as shown in Figure 3-6.

FIGURE 3-6   0620 Message for Format Errors

3.7.4   Transaction Requests (0800, 0810 and 0820)

The Gateway processor or terminal must initiate the key exchanges by sending a request to Worldpay. Worldpay will acknowledge the request and deliver a new key to the terminal. Once the terminal accepts the new key, all subsequent transactions will process with the new key.
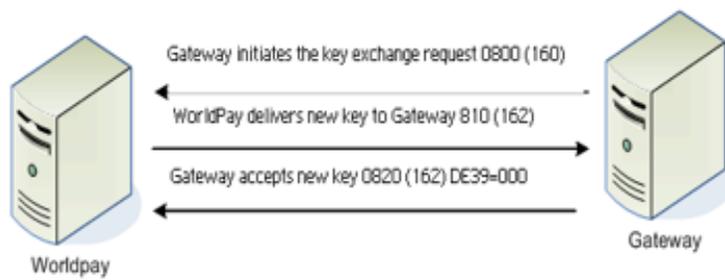
> **NOTE:** If the terminal rejects the new key, the terminal continues to process with the existing key until there is a successful key exchange.

3.7.4.1   Transaction Request 0820

The POS device acknowledges it received a successful key with a 0820 request.

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4

Message Overview

The chapter describes the following:

- General Style Standards
- Field Presence Indication
- Message Header [AN 10]
- Message Type Indicator (MTI) [N 4]
- Primary Bit Map [H 16]

4.1   General Style Standards

> **NOTE:** Field Size x/y indicates a variable length field-y data bytes are preceded by an x digit field length.

TABLE 4-1   Field Types

Acronym	Description
A	Alphabetic characters: A-Z, a-z
N	Numeric characters
S	Special Character (for example, +, -, =)
B	Binary Character
AN	Alphanumeric
ANS	Alphanumeric with special characters
ANSB	Alphanumeric with special and binary characters
H	ASCII 0-F

4.2   Field Presence Indication

TABLE 4-2   Field Presence Codes

Code	Title	Description
C	Conditional	Field mandatory or optional depending on type of transaction.
CE	Conditional Echo	If you include the field. the response message contains the same field value from the request.
M	Mandatory	Required field.
ME	Mandatory Echo	Response message contains the same field value from the request.
O	Optional	You decide whether to include the field. If included, Worldpay decides whether to use the value.
OE	Optional Echo	If you include the field. the response message contains the same field value from the request.

4.3   Message Header [AN 10]

This is a non-standard ISO 8583 field. It must prefix all messages sent to Worldpay and will prefix all responses sent by Worldpay. Table 4-3 lists the Message Header data.

TABLE 4-3   Message Header Data

Position	Required Data	Description
1 - 4	LISO	Literal, identifying this as an ISO (8583) message
5 - 8	PROD	Worldpay Merchant Indicator - If needed, Worldpay assigns this indicator to identify specific client/merchants. If not otherwise directed, use PROD.
9 -10	01	Worldpay specification Version Number

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4.4   Message Type Indicator (MTI) [N 4]

The ISO Message type indicator represents the message name being sent. Table 4-4 lists the valid indicators.

TABLE 4-4   Message Type Indicators

Indicator	Description
0100	Pre-Authorization Request
0110	Pre-Authorization Response
0200	Transaction Request
0210	Transaction Response
0220	Financial Transaction Request
0230	Financial Transaction Response
0300	ACH File Update Request (Reserved for Future Use)
0310	ACH File Update Response (Reserved for Future Use)
0400	Reversal Request
0410	Reversal Response
0500	Settlement Total Request
0510	Settlement Total Response
0620	Format Error Advice
0800	Network Management Request
0810	Network Management Response
0820	Key Acknowledgement Request

4.5   Primary Bit Map [H 16]

The primary bit map lists which of the first 64 ISO fields is present in the message. Rather than being a binary field, Worldpay requires this to be a character (ASCII) representation of the hexadecimal values of the data element.

Using the mandatory fields from the 0200 message as an example, the transmitted primary bit map would be: B238 0400 2881 8000. Spaces were added for readability purposes only.

Example: **Transmitted Primary Bitmap**

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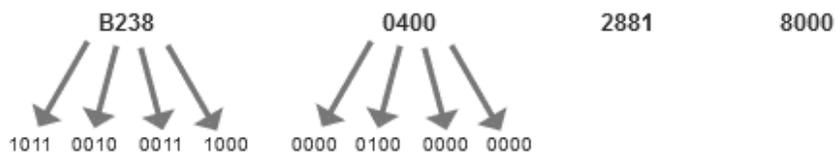
Data Elements Descriptions

This chapter provides information about the elements including field character type and length using ISO 8583 annotation. For more information about character types (ANS), see Chapter 4, "Message Overview". Variable field lengths are denoted as LLVAR or LLLVAR, depending on the size of the field length indicator preceding the data with either 2 (..) or 3 (…) digits.

5.1   Data Element 1: Secondary Bit Map

Attributes

H 16

Description

This is transmitted in the same fashion as the primary data element, subject to the message containing at least one field in the range 65-128 (note that the presence of the secondary data element itself is signaled by the first DE of the primary data element).

See Primary Bit Map [H 16].

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5.2   Data Element 2: Primary Account Number

Attributes

AN..19

Description

The cardholder primary account number is a mandatory field if the account is entered manually. The PAN is required for a PINless bill payment request.

If Point-to-Point Encryption (P2PE) is turned on for a store, DE2 will not be sent in the response unless IUD is requested.

> **NOTE:** If UID is requested (see Subelement 61.11: Unique Identifier (UID) Indicator), it will be send in the field DE2 in the response. For subsequent requests, place the UID in DE2.

5.3   Data Element 3: Processing Code

Attributes

N 6

Description

The processing code describes the type of transaction and the accounts it affects. Positions 1 and 2 indicate transaction type, positions 3 and 4 indicate from account type and positions 5 and 6 indicate the to account type. See Appendix G, "Processing Codes".

5.3.1   Subelement 3.1: Transaction Type Code

Attributes

N 2

TABLE 5-1   Transaction Type Codes

Code	Description
00	Purchase (Goods and Services)
01	Cash Withdrawal/Advance
03	Check Guarantee
04	Check Conversion
05	Check void return
09	EBT Voucher Purchase (Goods and Services)
10	Purchase with cash back
11	Quasi-Cash
20	Return/Refund
21	Deposit
22	Void
23	Check void guarantee
24	Check void conversion
25	Check return
29	EBT Voucher Return
30	Balance, Inquiry (credit, prepaid, gift, eWIC System Initiated Balance Inquiry)

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TABLE 5-1 Transaction Type Codes

Code	Description
31	Balance Inquiry (debit, ATM, EBT, eWIC Customer Initiated Balance Inquiry)
34	Check Inquiry/Verification
35	Check Bank Balance (merchant)
40	Cardholder Account Transfer
50	Bill Payment
60	Host Totals Balance Inquiry
61	Host Close/End of Day
70	Activate (Prepaid, Gift, Sprint; card has pre-set value)
71	Activate with amount (card has no pre-set value)
72	Reload (add value to an active card)
73	Deactivation

5.3.2 Subelement 3.2: Cardholder "From Account" Type Code/Check Type Code

Attributes

N 2

TABLE 5-2 From Account Type Debit, Credit, Gift, EBT, eWIC, Fleet Values

Code	Description
00	Not Applicable or Not Specified
01	Savings Account
02	Checking Account
03	Credit Account
04	Universal
05	EBT cash benefit
06	EBT food stamp
09	Prepaid Account
10	Fleet Purchase Account

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TABLE 5-2 From Account Type Debit, Credit, Gift, EBT, eWIC, Fleet Values

Code	Description
11	eWIC

TABLE 5-3 Check Type Values

Code	Description
01	Personal
02	Company

5.3.3 Subelement 3.3: Cardholder "To Account" Type Code

Attributes

N 2

TABLE 5-4 To Account Type Codes

Code	Description
00	Not Applicable or Not Specified

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5.4   Data Element 4: Transaction Amount

Attributes

N 12

Description

The full requested amount for authorization/capture. This amount includes any cash back (DE 54, page 59). For eWIC request transactions, this amount does not include discounts on the full transaction but does include item discounts.

The requested eWIC amount is exclusive of a discount on the full transaction. Example: items purchased ($1.25 apples, $1.75 bread, $2.00 milk) = $5.00, customer has 2 coupons - $.50 off apples, $1.00 off purchase at that store. The item coupon would be included in the transaction details, so the details = $4.50 ($.75 + $1.75 + $2.00). The details total should be the requested amount. The $1.00 would be in the discount amount field. Upon approval, the returned amount (assuming no overcharges by the store on any item) would be $3.50. The network applies the transaction discount amount after adjusting any individual prices. The response discount amount field is considered informational only and will be echoed from the request.

If the transaction is partially approved, the approved amount will be sent in this field of the response.

A purely numeric value, it represents the amount in the unit currency defined in Data Element 49: Transaction Currency Code, Transaction Currency Code (for example, US dollars).

Two decimal places are implied.

5.5   Data Element 7: Transmission Date and Time

Attributes

N 10

Description

The GMT/UTC time the message is transmitted by the originator. This will be different in requests and their respective responses. Time is recorded is in 24-hour format (00-23): MMDDhhmmss.

This time and date stamp represents the time and date that the payment switch, gateway, or POS device transmits the transaction. The device that actually transmits the message should populate this field with the transmission time/date.

- DE7 - Transmission time from device where the Worldpay ISO message originates.
- DE12 - Local POS time
- DE13 - Local POS date

> **NOTE:** Worldpay does not record this value in received messages. It uses its own timestamp value, which it logs with the transaction.

worldpay

5.6 **Data Element 11: System Trace Audit Number**

Attributes

N 6

Description

The System Trace Audit Number (STAN) is generated by the originator of the Worldpay 8583 request message and is a fixed-length numeric field that has a starting value of 000001 and should increment by 1 for each transaction record sent to the Worldpay host. The transaction counter should be reset after it reaches 999999 or at the start of a new business day.

This number is echoed in response messages to assist in matching to requests. It is not expected that the same STAN be used in any subsequent reversal advice.

NOTE: The originator of the Worldpay 8583 request message may be the POS device, but is more likely to have been generated by the gateway/switch.

5.7   Data Element 12: Transaction Local Time

Attributes

N 6

Description

The local time the transaction takes place at the card acceptor location. This time must remain unchanged throughout the life of the transaction. Time is formatted as HHMMSS format where HH is the two-digit hour (00-23), MM is the two-digit minute (00-59), and SS is the two-digit seconds (00-59).

See also Data Element 7: Transmission Date and Time.

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5.8   Data Element 13: Transaction Local Date

Attributes

N 6

Description

The local date is the date the transaction takes place at the card acceptor location. This date must remain unchanged throughout the life of the transaction. In addition, with offline/stand-in transactions, the original transaction request date generated by the POS is required. It is recorded as YYMMDD.

Local transaction date is formatted as YYMMDD where YY is the 2-digit year, MM is the 2-digit month, and DD is the 2-digit day.

See also Data Element 7: Transmission Date and Time.

5.9   Data Element 14: Expiration Date

Attributes

N 4

Description

The card's Expiration Date [YYMM] is conditional:

- The date is mandatory when the card PAN is keyed at the point of sale device.
- The date is required for a PINless bill payment request.

If Point-to-Point Encryption (P2PE) is turned on for a store, DE14 will not be sent in the response. For EMV transactions, DE14 is a mandatory field. The value is obtained by parsing tag 5F24 (Application Expiration Date) from the ICC chip and sent in YYMM format in DE14.

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5.10   Data Element 15: Settlement Date

Attributes

N 4

Description

Worldpay requires the Settlement Date [MMDD] field for all 0500 requests and returned in financial responses.

5.11 Data Element 18: Merchant Type

Attributes

N 4

Description

Identifies the merchant's Standard Industrial Classification (SIC) code and associated market type. Positions 1 through 4 indicate the SIC code.

Use the DE18 field if DE40.6 (page 46) is set to 1. If this field is sent in a 0100 or 0200 request then it must also be sent in the 0400 request.

5.12   Data Element 22: POS Entry Mode

Attributes

N 3

Description

The POS Entry Mode defines the conditions under which the card account number/PAN is entered and the terminal PIN capabilities. Field is mandatory for all entry modes. For a PINless bill payment request, 012 is required. For a PINless low ticket purchase or return, 022 is required.

5.12.1   DE 22 PAN Entry Mode

Attributes

N 2

TABLE 5-5   Position 1-2

Code	Description
00	Unspecified
01	Manual (key-entered)
02	Magnetic Stripe, Track I or II (swiped)
03	Radio Frequency ID (RFID)
04	Optical Code
05	EMV Contact
06	EMV Fallback Magstripe
07	EMV Fallback Voice
08	EMV Contactless
09	VISA QR (Quick Response)
10	Mastercard credential on file
90	MICR Read

5.12.2   DE 22 PIN Entry Capability

Attributes

N 1

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Description

This field describes the support capability of the PIN entry device not the PIN status of a transaction.

TABLE 5-6   Position 3

Code	Description
0	Unspecified
1	PIN Entry Capable
2	Not PIN Entry Capable (PINless Bill Payment and/or PINless purchase)

worldpay

5.13   Data Element 25: POS Condition Code

Attributes

N 2

Description

The POS Condition Code describes the condition under which the transaction was presented at the Point of Sale/Service:

TABLE 5-7   POS Condition Code

Code	Description
00	Normal Presentment, cardholder present
01	Mail, fax or telephone order (MOTO)
02	Cardholder not present, non-MOTO
04	Merchant suspicious
05	Electronic cash register interface
07	Pre-authorized request (completion)
08	Telephone device request
09	Security alert
10	Cardholder identity verified
11	Suspected fraud
12	Security reasons
13	Representment of item
14	Public utility terminal
16	Administration terminal
17	Returned item (chargeback)
21	Manual reversal
22	Terminal error/counted
23	Terminal error/not counted
26	Withdrawal had error/reversed
51	Address verification
70	ACH

5.14   Data Element 28: Transaction Fee Amount

Attributes

AN 9

Description

Use data element 28 for fees associated with non-check transactions. Check processing fees are reflected in Subelement 57.42: Check Fee Amount.

5.14.1   Subelement 28.1: Debit/Credit Indicator

Attributes

AN 1

Description

Following are the options for the debit/credit indicator subfield:

- **C** - Credit Amount. The amount credited, or the balance remaining, for the specified account.
- **D** - Debit Amount. The amount debited from the specified account.

5.14.2   Subelement 28.2: Transaction Fee Amount

Attributes

N 8

Description

This contains the amount of the fee. Two decimal places are implied.

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5.15   Data Element 35: Track 2 Data

Attributes

ANS..37

Description

The full card Track 2 Data if swiped, but excluding start and end sentinels and LRC digit.

Important: For EMV transactions, if Tag 57 is present it should be used to populate track data. If it is a P2PE transaction, Worldpay encrypts the data.

5.16 Data Element 37: Retrieval Reference Number

Attributes

AN 12

Description

This is a unique transaction reference created at the POS device. A reversal should carry the same RRN as the original message. The RRN is normally a sequence number but may also include a POS device reference. If less than 12 characters, the RRN should be left-justified with trailing spaces (although no validation is carried out).

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5.17 Data Element 38: Authorization Identification Response

Attributes

AN 6

Description

Also known as the Approval Code, this is the authorization reference returned by the card issuer (or in case of delegated authorization, by the acquirer). If the transaction request is referred, this will be the referral code. This field is required for EBT Voucher transactions, credit pre-authorized completion transactions, and credit voids (transaction reversal) for 0200 requests. See also Data Element 62: Debit/EBT Network Response Data. for debit/EBT response data.

5.18 **Data Element 39: Worldpay Response Code**

Attributes

AN 3

Description

The response code defines the disposition of a previous message or an action taken as a result of receipt of a previous message. Response code is also used to indicate approval or decline of a transaction.See Appendix D, "Additional Codes and Response Literals Returned from the Host".

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5.19 Data Element 40: Transaction Qualifiers

Attributes

AN 10

Description

This field defines and qualifies the transaction originated from the POS device.

5.19.1 Subelement 40.1: Master Merchant Indicator

Attributes

AN 1

Description

The Master Merchant Indicator subfield has the following possible values:

TABLE 5-8 Master Merchant Indicator Subfield Values

Code	Description
M	Master Merchant (Reserved for future use)
N	Non-Master Merchant

5.19.2 Subelement 40.2: Transaction Capture Code

Attributes

AN 1

Description

The Transaction Capture Code subelement is mandatory for all transaction requests.

TABLE 5-9 Transaction Capture Code Subelement Code

Code	Description
H	Host Capture

5.19.3 Subelement 40.3: Transaction Type Code

Attributes

AN 1

Description

Table 5-10 lists the possible values for the Transaction Type Code subelement.

TABLE 5-10 Transaction Type Code Subelement

Code	Description
A	ATM request
B	Settlement request
C	Credit/Prepaid/Gift Card
D	Debit request
E	EBT/eWIC request
F	Fleet request
K	Check request

5.19.4 Subelement 40.4: Merchant Type Code

Attributes

AN 2

Description

The Merchant Type Code is a two-digit value that identifies the merchant type. These two positions indicate the market type. See Appendix J, "Merchant Type Code" for possible values for this subfield.

TABLE 5-11 Grocery with Fuel Transaction Codes

Type	Description
Grocery with Petro	GR should be used for Grocery sites
Grocery sites that support fuel sales; inside fuel transaction	Should be GR with a grocery sic code (5411). **Note**: If auth/ completion pairs are used (0100/0220) inside then the completion must match the authorization amount, otherwise the transaction will likely be downgraded.
Grocery sites that support fuel sales; outside fuel transaction	Should be FD and a SIC override of 5542.

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5.19.5   Subelement 40.5: Card Type Identifier

Attributes

N 2

Description

The Card Type Code is a two-digit value that identifies the card type. See Appendix F, "Card Type Identifiers" for possible values for this subfield.

5.19.6   Subelement 40.6: Override SIC Indicator

Attributes

N 1

Description

Valid values are:

- **0** - Override SIC not supported
- **1** - Override SIC in merchant record with SIC provided in DE 18. If not used, then zero fill.

5.19.7   Subelement 40.7: Dynamic Descriptor Indicator

Attributes

N 1

Description

The dynamic descriptor indicator is a flag that indicates whether Worldpay needs to use the Merchant DBA name specified in Subelement 43.1: Card Acceptor Street Address instead of the merchant data defined at Worldpay.

The dynamic descriptor is the merchant name as it appears on the customer billing. It is provided in Subelement 43.1: Card Acceptor Street Address and is used to clarify the merchant providing the services, if it is different from the one stored in the Worldpay database.

Valid values are:

- **0** - Dynamic descriptor not supported
- **1** - Override merchant name defined in the Worldpay system. If not used, then zero fill.

5.19.8   Subelement 40.8: Reserved

Attributes

AN 1

Description

The reserved subfield may space-filled.

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5.20 **Data Element 41: Merchant Terminal Identification**

Attributes

ANS 16

Description

This field can be used for a merchant assigned terminal identifier; which Worldpay will echo back.

5.21 Data Element 42: Worldpay Merchant Identification

Attributes

ANS 24

Description

This field is mandatory for all users.

The Merchant Identification assigned by Worldpay indicates which merchant originated the transaction. The Merchant identification field is comprised of a 15-byte numeric merchant number, a 8-byte numeric terminal number, and a 1-byte numeric check-digit. The merchant number, terminal number, and check-digit are assigned by Worldpay.

Following is an example of the 24 digit MID 542929001000041001177048:

TABLE 5-12 Worldpay Merchant Identification Values

Name	Value
Merchant Number	542929001000041
Terminal Number	00117704
Check Digit	8

NOTE: Versions less than 4.6.0 must still support the 22 character terminal identification with 15 byte merchant number, 6 byte terminal number and 1 byte check digit.

5.21.1 Subelement 42.1: Merchant ID (MID)

Attributes

N 15

Description

This field is for the 15-digit merchant identification number that Worldpay assigns.

5.21.2 Subelement 42.2: Terminal ID (TID)

Attributes

N 8

Description

This field is for the eight-digit terminal identification number that Worldpay assigns.

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5.21.3   Subelement 42.3: Check Digit

Attributes

N 1

Description

This field is for the single-digit check digit assigned by Worldpay.

5.22   Data Element 43: Card Acceptor Name/Location

Attributes

ANS 40

Description

This field is optional field for non-Master merchants and required for Master merchant processing.

5.22.1   Subelement 43.1: Card Acceptor Street Address

Attributes

AN 23

Description

The full 23 bytes are primarily used for the street address of the card acceptor. Alternatively, the first 18 bytes may be used as a dynamic descriptor indicating the merchant name as it appears on the customer billing; the remaining 5 bytes need to be space-filled.

5.22.2   Subelement 43.2: Card Acceptor City

Attribute

AN 13

Description

This contains the city of the card acceptor address.

5.22.3   Subelement 43.3: Card Acceptor State

Attributes

AN 2

Description

The two-letter state code of the card acceptor address. See Appendix K, "Card Acceptor State Codes".

5.22.4   Subelement 43.4: Card Acceptor Country

Attributes

AN 2

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Description

This element contains the card acceptor country.

5.23   Data Element 44: Response Data

Attributes

AN..25

Description

This element contains miscellaneous transaction response data.

5.23.1   Subelement 44.1: Response Reason Code

Attributes

N 5

Description

Contains a five-digit numeric rejection code. For Data Element 39 values other than 90x, this subfield will contain zeroes. For example, if DE39 has a reject code of 901, then DE44.1 will be something other than zeroes. See Appendix A, "Reject Reason Codes".

5.23.2   Subelement 44.2: Response Text

Attributes

AN 20

Description

Contains a response literal that may be used to print and/or display on the terminal or device. The practical limit for most devices is 16 characters.

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5.24   Data Element 45: Track 1 Data

Attributes

AN..76

Description

Contains the information encoded on Track 1 of the magnetic stripe, including field separators but excluding beginning and ending sentinels and LRC characters.

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5.25   Data Element 48: Additional Data

Attributes

AN...999

5.25.1   Subelement Encoding Scheme

3 bytes	2 bytes	2 bytes	1-95 bytes
Total Length	Subelement ID	Subelement Length	Variable Length Data

Example: Additional Data

```
0241014ABC STORES INC
  Total field length      024
  Subelement  ID          10            Terminal Owner Name
Subelement  Length        14            Length of data that follows
Subelement  Data          ABC  STORES INC   Actual data
```

5.25.2   Subelement 48.10: Terminal Owner Name

Attributes

AN 22

Description

This subfield is for the terminal owner's name and is required for Master Merchant and optional for non-merchant.

5.25.3   Subelement 48.11: Terminal Shift Number

Attributes

N 11

Description

This subfield identifies the shift number for which the transaction occurs in a business day. This field is formatted as CCyymmddsss using the date the shift number is started and a three-digit shift number. The shift number should increment by one if multiple shift numbers are opened during the same business day. The number must remain the same for the life of the transaction.

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5.25.4   Subelement 48.12: Terminal Data

Attributes

AN 20

Description

The POS device will populate the fields. If the POS device is unknown, populate the fields with the switch data. This subfield is used to identify the terminal's hardware, software, and firmware:

- Hardware type [AN 4]. Assigned by Worldpay.
- Software version [AN 8]. Software release/revision identification.
- Firmware version [AN 8]. Firmware release/revision identification.

5.25.5   Subelement 48.13: Encryption Key Serial Number

Attributes

AN 20

Description

This conditional subelement is the key serial number, which is a portion of the DUKPT encryption key. The field is sent for pin based transactions. This field is mandatory for PIN-based transactions.

5.25.6   Subelement 48.14: Lane/Pump/Device ID Number

Attributes

N 4

Description

This subelement is used by acquirer to identify the lane, pump, or device where the transaction occurs. It is required for multi-lane environments. This is a 4-byte numeric field that should contain a unique value for each point-of-entry for a transaction on the system. 0000 should be used for a stand-alone terminal. All others should use values 0001 thru 9999.

5.25.7   Subelement 48.15: Server ID

Attributes

AN 2

Description

This subelement supports a server ID or cashier number for restaurants and food service.

5.25.8   Subelement 48.21: Address Verification Request

Attributes

N 2

Description

This subelement indicates that verification of the cardholder billing address is requested in the authorization message request.

TABLE 5-13 Address Verification Request Values

Value	Description
11	AVS only
12	Authorization or Purchase Request

5.25.9   Subelement 48.22: Address Verification Data

Attributes

AN 14

Description

Address Verification data should be included with all Cardholder Not Present transactions.

TABLE 5-14 Address Verification Data

Position	Description
1 - 5	Cardholder Address Numeric (max 5 digits, trailing spaces)
6 - 14	Cardholder ZIP code Numeric, Postal code (max 9 digits, trailing spaces)

5.25.10   Subelement 48.23: Address Verification Result

Attributes

AN 1

Description

This subelement contains the AVS verification response code which is returned in the Authorization Request Response message when the AVS functionality is used during transaction processing. See Appendix M, "AVS Results Codes". for each card type.

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5.25.11 Subelement 48.24: Card Verification Data

Attributes

AN 5

Description

Card Verification Value (CVV) data should be included with all key-entered transactions. This subelement contains the CVC1 and CVC2 (MasterCard), the CVV2 (Visa), or the CID (Discover/American Express) data in the transaction request.

5.25.12 CVV Presence Indicator

Attributes

N 1

Description

TABLE 5-15 CVV Presence Indicator

Code	Description
0	CVV not provided
1	CVV present
2	CVV on Card, but illegible (not permitted by Visa, for UK acquirers)
9	Card has no CVV imprint (not permitted by Visa, for UK acquirers)

5.25.13 Card Verification Value

Attributes

AN 4

Description

Left justify the CVV value with trailing space.

5.25.14 Subelement 48.25: Card Verification Result

Attributes

AN 1

Description

Field return when CVV/CVC2/CVV2/CID is sent for a transaction. See Appendix N, "Card Verification Value (CVV) Result Codes".

5.25.15   Subelement 48.26: MOTO/e-Commerce Data

Attributes

AN 2

Description

This subelement contains mail order, telephone order/e-commerce indicators required for processing messages of transactions.

5.25.15.1   Subfield 48.26.1: MOTO/e-Commerce Indicator

Secure codes 5 and 6 may be SET or VbV. You cannot use these two values for Mastercard SecureCode.

Use values 7 or 8 for MasterCard SecureCode and include the Authentication Collection Indicator.

TABLE 5-16 Position 1

Code	Description
0	Not a MOTO/e-commerce transaction
1	Single MOTO Transaction
2	Recurring Transaction
3	Installment Payment
4	Unknown MOTO Classification
5	Secure e-commerce with Cardholder Certificate/Authentication
6	Secure e-commerce without Cardholder Certificate/Authentication
7	Secure e-commerce, Channel Encrypted SSL
8	Non-secure e-commerce

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5.25.15.2 Subfield 48.26.2: Authentication Collection Indicator

TABLE 5-17 Position 1

Value	Description
0	Non SecureCode (UCAF SecureCode not supported by merchant site or is not a MasterCard transaction)
1	Attempts Processing (Stand-In) (UCAF SecureCode supported but UCAF/AAV not provided)
2	Issuer Fully Authenticated (UCAF SecureCode supported and UCAF/AAV provided)
3	MARP Static Authentication
4	Reserved for future use
5	Issuer Risk Based Decisioning
6	Merchant Risk Based Decisioning
7	Incremental authorizations, partial shipments, recurring payments

5.25.16 Subelement 48.27: UCAF/AVV Card Authentication

Attributes

AN 34

Description

This subelement contains the Mastercard UCAF collection indicator and authentication data in the authorization request message.

5.25.16.1 Subelement 48.27.1 Cardholder Authentication Type Indicator

Attributes

AN 2

Description

TABLE 5-18 Cardholder Authentication Type Indicator

Value	Description
01	Master Card SecureCode transaction
02	Master Card DSRP transaction
03	American Express SafeKey transaction

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5.25.16.2 Subelement 48.27.2 MasterCard Authentication Data

Attributes

AN 32

Description

UCAF (MCI SecureCode) cardholder authentication data is Base64 encoded and is of variable length, depending on the authentication method.

Example: 28 bytes for the Secure Code/3DS and 32 bytes for SecureCode/PCA.

5.25.17 Subelement 48.28: Electronic Commerce Authentication Data

Attributes

AN 80

Description

This subelement contains the Visa 3-D Secure, American Express Secure Electronic commerce, and Discover ProtectBuy verification service data.

5.25.17.1 Subfield 48.28.1: Cardholder Authentication Data (CAVV), American Express Cryptogram (part 1), American Express Verification Value (AEVV), or Discover ProtectBuy (CAVV)

Attributes

AN 40

Description

This subfield contains the ASCII representation of 20-byte binary data.

5.25.17.2 Subfield 48.28.2: Visa transaction ID (XID) or American Express Cryptogram (part 2) or American Express SafeKey Transaction ID Value

Attributes

AN 40

Description

This subfield contains the ASCII representation of 20-byte binary data. If you do not provide this information or it is applicable, fill the subfield with spaces.

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5.25.18 Subelement 48.29: Authentication Verification Value Result Code

Attributes

AN 3

Description

This subelement contains Mastercard UCAF/AAV or Visa CAVV results. Left justify and space fill it.

5.25.19 Subelement 48.30: Credit Response Data

Attributes

AN 2

Description

This subelement is sent in response to certain credit card transactions including Visa and MasterCard.

- Position 1: Authorization Source
- Position 2: Authorization Characteristic Indicator (ACI)

5.25.20 Subelement 48.31: Commercial Card Response

Attributes

AN 1

Description

This subelement is sent in response to the type of purchase card transactions.

Table 5-19 lists the possible responses for this subelement.

TABLE 5-19 Commercial Card Response Values

Value	Description
B	Business Card
R	Corporate Card
S	Purchasing Card
O	Non-Commercial Card

5.25.21 Subelement 48.32: Visa Merchant-Initiated Credential on File

Attributes

AN 1...99

Description

Certain merchant-initiated and industry-specific transactions use this subelement.

- Required for merchants when using Visa token service
- Optional for merchants when using cardholder PAN

TABLE 5-20 Visa Merchant-Initiated Credential on File Subelements

Field	Name	Type	Bytes	Value
48.32.1	Transaction Identifier	A/N	15	• Received in 0210 response • Returned in Subsequent Merchant-Initiated 0200 Request
48.32.2	Validation code	A/N	4	Received in 0210 response
48.32.3	Transaction Type code See Table 5-21.			• **10** - Resubmission • **11** - Increment to Previous Request • **12** - Installment Payment • **13** - Recurring Payment • **14** - Credential on File • **15** - Delayed Charges • **16** - Reauthorization • **17** - No Show • **18** - Unscheduled Stored Credential
48.32.4	Credential On File Indicator	A/N	1	I = Initial credential on file
48.32.5	Trace Number	A/N	6	• Received in 0210 response • Returned in subsequent merchant-initiated 0200 Incremental Authorization Request
48.32.6	Retrieval Reference Number	N	12	• Received in 0210 response • Returned in subsequent merchant-initiated 0200 Incremental Authorization Request
48.32.7	Reserved	-	59	Reserved for future use

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TABLE 5-21 DE48.32.3 Reason Code Format Details

	Transaction Type	Validation Code	Trans Type	Credential on File Indicator	Trace Number	Retrieval Reference Number
R0065submission	Value from original 0210 response	space-filled	10	space-filled	space-filled	space-filled
Increment to Previous Request	Value from original or previous 0210 response	space-filled	11	space-filled	Value from original 0210 response	Value from original 0210 response
Installment Payment	Value from original or previous 0210 response	space-filled	12	space-filled	space-filled	space-filled
Recurring Payment	Value from original or previous 0210 response	space-filled	13	space-filled	space-filled	space-filled
Credential on File	space-filled	space-filled	14	I = Initial	space-filled	space-filled
Delayed Charges	Value from original 0210 response	space-filled	15	space-filled	space-filled	space-filled
Reauthorization	Value from original 0210 response	space-filled	16	space-filled	space-filled	space-filled
No Show	Value from original 0210 response	space-filled	17	space-filled	space-filled	space-filled
Unscheduled Stored Credential	Value from original 0210 response	space-filled	18	I = Initial	space-filled	space-filled

5.25.22 Subelement 48.33: MasterCard Response Data

Attributes

AN 13

Description

This subelement is for the financial network code and banknet reference number.

- Position 1-4: MasterCard Banknet Settlement (MMDD)
- Position 5-13: MasterCard Banknet Reference Data

5.25.23 Subelement 48.34: American Express Response Data

Attributes

AN 15

Description

This subelement is for the financial network code and Banknet reference number.

5.25.24 Subelement 48.35: Discover E-commerce Data

Attributes

AN 1...99

Description

Merchants with system limitations that prevent them from properly reporting e-commerce transactions may exclude this data element.

TABLE 5-22 Discover E-commerce Data

Name	Type	Bytes	Value
Type User	AN	1	Worldpay requires this for e-commerce. Valid values are: **Y** - Registered User **N** - Not a Registered User (Guest check- out)
Date last update	AN	8	Worldpay requires this for e-commerce. This is the date when the Cardholder last changed their registered/stored profile. Valid values are: • Registered User - ccyymmdd Use a valid date. • Guest - Blank fill.

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TABLE 5-22   Discover E-commerce Data

Name	Type	Bytes	Value
Trailing Request Indicator	AN	1	Worldpay requires this when you use a payment token. Valid values are: • **P** - Partial/Split Shipment • **R** - Recurring Payment • **A** - Re-authorize for full amount
Network Reference Number	AN	15	This is the Retrieval Reference Number received in the original response. Worldpay requires this for partial/split shipment, recurring payment, and reauthorization when you use a payment token.
Reserved	AN	74	Reserved for future use

5.25.25 Subelement 48.40: Prepaid Card Data

Attributes

AN 16

Description

This subelement is for the Prepaid Card ID and password.

5.25.26 Subelement 48.41: Gift Mall Vendor Data

Attributes

AN 22

Description

You can use this data for Blackhawk or InComm.

• Position 1-6: Store Number (N 6)
• Position 7-10: Lane Number (N 4)
• Position 11-22: product code (UPC) (AN 12)

5.25.27   Subelement 48.42: Customer Defined Request Data

Attributes

AN 17

Description

This subelement is for the merchant to send data that displays under invoice number on their reports. It is conditional on the request and conditional echo on the response.

5.25.28   Subelement 48.43: Customer Defined Request Data

Attributes

AN 17

Description

This subelement is for the merchant to send data that displays under purchase order number on their reports. It is conditional on the request and conditional echo on the response.

(This field takes precedence over b121_23_ip_po_num.)

5.25.29   Subelement 48.44: Customer Service Contact Information

Attributes

AN 1..13

Description

This subelement is used for Visa recurring payments to qualify for CPS/Card Not Present programs. It may contain a customer service telephone number, merchant URL or email address. Telephone numbers can be formatted. [999-999-9999, 999.999.9999, (999)999-9999]

5.25.30   Subelement 48.50: EBT Voucher Number

Attributes

AN 15

Description

This subelement is used for EBT Food Stamp voucher purchases, when voice authorization is used to obtain authorization.

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5.25.31   Subelement 48.51: EBT FNS/FCS Number

Attributes

AN 7

Description

This subelement is the merchant's FNS/FCS (Food and Consumer Services, formerly Food and Nutrition Services number. Required for Master Merchant processing only.

5.25.32   Subelement 48.60: Print Price Flag

Attributes

AN 1

Description

Acceptable values are:

- **Y** - Print prices on receipt
- **N** - Do not print prices on receipt

5.25.33   Subelement 48.61: Prompt Code

Attributes

AN 1

Description

Acceptable values are:

- **0** - No prompts
- **1** - Prompt for odometer
- **2** - Prompt for ID
- **3** - Prompt for odometer and ID

5.25.34   Subelement 48.62: Preferred Product Code

Attributes

AN 3

Description

This is the issuer designated preferred product code. See Appendix H, "Product Codes".

5.25.35 Subelement 48.63: Fuelman Response Data

Attributes

N 36

Description

Table 5-23 defines the Fuelman addition response data.

TABLE 5-23 Fuelman Response Data

Name	Type	Bytes	Value
Max purchase	N	8	9(6)v99
Max fuel	N	7	9(5)v99
Max oil	N	7	9(5)v99
Max parts	N	7	9(5)v99
Max misc	N	7	9(5)v99

5.25.36 Subelement 48.64: WEX 2.0.2 Support Flag

Attributes

N 1

Description

Worldpay requires subelement 64 if WEX is a supported card type.

- **0** - POS is not WEX 2.0.2 compliant
- **1** - POS is WEX 2.0.2 compliant

> **NOTE:** WEX 2.0.2 compliancy also requires setting subelement values for Data Element 121: Summary data [ANS…999] (page 81). See WEX 2.0.2 Support. You should direct questions about WEX 2.0.2 support at the POS directly to WEX.

5.25.37 Subelement 48.65: Cardholder Information

TABLE 5-24 Cardholder Information

Cardmember Name	Bytes	Type
CARDMEMBER FIRST NAME	15	AN

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TABLE 5-24 Cardholder Information

Cardmember Name	Bytes	Type
CARDMEMBER LAST NAME	30	AN
CARDMEMBER BILLING PHONE NUMBER	10	AN

5.25.38 Subelement 48.66: Shipping Information

TABLE 5-25 Shipping Information

Shipping Information	Bytes	Type
SHIPPING METHOD	2	AN Valid values are: **01** - Same Day **02** - Overnight / Next Day **03** - Priority, 2-3 days **04** - Ground, 4 or more days **05** - Electronic Delivery **06** - Ship-to Store[1] **07-ZZ** - Reserved for future use
SHIP-TO ADDRESS	50	AN
SHIP-TO POSTAL CODE	9	AN
SHIP-TO COUNTRY CODE	3	AN
SHIPPING SEQUENCE NUMBER (SHIPMENT #)	2	AN
SHIPMENT COUNT (# OF SHIPMENTS)	2	AN

[1] Worldpay strongly encourages merchants populating the Shipping Method with (06) Ship-to Store to populate the address of the store location in the Ship-to Address

5.25.39 Subelement 48.67: Ship to Contact Information

TABLE 5-26 Ship to Contact Information

Ship to Contact Information	Bytes	Type
SHIP-TO FIRST NAME	15	AN

Ship to Contact Information	Bytes	Type
SHIP-TO LAST NAME	30	AN
SHIP-TO PHONE NUMBER	10	AN

5.25.40 Subelement 48.68: Split Tender Counts

Attributes

AN 1

Description

This subelement indicates how many payment forms were used on a split tender transaction.

5.25.41 Subelement 48.69: Device Type Value

Attributes

N 2

Description

Indicates the device type used to initiate the transaction.

5.25.42 Subelement 48.71: Token Information

Attributes

AN 2..25

Description

A token is a surrogate value for a PAN that is consistent with ISO 8583 message requirements. All fields should be provided on a token transaction, if available. If any are not available, and the transaction is known to be a token transaction, space-fill the unknown fields. If the transaction is not known to be a token transaction, it is not required on the request. If the network says that it is a token transaction, this data element populates in the response.

Tokenization is a process through which surrogate value known as token replaces the PAN. It enhances the security and protection of the PAN at rest or in transit.

NOTE: When this field is populated in a response, it is only required to be substituted for the last 4 PAN digits on the receipt obtained from your point of entry with the bytes presented in the Last 4 of the Primary Account Number (PAN) field in Table 5-27.

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TABLE 5-27 Token Fields

Token Information	Description	Bytes	Type
Token Assurance Level	A request and response field. A score or confidence level that determines the expected level of assurance associated with the approved token requestor and the ID&V (identification and verification) method performed at the time of token request.	2	AN
Last 4 of the Primary Account Number (PAN)	This is a response only field and should be space-filled on the request. It should be used to provide the last 4-digits of the PAN on the receipt.	4	AN
Token Requester Id	A request and response field. A unique ID assigned to a Token requestor by token service provider.	11	AN
Digital Wallet Id	This is a request only field and will be space-filled on the response. Valid values are: • **101** - Wallet Remote/Masterpass • **102** - Wallet Remote NFC • **103** - Apple Pay • **216** - Android Pay • **217** - Samsung Pay • **VCO** - Visa Checkout	3	AN
Digital Wallet Indicator	This is a request only field and will be space- filled on the response. If the card information is known to have come from a Digital Wallet, such as AplePay, this value should be 'Y'. Otherwise, this field should be space-filled	1	AN
Dynamic token verification value (DTVV)	This is a request only field and will contain a 4 digit value assigned by Visa	4	AN

5.25.43 Subelement 48.72: Device Serial Number

Attributes

AN ..20

Description

Serial number for the specific device/PED; typicqally used for P2PE.

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5.26   Data Element 49: Transaction Currency Code

Attributes

N 3

Description

The numeric ISO currency code for the transaction amount, (DE 4), must be the same currency in which the Worldpay Merchant (DE 42) is designated to trade.

At this time, 840 (US Dollar) is the only transaction currency code supported.

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5.27   Data Element 52: Personal Identification Number Data

Attributes

H 16

Description

All ATM/Debit and online EBT transactions, with the exception of reversals and valid PINless transactions, require Encrypted PIN block. EMV online PIN for credit transactions also require Encrypted PIN block.

Any transaction which does not have a valid encrypted PIN block must be sent to Worldpay as a credit transaction including debit AID's and BIN ranges.

Hex values are 0-9 and A-F must be in uppercase.

5.28 Data Element 54: Additional Amount

Attributes

AN…120

Description

The Additional Amount field is included only for purchases with cash back account balances and reversals. Its format is the same as the transaction amount (DE 4) and must be in the same currency (DE49). This data may occur up to six times.

For partial authorization transactions, the original request amount will be returned in the field.

For preauthorization completion transactions with different original pre-authorization amounts, the original request amount will be returned in the field.

See Appendix C, "Additional Amounts (DE54)" for additional information.

5.28.1 Subelement 54.1: Account Type

Attributes

AN 2

Description

This Subelement is for the account type. See Appendix C, "Additional Amounts (DE54)".

5.28.2 Subelement 54.2: Amount Type

Attributes

N 2

Description

This subelement is for the amount type. See Appendix C, "Additional Amounts (DE54)".

5.28.3 Subelement 54.3: Currency Code

Attributes

N 3

Description

This subelement is for the currency code. At this time, 840 (US Dollar) is the only transaction currency code supported.

worldpay

5.28.4 Subelement 54.4: Amount Sign

Attributes

AN 1

Description

This subelement is for the amount sign.

- **C** - Credit amount. The amount credited, or the balance remaining, for the specified account.
- **D** - Debit amount. The amount debited from the specified account.

5.28.5 Subelement 54.5: Amount

Attributes

N 12

Description

This subelement is for the additional amount.

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5.29 Data Element 55: EMV Data Elements

Attributes

ANS..999

Description

EMV (Europay, MasterCard and Visa) is a global standard for inter-operation of integrated circuit cards (IC cards or chip cards) and IC card capable point of sale (POS) terminals and automated teller machines (ATMs), for authenticating credit and debit card transactions.

The purpose and goal of the EMV standard is to specify interoperability between EMV-compliant IC cards and EMV-compliant credit card payment terminals throughout the world. There are two major benefits to moving to smart card based credit card payment systems: improved security (with associated fraud reduction), and the possibility for finer control of offline credit card transaction approvals.

> **NOTE:** All fields are binary.

5.29.1 Subelement Encoding Scheme

TABLE 5-28 Subelement Encoding Scheme

Total Length	Variable length data (TLV)
3 bytes ascii	1 - 255 bytes binary

5.29.2 Data Fields for EMV TLV Format

The fields for EMV should be captured and formatted as TLV (Tag Length Value) data. The data is all binary. The tag length will always be either 1 or 2.

Table 5-29 provides an example.

TABLE 5-29 EMV TLV Format Data Fields

Data Field	Field	Length
Application Cryptogram	Tag '9F26"	2
	Length	1
	Value	8
	Total Length	11 Bytes Binary Data
Data Field	**Field**	**Length**

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TABLE 5-29 EMV TLV Format Data Fields

Data Field	Field	Length
Application Interchange Profile	Tag '82"	1
	Length	1
	Value	2
	Total Length	4 Bytes Binary Data

0100, 0200, 0220, 0400 and stand-in messages require DE 55. You cannot pass DE 55 to the network for Manual or Fallback transactions.

5.29.3 Request Fields

TABLE 5-30 Request Fields

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Application PAN Seq	5F34 (b2)	b1	b2	5	Identifies and differentiates cards with the same PAN
Track 2 Equiv Data	57 (b1)	b1	b19 VAR	21	Contains the data elements of track 2 according to ISO/IEC 7813 For EMV transactions, if Tag 57 is present it should be used to populate track data. If it's an P2PE transaction the data is encrypted.
Other Amount	9F03 (b2)	b1	b6 (n12)	9	Secondary amount associated with the transaction representing a cashback amount
Dedicated File Name	84 (b1)	b1	b5-16 VAR	18	Identifies the name of the DF as described in ISO/ IEC 7816-4
Application Version # term	9F09 (b2)	b1	b2	5	Version number assigned by the payment system for the application

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TABLE 5-30 Request Fields

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Cardholder Verify Method Result	9F34 (b2)	b1	b3	6	Indicates the results of the last CVM performed
Interface Device Ser #	9F1E (b2)	b1	b8 (an8)	11	Unique and permanent serial number assigned to the IFD by the manufacturer
Term Capabilities	9F33 (b2)	b1	b3	6	Indicates the card data input, CVM, and security capabilities of the terminal
Term Type	9F35 (b2)	b1	b1 (n2)	4	Indicates the environment of the terminal, its communications capability, and its operational control
Transaction Sequence Counter	9F41 (b2)	b1	b2..4 (n4..8) VAR	7	Counter maintained by the terminal that is incremented by one for each transaction
Application Cryptogram	9F26 (b2)	b1	b8	11	Cryptogram returned by the ICC in response of the GENERATE AC command
Application Inter-change Profile	82 (b1)	b1	b2	4	Indicates the capabilities of the card to support specific functions in the application
Application Transaction Counter	9F36 (b2)	b1	b2	5	Counter maintained by the application in the ICC (incrementing the ATC is managed by the ICC)
Cryptogram Info Data	9F27 (b2)	b1	b1	4	Indicates the type of cryptogram and the actions to be performed by the terminal

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TABLE 5-30 Request Fields

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Issuer Application Data	9F10 (b2)	b1	b..32 VAR	35	Contains proprietary application data for trans- mission to the issuer in an online
Amount, Authorized	9F02 (b2)	b1	b6 (n12)	9	Authorized amount of the transaction (excluding adjustments)
Term Country Code	9F1A (b2)	b1	b2 (n3)	5	Indicates the country of the terminal, represented according to ISO 3166
Term Verification Results	95 (b1)	b1	b5	7	Status of the different functions as seen from the terminal
Tran Currency Code	5F2A (b2)	b1	b2 (n3)	5	Indicates the currency code of the transaction according to ISO 4217
Tran Date	9A (b1)	b1	b3 (n6)	5	Local date that the transaction was authorized; YYMMDD
Transaction Reference Currency Code	9F3C (b2)	b1	b2	5	Code defining the common currency used by the terminal in case the Transaction Currency Code is different from the Application Currency Code
Transaction Type	9C (b1)	b1	b1 (n2)	3	Indicates the type of financial transaction
Unpredictable Number	9F37 (b2)	b1	b4	7	Value to provide variability and uniqueness to the generation of a cryptogram

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TABLE 5-30 Request Fields

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Application Usage Control	9F07 (b2)	b1	b2	5	Indicates issuer's specified restrictions on the geographic usage and services allowed for the application
Auth Response Code	8A (b1)	b1	b2	4	Code that defines the disposition of a message
Application Identifier	9F06 (b2)	b1	b8..16 VAR	19	Identifies the application as described in ISO/IEC 7816-5
Issuer Script Result	9F5B (2)	b1	b5	8	Present if scripts were sent by Issuer in original response
Secondary PIN block	0C0B (b2) / C0 (b1)	b1 / b1	b8 / b8	11 /10	Discover (0C0B) and Visa (C0) may allow cardholders to change PINs at the terminal. This is the encrypted PIN block for the new PIN (See Data Element 52: Personal Identification Number Data.)
Third Party Data	9F6E	b1	b4-32	b5-33	May indicate the form factor of the consumer payment device or contain proprietary information from a third party device. 9F6E is applicable to all Mastercard issued cards.
Customer Exclusive Data	9F7C (b2)	b1	b10	13	In US contactless transactions, issuer proprietary info
Transaction Cate- gory Code	9F53 (b2)	b1	b1	4	Indicates the type of transaction being processed

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TABLE 5-30 Request Fields

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Application Expiration date	5F24			6n	YYMMDD. Application expiration date of the ICC chip must be populated in the DE14 YYMM format (see page 41). For P2PE transactions this value must be in the clear.
Transaction Status Information (TSI)	9B	1	2	4	Indicates the functions performed in a transaction.
Terminal Transaction Qualifiers (TTQ)	9F66	1	4	7	Indicates reader capabilities, requirements, and preferences to the card. TTQ byte 2 bits 8-7 are transient values, and reset to zero at the beginning of the transaction. All other TTQ bits are static values, and not modified based on transaction conditions. TTQ byte 3 bit 7 shall be set by the acquirer-merchant to 1b.
Card Transaction Qualifiers (CTQ)	9F6C	1	2	5	In this version of the specification, used to indicate to the device the card CVM requirements, issuer preferences, and card capabilities.
Track 2 Data	9F6B	1	19	22	Contains the data objects of the Track 2 according to (ISO/IEC 7813), excluding start sentinel, end sentinel and LRC.
PayPass CVM Lists	9F68	1	32	35	

TABLE 5-30   Request Fields

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Terminal Risk Management Data	9F1D	1	8	11	Application-specific value used by the card for risk management purposes.
Unprotected Data Envelope 4	9F78	1	64	67	
Card Interface Capabilities	9F70	1	2	5	
Mobile CVM Results	9F71	1	4	7	
Application life cycle data (8 first bytes)	9F7E	1	48	51	
Secondary PIN Block (Visa)	C0	1	8	10	

5.29.4   Response Field

TABLE 5-31   Response Field

Field Name	Tag	Length Binary	Data Length Binary	Total Length Binary	Descriptions/Field Value(s)
Issuer Authentication Data	91 (b1)	b1	b8..16 VAR	18	Data sent to the ICC for online issuer authentication
Issuer Script Template1	71/72 (b1)	1	b..127 VAR	129	Contains proprietary issuer data for transmission to the ICC before the second GENERATE AC command

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5.30 **Data Element 56: Payment Account Reference (PAR)**

Attributes

AN..35

Description

Payment Account Reference contains the assigned PAR value. A PAR is a unique value associated with a single PAN and attributed to all tokens associated with that PAN. A PAR can be used to link transactions containing PANs or tokens associated with the same underlying payment account. This is a response only field.

> **NOTE:** Support for DE56 is required starting with version indicator 502. See Data Element 127: Version Indicator.

5.31   Data Element 57: Check Request/Response Data

Attributes

ANS 999

Description

The check specific data is required for check transaction processed through Worldpay. The MICR data (TAC or TOAD) should be placed in the Track 2 data field (DE 35). See Subelement 57.11: MICR Data (Full or Keyed) for TAC and TOAD examples.

5.31.1   Subelement Encoding Scheme

3 bytes	2 bytes	2 bytes	1-95 bytes
Total Length	Subelement ID	Subelement Length	Variable Length Data

Example: Subelement Encoding Scheme

```
0182114ABCD1234567890
```

TABLE 5-32   Example Breakdown

Total field length	018	
Subelement ID	21	ID Number
Subelement Length	14	Length of data that follows
Subelement Data	ABCD1234567890	actual data

Table 5-33 is a quick reference for the subelements of DE57.

TABLE 5-33   DE57 Subelements

Subelement	Description	Field Type and Length	Page
01	Receiving Institution ID	N 6	65
02	Service Type ID	AN..10	65
10	MICR Reader Status (for future use)	AN...10	65
11	MICR full or keyed	AN.95	65
20	State/Province ID Code	AN 2	67
21	ID Number	AN...50	67
22	Cardholder Name (for future use)	AN...50	67

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TABLE 5-33 DE57 Subelements

Subelement	Description	Field Type and Length	Page
23	Cardholder Social Security Number	N 9	67
24	Cardholder Date of Birth	N 8	67
25	Cardholder Address (for future use)	AN...50	67
26	Cardholder ZIP Code	AN...10	67
27	Cardholder Phone Number	N 10	67
30	Merchant Invoice/Reference Number	AN...30	67
31	Product/Class Code	AN...40	67
32	Additional Data-Numeric (for future use)	N...15	67
33	Additional Data-Alphanumeric (for future use)	AN...95	67
40	Network/ACH Reference Number	AN...30	68
41	Authorization Response Code	AN...9	68
42	Check Fee Amount	N 9	68

5.31.2   Subelement 57.1: Receiving Institution ID

Attributes

N 6

Description

This subelement identifies the check processing service assigned by Worldpay.

TABLE 5-34 Receiving Institution ID

Value	Description
894300	Certegy

5.31.3   Subelement 57.2: Service Type ID

Attributes

AN..10

Description

Valid values are:

- FM1 - 30
- FM2 - 40
- ECC Sale - 80CG
- ECC Auth Only - 81CG
- ECC ACK - 82CG
- ECC Void - 83CG

5.31.4   Subelement 57.10: MICR Reader Status

Attributes

AN...10

Description

This subelement specifies the type of MICR reader that is being used.

- 1002 - TAC MICR format
- TOAD - TOAD MICR Format

5.31.5   Subelement 57.11: MICR Data (Full or Keyed)

Attributes

AN.95

Description

This subelement is the MICR data off the check. You can enter the data electronically or manually.

Example: Full MICR Line Specification (Raw TOAD Format Scanned by Check Readers)

MICR readers provide the flexibility to format the MICR fields and build a specific output string that will be transmitted to the host for authorization. For electronic check authorization/conversion the required parsing format is referred to as RAW TOAD. TOAD is a symbol substitution of the MICR characters appearing on the check.

Four characters are special to MICR data and are known as the Transit, On-Us, Amount, and Dash characters. These characters are used to mark the boundaries of certain special characters in MICR data. Since these four characters are not in the ASCII character set, the following characters will be used to represent them:

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TABLE 5-35 Subelement 57.11: MICR Data (Full or Keyed) [AN.95]

MICR Character	Substitute Character	Definition
	T	Indicates the beginning and ending of the bank's 9-digit routing transit number.
	O	Indicates the On-Us field usually grouped around the account number or check serial number.
	A	Indicates the beginning and end of the encoded dollar amount field. In the event a check is read with the reader, and this symbol is included in the MICR output, the check should be rejected as it was already processed by a financial institution.
	D	Indicates a dash usually appearing in the account number field in the MICR line.

Sample TOAD Outputs

TABLE 5-36 TOAD Outputs

Line	Output
MICR Line	
MICR Reader Output	**T**123466780 **T** 1234**D**6678**O**0691
MICR Line	
MICR Reader Output	**T**123466780 **T**0691**O**1234**D**66780
MICR Line	
MICR Reader Output	**T**123466780 **TO** 1234**D**6678**O**0691
MICR Line	
MICR Reader Output	**O**12147980**T**123466780**T**123445678**O**
MICR Line	
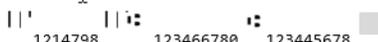
TABLE 5-36 TOAD Outputs

Line	Output
MICR Reader Output	**O**12147980**T**123466780**TO**123445678**O**

Example: Full MICR Line Specification—1002 TAC Format

If customer manual entries are allowed, the manually entered MICR example—TAC format (non ACH-able): **T**123456789**A**111222333344455566677788**C**000000000000101

TABLE 5-37 Example Data

TAC	Character Length	Example
Transit	10	T123456789
Account	24	A111222333344455566677788
Check	16	C000000000000101
—	Total	50 characters

5.31.6 Subelement 57.20: State/Province Code or ID Type

Attributes

AN 2

Description

This subelement identifies the state that issued the driver's license and it identifies the type of identification that is being used. See Appendix L, "Check State Codes and ID Types".

5.31.7 Subelement 57.21: Driver's Licenses/ID Number

Attributes

AN...50]

Description

This subelement identifies the driver's license being manually entered or swiped.

5.31.8 Subelement 57.22: Customer Name

Attributes

AN...50

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Description

This subelement identifies the cardholder name.

5.31.9   Subelement 57.23: Customer Social Security Number

Attributes

N 9

Description

This subelement identifies the cardholder's social security number.

5.31.10   Subelement 57.24: Customer Date of Birth

Attributes

N 8

Description

This subelement identifies the cardholder's date of birth in a CCYYMMDD format.

5.31.11   Subelement 57.25: Customer Postal Address

Attributes

AN...50

Description

This subelement identifies the cardholder's postal address.

5.31.12   Subelement 57.26: Customer Postal/ZIP Code

Attributes

AN...10

Description

This subelement identifies the cardholder's postal zip code.

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5.31.13 Subelement 57.27: Customer Phone Number

Attributes

N 10

Description

This subelement identifies the cardholder's telephone number.

5.31.14 Subelement 57.30: Merchant Invoice/Reference Number

Attributes

AN...30

Description

This subelement identifies the reference number or invoice supplied by the merchant for check authorization. This subelement is conditional.

5.31.15 Subelement 57.31: Product/Class Code

Attributes

AN...40

Description

This subelement is for future use.

5.31.16 Subelement 57.32: Additional Data Numeric

Attributes

N...15

Description

This subelement is for future use.

5.31.17 Subelement 57.33: Additional Data Alphanumeric

Attributes

AN...95

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Description

This subelement is for future use.

5.31.18 Subelement 57.40: Network/ACH Reference Number

Attributes

AN...30

Description

This subelement is used for check conversion, which is returned by the entity that authorized the transaction in the transaction response.

5.31.19 Subelement 57.41: Authorization Response Code

Attributes

AN...9

Description

This subelement returns the code from the authorizing network for approved transactions only.

5.31.20 Subelement 57.42: Check Fee Amount

Attributes

N 9

Description

This subelement identifies the check fee amount from the check processing service if one is returned.

worldpay

5.32 **Data Element 58: Acquirer/Terminal Echo Data**

Attributes

ANS…100

Description

This is an optional field that the terminal processor may use to return data in a response. If included in the request, Worldpay will echo, that is, return the data exactly as it was received. This DE is for free form data. It is optional on requests from the terminal. It will be echoed in all responses if received in the corresponding request.

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5.33 Data Element 59: Worldpay Retrieval Data

Attributes

ANS…100

Description

The Worldpay Retrieval data is free form.

Worldpay returns DE 59 in all approved responses. You must include DE 59 in any subsequent reversal (0400) or completion (0220) advice related to the authorization voids (transaction reversal). Worldpay requires DE59 in 0200 for incremental authorization request. You must also include DE 59 for any subsequent MasterCard incremental authorizations

Worldpay defines the contents, and you must return it as you received it. Format and length may vary depending on the type of transaction. Timeout reversals and stand-in advices may contain the literal `OFFLINE`.

Worldpay returns this element in all approved transactions and approved financial responses.

> **NOTE:** In the case of 0220 voids, you must send `OFFLINE` must be sent in this field. See Void and Reversals.

5.34   Data Element 60: Message Reason Code

Attributes

N..3

Description

This data element and its subelements identify the reason for a reversal or an advice.

5.34.1   Subelement 60.1: Message Type

Attributes

N 1

Description

Table 5-38 list the valid values.

TABLE 5-38   Message Type

Value	Description
0	Not an advice or reversal
1	Advice (Pre-Authorized completions, Stand-in/Force Post)
2	Reversal

5.34.2   Subelement 60.2: Message Reason

Attributes

N 2

Description

Table 5-39 and Table 5-39 list the valid values for the particular message types.

TABLE 5-39   Message Reason - Advice

Value	Description
00	Completion
01	Timed-out request (Stand-in/Force Post transaction)

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TABLE 5-39 Message Reason - Advice

Value	Description
02	Issuer not available (Stand-in/Force Post transaction)
45	Deferred

TABLE 5-40 Message Reason - Reversal

Value	Description
01	Terminal Processor Error
02	System Time Out
03	Terminal Error/mis-dispense
04	Terminal communication error
05	Terminal error
06	Late or unsolicited response
07	Cardholder cancellation (void) —transaction reversal

5.35   Data Element 61: Additional POS Data

Attributes

AN…26

Description

By provision of the ISO 8583-1987 specification, Worldpay has redefined this data element for use as Point of Service (POS) Data.

DE61 subelements 1-9 define the conditions under which the transaction was presented at the point of sale/service.

5.35.1   Subelement 61.1: Terminal Attendance

Attributes

N 1

Description

Table 5-41 lists the valid values for the subelement.

TABLE 5-41   Terminal Attendance

Value	Description
0	Attended Terminal
1	Unattended Terminal (cardholder-activated terminal, home PC, mobile phone, PDA)
2	No terminal used (voice/audio response unit authorization)

5.35.2   Subelement 61.2: Terminal Location

Attributes

N 1

Description

Table 5-42 lists the valid values for the subelement.

TABLE 5-42 Terminal Location

Value	Description
0	On premises of card acceptor facility
1	Off premises of card acceptor facility (merchant terminal—remote location)
2	Off premises of card acceptor facility (cardholder terminal including home PC, mobile phone, PDA)
3	No terminal used (voice/ audio response unit authorization)

5.35.3   Subelement 61.3: Cardholder Presence Indicator

Attributes

N 1

Description

Table 5-43 lists the valid values for the subelement.

TABLE 5-43 Cardholder Presence Indicator

Value	Description
0	Cardholder present
1	Cardholder not present, unspecified
2	Cardholder not present; mail/facsimile order
3	Cardholder not present; ARU order
4	Cardholder not present; standing order/recurring transactions
5	Electronic order (home PC, Internet, mobile phone, PDA)
6	Discover PayButton

5.35.4   Subelement 61.4: Card Presence Indicator

Attributes

N 1

Description

Table 5-44 lists the valid values for the subelement.

TABLE 5-44 Card Presence Indicator

Value	Description
0	Card present
1	Card not present

5.35.5   Subelement 61.5: Card Capture Capability

Attributes

N 1

Description

Table 5-45 lists the valid values for the subelement.

TABLE 5-45 Card Capture Capability

Value	Description
0	Terminal/operator has no card capture capability
1	Terminal/operator has card capture capability

5.35.6   Subelement 61.6: Transaction Status

Attributes

N 1

Description

Table 5-46 lists the valid values for the subelement.

TABLE 5-46 Transaction Status

Value	Description
0	Original Presentment
4	Preauthorized Completion Request

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5.35.7 Subelement 61.7: Transaction Security

Attributes

N 1

Description

Table 5-47 lists the valid values for the subelement.

TABLE 5-47 Transaction Security

Value	Description
0	No security concern
1	Suspected fraud (merchant suspicious)
2	ID verified

5.35.8 Subelement 61.8: Cardholder Activated Terminal (CAT) Level

Attributes

N 1

Description

Table 5-48 lists the valid values for the subelement.

TABLE 5-48 Cardholder Activated Terminal (CAT) Level

Value	Description
0	Not a CAT transaction
1	Authorized Level 1 CAT: ATM with PIN
2	Authorized Level 2 CAT: Self-service terminal
3	Authorized Level 3 CAT: Limited-amount terminal
4	Authorized Level 4 CAT: In-flight commerce
6	Authorized Level 6 CAT: Electronic commerce
7	Authorized Level 7 CAT: Transponder transaction

5.35.9 Subelement 61.9: Card Data Input Capability

Attributes

AN 1

Description

Table 5-49 lists the valid values for the subelement.

TABLE 5-49 Card Data Input Capability

Value	Description
0	Unknown or unspecified
1	No terminal used (Voice/ARU)
2	Magnetic Stripe
3	Optical Code
4	MICR Reader
5	Contact Integrated Circuit Chip (ICC) and Magnetic Stripe
6	Key Entry Only
7	Magnetic Stripe and Key Entry
8	Radio Frequency Identification (RFID)
9	ICC/EMV Contact and Contactless
A	MICR Read and Image Scanner
B	Optical Character Reader (OCR)
C	ICC/EMV, Magnetic Stripe and Key Entry
D	Contact ICC Only
E	ICC/EMV and Key Entry
F	Contactless (Magnetic Stripe Mode Only)
G	ICC/EMV, Magnetic Stripe, RFID and Key Entry
H	ICC/EMV Contactless Only
I	Magnetic Stripe, RFID and Key Entry
J	ICC/EMV, RFID and Key Entry
R	Magnetic Stripe and RFID
S	Secure Electronic Transaction (SET) w/Certificate

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TABLE 5-49 Card Data Input Capability

Value	Description
T	SET without Certificate
U	Channel-Encrypted e-commerce (SSL)
V	Non-Secure e-commerce (email for example)
W	ICC/EMV and RFID

5.35.10 Subelement 61.10: Partial Authorization and Estimated Amount Support

Attributes

AN 1

Description

Table 5-50 lists the valid values for the subelement.

For additional information see VISA merchant-initiated credential on file transactions on page 26.

TABLE 5-50 Partial Authorization and Estimate Amount Support

Value	Description
0	Neither partial authorization nor estimated amount supported
1	Partial authorization supported; estimated amount not supported
2	Estimated amount supported; partial authorization not supported (Only valid for Visa Credit requests)
3	Estimated amount and partial authorization supported (Only valid for Visa Credit requests)

5.35.11 Subelement 61.11: Unique Identifier (UID) Indicator

Attributes

AN 1

Description

The unique identifier flag indicates terminal support for PAN replacement data to be sent in response messages.

Request

- **0** - UID not supported
- **1** - UID supported and requested

Response

- **0** - No error
- **3** - UID look up failed, security code mismatch
- **4** - UID look up failed, merchant number mismatch
- **9** - UID creation failed; original PAN returned

If you request UID, Worldpay sends it in the DE2 field in the response. For subsequent requests, place UID in Data Element 2: Primary Account Number.

5.35.12 Subelement 61.12: Authorization Life Cycle [N 2]

Attributes

N 2

Description

> **NOTE:** Worldpay does not support this subelement at this time. Zero fill this field.

This contains the length of time in days that the funds for the authorization should be held or reserved.

5.35.13 Subelement 61.13: POS Country Code

Attributes

N 3

Description

Worldpay reserves this subelement for future use.

5.35.14 Subelement 61.14: POS Postal Code

Attributes

AN 10

Description

This subelement is for the postal code of the merchant location. Left justify and space fill this field. Non-Master Merchant does not require this subelement.

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Left justify and space fill on the right side for the 5 or 9 digit US zip code.

5.36 Data Element 62: Debit/EBT Network Response Data

Attributes

AN…15

Description

This field will only be returned for Debit and EBT transactions that are approved or denied by the network. The debit Network Response Data identifies the authorizing debit/EBT network; the network transaction settlement date and the network trace number.

- Position 1-2: Authorizing Network (numeric)
- Position 3-6: Network Settlement Date (MMDD) (May contain spaces if not approved)
- Position 7-15: Network Trace No (right-justified with leading zeros; may contain zeros if not approved)

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5.37   Data Element 70: Network Management Information Code

Attributes

N 3

Description

This subelement defines the type of Network Management (0800/0810) message.

Table 5-51 lists the codes that Positions 1 through 3 can contain.

TABLE 5-51   Network Management Information Codes

Code	Description
101	Log on
102	Log off
160	Request new working key (Gateway/terminal to Worldpay) 0800
162	New working key issued (Worldpay to gateway/terminal) 0810/0820
301	Echo Test

5.38   Data Element 90: Original Data Elements

Attributes

N 42

Description

Original data elements are required in reversal messages to assist acquirer and issuer in matching it to the original message. The data elements are zero filled, which indicates the absence of data.

5.38.1   Subelement 90.1: Original Message Type

Attributes

N 4

Description

This subelement identifies the message type from the original message.

5.38.2   Subelement 90.2: Original System Trace Audit Number (DE 11)

Attributes

N 6

Description

This subelement contains data element 11 from the original message. See Data Element 11: System Trace Audit Number.

5.38.3   Subelement 90.3: Original Date, Transaction Local Date (DE 13)

Attributes

N 6

Description

This subelement identifies the date of the original transaction.

5.38.4   Subelement 90.4: Original Time, Transaction Local Time (DE 12)

Attributes

N 6

Description

This subelement identifies the time of the original transaction.

5.38.5   Subelement 90.5: Reserved

Attributes

N 6

Description

This subelement is zero-filled.

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5.39   Data Element 91: File Update Code

Attributes

AN 1

Description

The File Update code indicates the type of file update operation for ACH processing. (Reserved for future use).

TABLE 5-52   File Update Codes

Code	Description
1	Add
2	Change
3	Delete
4	Inquiry

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5.40   Data Element 95: Replacement Amount

Attributes

AN 42

Description

Worldpay uses the replacement amount for reversal advices only. It may be more or less than the original transaction amount.

5.40.1   Subelement 95.1: Replacement Transaction Amount

Attributes

N 12

Description

This subelement contains the amount to charge the cardholder.

5.40.2   Subelement 95. 2: Reserved

Attributes

N 30

Description

Zero fill this subelement.

5.41   Data Element 97: Amount Net Settlement

Attributes

N 6

Description

This data element is used for settlement messages.

5.41.1   Subelement 97.1: Debit/Credit Indicator

Attributes

AN 1

Description

This subelement is the net value of the batch. Valid values are:

- **D** - indicates the gross settlement amount is a debit.
- **C** - indicates the gross settlement amount is a credit.

5.41.2   Subelement 97.2: Settlement Amount

Attributes

N 16

Description

Two decimal places are implied.

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5.42 **Data Element 102: Account Identification 1**

Attributes

ANS...28

Description

The account identification identifies the from account in a transfer. This DE can be used for ATM transactions.

5.43   Data Element 103: Account Identification 2

Attributes

ANS...28

Description

The account identification identifies the to account in a transfer. This DE can be used for ATM transactions.

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5.44 **Data Element 110-112: eWIC Additional Data 3**

Attributes

ANS...999

Description

Data element 112 is composed of a 3 byte length followed by sets of subelements. The subelements include:

- WIC data length - Specifies the number of bytes in this WIC data information subelement. This field is a 3 byte length and the total subelement length includes this value.

- WIC data identifier - Describes the type of WIC data which is represented by 2 alphabetic characters.

- WIC data information - Contains all data pertaining to the WIC data identifier.

Multiple sets of these three subelements may be included in the same WIC data element up to a maximum of 999 bytes for the entire WIC data element. If WIC data exceeds the 999 byte maximum, two additional WIC data elements may be used as needed.

These additional WIC data elements have the same data format as WIC data element 112. The first data WIC element to be used is 111, the second is 110.

Example: eWIC Trace

```
049PS0447E2000000013130006125050000280000033900010012
```

TABLE 5-53 Example Elements

Element	Description
049	Overall length of data element
PS	eWIC dataset identifier, (eWIC prescription food item)
044	eWIC data length (length of eWIC prescription food item data)
7E20 (Hexadecimal)	eWIC prescription food item bit map
00000013130006125	UPC/PLU data
05	Category code
000	Sub-category code
02800	Number of Units of this product
000339	Item Price ($3.39)
00100	Quantity
12	UPC/PLU data length

TABLE 5-54 LISO Element 110-112 eWIC Additional Data

Subelement	Subelement Name	Type	Length	Format	Definition
0	Data Element	N	3		Overall length of the data element. This subelement is included only once at the beginning of the data element.
EA	eWIC balance information	ANSB	999	LLLVAR	Information pertaining to the balance of a WIC prescription. The first 2 variable characters will always be EA.
EA-x	WIC balance information bit-map	B	2		A series of 16 bits used to identify the presence (denoted by 1) or absence (denoted by 0) of WIC balance information data elements 1 through 16.
EA-2	UPC/PLU data	N	17		Information identifying the UPC or PLU assigned to an item.
EA-3	Item description	AN	50		A name for a WIC food item. This subelement is left-justified and space-filled.
EA-4	Category code	N	2		A code identifying the type of product.
EA-5	Category description	AN	50		A literal describing the category as specified by the originating authority. This subelement is left-justified and space-filled.
EA-6	Sub-category code	N	3		A code further identifying the type of product within a cate- gory.
EA-7	Sub-category description	AN	50		A literal describing the sub-category as specified by the originating authority. This subelement is left-justified and space-filled.
EA-8	Unit of measure	AN	10		A determinant amount or quantity adopted as a standard of measurement, e.g., gallons, pounds, etc. applied to a bene- fit unit of an individual item.
EA-9	Package size	N	5		The size of the contents of the package quantified in standard benefit units of measure.

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TABLE 5-54 LISO Element 110-112 eWIC Additional Data

Subelement	Subelement Name	Type	Length	Format	Definition
EA-11	Benefit quantity	N	5		The quantity of an item defined in the originators specified benefit issuance unit of measure. 2 decimal places are implied.
EA-12	Benefit unit description	ANS	50		Text description of the originators specified benefit issuance unit of measure, e.g., can, pkg, jar. This subelement is left-justified and space-filled.
EA-13	UPC/PLU data length	N	2		The UPC/PLU data length field indicates the number of significant digits in the UPC or PLU, including the checkdigit. Expected values are 12 for a UPC code, and either 5 or 6 for a PLU.
EB	FNS Number Information	AN	5		Value = 012EB
EB-FNS	FNS Number	N	7		A number assigned by the USDA Food and Nutrition service to identity a retail location for the Food Stamp program.
EF	Earliest WIC benefit expiration date	AN	5		Value = 013EF
EF-Date	Expiration date	N	8	CCYYM-MDD	Earliest date that one or more benefits will expire across all EA records. Formt the expiration date as CCYYMMDD where CC is the two digit century, YY is the two digit year, MM is the two digit month, and DD is the two digit day.
PS	WIC prescription food item	ANSB	999	LLLVAR	The description of the food item for purchase under a specific state WIC program. The first 2 variable characters will always be PS.
PS-x	WIC prescription food item bitmap	B	2		A series of 16 bits used to identify the presence (denoted by 1) or absence (denoted by 0) of WIC prescription food item data elements 1 through 16.
PS-2	UPC/PLU data	N	17		Information identifying the UPC or PLU assigned to an item.

TABLE 5-54 LISO Element 110-112 eWIC Additional Data

Subelement	Subelement Name	Type	Length	Format	Definition
PS-3	Category code	N	2		A code identifying the type of product.
PS-4	Sub-category code	N	3		A code further identifying the type of product within a category.
PS-5	Units	N	5		Number of benefit units of an item being reported. 2 decimal places are implied.
PS-6	Item price	N	6		The purchase amount assigned to one unit of an item.
PS-7	Purchase quantity	N	5		Except for CVB items, the number of this UPC/PLU being purchased; for CVB items, the price of the item. 2 decimal places are implied.
PS-8	Item action code	N	2		Code indicating the action taken on an item. Valid values are: • **00** - Approved • **01** - Category not prescribed • **02** - Sub-category not prescribe • **03** - Insufficient units • **04** - UPC/PLU not prescribed • **05** - Add Record • **06** - Delete Record
PS-9	Original item price	N	6		The item price for an item in the original transaction. 2 decimal places are implied.
PS-10	Original purchase quantity	N	5		Except for CVB items, the number of this UPC/PLU originally purchased; for CVB items, the price of the item originally requested. 2 decimal places are implied.
PS-11	UPC/PLU data length	N	12		The UPC/PLU data length field indicates the number of significant digits in the UPC or PLU, including the checkdigit. Expected values are 12 for a UPC code, and either 5 or 6 for a PLU.

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5.45 Data Element 114: Additional P2PE Data

Attributes

AN…301

Description

DE114 is conditional based on P2PE method.

TABLE 5-55   Additional P2PE Data

Position	Type	Length	Description
Length Indicator	N	—	Total Length (excluding 3 byte length)
Position 1	N	1	P2PE encryption type Valid values are: • **1** - VeriShield Protect (VSP) • **2** - KSI-Driven P2PE • **3** - VeriShield Protect (VSP) Derived
VSP data - Use this when the P2PE encryption type is 1.			
Position 2-301	AN	300	eParms (Additional P2PE data)
Variable encryption data - Use this when the P2PE encryption type is 2.			
Position 2-21	AN	20	Key Serial Number (KSN)
Position 22-222	AN	200	Cryptogram

5.46   Data Element 120: Host/Settlement Totals

Attributes

ANS…999

Description

The totals provide a breakdown of the transaction counts and net dollar amounts by transaction type and by card type residing at the Worldpay host. The absence of a data type indicates the Worldpay host has not recorded any transactions of that type for the specified business date.

TABLE 5-56 Host/Settlement Totals

Position	Type	Length	Description
Length Indicator	N	—	Total Length (excluding 3 byte length)
Position 1	AN	1	Totals Type ID: Valid values are: • **T** - Totals by transaction type • **C** - Totals by card type • **A** - Totals by transaction type and card type • **S** - Net Settlement Amount only (current business day) • **P** - Net Settlement Amount only (previous business day)
Position 2-999	AN	998	Encoded Totals (see the following data encoding explanation)

5.46.1   Data Encoding Scheme

Totals are returned encoded as specified by transaction type and/or card type. Totals are not returned for Net Settlement Amount only requests (**S** and **P**). The absence of a transaction type or card type indicates no activity has been or was recorded for that entity on the Worldpay Host.

The definitions are:

• D (debit)—represents sales (amount owed to merchant)
• C (credit)—represents returns (amount owed by/from merchant)

Totals data is fixed length. Length bytes are omitted

TABLE 5-57 Data Encoding Scheme

Heading		Encoded Entry			
Total Length	Totals Type ID	Data Type ID	Transactions	Amount Sign: D or C	Net Amount
N 3	AN 1	AN 2	N 8	AN 1	N 12

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5.46.2   Transaction Data Type ID

TABLE 5-58 Transaction Data Type ID

Data Type ID	Description
CK	EFT, ACH, eCheck, Check Conversion
CR	Credit Card
DB	Debit Card
EC	EBT Cash
EF	EBT Food
EW	EWIC
FL	Fleet Card
PP	PrePaid
OT	Other Transaction types not listed

Example: **Transaction Data Type ID (spaces added for readability)**

```
070 T CR00000005D000000010000 DB00000004D000000001000 PP00000001C000000000500
```

TABLE 5-59 Example Data

Data	Description
070	Length of data
T	Totals are by transaction type
CR	Credit Card
00000005	Five transactions
D	Debit (owed to merchant)
000000010000	$100.00
DB	Debit Card
00000004	Four transactions
D	Debit (owed to merchant)
000000001000	$10.00
PP	Gift/Prepaid Card
00000001	One transaction
C	Credit (due from merchant)
000000000500	$5.00

5.46.3   Card Data Type ID

TABLE 5-60 Card Data Type ID

Data Type ID	Description
VI	Visa (including Visa Fleet)
MC	MasterCard (including Master Fleet)
AX	American Express
DI	Discover
FM	FuelMan
FO	FleetOne
VG	VoyaGer
WX	WEX (Wright Express)
BH	BlackHawk
IC	InComm
SV	SVS
OC	Other Card types not listed

Example: **Card Data Type ID (spaces added for readability)**

```
070 C VI00000004D000000020000 MC00000003D000000015000 AX00000001C000000005000
```

TABLE 5-61 Example Data

Data	Description
070	Length of data
C	Totals are by card type
VI	Visa
00000004	Four transactions
D	Debit (owed to Merchant)
000000020000	$200.00
MC	Mastercard
00000003	Three transactions
D	Debit (owed to Merchant)
000000015000	$150.00
AX	American Express

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TABLE 5-61 Example Data

Data	Description
00000001	One transaction
C	Credit (due from merchant)
000000005000	$50.00

5.47   Data Element 121: Summary Data (Fleet/Pcard)

Attributes

ANS…999

Description

The summary data identifiers pertain to Purchase card, PINless bill payment, and petroleum transactions. The Summary data is static per transaction.

Data type IDs are:

- **A** - FSA (auto-reconciliation)
- **F** - Fleet
- **L** - PINless bill payment
- **P** - Pcard
- **3** - Pcard 3

5.47.1   Subelement Encoding Scheme

```
3 bytes          1 byte        2 bytes       2 bytes        1-95 bytes
Total Length     Data Type     Subelement    Subelement ID  Variable Data
                 ID            ID            Length
```

Example: Encoding Scheme (spaces added for readability)

```
011 F 39 06 000001
```

Table 5-62 lists the DE 121 subelements.

For Pcard fields, O is for optional and M is for mandatory.

TABLE 5-62   DE 121 Subelements

Subelement ID	Description	Data Type	Len	Fleet	Pcard II	Pcard III	FSA	PINless BillPay
11	Alternate Tax Amount; 9(6)v99	N	8					
12	Alternate Tax Amount Indicator	AN	1					
13	Commodity Code	AN	VAR					
14	Customer VAT Number	AN	VAR					
15	Destination Country Code	AN	3					

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TABLE 5-62 DE 121 Subelements

Subelement ID	Description	Data Type	Len	Fleet	Pcard II	Pcard III	FSA	PINless BillPay
16	Destination ZIP	AN	10					
17	Discount Amount; 9(6)v99	N	8					
18	Duty Amount; 9(6)v99	N	8					
19	Freight Amount; 9(6)v99	N	8					
20	Merchant Value Added Tax (VAT) Number	AN	VAR					
21	Order Date; CCYYMMDD	N	8					
22	Origination ZIP	AN	10					
23	Purchase Order / Customer ID	AN	VAR		M	M		
24	Tax Amount (two-digit implied decimal); 9(6)v99	N	8		M	M		
25	Tax Exempt "Y" or "N"	AN	1		O	O		
26	Tran Type Identifier	AN	VAR					
27	VAT Invoice Number	AN	VAR					
28	VAT/Tax Amount; 9(6)v99	N	8					
29	VAT/Tax Rate (two-digit implied decimal); 99v99	N	4					
30	Tax Type Code	AN	3		O	O		
31	Customer Number	AN	VAR	✓				
32	Date Of Birth; CCYYMMDD	N	8	✓				
33	Driver ID/Employee Number	AN	VAR	✓				

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TABLE 5-62 DE 121 Subelements

Subelement ID	Description	Data Type	Len	Fleet	Pcard II	Pcard III	FSA	PINless BillPay
34	Driver License Name	AN	VAR	✓				
35	Driver License Number	AN	VAR	✓				
36	Invoice Number	AN	VAR	✓				
37	Misc. Alphanumeric Data	AN	VAR	✓				
38	Misc. Numeric Data	N	VAR	✓				
39	Odometer/HUB Reading	N	VAR	✓				
40	Prompt Type (MC Only)	AN	VAR	✓				
41	Purchase Order Number	AN	VAR	✓				
42	State/Province ID	AN	2	✓				
43	Track 1 from a second card swipe on dual card programs	AN	VAR	✓				
44	Track 2 format from a manually-entered second card on dual card programs	AN	VAR	✓				
45	Track 2 from a second card swipe on dual card programs	AN	VAR	✓				
46	Trailer/Refer Hours	AN	VAR	✓				
47	Trip Number	AN	VAR	✓				
48	Unencrypted ID Number	AN	VAR	✓				
49	Unit Number	AN	VAR	✓				
50	Vehicle Tag Number	AN	VAR	✓				

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TABLE 5-62 DE 121 Subelements

Subelement ID	Description	Data Type	Len	Fleet	Pcard II	Pcard III	FSA	PINless BillPay
51	Vehicle Trailer Number	AN	VAR	✓				
52	Restriction Code	AN	VAR					
53	Total Qualified Healthcare Amount; 9(10)v99	N	12				✓	
54	Prescription Amount; 9(10)v99	N	12				✓	
55	Vision and Optical Amount;9(10)v99	N	12				✓	
56	Clinic Amount; 9(10)v99	N	12				✓	
57	Dental Amount; 9(10)v99	N	12				✓	
58	Transit Amount; 9(10)v99	N	12				✓	
59	Merchant/cardholder billing account number	AN	25					✓
60	Merchant invoice number	AN	25					✓
61	Cardholder email address	ANS	60					✓
62	Merchant description	AN	50					✓
63	Department number	AN	15	✓				
64	Job number	AN	15	✓				
65	Purchase dev seq number	N	5	✓				
99	Number of Line Items/Products	N	2	✓		M		

5.47.2   WEX 2.0.2 Support

WEX 2.0.2 support from a terminal perspective covers the new prompting values and lengths as defined by WEX. Questions about WEX 2.0.2 support at the POS should be directed to WEX.

- DE 121.33: Driver ID [AN 10]
- DE 121.39: Odometer [N 7]
- DE 121.63: Department Number [AN 12]
- DE 121.64: Job Number [AN 12]
- DE 121.65: Purchase Device Sequence Number [N 5]

See Subelement 48.64: WEX 2.0.2 Support Flag.

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5.48   Data Element 122: Detail Data (Fleet)

Attributes

ANS…999

Description

This field carries the line item details required for Petroleum, Level III Purchase/ Commercial card qualification and used in conjunction with the Summary Data (DE 121).

5.48.1   Subelement Encoding Scheme

3 bytes	2 bytes	2 bytes	1-95 bytes
Total Length	Subelement ID	Subelement ID Length	Variable Length Data

Example: Subelement Encoding Scheme (spaces added for readability)

```
050 01021 6203019 6401S 6901G 6306500000 680528990 600514495
```

TABLE 5-63 Subelement Encoding Scheme

LLL	050	Length of Field Data
ID	01	Line Item Number
Length	02	—
Data	1	product number 1
ID	62	512 Product Code
Length	03	—
Data	019	Regular Diesel #2
ID	64	514 Service Code
Length	01	—
Data	S	Self Service
ID	69	519 Unit of Measure
Length	01	—
Data	G	Gallons
ID	63	513 Quantity Purchased
Length	06	—
Data	500000	50.0000 (4 decimal places)

TABLE 5-63 Subelement Encoding Scheme

ID	68	518 Unit Cost
Length	05	—
Data	28990	2.8990 (4 decimal places)
ID	60	510 Total Cost (this product)
Length	05	—
Data	14495	144.95 (2 decimal places)

5.48.2   DE 122 Subelements

Table 5-63 lists the subelements of DE 122. For Pcard fields, O is optional and M is mandatory.

TABLE 5-64 DE 122 Subelements

Subelement ID	Description	Data Type	Len	Fleet	PcardIII
01	Line Item Number	N	2	✔	M
51	Alternate Tax identifier	AN	VAR		
52	DB/CR Indicator (D = Debit, C = Credit)	AN	1		
53	Discount Amount; 9(6)v99	N	8		
54	Discount Indicator	AN	1		
55	Discount Per Line; 99v99	N	4		
56	Extended Item Amount; 9(6)v99	N	8		
57	Item Commodity Code	AN	VAR		
58	Item Description	AN	VAR		M
60	Line Item Total Cost; 9(6)v99	N	8	✔	M
61	Net/Gross Indicator	AN	1		
62	Product Code—if Visa, the length is 3; if MasterCard, the length is 8	AN	3 8	✔	M M
63	Quantity/Num units; 9(3)v9999	N	7	✔	M
64	Service Code/Level	AN	1	✔	
65	Alternate Tax amount; 9(6)v99	N	8		

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TABLE 5-64 DE 122 Subelements

Subelement ID	Description	Data Type	Len	Fleet	PcardIII
66	Tax Rate Applied; 99v99	N	4		
67	Tax Type Applied	AN	VAR		
68	Unit Cost/price; 9(6)v9999	N	10	?	M
69	Unit of Measure	AN	1	✓	M
70	VAT/Tax Amount; 9(6)v99	N	8		
71	VAT/Tax Rate; 99v99	N	4		
72	Discount Rate; 9(6)v99	N	8		O

5.49 Data Element 123: Rental Specific Data

Attributes

[ANS…999]

Description

This field carries the additional data elements required for Rental/Lodging transactions.

> **NOTE:** If DE 40.4 is LH, Worldpay expects DE 123 will contain the appropriate data elements for lodging/hotel. If DE 40.4 is RN, then Worldpay expects DE 123 to contain the appropriate data elements for Auto/Rental.

Example: Rental Specific Data DE 40.4 is LH (spaces added for readability)

```
063 FN09812345-71 RD06071215 UD06071217 RR045000 ST012 NS010 PP010 AC03245
```

TABLE 5-65 Example Data

Subelement ID	Data	Description
FN	812345-71	Folio Number
RD	071215	Arrival Date (December 15, 2007)
UD	071217	Departure Date (December 17, 2007)
RR	5000	Room Rate (50.00)
ST	2	Duration (2 days)
NS	0	No Show Ind (customer showed)
PP	0	Prest Property (non-participating)
AC	245	Additional Charges (2 Restaurant, 4 Mini-bar, 5 Phone)

Table 5-66 lists the DE 123 subelements.

TABLE 5-66 DE 123 Subelements

Subelement ID	Description	Data Type	Length	Lodging	Auto Rental
FN	Folio/Agreement No	AN	25	✓	✓

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TABLE 5-66 DE 123 Subelements

Subelement ID	Description	Data Type	Length	Lodging	Auto Rental
RD	Rental/Arrival Date	N	6	✓	✓
RT	Rental/Arrival Time	N	6		✓
UD	Return/Departure Date	N	6	✓	✓
UT	Return/Departure Time	N	6		✓
RR	Amount, Rental/Room Rate; 9(6)v99	N	6	✓	✓
ST	Stay/Duration	N	2	✓	✓
AC	Additional Charges Indicators	AN	6	✓	✓
AA	Amount, Additional Charges; 9(8)v99	N	10		✓
NS	No Show/Program Indicator	N	1	✓	✓
PP	Prestigious Property Indicator	AN	1	✓	
RN	Rental Name	AN	25		✓
RC	Rental/Origin City	AN	25		✓
RS	Rental/Origin State	AN	2		✓
UC	Return/Destination City	AN	25		✓
US	Return/Destination State	AN	2		✓
RL	Return Location ID	AN	10		✓

5.50   Data Element 124: Info Text

Attributes

ANS…999

Description

This field displays the first 255-bytes of the original transaction. The 0620 request uses it.

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5.51   Data Element 125: Key Management Data

Attributes

ANS...52

Description

The Key Management Data is used in the Network Management 0810 Response and the 0820 Advice when DE 70 is 160 in 0800 Request. The Host processor requests a new PEK by sending the 0800 Request with Network Management Code 160 in Data Element 70. Triple DES encryption supports single, double or triple length keys. Currently, Worldpay supports only double length keys.

5.51.1   Triple DES - Double Length Keys

TABLE 5-67 Triple DES - Double Length Keys

Position	Type	Length	Description
Length Indicator	N	—	Total Length (excluding length indicator)
Position	**Type**	**Length**	**Description**
Position 1	H	32	Encrypted PEK
Position 33	H	16	Blank—not used
Position 49	H	4	Check Digits

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5.52   Data Element 127: Version Indicator

Attributes

N 3

Description

The version indicator explains the version number structure.

TABLE 5-68   Version Indicator

Position	Type	Length	Description
1	N	1	Version
2	N	1	Release
3	N	1	Edition

NOTE: With the LISO 8583 5.02.00 specification, DE 127 has the value 502. Worldpay requires support for Data Element 56: Payment Account Reference (PAR) starting with 502.

Worldpay requires support for expanded TID starting with version 4.6.0. The TID in Data Element 42 (Data Element 42: Worldpay Merchant Identification) will have a length of 8 instead of 6 and the overall length will increase from 22 to 24.

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6

Message Formats

This chapter provides a matrix for each request/response.

TABLE 6-1   Field Presence Indication Codes

Code	Title	Description
C	Conditional	Field may be needed depending on type of transaction
CE	Conditional Echo	If field is included in request, then the same value must be returned in response
M	Mandatory	Field that must be included in request
ME	Mandatory Echo	The same value must be returned in response
O	Optional	Field may be included, but will only be used at the discretion of Worldpay
OE	Optional Echo	If field is included in request, then the same value will be returned in response

6.1 0100/0110 Pre-Authorization Request/Response (Swiped/Manual)

Use this message type for pre-authorization and AVS status check.

TABLE 6-2 Pre-Authorization Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0100	0110	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16				Indicates fields 65-128 are present in ASCII-hexadecimal representation
2	Data Element 2: Primary Account Number	AN	19	LLVAR	C	CE	Mandatory if PAN entered manually
3	Data Element 3: Processing Code	N	6		M	ME	Type of transaction and the accounts it affects
4	Data Element 4: Transaction Amount	N	12		M	M	The full requested amount for authorization/capture; in unit currency (for example, $100.00 is 10000).
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent in a MMDDhhmmss format
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time in a hhmmss format
13	Data Element 13: Transaction Local Date	N	6		M	ME	Transaction Date in a YYMMDD format.
14	Data Element 14: Expiration Date	N	4		C	CE	Card Expiry Date. If the merchant manually enters the card, enter the expiration date in a YYMM format.
15	Data Element 15: Settlement Date	N	4			M	Use a MMDD format. Worldpay requires this for 0500 requests.
18	Data Element 18: Merchant Type	N	4		C	CE	Merchant SIC

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TABLE 6-2 Pre-Authorization Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0100	0110	Field Value, Comments, Reference
22	Data Element 22: POS Entry Mode	N	3		M	ME	This field is mandatory for all entry modes.
25	Data Element 25: POS Condition Code	N	2		C	CE	This field is optional for all POS condition modes.
28	Data Element 28: Transaction Fee Amount	AN	9		C	C	
35	Data Element 35: Track 2 Data	ANS	37	LLVAR	C		Account Number + Track 2 = 37
37	Data Element 37: Retrieval Reference Number	AN	12				Unique transaction number supplied by card acceptor
38	Data Element 38: Authorization Identification Response	AN	6			C	Approval Code (uniquely identifies an authorization)
39	Data Element 39: Worldpay Response Code	AN	3			C	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	0000Mandatory; indicates which merchant originated the transaction
44	Data Element 44: Response Data	AN	25	LLVAR		M	The Worldpay rejection reason and response literal use this.
45	Data Element 45: Track 1 Data	ANS	76	LLVAR	C		35 or 45 - Swipe
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	See Offline Stand-in Options. See Data Element 48: Additional Data for further subelement descriptions.
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code For example, the US dollar is 840.

TABLE 6-2   Pre-Authorization Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0100	0110	Field Value, Comments, Reference
52	Data Element 52: Personal Identification Number Data	H	16		C		Worldpay requires encrypted PIN block for all ATM/Debit and online EBT transactions with the exception of reversals and PINless debit.
54	Data Element 54: Additional Amount	AN	120	LLLVAR	C	C	Only include this for purchases with cash back account balances and reversals.
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Worldpay requires this for chip transactions excluding Fullback. It is present in the response if the issuer returns data.
57	Data Element 57: Check Request/Response Data	ANS	999	LLLVAR			See Offline Stand-in Options. See Data Element 57: Check Request/Response Data for further subelement descriptions.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	This is an optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	100	LLLVAR		C	Approved and retain for completion
60	Data Element 60: Message Reason Code	N	3	LLVAR			Identifies the reason for a reversal or an advice.
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
62	Data Element 62: Debit/EBT Network Response Data	AN	15	LLLVAR		C	Worldpay only returns this field for Debit and EBT transactions that are approved or denied by the network.
102	Data Element 102: Account Identification 1	ANS	28	LLVAR			This element is only for ATM transactions only. Reserved for future use

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TABLE 6-2 Pre-Authorization Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0100	0110	Field Value, Comments, Reference
103	Data Element 103: Account Identification 2	ANS	28	LLVAR			ATM transactions only
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE
121	Data Element 121: Summary Data (Fleet/Pcard)	ANS	999	LLLVAR			Mandatory field for fleet transactions
122	Data Element 122: Detail Data (Fleet)	ANS	999	LLLVAR			Mandatory field for fleet transactions
123	Data Element 123: Rental Specific Data	ANS	999	LLLVAR			Carries additional data elements required for Rental/ Lodging transactions
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

6.2   0200/0210 Sale Request/Response (Swiped/Manual)

This message type is used for purchases, refunds, activations, adjustments, gift card redemption, and reloads.

TABLE 6-3   0200/0210 Sale Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16				Indicates fields 65-128 present in ASCII-hexadecimal representation
2	Data Element 2: Primary Account Number	AN	19	LLVAR	C	M	Mandatory if PAN is entered manually
3	Data Element 3: Processing Code	N	6		M	ME	Type of transaction and the accounts it affects
4	Data Element 4: Transaction Amount	N	12		M	M	In unit currency For example, $100.00 is 10000.
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent in a MMDDhhmmss format
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time in a hhmmss format
13	Data Element 13: Transaction Local Date	N	6		M	ME	Transaction Date in a YYMMDD format
14	Data Element 14: Expiration Date	N	4		C	M	Card Expiry Date If the merchant manually enters the card, enter the expiration date in a YYMM format.
15	Data Element 15: Settlement Date	N	4			M	Use a MMDD format. Worldpay requires this for 0500 requests.

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TABLE 6-3 0200/0210 Sale Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1, then you must pass this field in the request. See Subelement 40.6: Override SIC Indicator.
22	Data Element 22: POS Entry Mode	N	3		M	ME	012 This field is mandatory for all entry modes.
25	Data Element 25: POS Condition Code	N	2		C	CE	This field is optional for all POS condition modes.
28	Data Element 28: Transaction Fee Amount	AN	9		C	C	
35	Data Element 35: Track 2 Data	ANS	37	LLVAR	C		Account Number + Track 2 = 37
37	Data Element 37: Retrieval Reference Number	AN	12				Unique transaction number supplied by card acceptor
38	Data Element 38: Authorization Identification Response	AN	6		C	C	Approval Code (uniquely identifies an authorization)
39	Data Element 39: Worldpay Response Code	AN	3			M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
43	Data Element 43: Card Acceptor Name/Location	ANS	40				Optional field for Non-Master merchants and a required field for Master merchant processing
44	Data Element 44: Response Data	AN	25	LLVAR		M	This is used for the Worldpay rejection reason and response literal.

TABLE 6-3   0200/0210 Sale Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
45	Data Element 45: Track 1 Data	ANS	76	LLVAR	C		35 or 45—swipe
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
52	Data Element 52: Personal Identification Number Data	H	16		C		Encrypted PIN block is required for all ATM/Debit and online EBT transactions with the exception of reversals and PINless debit
54	Data Element 54: Additional Amount	AN	120	LLLVAR	C	C	Included only for purchases with cash back account balances and reversals
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fallback. Present in response if issuer returns data.
57	Data Element 57: Check Request/Response Data	ANS	999	LLLVAR			See Offline Stand-in Options. See Data Element 57: Check Request/Response Data for further subelement descriptions.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	100	LLLVAR	C	C	Approved and retain for completion. Required in 0200 for incremental authorization request.
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
62	Data Element 62: Debit/EBT Network Response Data	AN	15	LLLVAR		C	This field will only be returned for Debit and EBT transactions that are approved or denied by the network

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TABLE 6-3 0200/0210 Sale Request/Response (Swiped/Manual)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
102	Data Element 102: Account Identification 1	ANS	28	LLVAR			ATM transactions only (reserved for future use)
103	Data Element 103: Account Identification 2	ANS	28	LLVAR			ATM transactions only
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE
121	Data Element 121: Summary Data (Fleet/Pcard)	ANS	999	LLLVAR			Mandatory field for fleet transactions
122	Data Element 122: Detail Data (Fleet)	ANS	999	LLLVAR			Mandatory field for fleet transactions
123	Data Element 123: Rental Specific Data	ANS	999	LLLVAR			Carries additional data elements required for Rental/ Lodging transactions
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

6.3   0200/210 Sale Request (PINless Billpay)

Use this message type for PINless Billpay transactions.

TABLE 6-4   0200/0210 Sale Request (PINless Billpay)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16		C		This indicates fields 65-128 are present in ASCII-hexadecimal representation.
2	Data Element 2: Primary Account Number	AN	19	LLVAR	M	ME	If the merchant enters PAN manually, this is mandatory.
3	Data Element 3: Processing Code	N	6		M	ME	This is the type of transaction and the accounts it affects.
4	Data Element 4: Transaction Amount	N	12		M	M	This is the full requested amount for authorization/capture in unit currency. For example, $100.00 is 10000.
7	Data Element 7: Transmission Date and Time	N	10		M	ME	This is the date and time the message was sent in a MMDDhhmmss format.
11	Data Element 11: System Trace Audit Number	N	6		M	ME	This increments from the previous transaction.
12	Data Element 12: Transaction Local Time	N	6		M	ME	This is the transaction time in a hhmmss format.
13	Data Element 13: Transaction Local Date	N	6		M	ME	Transaction Date [YYMMDD]
14	Data Element 14: Expiration Date	N	4		M	ME	Card Expiry Date [YYMM] (if card is entered manually)
15	Data Element 15: Settlement Date	N	4		—	M	[MMDD]; is required for all 0500 requests

TABLE 6-4   0200/0210 Sale Request (PINless Billpay)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1 then this field must be passed in the request. See Subelement 40.6: Override SIC Indicator.
22	Data Element 22: POS Entry Mode	N	3		M	ME	012; Field is mandatory for all entry modes
25	Data Element 25: POS Condition Code	N	2		C	CE	Field is optional for all POS condition modes (43)
28	Data Element 28: Transaction Fee Amount	AN	9		C	CE	
39	Data Element 39: Worldpay Response Code	AN	3		—	M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
44	Data Element 44: Response Data	AN	25	LLVAR	—	M	This is used for the Worldpay rejection reason and response literal.
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fallback. Present in response if issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	This is an optional field that the terminal processor may use to return data in a response.

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TABLE 6-4 0200/0210 Sale Request (PINless Billpay)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
59	Data Element 59: Worldpay Retrieval Data	ANS	100	LLLVAR	—	C	Approved and retain for completion
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE
121	Data Element 121: Summary Data (Fleet/Pcard)	ANS	999	LLLVAR	M	—	Data type ID = L; Mandatory field for fleet transactions
121.59	Merchant/cardholder billing account number See Table 5-62.	AN	25	59LL...	M	—	• Debit - Merchant • Credit - Cardholder
121.60	Merchant Invoice Number See Table 5-62.	AN	25	60LL...	O	—	• Debit - Merchant • Credit - Cardholder
121.61	Cardholder Email Address See Table 5-62.	ANS	60	61LL...	O	—	• Debit - Merchant • Credit - Cardholder
121.62	Merchant Description See Table 5-62.	AN	50	62LL...	M	—	• Debit - Merchant • Credit - Cardholder
127	Data Element 127: Version Indicator	N	3		C		Worldpay requires this field if the version is 4.6.0 or later.

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6.4   0200/210 Sale Request (eWIC)

Use this message type for eWIC transactions. LISO will support the following eWIC sale transactions:

- WIC available benefits balance inquiry (System Initiated)
- WIC benefits balance inquiry (Customer Initiated)
- WIC Purchase Transaction

TABLE 6-5   0200/0210 Sale Request (eWIC)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16				This field indicates fields 65-128 are present in ASCII-hexadecimal representation.
2	Data Element 2: Primary Account Number	AN	19	LLVAR	C	M	This is a mandatory field if the merchant enters the PAN manually.
3	Data Element 3: Processing Code	N	6		M	ME	This field indicates the type of the transaction and the accounts it affects.
4	Data Element 4: Transaction Amount	N	12		M	M	This is the full requested amount for authorization/capture in unit currency (for example, $100.00 is 10000).
7	Data Element 7: Transmission Date and Time	N	10		M	ME	This field contains the date/time the message was sent in a MMDDhhmmss format.
11	Data Element 11: System Trace Audit Number	N	6		M	ME	This field increments from the previous transaction.
12	Data Element 12: Transaction Local Time	N	6		M	ME	This field contains the transaction time in a hhmmss format.
13	Data Element 13: Transaction Local Date	N	6		M	ME	This field contains the transaction date in a YYMMDD format.
14	Data Element 14: Expiration Date	N	4		C	M	If the merchant manually entered the card, this field contains the card expiry date in a YYMM format.

TABLE 6-5   0200/0210 Sale Request (eWIC)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
15	Data Element 15: Settlement Date	N	4			M	This field contains the date in a MMDD format. Worldpay requires it for all 0500 requests.
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1, then you must pass this field in the request. See Data Element 18: Merchant Type.
22	Data Element 22: POS Entry Mode	N	3		M	ME	This field is mandatory for all entry modes.
25	Data Element 25: POS Condition Code	N	2		C	CE	This field is optional for all POS condition modes (43).
28	Data Element 28: Transaction Fee Amount	AN	9		C	C	
35	Data Element 35: Track 2 Data	ANS	37	LLVAR	C		This field contains the account number plus Track 2 and equals 37.
37	Data Element 37: Retrieval Reference Number	AN	12				This field contains the unique transaction number supplied by the card acceptor.
38	Data Element 38: Authorization Identification Response	AN	6		C	C	This field contains the approval code that uniquely identifies an authorization.
39	Data Element 39: Worldpay Response Code	AN	3			M	This field defines the disposition of a previous message or an action taken as a result of the receipt of a previous message.
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	This field defines the transaction originated from the POS device.
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	This mandatory field indicates which merchant originated the transaction.
43	Data Element 43: Card Acceptor Name/Location	ANS	40				For non-Master merchants this is an optional field. This is a required field for Master merchant processing.

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TABLE 6-5   0200/0210 Sale Request (eWIC)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
44	Data Element 44: Response Data	AN	25	LLVAR		M	This field contains the Worldpay rejection reason and response literal.
45	Data Element 45: Track 1 Data	ANS	76	LLVAR	C		35 or 45 - Swipe
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	See Offline Stand-in Options. See Data Element 48: Additional Data for further subelement descriptions.
49	Data Element 49: Transaction Currency Code	N	3		M	ME	This field contains the numeric ISO currency code (for example, the US dollar is 840).
52	Data Element 52: Personal Identification Number Data	H	16		C		Worldpay requires encrypted PIN block for all ATM/Debit and online EBT transactions with the exception of reversals and PINless debit
54	Data Element 54: Additional Amount	AN	120	LLLVAR	C	C	Only include this field for purchases with cash back account balances and reversals.
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Worldpay requires this field for chip transactions excluding Fallback. It is present in response if the issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	This is an optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	100	LLLVAR		C	Approved and retain for completion.
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	This field contains Point of Service (POS) Data.

TABLE 6-5 0200/0210 Sale Request (eWIC)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
62	Data Element 62: Debit/EBT Network Response Data	AN	15	LLLVAR		C	World only returns this field for Debit and EBT transactions that the network approves or denies.
110	Data Element 110-112: eWIC Additional Data 3	ANS B	999	LLLVAR	C	C	This field contains the eWIC specific data for this transaction. If field 111 runs out of room, this field assumes the overflow.
111	Data Element 110-112: eWIC Additional Data 3	ANS B	999	LLLVAR	C	C	The eWIC specific data for this transaction. If field 112 runs out of room, this field assumes the overflow.
112	Data Element 110-112: eWIC Additional Data 3	ANS B	999	LLLVAR	C	C	This field contains the eWIC specific data for this transaction.

Data Elements 110-112 Balance Inquiry Detail

Balance Inquiry Subelement Specification

EF	Earliest WIC benefit expiration date	AN	5			C	
EF-Date	Expiration date	N	8	CCYYMMDD		C	
EA	eWIC Balance Information	ANS B	999	LLLVAR		C	This is mandatory in the 0210 message if the issuer approves the transaction.
EA-x	WIC Balance Information Bitmap	B	2			C	
EA-4	Category Code	N	2			C	
EA-6	Sub-Category Code	N	3			C	
EA-11	Benefit Quantity	N	5			C	

Data Elements 110-112 Purchase

Purchase Subelement Specification

EF	Earliest WIC benefit expiration date	AN	5			C	
EF-Date	Expiration date	N	8	CCYYMMDD		C	

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TABLE 6-5 0200/0210 Sale Request (eWIC)

DE	Name	Type	Length	Format	0200	0210	Field Value, Comments, Reference
PS	WIC Prescription Food Item	ANS B	999	LLLVAR	M	M	
PS-x	WIC Prescription Food Item Bitmap	B	2		M	M	
PS-2	UPC/PLU Data	N	17		M	M	
PS-6	Item Price	N	6		M	M	This field contains the shelf price/approved price.
PS-7	Purchase Quantity	N	5		M	M	This field contains the requested/approved quantity
.PS-8	Item Action Code	N	2			M	
PS-9	Original Item Price	N	6			M	
PS-10	Original Quantity	N	5			M	
PS-11	UPC/PLU Data Length	N	2		M	M	
EA	eWIC Balance Information	ANS B	999	LLLVAR		C	This field is mandatory in the 0210 message if the issuer approves the transaction.
EA-x	WIC Balance Information Bitmap	B	2			C	
EA-4	Category Code	N	2			C	
EA-6	Sub-Category Code	N	3			C	
EA-11	Benefit Quantity	N	5			C	
127	Version	N	3		C		Worldpay requires this field if version is 4.6.0 or later.

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6.5   0220/0230 Advice/Response

This section contains the following message formats for 0220/0230 Advice Response:

- Pre-authorized completion (credit/debit)
- Offline/force post (credit)
- Voice authorization (credit)

6.5.1   0220/230 Advice/Response - Pre-Authorized Completion (Credit/Debit)

Use this message to indicate the completion of a pre-authorized transaction.

TABLE 6-6   0220/0230 Advice/Response - Pre-Authorized Completion (Credit/Debit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
1	Data Element 1: Secondary Bit Map	AN/h	16		C	C	This field indicates that fields 65-128 are present in an ASCII-hexadecimal representation.
2	Data Element 2: Primary Account Number	AN	19	LLVAR	M	ME	The field includes the same value from original 0100 request. If swiped, this data must be extracted from Track I or Track II and included in the 0220 request.
3	Data Element 3: Processing Code	N	6		M	ME	Same value from original 0100 request. Type of transaction and the accounts it affects
4	Data Element 4: Transaction Amount	N	12		M	ME	In unit currency (for example, $100.00 is 000000010000). Contains actual amount charged to cardholder. If amount differs from original authorized amount, the original amount must be provided DE 54 (amount type 57, original authorized amount from the 0110 response).
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]

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TABLE 6-6 0220/0230 Advice/Response - Pre-Authorized Completion (Credit/Debit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Same value from original 0100 request
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time [hhmmss]. Same value from original 0100 request.
13	Data Element 13: Transaction Local Date	N	6		M	ME	Transaction Date [YYMMDD] Same value from original 0100 request.
14	Data Element 14: Expiration Date	N	4		M	ME	Card Expiration Date [YYMM]. Same value from original 0100 request. If swiped, this data must be extracted from Track I or Track II and included in the 0220 request.
15	Data Element 15: Settlement Date	N	4			M	Worldpay Settlement Date [MMDD]; is required for all 0500 requests
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1 then this field must be passed in the request. See Subelement 40.6: Override SIC Indicator.
38	Data Element 38: Authorization Identification Response	AN	6		M	ME	Approval Code. Same value from original 0110 request.
39	Data Element 39: Worldpay Response Code	AN	3			M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
44	Data Element 44: Response Data	AN	25	LLVAR		M	This is used for the Worldpay rejection reason and response literal.

TABLE 6-6   0220/0230 Advice/Response - Pre-Authorized Completion (Credit/Debit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	See Offline Stand-in Options.
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
54	Data Element 54: Additional Amount	N	120	LLLVAR	C	—	Transaction amount should contain the actual amount to be charged to the cardholder. If completion amount differs from original amount authorized, the original amount must be provided in DE 54 (amount type 57, original authorized amount from the 0110 response).
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fallback. Present in response if issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	7	LLLVAR	M	ME	Same value from original 0110 response and remains unchanged in the 0220 Request.
60	Data Element 60: Message Reason Code	N	3	LLVAR	M	ME	100
61	Data Element 58: Acquirer/Terminal Echo Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
62	Data Element 62: Debit/EBT Network Response Data	AN	15	LLLVAR	—	C	This field will only be returned for Debit and EBT transactions that are approved or denied by the network
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE

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TABLE 6-6   0220/0230 Advice/Response - Pre-Authorized Completion (Credit/Debit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
121	Data Element 121: Summary Data (Fleet/Pcard)	ANS	999	LLLVAR	C	—	Mandatory field for fleet transactions
122	Data Element 122: Detail Data (Fleet)	ANS	999	LLLVAR	C	—	Mandatory field for fleet transactions

6.5.2   0220/0230 Advice/Response - Offline/Force Post (Credit)

Use this for a credit card stand-in transaction that occurred offline.

TABLE 6-7   0220/0230 Advice/Response - Offline/Force Post (Credit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
2	Data Element 2: Primary Account Number	AN	19	LLVAR	M	ME	Mandatory if PAN is entered manually
3	Data Element 3: Processing Code	N	6		M	ME	Type of transaction and the accounts it affects
4	Data Element 4: Transaction Amount	N	12		M	ME	The full requested amount for authorization/capture; in unit currency (e.g. $100.00 = '10000')
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time [hhmmss]
13	Data Element 13: Transaction Local Date	N		6	M	ME	Transaction Date [YYMMDD]
14	Data Element 14: Expiration Date	N	4		M	ME	Card Expiry Date [YYMM] (if card is entered manually)
15	Data Element 15: Settlement Date	N	4			M	[MMDD]; is required for all 0500 requests

TABLE 6-7   0220/0230 Advice/Response - Offline/Force Post (Credit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1 then this field must be passed in the request. See Subelement 40.6: Override SIC Indicator.
38	Data Element 38: Authorization Identification Response	AN	6		M	ME	Approval Code (uniquely identifies an authorization)
39	Data Element 39: Worldpay Response Code	AN	3			M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
44	Data Element 44: Response Data	AN	25	LLVAR		M	This is used for the Worldpay rejection reason and response literal.
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	See Offline Stand-in Options.
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
54	Data Element 54: Additional Amount	AN	120	LLLVAR	C	C	Included only for purchases with cash back account balances and reversals
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fullback. Present in response if issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	7	LLLVAR	M	ME	OFFLINE; Approved and retain for completion
60	Data Element 60: Message Reason Code	N	3	LLVAR	M	ME	Identifies the reason for a reversal or an advice. 101, reversal 207, for void

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TABLE 6-7   0220/0230 Advice/Response - Offline/Force Post (Credit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

6.5.3   0220/0230 Advice/Response - Voice Authorization (Credit)

Use this for a credit card transaction that has been approved offline by voice authorization. meow

TABLE 6-8   0220/0230 Advice/Response - Voice Authorization (Credit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
2	Data Element 2: Primary Account Number	AN	19	LLVAR	M	ME	Mandatory if PAN is entered manually
3	Data Element 3: Processing Code	N	6		M	ME	Type of transaction and the accounts it affects
4	Data Element 4: Transaction Amount	N	12		M	ME	The full requested amount for authorization/capture; in unit currency (e.g. $100.00 = '10000')
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time [hhmmss]
13	Data Element 13: Transaction Local Date	N		6	M	ME	Transaction Date [YYMMDD]
14	Data Element 14: Expiration Date	N	4		M	ME	Card Expiry Date [YYMM] (if card is entered manually)

TABLE 6-8   0220/0230 Advice/Response - Voice Authorization (Credit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
15	Data Element 15: Settlement Date	N	4			M	[MMDD]; is required for all 0500 requests
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1 then this field must be passed in the request. See Offline Stand-in Options.
38	Data Element 38: Authorization Identification Response	AN	6		M	ME	Approval Code (uniquely identifies an authorization)
39	Data Element 39: Worldpay Response Code	AN	3			M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message (page 44)
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	AN	24		M	ME	Mandatory; indicates which merchant originated the transaction
44	Data Element 44: Response Data	AN	25	LLVAR		M	This is used for the Worldpay rejection reason and response literal.
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fallback. Present in response if issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	13	LLLVAR	M	ME	OFFLINE/VOICE; Approved and retain for completion

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TABLE 6-8   0220/0230 Advice/Response - Voice Authorization (Credit)

DE	Name	Type	Length	Format	0220	0230	Field Value/Comments/Reference
60	Data Element 60: Message Reason Code	N	3	LLVAR	M	ME	102; Identifies the reason for a reversal or an advice.
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE

6.6   0400/410 Request/Response

This section contains the following message formats for 0400/410 Request/Response:

- TOR (Time-Out Reversal)
- Transaction Reversal

Only 0100 and 0200 message types are reversible.

6.6.1   0400/0410 Request/Response - TOR (Time-out Reversal)

Use this to cancel a request that is in process and has not yet received a response.

TABLE 6-9   0400/0410 Request/Response - TOR (Time-Out Reversal)

DE	Name	Type	Length	Format	0400	0410	Field Value/Comments/Reference
1	Data Element 1: Secondary Bit Map	AN/h	16		M		Indicates fields 65-128 present in ASCII-hexadecimal representation
2	Data Element 2: Primary Account Number	AN	19	LLVAR	M	ME	Mandatory if PAN is entered manually
3	Data Element 3: Processing Code	N	6		M	ME	Type of transaction and the accounts it affects
4	Data Element 4: Transaction Amount	N	12		M	ME	The full requested amount for authorization/capture; in unit currency (e.g. $100.00 = '10000')
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time [hhmmss]
13	Data Element 13: Transaction Local Date	N		6	M	ME	Transaction Date [YYMMDD]
14	Data Element 14: Expiration Date	N	4		M	ME	Card Expiry Date [YYMM] (if card is entered manually)

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TABLE 6-9   0400/0410 Request/Response - TOR (Time-Out Reversal)

DE	Name	Type	Length	Format	0400	0410	Field Value/Comments/Reference
15	Data Element 15: Settlement Date	N	4			M	[MMDD]; is required for all 0500 requests
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1 then this field must be passed in the request. See Offline Stand-in Options.
22	Data Element 22: POS Entry Mode	N	3		M	ME	Field is mandatory for all pinless transactions including reversals
37	Data Element 37: Retrieval Reference Number	AN	12		C	CE	Unique transaction number supplied by card acceptor
38	Data Element 38: Authorization Identification Response	AN	6		C	C	(Credit) Response Code Received in 0110/0220 response
39	Data Element 39: Worldpay Response Code	AN	3			M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
44	Data Element 44: Response Data	AN	25	LLVAR		M	This is used for the Worldpay rejection reason and response literal.
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	See Offline Stand-in Options.
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fallback. Present in response if issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.

DE	Name	Type	Length	Format	0400	0410	Field Value/Comments/Reference
59	Data Element 59: Worldpay Retrieval Data	ANS	11	LLLVAR	M	ME	OFFLINE/TOR; Approved and retain for completion
60	Data Element 60: Message Reason Code	N	3	LLVAR	M	ME	202 (Time Out) 207 (Cancellation)
61	Data Element 61: Additional POS Data	AN	26	LLLVAR	M	ME	For use as Point of Service (POS) Data
90	Data Element 90: Original Data Elements	N	42		M		Required in reversal messages
95	Data Element 95: Replacement Amount	N	42		M		Used for reversal advices only, and may be more or less than the original transaction amount
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		For use with P2PE
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

6.6.2   0400/0410 Request/Response - Transaction Reversal

Use this request/response message to cancel a request that was previously approved. This also includes eWIC voids.

TABLE 6-10 0400/0410 Request/Response - Transaction Reversal

DE	Name	Type	Length	Format	0400	0410	Field Value/Comments/Reference
1	Data Element 1: Secondary Bit Map	AN/h	16		M		Indicates fields 65-128 present in ASCII-hexadecimal representation
2	Data Element 2: Primary Account Number	AN	19	LLVAR	M	ME	Mandatory if PAN is entered manually
3	Data Element 3: Processing Code	N	6		M	ME	Must match the processing code of the original transaction. Type of transaction and the accounts it affects

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TABLE 6-10 0400/0410 Request/Response - Transaction Reversal

DE	Name	Type	Length	Format	0400	0410	Field Value/Comments/Reference
4	Data Element 4: Transaction Amount	N	12		M	ME	The full requested amount for authorization/capture; in unit currency (e.g. $100.00 = '10000')
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time [hhmmss]
13	Data Element 13: Transaction Local Date	N	6		M	ME	Transaction Date [YYMMDD]
14	Data Element 14: Expiration Date	N	4		M	ME	Card Expiry Date [YYMM] (if card is entered manually)
15	Data Element 15: Settlement Date	N	4			M	[MMDD]; is required for all 0500 requests
18	Data Element 18: Merchant Type	N	4		C	CE	If DE40.6 is 1 then this field must be passed in the request. See Offline Stand-in Options.
22	Data Element 22: POS Entry Mode	N	3		M	ME	Field is mandatory for all pinless transactions including reversals
37	Data Element 37: Retrieval Reference Number	AN	12		C	CE	Unique transaction number supplied by card acceptor
38	Data Element 38: Authorization Identification Response	AN	6		C	C	(Credit) Response Code received in 0110/0220 response
39	Data Element 39: Worldpay Response Code	AN	3			M	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device

TABLE 6-10 0400/0410 Request/Response - Transaction Reversal

DE	Name	Type	Length	Format	0400	0410	Field Value/Comments/Reference
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
44	Data Element 43: Card Acceptor Name/Location	AN	25	LLVAR		M	This is used for the Worldpay rejection reason and response literal.
48	Data Element 48: Additional Data	ANS	999	LLLVAR	C	C	See Offline Stand-in Options.
49	Data Element 49: Transaction Currency Code	N	3		M	ME	Numeric ISO currency code (for example, the US dollar is 840)
55	Data Element 55: EMV Data Elements	AN	255	LLLVAR	C	O	Required for chip transactions excluding Fallback. Present in response if issuer returns data.
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.
59	Data Element 59: Worldpay Retrieval Data	ANS	100	LLLVAR	M	ME	Retrieval Data received in 0110/0210 response
60	Data Element 60: Message Reason Code	N	3	LLVAR	M	ME	Identifies the reason for a reversal or an advice.
61	Data Element 61: Additional POS Data	AN	26	LLVAR	M	ME	For use as Point of Service (POS) Data
90	Data Element 90: Original Data Elements	N	42		M		Required in reversal messages
95	Data Element 95: Replacement Amount	N	42		M		Used for reversal advices only, and may be more or less than the original transaction amount
114	Data Element 114: Additional P2PE Data	ANS	301	LLLVAR	C		
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

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6.7   0500/510 Reconciliation Request

6.7.1   0500/510 Reconciliation Request - Host Totals Inquiry

Use this message request to generate settlement/balance inquiry totals to the Worldpay host.

TABLE 6-11 0500/510 Reconciliation Request - Host Totals Inquiry

DE	Name	Type	Length	Format	0500	0510	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16		C	C	Indicates fields 65-128 present in ASCII-hexadecimal representation
3	Data Element 3: Processing Code	N	6		M	ME	600000; Type of transaction and the accounts it affects
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction
12	Data Element 12: Transaction Local Time	N	6		0	OE	Optional for Host Totals Inquiry
13	Data Element 13: Transaction Local Date	N	6		0	OE	Optional for Host Totals Inquiry
15	Data Element 15: Settlement Date	N	4	MMDD		M	If Totals Type ID is included in the request and is P, the business date returned will be the Merchant's Previous Business Date stored on the Worldpay Host. For all other values, the date returned will be the Merchant's Current Business Date.
39	Data Element 39: Worldpay Response Code	AN	3			M	800 Approved—totals match or not compared 801 Approved—out of balance
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction

TABLE 6-11 0500/510 Reconciliation Request - Host Totals Inquiry

DE	Name	Type	Length	Format	0500	0510	Field Value, Comments, Reference
44	Data Element 44: Response Data			LLVAR			See the comment for DE 97.
	Reason Code	N	5			C	00000
	Response Text	AN	20			C	Totals match Out of balance
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response. (page 68)
97	Data Element 97: Amount Net Settlement	AN	17		O	OE	If included in the request, the Net Settlement Amount supplied in the request will be compared with the Net Settlement Amount stored on the Worldpay Host. If Totals Type ID = 'P' the Amount supplied in the request will be compared to the Previous Day Net Settlement Amount. For all other values, the Amount supplied in the request will be compared to the Current Day Net Settlement Amount. The result of the comparison will be returned in DE 44.

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TABLE 6-11 0500/510 Reconciliation Request - Host Totals Inquiry

DE	Name	Type	Length	Format	0500	0510	Field Value, Comments, Reference
120	Data Element 120: Host/Settlement Totals			LLLVAR	O	OE	(page 78)
	Length	N	3				
	Totals Type ID	AN	1		O	OE	• T - Totals by Transaction Type requested • C - Totals by Card Type requested • A - Totals by Transaction and Card Type requested • S - Current Day Net Settlement requested • P - Previous Day Net Settlement requested
	Encoded Totals	AN	998			C	The Encoded Totals are dependent on DE 120 (Totals Type ID). Encoded totals are not returned for values P and S.
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

6.7.2   0500/0510 Reconciliation Request - Day Close Request

Use this message request to generate settlement/balance inquiry totals to Worldpay host.

TABLE 6-12 0500/0510 Reconciliation Request - Day Close Request

DE	Name	Type	Length	Format	0500	0510	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16		C	C	Indicates fields 65-128 present in ASCII-hexadecimal representation
3	Data Element 3: Processing Code	N	6		M	ME	610000; Type of transaction and the accounts it affects
7	Data Element 7: Transmission Date and Time	N	10		M	ME	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME	Increments from previous transaction

TABLE 6-12 0500/0510 Reconciliation Request - Day Close Request

DE	Name	Type	Length	Format	0500	0510	Field Value, Comments, Reference
12	Data Element 12: Transaction Local Time	N	6		M	ME	Transaction Time [hhmmss] (page 41)
13	Data Element 13: Transaction Local Date	N	6		M	ME	Transaction Date [YYMMDD] (page 41)
15	Data Element 15: Settlement Date	N	4	MMDD		M	If approved, the date returned is the business date that closed. If denied, the date returned is the current business date that is stored on the Worldpay host.
39	Data Element 39: Worldpay Response Code	AN	3			M	(page 44) 800 Approved—totals match or not compared 801 Approved—out of balance • **800** Approved—totals match or not compared • **801** Approved—out of balance
40	Data Element 40: Transaction Qualifiers	AN	10		M	ME	Defines the transaction originated from the POS device
42	Data Element 42: Worldpay Merchant Identification	ANS	24		M	ME	Mandatory; indicates which merchant originated the transaction
58	Data Element 58: Acquirer/Terminal Echo Data	ANS	100	LLLVAR	O	OE	Optional field that the terminal processor may use to return data in a response.
97	Data Element 97: Amount Net Settlement	AN	17			M	Optional field that the terminal processor may use to return data in a response.

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TABLE 6-12 0500/0510 Reconciliation Request - Day Close Request

DE	Name	Type	Length	Format	0500	0510	Field Value, Comments, Reference
120	Data Element 120: Host/Settlement Totals			LLLVAR	O	OE	If Totals Type ID is included in the request, the requested totals for the business date that closed will be returned in DE 120.
	Length	N	3				
	Totals Type ID	AN	1		O	OE	• **T**- Totals by Transaction Type requested • **C** - Totals by Card Type requested • **A** - Totals by Transaction and Card Type request
	Encoded Totals	AN	998			C	
127	Data Element 127: Version Indicator	N	3		C		Required if version is 4.6.0 or greater

6.7.3   0620 Error Message Advice

Use this message when the Worldpay host receives an incorrectly formatted message. The 0620 advice is generated by the World- pay host when an ill-formatted message is received. If a message is rejected, the Worldpay host does not assume any particular data element to be valid; therefore, the message is returned as received up to 999 bytes. There is no reply to the 0620 advice.

TABLE 6-13 0620 Error Message Advice

DE	Name	Type	Length	Format	0620	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16		M	Indicates fields 65-128 present in ASCII-hexadecimal representation
7	Data Element 7: Transmission Date and Time	N	10		M	Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	Increments from previous transaction
44	Data Element 44: Response Data	AN	5	LLVAR	M	This is used for the Worldpay rejection reason and response literal.
124	Data Element 124: Info Text	ANS	999	LLLVAR	M	Rejected message in its entirety, up to 999 bytes.

6.8   0800/0810/0820 Network Management

Use this to manage network requests and responses.

TABLE 6-14 0800/0810/0820 Network Management

DE	Name	Type	Length	Format	0800	0810	0820	Field Value, Comments, Reference
1	Data Element 1: Secondary Bit Map	H	16					Indicates fields 65-128 present in ASCII-hexadecimal representation
7	Data Element 7: Transmission Date and Time	N	10		M	ME		Date/Time message sent [MMDDhhmmss]
11	Data Element 11: System Trace Audit Number	N	6		M	ME		Increments from previous transaction
39	Data Element 39: Worldpay Response Code	AN	3			C	C	Defines the disposition of a previous message or an action taken as a result of receipt of a previous message
59	Data Element 59: Worldpay Retrieval Data	ANS	100			C	CE	Optional field that the terminal processor may use to return data in a response.
70	Data Element 70: Network Management Information Code	N	3		M	M	ME	Defines the type of Network Management (0800/0810) message
125	Data Element 125: Key Management Data	ANS	52	LLLVAR		C	CE	Used in the Network Management 0810 Response and the 0820 Advice when DE 70 = 160 in 0800 Request

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Reject Reason Codes

This appendix defines reason codes that may be sent in the transaction responses.

A.1 Data Element Reason Codes

Table A-1 lists the reason codes for the Data Element and subfield.

TABLE A-1 Data Element Reason Codes

Code	DE	SF/SE	Description
00200	002		Invalid length field cardholder PAN
00201	002		Invalid data cardholder PAN
04400	044		Invalid length field
04801	048	SE 01	Invalid terminal transaction batch number
04821	048	SE 21	Invalid AVS request
04822	048	SE 22	Invalid AVS data
04823	048	SE 23	Invalid AVS result
04824	048	SE 24	Invalid CVV2 data
04825	048	SE 25	Invalid CVV/CVV2 result
04826	048	SE 26	Invalid MOTO/e-commerce indicator
04827	048	SE 27	Invalid MasterCard Secure Code data
04828	048	SE 28	Invalid Verified by Visa (VbV) data
04829	048	SE 29	Invalid CAVV result
04830	048	SE 30	Invalid Pcard response
048xx	048	SE xx	Unsupported subelement ID
04899	048		Invalid data in subelement ID
05701	057	SE 01	Invalid receiving institution ID
05710	057	SE 10	Invalid data in length field MICR reader status
05711	057	SE 11	Invalid data in length field full or keyed MICR
05720	057	SE 20	Invalid length field state or ID code must be 2 bytes
05721	057	SE 21	Invalid data in length field license or ID number
05722	057	SE 22	Invalid data in length field cardholder name
05723	057	SE 23	Invalid social security number
05724	057	SE 24	Invalid date of birth
05725	057	SE 25	Invalid data in length field cardholder address
05726	057	SE 26	Invalid zip/postal code

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TABLE A-1 Data Element Reason Codes

Code	DE	SF/SE	Description
05727	057	SE 27	Invalid phone number
05730	057	SE 30	Invalid data in length field merchant invoice number
05731	057	SE 31	Invalid data in length field product class/code
05740	057	SE 40	Invalid data in length field ACH reference number
05741	057	SE 41	Invalid data or length in length field authorization code
057xx	057	SE xx	Unsupported subelement ID
05799	057		Invalid data in subelement ID

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A.2   Format Errors: 900

Table A-2 identifies Format Errors: 900.

TABLE A-2   Format Errors: 900

Code	Description: Format Error
20003	Required data element 3 missing
20004	Required data element 4 missing
20007	Required data element 7 missing
20011	Required data element 11 missing
20012	Required data element 12 missing
20013	Required data element 13 missing
20040	Required data element 40 missing
20042	Required data element 42 missing
20049	Required data element 49 missing
20061	Required data element 61 missing
20070	Required data element 70 missing
20097	Required data element 97 missing
20120	Required data element 120 missing

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A.3   Data Errors: 901

Table A-3 identifies Data Errors: 901.

TABLE A-3   Data Errors: 901

Code	Description: Data Error
30003	Value in data element 3 invalid or not supported
30070	Value in data element 70 invalid or not supported
34001	Value in data element 40.1 invalid or not supported
34002	Value in data element 40.2 invalid or not supported
34003	Value in data element 40.3 invalid or not supported
34004	Value in data element 40.4 invalid or not supported
36001	Value in data element 60.1 invalid or not supported

A.4   Setup Errors: 902

Table A-4 identifies Setup Errors: 902.

TABLE A-4   Setup Errors: 902

Code	Description: Setup Error
90241	Invalid Amount, AVS only (DE48.21)
91201	Unable to locate merchant terminal record
91202	mtr terminal ID does not match DE42
91203	mtr merchant ID does not match DE42
91204	Invalid Manufacturer Code
91209	SIC and POS data not compatible
91211	mtr manufacture code is invalid or not supported
91210	mtr indicates terminal is deactivated
91214	Field 14 expiry date required for EMV request
91220	mtr indicates credit card processing is deactivated
91221	Credit card is invalid or not supported
91222	mtr credit card deposit endpoint is invalid or not supported
91223	mtr not set up for Visa or MasterCard
91224	mtr not set up for FSA
91225	mtr not set up for Discover
91226	mtr not set up for Diners
91227	mtr not set up for JCB
91228	Value in DE 22 is invalid or not supported
91229	Conditional data element 2 and/or 14 missing
91230	Conditional data element 54 is missing or invalid
91231	Unable to extract PAN from data submitted (credit cards)
91232	Conditional data element 38 missing or invalid
91233	Card bin does not match card type submitted
91234	Diners card bin does not match card type submitted
91235	Value in data element 48.21 is invalid or not supported
91236	AVS service requested but AVS data missing

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TABLE A-4 Setup Errors: 902

Code	Description: Setup Error
91237	Conditional data element 48.27 missing
91238	Conditional data element 48.28 missing
91239	Value in data element 4 invalid for this transaction
91240	Value in data element 4 exceeds amount supported by Worldpay
91241	Field 4 invalid amount AVS only
91242	Field 4 invalid amount purchase with AVS
91243	Invalid P2PE Tran
91244	Invalid or missing e-commerce data.
91245	Cardholder/card not present data miss match (DE61 and DE48)
91246	Field 54 tip amount is invalid or missing
91247	• Visa - Field 48 Subfield 32 invalid request type • Discover - Field 48 Subfield 35 Invalid or missing
91248	Field 22 entry method invalid for EMV
91249	Conditional data element 59 missing
91250	Invalid transaction for this terminal
91251	mtr indicates debit/EBT card processing is deactivated
91252	Required data element 35 is missing
91253	Unable to extract PAN from data submitted (debit cards)
91254	Debit/EBT routing invalid or not set up
91255	Conditional data element 52 missing
91256	• Credit - Required data element 4 is invalid for this transaction • PNLS - PNLS Terminal must include data element 22
91257	Conditional data element 59 missing
91258	PNLS Terminal must not include data element 52
91268	Field 22 entry method invalid for EMV
91269	Token data required for Discover PayButton
91270	mtr indicates debit/EBT card processing is deactivated
91271	Required data element 4 is invalid for this transactions
91273	Conditional data element 2 and/or 14 missing
91274	Conditional data element 35 missing

TABLE A-4 Setup Errors: 902

Code	Description: Setup Error
91275	Unable to extract PAN from data submitted (EBT cards)
91276	Debit/EBT routing invalid or not set up
91277	Field 52 PIN required for EBT
91280	Field 42 merchant has been deactivated
91281	Invalid fleet card used
91298	Cannot have EMV data-entry method
91301	Check processing not supported
91302	Check receiving institution ID is missing
91303	Check receiving institution ID mismatch
91304	Check receiving institution ID is invalid
91305	Check entry mode is missing
91306	Check entry mode is invalid
91307	Check service type ID is missing
91308	Check service type ID is invalid
92001	Unable to add transaction timer
92002	Unable to process request
93304	Unable to update Time Out Reversal transaction
00904	New Keys Posted
00931	Encryption Start
00932	Encryption Stop

For additional VSP codes, see VSP Setup Errors for P2PE.

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A.5   Transaction Errors: 903

Table A-5 identifies Transaction Errors: 903.

TABLE A-5   Transaction Errors: 903

Code	Description: Transaction Error
94001	Duplicate offline advice
94002	Invalid offline transaction
94003	Unable to void Force Post
91277	DE 52 (pin block data) missing
91302	Missing receiving institution

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A.6 System Errors: 906

Table A-5 identifies System Errors: 906.

TABLE A-6 System Errors: 906

Code	Description: System Error
92002	Unable to send request to Worldpay host
93302	Duplicate reversal
93303	Transaction ineligible for reversal
96010	Unable to add key exchange timer
96011	Unable to send key exchange request to Worldpay host

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A.7   Transaction Errors: 906

Table A-5 identifies System Errors: 906.

TABLE A-7   Transaction Errors: 906

Code	Description: System Error
93001	Host data process error
93002	Host communication error
93301	Unable to process reversal

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B

Field Matrix

This appendix defines all possible fields for the message formats.

TABLE B-1   Message Format DE Fields

DE Field	Name
—	Header
—	Message type
—	Primary Bit Map
1	Secondary Bit Map
2	Primary Account Number (PAN)
3	Processing Code
3.1	Transaction Type Code
3.2	Cardholder "From Account"'
3.3	Cardholder "To Account"
4	Transaction Amount
7	Transmission Date & Time
11	System Trace Audit Number
12	Transaction Local Time
13	Transaction Local Date
14	Expiration Date
15	Settlement Date
18	Merchant Type
22	POS Entry Mode
25	POS Condition Code

TABLE B-1 Message Format DE Fields

DE Field	Name
28	Transaction Fee Amount
28.1	Debit/credit indicator
28.2	Transaction fee amount
35	Track 2 Data
37	Retrieval Reference Number (RRN)
38	Authorization Identification Response
39	Worldpay Response Code
40	Transaction Qualifier
40.1	Master Merchant Indicator
40.2	Transaction Capture Code
40.3	Transaction Type Code
40.4	Merchant Type Code
40.5	Card Type Identifier
40.6	Override SIC Indicator
40.7	Dynamic descriptor indicator
40.8	Reserved
41	Merchant Terminal Identification
42	Worldpay Merchant Identification
42.1	Merchant ID (MID)
42.2	Terminal (TID)
42.3	Check Digit
43	Card Acceptor Name/Location
43.1	Card Acceptor Street Address
43.2	Card Acceptor City
43.3	Card Acceptor State
43.4	Card Acceptor Country
44	Response Data
44.1	Response Reason Code
44.2	Response Text
45	Track 1 Data

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TABLE B-1 Message Format DE Fields

DE Field	Name
48	Additional Data
48.10	Terminal Owner Name
48.11	Terminal Shift Number
48.12	Terminal Data (hardware/software/firmware
48.13	Encryption Key Serial Number
48.14	Lane/Pump/Device ID Number
48.15	Server ID
48.21	Address Verification Request
48.22	Address Verification Data (address/zip)
48.23	Address Verification Result
48.24	Card Verification Data (CVV2/CID)
48.25	Card Verification Result
48.26	MOTO/e-commerce Indicator
48.27	UCAF/CAVV Card Authentication
48.28	Electronic Commerce authentication data
48.29	Authentication Verification Value result code
48.30	Credit Response Data
48.31	Commercial Card Response
48.32	Visa merchant-initiated credential on file
48.33	MasterCard Response Data
48.34	American Express Response Data
48.35	Discover e-commerce data
48.40	Prepaid Card Data
48.41	Gift Mall Vendor Data
48.42	Customer Defined Request Data
48.43	Customer defined request data
48.44	Customer service contact information
48.50	EBT Voucher Number
48.51	EBT FNS/FCS Number
48.60	Print price flag

TABLE B-1   Message Format DE Fields

DE Field	Name
48.61	Prompt code
48.62	Preferred product code
48.63	Fuelman response data
48.64	WEX 2.0.2 support flag
48.65	Cardholder information
48.66	Shipping information
48.67	Ship to contact information
48.68	Split tender counts
48.71	Token Information
48.72	Device Serial Number
49	Transaction Currency Code
52	Personal Identification Number Data
54	Additional Amount
54.1	Account Type
54.2	Amount Type
54.3	Currency Code
54.4	Amount Sign
54.5	Amount
55	EMV data elements
56	Payment account reference (PAR) [AN..35]
57	Check Request/Response Data
57.1	Receiving Institution ID
57.2	Service type ID
57.10	MICR Reader Status
57.11	MICR Data (full or keyed)
57.20	State/Province Code or ID Type
57.21	Driver's License/ID Number
57.22	Customer Name
57.23	Customer Social Security Number
57.24	Customer Date of Birth

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TABLE B-1   Message Format DE Fields

DE Field	Name
57.25	Customer Postal Address
57.26	Customer Postal/Zip Code
57.27	Customer Phone Number
57.30	Merchant Invoice/Reference Number
57.31	Product/Class Code
57.32	Additional Data Numeric
57.33	Additional Data Alphanumeric
57.40	Network/ACH Reference Number
57.41	Authorization Response Code
57.42	Check Fee Amount
58	Acquirer/Terminal Echo Data
59	Worldpay Retrieval Data
60	Message Reason Code
60.1	Message Type
60.2	Message Reason
61	Additional POS Data
61.1	Terminal Attendance
61.2	Terminal Location
61.3	Cardholder Presence Indicator
61.4	Card Presence Indicator
61.5	Card Capture Capability
61.6	Transaction Status
61.7	Transaction Security
61.8	Cardholder Activated Terminal (CAT) Level
61.9	Card Data Input Capability
61.10	Partial authorization and estimated amount support
61.11	Unique Identifier (UID) indicator
61.12	Authorization Life Cycle
61.13	POS Country Code

TABLE B-1 Message Format DE Fields

DE Field	Name
61.14	POS Postal Code
62	Debit/EBT Network Response Data
70	Network Management Information Code
90	Original Data Elements
90.1	Original Message Type
90.2	Original System Trace Audit Number (DE 11)
90.3	Original Date, Transaction Local Date (DE 13)
90.4	Original Time, Transaction Local Time (DE 12)
90.5	Reserved
91	File Update Code
95	Replacement Amounts
95.1	Replacement Transaction Amount
95.2	Reserved
97	Net Settlement Amount
97.1	Debit/Credit Indicator
97.2	Settlement Amount
102	Account Identification 1
103	Account Identification 2
110-112	eWIC additional data
114	eParms (Additional P2PE Data)
120	Host/Settlement Totals
121	Summary Data
121.11	Alternate Tax Amount; 9(6)v99
121.12	Alternate Tax Amount Indicator
121.13	Commodity Code
121.14	Customer VAT Number
121.15	Destination Country Code
121.16	Destination ZIP
121.17	Discount Amount; 9(6)v99
121.18	Duty Amount; 9(6)v99

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TABLE B-1 Message Format DE Fields

DE Field	Name
121.19	Freight Amount; 9(6)v99
121.20	Merchant Value Added Tax (VAT) Number
121.21	Order Date; CCYYMMDD
121.22	Origination ZIP
121.23	Purchase Order / Customer ID
121.24	Tax Amount (two-digit implied decimal); 9(6)v99
121.25	Tax Exempt "Y" or "N"
121.26	Tran Type Identifier
121.27	VAT Invoice Number
121.28	VAT/Tax Amount; 9(6)v99
121.29	VAT/Tax Rate (two-digit implied decimal); 99v99
121.30	Tax Type Code
121.31	Customer Number
121.32	Date Of Birth; CCYYMMDD
121.33	Driver ID/Employee Number
121.34	Driver License Name
121.35	Driver License Number
121.36	Invoice Number
121.37	Misc. Alphanumeric Data
121.38	Misc. Numeric Data
121.39	Odometer/HUB Reading
121.40	Prompt Type (MC Only)
121.41	Purchase Order Number
121.42	State/Province ID
121.43	Track 1 from a second card swipe on dual card programs
121.44	Track 2 format from a manually-entered second card on dual card programs
121.45	Track 2 from a second card swipe on dual card programs
121.46	Trailer/Refer Hours

TABLE B-1   Message Format DE Fields

DE Field	Name
121.47	Trip Number
121.48	Unencrypted ID Number
121.49	Unit Number
121.50	Vehicle Tag Number
121.51	Vehicle Trailer Number
121.52	Restriction Code
121.53	Total Qualified Healthcare Amount; 9(10)v99
121.54	Prescription Amount; 9(10)v99
121.55	Vision and Optical Amount; 9(10)v99
121.56	Clinic Amount; 9(10)v99
121.57	Dental Amount; 9(10)v99
121.58	Transit Amount; 9(10)v99
121.59	Merchant/cardholder billing account number
121.60	Merchant invoice number
121.61	Cardholder email address
121.62	Merchant description
121.63	Department number
121.64	Job number
121.65	Purchase dev seq number
121.99	Number of Line Items/Products
122	Detail Data (Fleet)
122.01	Line Item Number
122.51	Alternate Tax identifier
122.52	DB/CR Indicator (D = Debit, C = Credit)
122.53	Discount Amount; 9(6)v99
122.54	Discount Indicator
122.55	Discount Per Line; 99v99
122.56	Extended Item Amount; 9(6)v99
122.57	Item Commodity Code
122.58	Item Description

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TABLE B-1   Message Format DE Fields

DE Field	Name
122.60	Line Item Total Cost; 9(6)v99
122.61	Net/Gross Indicator
122.62	Product Code—if Visa, the length is 3; if MasterCard, the length is 8
122.63	Quantity/Num units; 9(3)v9999
122.64	Service Code/Level
122.65	Alternate Tax amount; 9(6)v99
122.66	Tax Rate Applied; 99v99
122.67	Tax Type Applied
122.68	Unit Cost/price; 9(6)v9999
122.69	Unit of Measure
122.70	VAT/Tax Amount; 9(6)v99
122.71	VAT/Tax Rate; 99v99
122.72	Discount Rate; 9(6)v99
123	Rental Specific Data
124	Information Text
125	Key Management Data
127	Version indicator

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C

Additional Amounts (DE54)

For Data Element 54: Additional Amount, Worldpay only includes the Additional Amount field for purchases with cash back and account balance requests and reversals.

C.1   Data Element 54 Position Codes

This section describes the account and amount type codes for DE 54.

C.1.1   Positions 1 and 2

For transaction requests, this value should represent the positions 1 and 2 in Data Element 3: Processing Code.

TABLE C-1   Positions 1 and 2

Account Type: Code	Description
00	Not applicable or Not Specified
01	Savings
02	Checking
03	Credit Card
04	Universal
05	EBT Cash Benefit
06	EBT Food Stamp Benefit
09	Gift/Prepaid Account
10	Fleet Purchase Account
11	eWIC

C.1.2   Positions 3 and 4

For transaction requests, this value should represent the positions 3 and 4 in Data Element 3: Processing Code.

TABLE C-2   Positions 3 and 4

Amount Type: Code	Description
01	• Deposit Amount - Available balance (deposit account) • Credit Amount - Credit limit (credit account)
02	• Deposit Amount - Current Ledger Balance (Debit) • Credit Amount - Amount remaining for cardholder (open to buy) • Prepaid Amount - Card balance

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TABLE C-2 Positions 3 and 4

Amount Type: Code	Description
40	Cash back • The requested amount in the Request messages • The approved amount in the Response messages
41	Tip Amount
43	Cumulative amount
52	Coupon/Discount Amount
57	Original Amount

C.1.3   Positions 9 - 20

For transaction requests, this value should represent the positions 9-20 Data Element 3: Processing Code.

TABLE C-3 Positions 9 - 20

Amount Type:	Description
Code is found in positions 9 - 20	Populated with the total cumulative authorized amount for a series of incremental authorization transactions

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D

Additional Codes and Response Literals Returned from the Host

This appendix lists action codes and response literals for the following:

- Network Administration
- ATM
- Debit
- Credit
- Fleet
- Gift
- Prepaid Card
- EBT/eWIC

D.1   Network Administration Action Codes

TABLE D-1   Network Administration Action Codes

Code	Description	Response Literal Returned
000	New key accepted	APPROVED
081	New key rejected	DENIED

For additional VSP codes, see VSP Setup Errors for P2PE.

D.2   ATM Action Codes and Response Literals

TABLE D-2   ATM Action Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
005	Do not honor	DO NOT HONOR
011	Unauthorized use	UNAUTHORIZED USE
012	Expired Card	EXPIRED CARD
013	Invalid card	INVALID CARD
014	PIN error	PIN ERROR
015	Bank unavailable	BANK UNAVAILABLE
021	Unauthorized usage	UNAUTHORIZED USE
022	Card expired	EXPIRED CARD
024	PIN error	PIN ERROR
030	Ineligible transaction	INELIGIBLE TRANS
031	Ineligible account	INELIGIBLE ACCT
032	Transaction cannot process	CANNOT PROCESS
041	Insufficient funds	INSUFF FUNDS
043	Try lesser amount	TRY LESSER AMT
044	Try lesser amount	TRY LESSER AMT
050	Incorrect PIN	INCORRECT PIN
070	Card not supported by terminal	CARD UNSUPPORTED
071	Ineligible account	INELIGIBLE ACCT
072	Closed account	CLOSED ACCOUNT
All	Others Undefined	DENIED

For additional VSP codes, see VSP Setup Errors for P2PE.

D.3   Action Codes and Response Literals

TABLE D-3   Action Codes and Response Literals

Code	Description	Response Literal Returned
900	Format error—contact Worldpay	DENIED
901	Data error—contact Worldpay	DENIED
902	Setup error—contact Worldpay	DENIED
905	Key synchronization error	DENIED
906	System error—retry transaction	DENIED

For additional VSP codes, see VSP Setup Errors for P2PE.

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D.4   Debit Action Codes and Response Literals

TABLE D-4   Debit Action Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
005	Do not honor	DO NOT HONOR
011	Unauthorized use	UNAUTHORIZED USE
012	Expired Card	EXPIRED CARD
013	Invalid card	INVALID CARD
014	PIN error	PIN ERROR
015	Bank unavailable	BANK UNAVAILABLE
019	Risk Parameters Exceeded	SEE ATTENDANT
021	Unauthorized usage	UNAUTHORIZED USE
022	Card expired	EXPIRED CARD
024	PIN error	PIN ERROR
030	Ineligible transaction	INELIGIBLE TRANS
031	Ineligible account	INELIGIBLE ACCT
032	Transaction cannot process	CANNOT PROCESS
041	Insufficient funds	INSUFF FUNDS
042	No further withdrawals	NO FURTHER W/D
043	Try lesser amount	TRY LESSER AMT
044	Try lesser amount	TRY LESSER AMT
050	Incorrect PIN	INCORRECT PIN
051	PIN required	PIN REQUIRED
070	Card not supported by terminal	CARD UNSUPPORTED
071	Ineligible account	INELIGIBLE ACCT
072	Closed account	CLOSED ACCOUNT
All Others	Undefined	DENIED

For additional VSP codes, see VSP Setup Errors for P2PE.

D.5   Credit Action Codes and Response Literals

TABLE D-5   Credit Action Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
001	Refer to Issuer	CALL VOICE OPER
002	Refer to Issuer	CALL VOICE OPER
003	Invalid merchant	INVALID MERCHANT
004	Issuer requested pick up card	PICK UP CARD
005	Do not honor card or transaction	DO NOT HONOR
007	Issuer requested pick up card	PICK UP CARD
010	Approved for lesser amount	APPROVED PARTIAL
011	Approved	APPROVED
012	Invalid transaction	INVALID TRANS
013	Invalid transaction amount	INVALID AMOUNT
014	Invalid account number	INVALID PAN
015	Invalid Issuer	INVALID ISSUER
019	Risk Parameters Exceeded	SEE ATTENDANT
024	PIN tries exceeded	PIN TRY EXCEEDED
041	Card reported lost; pick up card	PICK UP CARD
043	Card reported stolen; pick up card	PICK UP CARD
051	Exceeded available funds	OVER CREDIT LIMIT
055	Incorrect PIN	INCORRECT PIN
061	Exceeds daily withdrawal limit	EXCEEDS DLY AMOUNT
065	Exceeds daily withdrawal frequency	EXCEEDS DLY FREQ
091	Processor error	PROCESSOR ERROR
096	System error	SYSTEM ERROR
098	Duplicate	DUPLICATE
099	Void denied	VOID DENIED
All Others	Undefined	DENIED

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For additional VSP codes, see VSP Setup Errors for P2PE.

D.6 Fleet Action Codes and Response Literals

TABLE D-6 Fleet Action Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
010	Approved—less amount	APPROVED PARTIAL
019	Risk Parameters Exceeded	SEE ATTENDANT
080	Approved—imprint card	APPROVED/IMPRINT
081	Approved—fraud suspected	CALL CARD ISSUER
101	Expired card	EXPIRED CARD
103	Referral	CALL CARD ISSUER
104	Restricted card	RESTRICTED CARD
107	Refer To card Issuer	REFERRAL
109	Invalid merchant	REFERRAL
110	Invalid amount	INVALID DATA
111	Invalid account	INVALID ACCOUNT
112	WEX EMV Decline	CRYPTOGRAM FAIL
113	WEX EMV Decline	EMV FAILURE
114	Invalid ISO	INVALID ISO
116	Non-sufficient funds	NON-SUF FUNDS
119	Invalid industry	INVALID INDUSTRY
120	ICR restricted	SEE ATTENDANT
121	Daily dollar limit exceeded	DENIED
123	Daily frequency limit exceeded	DENIED
180	Invalid driver ID	INVALID DRIVER
181	Invalid vehicle ID	INVALID VEHICLE
182	Invalid local date or time	INVALID DATA
183	Exceeds transaction dollar limit	DENIED
184	Transaction not voided	INVALID DATA
185	Invalid processing code	INVALID PROCESS

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TABLE D-6 Fleet Action Codes and Response Literals

Code	Description	Response Literal Returned
186	PL restricted site	RESTRICTED SITE
187	Fleet restricted site	RESTRICTED SITE
190	Billing cycle limit	DENIED
195	Product restricted	RESTRICTED PROD
200	Do not honor	PICK UP CARD
208	Card reported lost; pick up card	REPORTED LOST
209	Card reported stolen; pick up card	REPORTED STOLEN
902	Invalid message	INVALID DATA
909	System malfunction/failure	REFERRAL
All Others	Any undefined action code	REFERRAL

For additional VSP codes, see VSP Setup Errors for P2PE.

D.7　Gift Card Action Codes and Response Literals

TABLE D-7　Gift Card Action Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
001	Card not found	INVALID CARD
002	BIN not found	INVALID CARD
003	Card to cardholder conflict	INVALID CARD
004	Card not activated	CARD NOT ACTIVE
005	Insufficient account balance	TRY LESSER AMT
006	Card already activate	INVALID ACTIVATE
007	Card already has a balance	CARD PREV ACTIVE
008	Activation over system limit	OVER LIMIT
009	Activation over merchant/client limit	OVER LIMIT
010	Void activation amount mismatch	INVALID TRANS
011	Void activation not allowed	INVALID TRANS
012	Processing error	CANNOT PROCESS
013	Invalid swipe activation	INVALID TRANS
014	Unknown message received	DATA FORMAT ERR
015	Network unavailable	NETWORK UNAVAIL
016	Activation not valid	INVALID ACTIVATE
017	Activation amount is less than set minimum	ACT BELOW LIMIT
018	Invalid card code	CARDCODE INVALID
019	Approved for lesser amount	APPROVED PARTIAL
021	Cardholder not defined	INVALID CUST NO
022	Cardholder deactivated	CUSTOMR DEACTIVE
100	Balance inquiry returned	BALANCE INQUIRY
All Others	Undefined	DENIED

For additional VSP codes, see VSP Setup Errors for P2PE.

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D.8   Prepaid Card Action Codes and Response Literals

TABLE D-8   Prepaid Card Action Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
001	Approved for lesser amount	APPROVED LESSER
011	Card not active	CARD NOT ACTIVE
012	Expired card	EXPIRED CARD
014	PIN tries exceeded	EXCESS PIN ERRS
015	Network unavailable	NETWORK UNAVAIL
030	Ineligible transaction	INVALID TRANS
031	Ineligible account	INVALID ACCOUNT
033	Ineligible account	INVALID ACCOUNT
041	Insufficient funds	VERIFY BALANCES
042	Daily limit reached	AT DAILY LIMIT
043	Over daily limit	OVER DAILY LIMIT
044	Try lesser amount	TRY LESSER AMT
050	Invalid PIN	INVALID PIN
051	Invalid password	INVALID PASSWORD
054	Invalid date	DATE MISMATCH
070	Ineligible cardholder	INVALID CRDHLDR
071	Ineligible account	INVALID ACCOUNT
082	Invalid CVV	CVV FAILED
098	User unknown	UNKNOWN USER
All Others	Undefined	DENIED

For additional VSP codes, see VSP Setup Errors for P2PE.

D.9 Check Action Codes and Response Literals

These will be the specific response codes and literals as defined in the check processing service specifications. Refer to their latest version for these values.

With most check processing services, a value of 0000 denotes a denial rather than an approval.

The Worldpay host returns these codes.

TABLE D-9 Check Action Codes and Response Literals

Code	Description	Response Literal Returned
915	Processing error	I/O ERROR, RE-TRY
930	Invalid code or type	INVALID REQUEST
932	Unable to process	NTW UNAVAIL, RE-TRY
000	INVALID IDENTIFICATION	RE-ENTER
001	ID/DOB MISMATCH	CALL CENTER
002	ID VERIFIED	APPROVE
004	INVALID TYPE OF SERVICE	RE-ENTER
006	ID RESTRICTIONS	CALL CENTER
007	HARD NEGATIVE INFORMATION ON FILE	DECLINE
008	CHECK WARRANTED	APPROVE
009	OVER DAILY LIMIT	CALL CENTER
010	OVER PERIODIC LIMIT	CALL CENTER
011	OVER MAXIMUM FACE VALUE	CALL CENTER
012	OVER MAXIMUM CUMULATIVE LIMIT	CALL CENTER
013	EDIT ERRORS IN MESSAGE	RE-ENTER
014	INVALID STATION NUMBER	CONTACT A CERTEGY CUS-TOMER SERVICE REP FOR RESOLUTION
015 915	I/0 ERROR, RE-SUBMIT AN INTERNAL SYSTEM FAILURE HAS MADE THE TRANSACTION UNPROCESSABLE	RE-ENTER
016	EXCESSIVE ACTIVITY	CALL CENTER

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TABLE D-9 Check Action Codes and Response Literals

Code	Description	Response Literal Returned
019	ENTER DL/DATE OF BIRTH	ENTER DOB AND RE-SEND
020	CALL CERTEGY	CALL CENTER
021	CHECK VERIFIED-CONVERSION/WARRANTY- SUBMITTED FOR ACH	APPROVED
022	CHECK VERIFIED-CONVERSION/WARRANTY- NOT ACHABLE-AUTH ONLY	APPROVED
023	CHECK VERIFIED—SITE DRAFT	APPROVED
024	CHECK NOT VERIFIED-CONVERSION/WARRANTY-NOT ACHABLE	DECLINED
029	ACH VOID/REVERSAL	VOID SUCCESSFUL
030	ACH VOID/REVERSAL	CANNOT VOID
031	CHECK HAS ALREADY BEEN VOIDED	CANNOT VOID
032	DUPLICATE EFT	CANNOT CONVERT
033	REFERENCE NUMBER/AMOUNT MISMATCH	CANNOT VOID
034	TOO LATE TO VOID CHECK	CANNOT VOID
035	BANK BALANCE REQUEST	COMPLETED
036	BANK BALANCE REQUEST	NO DATA AVAIL
915	I/O ERROR, RE-SUBMIT	RE-ENTER

For additional VSP codes, see VSP Setup Errors for P2PE.

D.10 EBT/eWIC Codes and Response Literals

TABLE D-10 EBT/eWIC Codes and Response Literals

Code	Description	Response Literal Returned
000	Approved	APPROVED
012	Expired card	EXPIRED CARD
014	PIN tries exceeded	PIN ERROR
021	Unauthorized usage	CANNOT PROCESS
022	Re-enter transaction	RE-ENTER TRANS
032	No response from the host	NO HOST RESPONSE
041	Non-sufficient funds	VERIFY BALANCES
050	Invalid PIN	INCORRECT PIN

For additional VSP codes, see VSP Setup Errors for P2PE.

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D.11 Reconciliation Request Action Codes and Response Literals

TABLE D-11 Reconciliation Request Action Codes and Response Literals

Code	Description	Response Literal Returned
800	Approved/successful	APPROVED or TOTALS MATCH
801	Approved/successful	OUT OF BALANCE
803	Denied	ALREADY CLOSED

For additional VSP codes, see VSP Setup Errors for P2PE.

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D.12 VSP Setup Errors for P2PE

TABLE D-12 VSP Setup Errors for P2PE

Reason Code	Reason Description	Response literal returned
00201	Card data not encrypted	CARD NOT ENCRYP
00202	Expiry date too high to encrypt	EXPIRE DATE HIGH
00203	Card is expired	CARD EXPIRED
00204	BIN Excluded from encryption	BIN EXCLUDED
00205	Invalid Track 1	INVALID TRACK 1
00206	Invalid Track 2	INVALID TRACK 2
00207	Invalid PAN	INVALID PAN
00208	Invalid Expiration Date	INV EXP DATE
00211	PAN Luhn failed Mod 10 Check	PAN FAILED MOD
00212	PAN Too Short	PAN TOO SHORT
00298	Unknown Multiple Tracks	UNKNOWN TRACKS
00299	Unknown Reason - No Action	UNKNOWN REASON
00300	Decryption Failure	DECRYPTION FAIL
00301	Invalid Requestor	INVALID REQUESTR
00302	Invalid Transaction ID	INVALID TRAN ID
00303	Invalid Transaction Type	INVALID TRAN TYP
00304	Invalid Amount	INVALID AMOUNT
00305	Invalid Domain Code	INV DOMAIN CODE
00306	Invalid Merchant Code	INV MERCH CODE
00307	Invalid Store Code	INV STORE CODE
00308	Invalid Terminal Code	INV TERM CODE
00309	Invalid Device Code	INV DEVICE CODE
00310	Missing Payment Card Data	MISS CARD DATA
00311	Domain Code not found	DOM CODE NOT FND
00312	Merchant Code not found	MERCH CODE NT FND
00313	Store Code not found	STOR CODE NT FND
00316	Device not added	DEV NOT ADDED

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TABLE D-12 VSP Setup Errors for P2PE

Reason Code	Reason Description	Response literal returned
00317	Missing PROV key	MISS PROV KEY
00318	Missing PAN or DISC key	MISS PAN OR DISC
00320	Encrypted PAN Mod 10 Failure	MOD 10 FAIL
00321	Invalid eParms Data	INV EPARMS DATA
00322	Key Service is Not Reachable	KEY SERV NOT RCH
00323	Key Sync ID not found	KEY SYNC ID NOT
00324	Missing eParms Data	MISS EPARMS DATA
00325	Missing MDK	MISSING MDK
00326	Missing Derivation Data	MISSING DERIV KY
00327	Derived Key Derivation Error	DERIVE KEY ERR
00328	MAC Error Track 1 PAN	MAC ER TRK 1 PAN
00329	MAC Error Track 1 DISC	MAC ER TRK 1 DIS
00330	MAC Error Track 2 PAN	MAC ER TRK 2 PAN
00331	MAC Error Track 2 DISC	MAC ER TRK 2 DIS
00332	MAC Error Manual PAN	MAC ER MAN PAN
00333	MIV Error Track 1 PAN	MIV ER TRK 1 PAN
00334	MIV Error Track 2 PAN	MIV ER TRK 2 PAN
00339	Virtual Device Conflict Detected	VIRT DEV CONFLCT
00376	Decryption failure	DECRYPTION FAIL
00380	RSA KeyID Not Found	RSA KEYID NT FND
00381	RSA Decryption Error	RSA DECRYP ERROR
00382	RSA Invalid Blob	RSA INV BOB
00383	RSA Configuration Name already exists	RSA CNFG NAM EX
00384	RSA Configuration Name cannot be found	RSA CNFG NAM NT
00385	RSA returned no data	RSA NO DATA
00386	RSA - Locator does not support VTP	RSA NO VTP SUP
00387	RSA Web Service Initialization Error	RSA WEB INIT ERR
00388	RSA Token Creation Error	RSA TOKN CRT ERR

TABLE D-12 VSP Setup Errors for P2PE

Reason Code	Reason Description	Response literal returned
00389	RSA Tokenization Error	RSA TOKN ERROR
00390	RSA Detokenization Error	RSA DETOKN ERR
00391	RSA Result Ambiguous	RSA RESULT AMB
00392	Invalid Parameter [Parameter Name]	INV PARAMETER
00393	Host Access Denied - [Host Address]	HOST ACCESS DEN
00397	HSM Error	HSM ERROR
00398	Decryption Error Multiple Tracks	DECRYPT MULT ERR
00399	Decryption Failure - Unknown Error	DECRYPT FAIL
00801	RSA Key Generated Success	RSA KEY SUCC
00802	RSA Key Provided Success	RSA KEY PROV SUC
00803	RSA Certificate Error	RSA CERT ERROR
00804	RSA Deactivate Key Success	RSA DEACT SUCC
00805	RSA Deactivate Key Error	RSA DEACT KEY ER
00806	RSA Revoke Certificate Error	RSA REVOK CERT
00807	RSA Key Pair Generation Error	RSA KEY PAIR ERR
00808	RSA Create Configuration Success	RSA CRT CONFG SU
00810	RSA Certificate Generation Error	RSA CRT GEN ERR
00811	RSA Issue Certificate Error	RSA ISS CERT ERR
00812	RSA Store Certificate Error	RSA STR CERT ERR
00813	RSA Unable to Get Key ID	RSA UNABLE GT KY
00814	RSA Unable to Create Token Type	RSA UNABL CRT TK
00815	RSA Unable to Create Security Class	RSA UNABL CRT SC
00899	Unknown Error	UNKNOWN ERROR
00901	Start Encryption Fail (DK) Server	ENCRYPT FAIL DK
00902	Start Encryption Fail (SRED) Server	ENCRYP FAIL SRED

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TABLE D-12 VSP Setup Errors for P2PE

Reason Code	Reason Description	Response literal returned
00904	New Keys Posted	NEW KEYS POSTED
00905	Start Encryption Success (DK)	DEVICE ST CHANGE
00906	Insert Bin Record	INSERT BIN REC
00907	Delete Bin Record	DELETE BIN REC
00908	Reset Bin Table	RESET BIN TABLE
00909	Advance DDK Success	ADV DDK SUCCESS
00910	Set terminal options	SET TERM OPT
00911	Exhaustive PAN Max Exceeded	PAN MAX EXCEED
00912	Device Replacement Success	DEV REPLACE SUCC
00913	Upgrade to Unique Key Success	KEY UPGRADE SUCC
00914	Advance DDK Fail Server	ADV DDK FAIL SER
00915	Upgrade to Unique Key Fail Device	UP KEY FAIL DEV
00916	Upgrade to Unique Key Fail Server	UP KEY FAIL SERV
00919	Advance DDK Fail Device	ADV DDK FAIL DEV
00920	BIN Table Rejected By Device	DEV REJ BIN TABL
00921	BIN Table Replace Server Error	BIN TABL REPL ER
00922	BIN Table Replaced	BIN REPLACE SUCC
00923	Settings Update Fail Device	DEV SETTING FAIL
00924	Settings Update Fail Server	SERV SETTIN FAIL
00926	Settings Update Success	SETTINGS SUCCESS
00931	Encryption Start	ENCRYPTION START
00932	Encryption Stop	ENCRYPTION STOP
00933	Stop Encryption Fail	STOP ENCRYP FAIL
00934	Start Encryption Fail	START ENCRY FAIL
00935	Start Encryption Success (SRED)	START SRED SUCC
00936	Start Encryption Fail (SRED) Device	START SRED FAIL
00940	Key Replace Failure - TGK	KEY REPLACE FAIL

TABLE D-12 VSP Setup Errors for P2PE

Reason Code	Reason Description	Response literal returned
00941	TGK - Transaction One	TGK TXN ONE
00942	TGK - Transaction Two	TGK TXN TWO
00943	TGK - Transaction Three	TGK TXN THREE
00944	Replace BIN Table Via TCP/IP	BIN UPDAT TCP/IP
00948	TCP/IP Advance DDK Fail Server	TCP/IP DDK FAIL
00949	Create BIN Mask Range	BIN MASK CREATED
00950	TCP/IP Register Derived Fail Server	PAN KEY CREATED
00951	TCP/IP Get Status	DEV RPT STATUS
00952	TCP/IP Start Encryption	DEV ENABLED ENCR
00953	TCP/IP Stop Encryption	DEV DISABLE ENCR
00954	Activate Via ECR	ACTIVATE VIA ECR
00956	TCP/IP Replace PAN and DISC Key	NEW DISC PAN KEY
00957	TCP/IP Device Key Sync	KEY SYNC COMPLET
00958	Register Device	REGISTER DEVICE
00959	Replace Discretionary Key	REPLACE DISC KEY
00960	Terminal moved	TERMINAL MOVED
00961	Terminal Created	TERMINAL CREATED
00962	Key Sync	KEY SYNC
00970	Get Status	GET STATUS
00971	Get Key Status	GET KEY STATUS
00972	Missing Serial Number	MISSING SER NUMB
00973	Missing Store PAN key	MISSING STOR KEY
00974	TCP/IP Register Derived Key	REG DERIVED KEY
00975	TCP/IP Advance DDK Success	ADV DDK SUCCESS
00976	Settings Update Success	SETTINGS UPDATED
00977	TCP/IP Advance DDK Fail Device	ADV DDK FAIL DEV
00978	VCL Device Upgrade Success	VCL DEV UPGRADED

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TABLE D-12 VSP Setup Errors for P2PE

Reason Code	Reason Description	Response literal returned
00979	TCP/IP Settings Update Fail Device	UPDATE FAIL DEV
00980	TCP/IP Error	RKDS ERROR
00981	TCP/IP Settings Update Fail Server	UPDATE FAIL SERV
00982	VCL Device Upgrade Fail Device	VCL UP FAIL DEV
00983	VCL Device Upgrade Fail Server	VCL UP FAIL SERV
00984	TCP/IP Derived Key Device Replaced	DERIVED KEY REPL
00985	TCP/IP Register Derived Key Fail Device	DERIVED KEY FAIL
00986	TCP/IP Start Encryption Fail	START ENCRY FAIL
00987	TCP/IP Stop Encryption Fail	STOP ENCRYP FAIL
00988	TCP/IP Start Encryption Success (SRED)	START ENCRY SUCC
00989	TCP/IP Start Encryption Fail (SRED)	START ENCRY FAIL
00990	Get Status Derived Key	GET STAT DERIVED
00991	Command Error	COMMAND ERROR
00992	Command Unknown Function	UNKNOWN FUNCTION
00993	Command Not Supported	NOT SUPPORTED
00994	Set DDK Success	SET DDK SUCCESS
00995	Set DDK Fail Device	SET DDK FAIL DEV
00996	Set DDK Fail Server	SET DDK FAIL SER
00999	Unknown Command Error	CDS UNKNOWN ERR

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E

Measurement and Service Codes

This appendix provides valid values for common measurements and service codes.

E.1   Measurement Values

Table E-1 list the valid values for common measurements.

TABLE E-1   Measurement Values

Value	Description
C	Case / Carton
G	Gallons
K	Kilograms
L	Liters
P	Pounds
Q	Quarts
U	Units
Z	Ounces
X	Undefined

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E.2   Service Code Values

Table E-2 list the valid values for service codes.

TABLE E-2   Service Code Values

Value	Description
F	Full Service
S	Self Service
N	Mini Serve
X	Maxi Serve
O	Other or Non-Fuel

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F

Card Type Identifiers

This appendix provides the codes that credit card types and the various transactions use.

F.1   Credit Values

TABLE F-1   Credit Codes

Code	Description
01	Visa
02	MasterCard
03	American Express
04	Discover
05	Diners/ Carte Blanche
06	GE Money (Reserved for client-specific use)
07	JCB
08	Private Label 1
12	PayPal

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F.2   Debit/EBT/Check Values

TABLE F-2   Debit/EBT/Check Codes

Code	Description
00	Debit
00	EBT/eWIC
00	Check

F.3 Fleet Values

TABLE F-3 Fleet Codes

Code	Description
20	WEX (Wright Express)
21	Voyager
22	Visa Fleet
23	MasterCard Fleet
24	FuelLynk
25	Fleet One
26	Fuelman/Gascard
27	MFA Preferred
28-39	Reserved

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F.4　Gift/Prepaid Values

TABLE F-4　Gift/Prepaid Codes

Code	Description
41	Worldpay Gift Card
42	SVS (Stored Value Systems)
43	Blackhawk
44	VisaSPRINT
45	InComm
46-59	Reserved

F.5   Other Values

TABLE F-5   Other Codes

Code	Description
80-89	Reserved

G

Processing Codes

This appendix lists the processing codes used for each type of transaction. The transaction types are arranged in order from most used to least used.

See Chapter 6, "Message Formats" for additional details and examples.

It includes spaces for readability purposes.

G.1   POS Processing Codes - Credit

TABLE G-1   POS Processing Codes - Credit

Transaction Description	Worldpay Code	Messages
Credit sale	00 00 00	0200,0400
Credit Pre Auth	00 00 00	0100, 0400
Credit Completion	00 00 00	0220
Credit refund	20 00 00	0200, 0220, 0400
Credit Balance Inquiry	30 00 00	0200
Offline credit void	22 00 00	0220

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G.2   POS Processing Codes - Debit

TABLE G-2   POS Processing Codes - Debit

Transaction Description	Worldpay Code	Messages
Debit sale	00 00 00	0200, 0400
Debit Pre Auth	00 00 00	0100, 0400
Debit Completion	00 00 00	0220
Debit refund	20 00 00	0200, 0400
Debit sale with cash back	10 00 00	0200, 0400

G.3 POS Processing Codes - EBT

TABLE G-3 POS Processing Codes - EBT

Transaction Description	Worldpay Code	Messages
EBT cash sale	00 05 00	0200, 0400
EBT food stamp sale	00 06 00	0200, 0400
EBT food stamp refund	20 06 00	0200, 0400
EBT food stamp voucher sale	09 06 00	0200
EBT food stamp voucher refund	29 06 00	0200
EBT cash sale with cash back	10 05 00	0200, 0400
EBT withdrawal	01 05 00	0200, 0400
EBT Balance Inquiry	31 00 00	0200, 0400
EBT Food Stamp Balance Inquiry	31 06 00	0200, 0400
EBT Cash Benefit Balance Inquiry	31 05 00	0200, 0400

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G.4   POS Processing Codes - PINless Billpay

TABLE G-4   POS Processing Codes - PINless Billpay

Transaction Description	Worldpay Code	Messages
PNLS Sale	50 00 00	0100, 0200, 0220, 0400
PNLS refund	20 00 00	0200, 0400

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G.5 POS Processing Codes - Gift/Prepaid

TABLE G-5 POS Processing Codes - Gift/Prepaid

Transaction Description	Worldpay Code	Messages
Gift Card purchase	00 09 00	0200, 0400
Gift Card load/add value	72 09 00	0200, 0400
Gift Card Funds Available Inquiry	30 09 00	0200, 0400
Gift Card activation (Pre-set value)	70 09 00	0200, 0400
Gift Card activation (No pre-set value)	71 09 00	0200, 0400
Gift Card cash out	01 09 00	0200, 0400
Gift Card tip	10 09 00	0200, 0400
Gift Card return	20 09 00	0200, 0400
Gift Card Deactivate	73 09 00	0200, 0400
Gift Card virtual	74 09 00	0200, 0400
Gift Pre Auth	00 09 00	0100, 0400
Gift Completion	00 09 00	0220

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G.6   POS Processing Codes - Fleet

TABLE G-6   POS Process Codes - Fleet

Transaction Description	Worldpay Code	Messages
Fleet sale	00 10 00	0200, 0400
Fleet Pre Auth	00 10 00	0100, 0400
Fleet Completion	00 10 00	0220
Fleet return	20 10 00	0200, 0400
Fleet force post sale void	22 10 00	0220

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G.7   Host Totals Processing Codes

TABLE G-7   Host Totals Processing Codes

Transaction Description	Worldpay Code	Messages
Host Totals Inquiry	60 00 00	0500
Host Close/End of day	61 00 00	0500

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G.8 ATM Processing Codes

ATM processing codes are not supported at this time.

TABLE G-8 ATM Processing Codes

Transaction Description	Worldpay Code	Messages
Cash w/d from Savings	01 01 00	0200, 0400
Cash w/d from Checking	01 02 00	0200, 0400
Cash advance from Credit	01 03 00	0200, 0400
Deposit to Savings	21 01 00	0200, 0400
Deposit to Checking	21 02 00	0200, 0400
Balance Inquiry from Savings	31 01 00	0200, 0400
Balance Inquiry from Checking	31 02 00	0200, 0400
Balance Inquiry from Credit	31 03 00	0200, 0400
Transfer Savings to Checking	40 01 00	0200, 0400
Transfer Checking to Savings	40 02 00	0200, 0400

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G.9   POS Processing Codes - Check Processing

TABLE G-9   POS Processing Codes - Check Processing

Transaction Description	Worldpay Code	Messages
Check guarantee	03 01 00	0200
Check conversion sale ECC	04 01 00	0200
Check verification	34 01 00	0200
Check return	25 01 00	0200
Check void guarantee	23 01 00	0200
Check void conversion	24 01 00	0200
Check Bank Balance	35 00 00	0200

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H

Product Codes

This appendix lists the product codes for each type of transaction.

TABLE H-1   Product Codes

Code	Description
000	Not Used
001-099 - Fuels	
001	Unleaded Regular
002	Unleaded Plus
003	Unleaded Super
004	Unleaded 4
005	Unleaded 5
006	Unleaded Methanol (5.7%)
007	Unleaded Plus Methanol (5.7%)
008	Super Unleaded Methanol (5.7% blend)
009	Unleaded Methanol (7.7%)
010	Unleaded Plus Methanol (7.7% blend)
011	Unleaded Ethanol (5.7%)
012	Unleaded Plus Ethanol (5.7%)
013	Super Unleaded Ethanol (5.7%)
014	Unleaded Ethanol (7.7%)
015	Unleaded Plus Ethanol (7.7%)
016	Methanol / Leaded
017	Ethanol / Leaded

TABLE H-1   Product Codes

Code	Description
018	Leaded
019	Regular Diesel #2
020	Premium Diesel #2
021	Diesel #1
022	Compressed Natural Gas
023	Liquid Propane Gas
024	Liquid Natural Gas
025	M-85
026	E-85
027	Unleaded / Reformulated 1
028	Unleaded / Reformulated 2
029	Unleaded / Reformulated 3
030	Unleaded / Reformulated 4
031	Unleaded / Reformulated 5
032	Diesel Off-Road (# 1 and #2 Non-Taxable)
033	Ultra Low Sulfur Diesel Off- Road (Non-Taxable)
034	Biodiesel Blend Off-Road (Non- Taxable)
035	Ultra Low Sulfur Biodiesel Off- Road (Non-Taxable)
036	Racing Fuel
037	Super Unleaded Methanol (7.7%)
038	Unleaded Methanol (10%)
039	Unleaded Plus Methanol (10%)
040	Dyed Diesel
041	Super Unleaded Methanol (10%)
042-044	Undefined Fuel
045	B2 Diesel Blend 2% BioDiesel
046	B5 Diesel Blend 5% BioDiesel
047	B10 Diesel Blend 10% Bio-Diesel
048	B11 Diesel Blend 11% Bio-Diesel

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TABLE H-1 Product Codes

Code	Description
049	B15 Diesel Blend 15% Bio-Diesel
050	B20 Diesel Blend 20% Bio-Diesel
051	B100 Diesel Blend 100% Bio-Diesel
052	Ultra Low Sulfur #1
053	Ultra Low Sulfur #2
054	Ultra Low Sulfur Premium Diesel #2
055	Ultra Low Sulfur Biodiesel Blend 2%
056	Ultra Low Sulfur Biodiesel Blend 5%
057	Ultra Low Sulfur Biodiesel Blend 10%
058	Ultra Low Sulfur Biodiesel Blend 11%
059	Ultra Low Sulfur Biodiesel Blend 15%
060	Ultra Low Sulfur Biodiesel Blend 20%
061	Ultra Low Sulfur Biodiesel Blend 100%
062-098	Undefined Fuel
099	Miscellaneous Fuel
100-149 - Auto Products/Services	
100	General Merchandise
101	Motor Oil
102	Car Wash
103	Oil Change
104	Oil Filter
105	Work Order
106	Anti-Freeze
107	Washer Fluid
108	Brake Fluid
109	Tires
110	Federal Excise Tax / Tires
111	Tire Rotation
112	Batteries
113	Lube

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TABLE H-1 Product Codes

Code	Description
114	Inspection
115	Labor
116	Towing
117	Road Service
118	Auto Accessories
119	Auto Parts
120	Preventive Maintenance
121	Air Conditioning Service
122	Engine Service
123	Transmission Service
124	Brake Service
125	Exhaust Service
126	Body Work
127	Automotive Glass
128	Synthetic Oil
129	Lamps
130	Wipers
131	Hoses
132	Tire-related (Wheel Balance, Valve Stem)
133	Repairs
134	Service Package
135	Automotive Parking
136	Truck Tank Cleaning
137	Other Lubricants
138	Automotive Fuel Additives/ Treatment (injected)
139 - 148	Undefined Parts/Service- Reserved for PCATS Future Use
149	Miscellaneous Part/Services
150 - 199 Aviation Fuels	
150	Jet Fuel

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TABLE H-1 Product Codes

Code	Description
151	Aviation Fuel Regular
152	Aviation Fuel Premium
153	Aviation Fuel JP8
154	Aviation Fuel 4
155	Aviation Fuel 5
156 - 198	Undefined Aviation Fuel
199	Miscellaneous
200 - 249 Aviation Products/Services	
200	Storage
201	Aircraft Ground Handling
202	Aircraft Ground Power Unit
203	Aircraft Labor
204	Aircraft Work Order
205	Aircraft Maintenance
206	Aircraft Service
207	Transportation
208	De-icing
209	Ramp Fees
210	Catering
211	Hangar Fee
212	Landing Fee
213	Call Out Fee
214	Aircraft Rental
215	Instruction Fee
216	Flight Plans/ Weather Brief
217	Charter Fee
218	Communication Fee
219	Aircraft Cleaning
220	Cargo Handling
221	Aircraft Accessories

TABLE H-1   Product Codes

Code	Description
222	Pilot Supplies
223	Aircraft Parking Fee
224	Aircraft Tiedown Fees
225	Aircraft Sanitation Fees
226	Aircraft Fuel Additive
227 - 248	Undefined Aviation
249	Miscellaneous Aviation
250 - 299 Marine Fuels	
250	Marine Fuel 1
251	Marine Fuel 2
252	Marine Fuel 3
253	Marine Fuel 4
254	Marine Fuel 5
255	Other Marine Fuel
256 - 298	Undefined Marine Fuel
299	Miscellaneous Marine Fuel
300 - 349 Marine Products/Services	
300	Marine Services
301	Marine Labor
302	Marine Work Order
303	Launch Fee
304	Slip Rental
305 - 348	Undefined Marine Services
349	Miscellaneous Marine Service
350 - 449 Other Fuels	
350	Kerosene - Low Sulfur
351	White Gas
352	Heating Oil
353	Bottled Propane
354	Other Fuel/Non-taxable

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TABLE H-1 Product Codes

Code	Description
355	Kerosene - Ultra Low Sulfur
356	Kerosene - Low Sulfur (Non-Taxable)
357	Kerosene - Ultra Low Sulfur (Non-Taxable)
358 - 448	Undefined
449	Miscellaneous/Other Fuel
450 - 599 Merchandise	
450	General Merchandise
451	Cigarettes
452	Tobacco - Other
453	Pkg Bvgs/Non-alcoholic
454	Hot Dispensed Bvgs
455	Cold Dispensed Bvgs
456	Frozen dispensed Bvgs
457	Other Beverages
458	Ice
459	Packaged Ice Cream
460	Salty Snacks
461	Alternative Snacks
462	Sweet Snacks
463	Candy
464	Fluid Milk Product
465	Other Dairy
466	Juice
467	Edible Groceries
468	Non-edible Groceries
469	Perishable Groceries
470	Publications
473	Healthy/Beauty Care
474	Beer (Alcoholic)
475	Beer (Non-alcoholic)

TABLE H-1 Product Codes

Code	Description
476	Wine
477	Liquor
478	Deli Sandwiches
479	Prepared Food
480	Deli Items
481	Food Service
482	Lottery (Instant)
483	Lottery (Online)
484	Lottery (Other)
485 - 502	Money Orders
485	General
486	Vendor Payment
487	Payroll Check
488	Gift Certificate
489	Refund Check
490	Official Check
491	Rebate Check
492	Dividend Check
493	Utility Check
494 - 502	Undefined
503	Store Services
504	Home Delivery
505	Prepaid Cards- Purchase
506	Prepaid Cards-Activation
507	Membership/Loyalty
508 - 599	Undefined
600 - 899 Reserved	
900 - 949 Negative Transactions	
900	Discount 1
901	Discount 2

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TABLE H-1 Product Codes

Code	Description
902	Discount 3
903	Discount 4
904	Discount 5
905	Coupon 1
906	Coupon 2
907	Coupon 3
908	Coupon 4
909	Coupon 5
910	Lotto Payout (Instant)
911	Lotto Payout (Online)
912	Lotto Payout (Other)
913	Split Tender
914	Tax Discount/Forgiven
915 - 948	Undefined
949	Miscellaneous Negative
950 - 999 Administrative	
950	Tax 1
951	Tax 2
952	Tax 3
953	Tax 4
954	Tax 5
955	Cash back
956	Cash back fee
957	Fee 1
958	Fee 2
959	Fee 3
960	Fee 4
961	Fee 5
962	Miscellaneous Aviation Tax
963 - 999	Undefined Admin

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Track Information

You can only use Track I for credit card transactions if you cannot extract Track II from the magnetic stripe. Worldpay requires Track II all debit and swiped EBT transactions.

TABLE I-1   Track Information by Payment Type

Payment Type	Description
Swiped	Track I or II from the magnetic encoding.
Manual or Settlement	Primary Account Number (PAN)
	Account Delimiter (= or hex 0x3d)
	Card Expiration Date (YYMM)
Check: Keyed MICR (TAC)	**T** - Transit Routing / ABA Number
	A - Account Number (left-justified and space-filled)
	C - Check Sequence Number (right-justified and zero-filled)
Check: Full read MICR (TOAD)	Full MICR Read using TOAD format to replace symbols accordingly.

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Merchant Type Code

Table J-1 lists a description of the merchant type codes.

TABLE J-1 Merchant Type Codes

Code	Merchant Type Code
BC	Banking and cash Advance
EC	E-commerce
FS	Food Service/Restaurant
GR	General Retail
LH	Lodging/Hospitality
QC	Quasi-Cash
RN	Rental
IV	Interactive Voice Unit
AR	Automated Response Unit
FD	Fuel Dispenser
AH	Automatic Clearing House

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K

Card Acceptor State Codes

Table K-1 lists each state's two-letter designation.

TABLE K-1   Card Acceptor State Codes

State	Abbreviations
ALABAMA	AL
ALASKA	AK
ARIZONA	AZ
ARKANSAS	AR
CALIFORNIA	CA
COLORADO	CO
CONNECTICUT	CT
DELAWARE	DE
DISTRICT OF COLUMBIA	DC
FLORIDA	FL
GEORGIA	GA
HAWAII	HI
IDAHO	ID
ILLINOIS	IL
INDIANA	IN
IOWA	IA
KANSAS	KS
KENTUCKY	KY
LOUISIANA	LA

TABLE K-1 Card Acceptor State Codes

State	Abbreviations
MAINE	ME
MARYLAND	MD
MASSACHUSETTS	MA
MICHIGAN	MI
MINNESOTA	MN
MISSISSIPPI	MS
MISSOURI	MO
MONTANA	MT
NEBRASKA	NE
NEVADA	NV
NEW HAMPSHIRE	NH
NEW JERSEY	NJ
NEW MEXICO	NM
NEW YORK	NY
NORTH CAROLINA	NC
NORTH DAKOTA	ND
OHIO	OH
OKLAHOMA	OK
OREGON	OR
PENNSYLVANIA	PA
RHODE ISLAND	RI
SOUTH CAROLINA	SC
SOUTH DAKOTA	SD
TENNESSEE	TN
TEXAS	TX
UTAH	UT
VERMONT	VT
VIRGINIA	VA
WASHINGTON	WA
WEST VIRGINIA	WV

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TABLE K-1   Card Acceptor State Codes

State	Abbreviations
WISCONSIN	WI
WYOMING	WY

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Check State Codes and ID Types

This appendix lists the state codes and ID types for Canada, USA, and US territories.

Code	ID Type	Name
28	AB	Alberta
29	BC	British Columbia
30	MB	Manitoba
31	NB	New Brunswick
32	NF	Newfoundland
33	NT	Northwest Territories
34	NS	Nova Scotia
35	ON	Ontario
36	PE	Prince Edward Island
37	PQ	Quebec
38	SK	Saskatchewan
39	YT	Yukon Territory
19	NU	Nunavut

TABLE L-2 USA

Code	ID Type	Name
41	AL	Alabama
42	AK	Alaska

TABLE L-2 USA

Code	ID Type	Name
43	AZ	Arizona
45	AR	Arkansas
46	CA	California
47	CO	Colorado
48	CT	Connecticut
91	DC	District of Columbia
77	DE	Delaware
49	FL	Florida
50	GA	Georgia
51	HI	Hawaii
52	ID	Idaho
53	IL	Illinois
54	IN	Indiana
56	IA	Iowa
57	KS	Kansas
58	KY	Kentucky
59	LA	Louisiana
60	ME	Maine
61	MD	Maryland
62	MA	Massachusetts
63	MI	Michigan
64	MN	Minnesota
65	MS	Mississippi
67	MO	Missouri
68	MT	Montana
69	NE	Nebraska
70	NV	Nevada
71	NH	New Hampshire
66	NJ	New Jersey
72	NM	New Mexico

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TABLE L-2   USA

Code	ID Type	Name
55	NY	New York
73	NC	North Carolina
74	ND	North Dakota
75	OH	Ohio
76	OK	Oklahoma
78	OR	Oregon
44	PA	Pennsylvania
79	RI	Rhode Island
80	SC	South Carolina
81	SD	South Dakota
82	TN	Tennessee
83	TX	Texas
84	UT	Utah
85	VT	Vermont
86	VA	Virginia
87	WA	Washington
88	WV	West Virginia
89	WI	Wisconsin
90	WY	Wyoming

TABLE L-3   US Territories

Code	ID Type	Name
92	AS	American Samoa
94	GU	Guam
95	PR	Puerto Rico
96	VI	Virgin Islands
18	MP	Northern Mariana Island

TABLE L-4   SSN

Code	ID Type	Name
99	SS	Social Security Number

TABLE L-5   US Territories

Code	ID Type	Name
20	FM	Full MICR
21	SW	Swiped License
40	MR	MICR (short)
22	CD	C.O.D.

TABLE L-6   Military ID

Code	ID Type	Name
93	CZ	Military ID

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AVS Results Codes

TABLE M-1 Visa AVS Result Codes

Value	Description
A	Street address matches, but ZIP code does not
B	Street address matches. Postal code not verified due to incompatible formats
C	Street address and postal code not verified due to incompatible format
D	Street addresses and postal codes match
E	Error
G	Address not verified for international transaction
N	Street address and ZIP Code do not match
R	Issuer authorization system is unavailable; try again later
U	Address information is unavailable
Y	Both street address and ZIP Code match
Z	ZIP Code matches but street address does not

TABLE M-2 MasterCard AVS Result Codes

Value	Description
A	Address matches, postal code does not
N	Neither address nor postal code matches
R	Retry, system unable to process
S	AVS currently not supported

TABLE M-2 MasterCard AVS Result Codes

Value	Description
U	No data from issuer/Authorization System
W	For U.S. addresses, 9-digit postal code matches, address does not; all others, postal code matches, address does not.
X	For U.S. addresses, 9-digit postal code and address match; all others, postal code and address match.
Y	For U.S. addresses, 5-digit postal code and address matches.
Z	For U.S. addresses, 5-digit postal code matches, address does not.

TABLE M-3 Discover AVS Result Codes

Value	Description
A	Address matches, five-digit ZIP Code matches
G	Address information not verified for international transaction
N	Nothing matches
S	AVS not supported at this time
T	Nine-digit ZIP Code matches, address does not
U	Retry, system unable to process
W	No data from Issuer/Authorization system
X	Address matches, nine-digit ZIP Code matches
Y	Address matches, ZIP Code does not
Z	Five-digit ZIP Code matches, address does not

Worldpay uses Advanced Address Verification (AAV) to validate the shipping address of American Express orders when the shipping address is different from the billing address.

TABLE M-4 American Express AAV Result Codes

Value	Description
A	Billing Address only correct.
D	Cardholder Name incorrect, Billing Postal Code match.

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TABLE M-4 American Express AAV Result Codes

Value	Description
E	Cardholder Name incorrect, Billing address and Postal Code match
F	Cardholder Name incorrect, Billing Address matches
K	Cardholder Name matches.
L	Cardholder Name and Billing Postal Code match.
M	Cardholder Name, Billing Address and Postal Code match.
N	Billing Address and Postal Code are both incorrect.
O	Cardholder Name and Billing Address match.
R	System unavailable; retry.
S	Service establishment does not allow AAV function.
U	Information unavailable
W	Cardholder Name, Billing Address and Postal Code does not match.
Y	Billing Address and Postal Code are both correct.
Z	Billing Postal code only correct.

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Card Verification Value (CVV) Result Codes

TABLE N-1 Visa and Discover CVV2/CID Result Codes

Value	Description
M	CVV2/CID match
N	CVV2/CID no match
P	Not processed
S	CVV2/CID is on the card, but the merchant has indicated that CVV2/CID is not present
U	Issuer is not certified for CVV2/CID

TABLE N-2 MasterCard CVC 2 Result Codes

Value	Description
M	Valid CVC 2 (match)
N	Invalid CVC 2 (non-match)
P	Unable to be processed
U	Issuer unregistered to process CVC 2

TABLE N-3 American Express CID Result Codes

Value	Description
Y	CID matched
N	CID did not match
U	CID was not checked

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Certegy Check Processing Addendum

The message ID should always be 0200.

TABLE O-1 0200/0210 ECC Conversion/Check Guarantee

Data Element	0200	0210	Field Value, Comments, References
3	M	ME	
4	M	M	
7	M	ME	
11	M	ME	
12	M	ME	
13	M	ME	
15		C	Returned only for approved transactions.
18	C	CE	
22	M	ME	Required for ECC, Check Ver, and Check Guar.
35	O		
39		M	
40	M	ME	
42	M	ME	
44		M	
49	M	ME	
54	C	CE	Required for check transaction with Cash Back.
57	M	M	
61	M	ME	

A driver's license number and State Code are not needed.

TABLE O-2 Certegy Type 30 (Full MICR 1) Transaction

Processing Code DE3	Account type DE3.2	Service Type DE 57.02	State Code
03 01 00 (Guarantee personal) 34 01 00 (Verification personal) 03 02 00 (Guarantee Company) 34 02 00 (Verification Company)	01 or 02	30	FM

Worldpay requires MICR data.

TABLE O-3 Certegy Type 40 (Full MICR 2) Transaction

Processing Code DE3	Account Type	Service Type DE 57.02	State Code	Driver's License
03 01 00 (Guarantee personal) 34 01 00 (Verification personal) 03 02 00 (Guarantee Company) 34 02 00 (Verification Company)	01 or 02	40	(required)	(required)

MICR data must be swiped and in TOAD format. This transaction must be followed by a Certegy Type 82 transaction to complete the check conversion).

TABLE O-4 Certegy Type 80 (ECC Sale) Transactions

Processing Code DE.3 04	Account Type	Service Type DE57.02	State Code	Phone Number	Driver's License
01 00	1	80CG	FM for FM1 required for FM2	Required	Required for FM2

Worldpay requires MICR data.

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TABLE O-5 Certegy Type 81 (ECC Auth Only) Transaction

Processing Code	Account Type	Service Type DE57.02	Phone Number	State Code	Driver's License
04 01 00	1	81AG	Required	Optional	Required for FM2

Driver's License number and State Code are not needed. MICR data is not valid for this transaction type. This transaction must be sent for every previously approved Certegy Type 80 FM1 or FM2 transaction.

TABLE O-6 Certegy Type 82 (ECC Sale Acknowledgment) Transaction

Processing Code	Account Type	Service Type DE57.02	ACH Reference # DE57.40
04 01 00	1	82CG	

Driver's License number and State Code are not needed. MICR data is not valid for this transaction type. This transaction must match a previous Certegy Type 80 transaction.

TABLE O-7 Certegy Type 83 (ECC Void Sale) Transaction

Processing Code	Account Type	Service Type DE 57.02	ACH Reference # DE57.40
24 01 00	1	83CG	

O.1   Void and Time Out Transactions

The Void Transaction is required to cancel the settlement of a transaction. All Electronic Check transactions received by Certegy that are eligible for settlement are placed into a settlement queue immediately and scheduled for submission to the ACH Network each evening. If a transaction needs to be canceled, a Void Transaction request must be sent to Certegy.

If a situation arises where the merchant does not receive a response back from Certegy, the merchant should not assume the transaction was unsuccessful. It is possible the transaction was completed on Certegy's side and the response message back to the merchant was lost in transit. While this does not happen frequently, its occurrence does warrant appropriate action, as these transactions if eligible for ACH will be settled. The merchant should try the transaction again. If it was successfully accepted for conversion to ACH, the merchant will receive a DUP EFT message response.

This indicates the request is a duplicate and provides the Reference Number to the original transaction. Since conversion of a paper check to ACH requires consumer written consent, the merchant must be able to present a receipt to the consumer to sign. Since no receipt has been received as part of the failed response and subsequent duplicate, the merchant must use the Reference Number in the DUP EFT response to request a Void Transaction.

Once that is successful, the merchant should re-run the original transaction again. The assumption here is that the transaction will be approved again and the response back to the merchant will not get lost, thus successfully completing the request and generating a receipt for the consumer to sign. Now the transaction can be considered complete and the transaction will be debited from the consumer's bank account and credited to the merchant.

This information is provided as a courtesy and is believed to be accurate, but may change without notice. Information should be verified against and used with the current Certegy-Worldpay Specifications. This is valid for Worldpay specifications Hybrid/Host Transaction Message Formats (Grocery), the Transaction Message Format (TCMP) and the API specification, and the ISO specs

For IDFREE ECC, FM can be sent for state code on the first transmission. If the State Code, Date of Birth and the Driver's license are needed, Certegy will send a response code 19 back requesting this info.

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Glossary

3

3DS

Three Domain Secure

A

Account Authentication Value (AAV)

Automated Clearing House (ACH)

The ACH Network is a processing and delivery system that provides for the distribution and settlement of electronic credits and debits among a large number of financial institutions.

Automatic Response Unit (ARU)

An electronic authorization and capture product where the merchant uses a touch-tone telephone to process transactions.

American Standard Code for Information Interchange (ASCII)

A coding scheme using 7 or 8 DEs that assigns numeric values to up to 256 characters, including letters, numerals, punctuation marks, control characters, and other symbols.

B

Bank Identification Number (BIN)

A set of numbers established by the International Standards Organization and the American Bankers Association, which identifies numbers such as the IIN. This appears in the PAN and identifies the issuer, and that uniquely identifies a Card associated with an Account that is maintained by one or more Financial Institutions.

C

Cardholder Activated Terminal (CAT)

This is typically an unattended terminal that accepts bank cards for payment.

Card/Cardholder Not Present (CNP)

The account number is presented for a Point of Sale (POS) purchase through the internet or MOTO (mail order or telephone order). CSM. .

Cryptographic Service Message (CSM)

The Cryptographic Message service builds and parses cryptographic messages to address the business requirements for key management.

Card Verification Value (CVV2)

Card Verification Value that matches a three or four digit code which is printed on a credit card, but which is not a part of the account number, against values on file with Visa and American Express' and Discover's processing system.

D

DE

A binary digit, taking a value of either 0 or 1.

Debit Bill Payment

Debit Bill Payment is a financial transaction where a Merchant Biller has elected to complete a funds transfer that is processed by the Switch without validating the cardholder's PIN.

Disconnect Service Message (DSM)

In a point-to-point environment, a cryptographic message class used to discontinue one or more keys.

Derived Unique Key Per Transaction (DUKPT)

A key management method that uses a unique key for each transaction, and prevents the disclosure of any past key used by the transaction originating TRSM. The unique Transaction Keys are derived from a base derivation key using only non-secret data transmitted as part of each transaction.

E

E-commerce

This is the activity of buying or selling of products on online services or over the Internet.

Europay Mastercard Visa (EMV)

EMV is a global standard for cards equipped with computer chips and the technology used to authenticate chip-card transactions.

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Error Service message (ESM)

In a point-to-point environment, a cryptographic message class reporting an error in a previous cryptographic service message.

End-to-End encryption (P2PE)

The process by which card data is encrypted at the point of card read (or PAN entry) and later decrypted.

F

Force Posting

When a POS system is unable to connect to the host for authorizations, the POS system will approve all transactions at the time of sale up to preset ceiling limits as defined by the POS. The POS system generates a bogus authorization number for these transactions. Once communication with the host resumes these transactions are sent to as settled transactions. No authorization is attempted through the card networks. processes these transactions through the settlement system. Cards that would have normally been declined during the authorization process will be charged back to the customer.

Flexible Spending Account (FSA)

The most common type of flexible spending account, the medical expense FSA (also medical FSA or health FSA), is similar to a health savings account (HSA) or a health reimbursement account (HRA).

Food and Nutrition Services (FNS)

The Food and Nutrition Service (FNS) is an agency of the United States Department of Agriculture (USDA). The FNS is the federal agency responsible for administering the nation's domestic nutrition assistance programs. The service helps to address the issue of hunger in the United States.

G

Greenwich Mean Time (GMT)

Greenwich Mean Time is the mean solar time at the Royal Observatory in Greenwich, London, reckoned from midnight.

It is also known as UTC (Coordinated Universal Time).

I

Integrated Chip Card (ICC)

A smart card, chip card, or integrated circuit card s a physical electronic authorization device, used to control access to a resource. It is typically a plastic credit card sized card with an embedded integrated circuit.

Issuer Identification Number (IIN)

Uniquely identifies a card issuing institution in an international interchange environment. All IINs assigned are six digit numbers and each card issuer is entitled to one IIN (outside of its membership of any card schemes). This IIN must be used only to identify the card issuer.

International Standards Organization (ISO)

ISO is an international body that provides standards for financial transactions and telecommunication messages. ISO works in conjunction with the Consultive Committee for International Telephone and Telegraph (CCITT) for standards that impact telecommunications.

ISO supports specific technical committees and work groups to promulgate and maintain financial services industry standards, such as bank identification numbers and merchant category codes.

K

Key Service Message (KSM)

In a point-to-point environment, a cryptographic message class transferring a key from an originator to a recipient.

L

Longitudinal Redundancy Check (LRC)

This is a procedure that checks the accuracy of data stored on magnetic tape or transmitted over a communications line.

M

Message Authentication Code (MAC)

In cryptography, a message authentication code (MAC), sometimes known as a tag, is a short piece of information used to authenticate a

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message—in other words, to confirm that the message came from the stated sender (its authenticity) and has not been changed.

Mastercard International (MCI)

Magnetic Ink Character Recognition (MICR)

The characters on the bottom line on the face of a paper check that contains the routing/transit number of the financial institution the check is drawn on, the account number of the drawee (Receiver) and the check number, all printed in machine readable magnetic ink in a font devised for check reading.

Message Type Indicator (MTI)

The 4-digit numeric field classifying the high level function of the message.

Mail Order/Telephone Order (MOTO)

Credit card transactions initiated via mail, email or telephone. This is also known as a card-not-present transaction.

N

Network Management Information Code (NMIC)

An NMCI is an ISO-defined data element. It is data field 70 and has a type of n3.

P

Primary Account Number (PAN)

This is the assigned number that identifies the card issuer and cardholder. This account number is composed of an issuer's identification number, an individual account number identification number and an accompanying check digit.

Personal Identification Number (PIN)

A personal identification code that identifies a cardholder in an authorization request that originates at a terminal with authorization-only or data capture-only capability. A PIN may be alphabetic, numeric, or a combination of both.

PNLS

See Bill Payment.

PNLS Refund

Refunds a partial or full amount of a PINless bill payment transaction regardless of the day of the original transaction.

PNLS Reversal

Full reversal of the original PINless bill payment transaction and must be run on the same business day before settlement. If after settlement, then run a PNLS refund.

PNLS Reversal of Refund

Full reversal of a PINless bill payment refund (for the full amount of the original refund) and must be run on the same business day before settlement.

Q

Quasi-Cash

A transaction representing sales of items that are directly convertible to cash such as money orders and travelers checks.

Currently, the Registration ID is 19 digits numeric, composed of random values, there is no encryption involved, and it doesn't contain any embedded data.

R

Recurring Bill Payment

Recurring billing is when a merchant automatically charges a cardholder for specified goods or services on a prearranged schedule

Recurring Billing Agreement

This is an agreement signed between the cardholder and the merchant.

Request Service Initiation (RSI)

In a point-to-point environment, a cryptographic message class requesting that a new keying relationship be initiated.

Response Service Message (RSM)

In a point-to-point environment, a cryptographic message class providing an authenticated response to a KSM.

S

SecureCode™

Mastercard's proprietary brand for several methods of e-commerce cardholder authentication including PC Authentication, 3-D Secure and Chip Authentication.

System Trace Audit Number (STAN)

A number assigned by the originator of a transaction to uniquely identify a transaction throughout its life.

Store and Forward (SAF)

When a POS system cannot connect to the host for authorizations, the POS system approves all transactions at the time of sale up to preset ceiling limits as defined by the POS. These transactions are stored until such time as communication with the host resumes. At that time, the transactions are forwarded to the host and the appropriate card network for authorization.

Stand-In

When a POS system is unable to connect to the host for authorizations, the POS system will approve all transactions at the time of sale up to preset ceiling limits as defined by the POS. The POS system generates a bogus authorization number for these transactions. Once communication with the host resumes these transactions are sent to as settled transactions. No authorization is attempted through the card networks. processes these transactions through the settlement system. Cards that would have normally been declined during the authorization process will be charged back to the customer.

Stored Value Systems (SVS)

Supplies stored value services and gift cards to merchants.

Switch

A device that collects transactions from individual stores or POS terminals and sends them to the host for authorization.

T

Transmission Control Protocol/Internet Protocol (TCP/IP)

A protocol developed by the Department of Defense for communications between computers. It is built into the UNIX system and has become the standard for data transmission over networks, including the Internet.

Time-Out Reversal (TOR)

Processing reverses unsuccessful transactions that occur due to communications issues or processor outages.

Triple DES

The newest encryption standard being adopted by the card payment industry as a proactive measure against potential attacks to crack standard DES keys. 3DES involves DES encryption of each data block three times with different keys, using three successive iterations of the DES algorithm. It can use either a 128-DE (16-byte) or 192-DE (24 byte)

U

Universal Cardholder Authentication Field (UCAF)

This is a standard, globally interoperable method of collecting cardholder authentication data at the point of interaction across all channels, including the Internet and mobile devices.

V

Verified by Visa (VbV™)

A program developed by Visa that helps ensure that payments are made by the rightful owner of the Visa account in order to make online purchases more secure.

X

Transmission Identity (XID)

Extended Identifiers (XIDs) are eight-character identifiers that help web-based applications uniquely tag users.

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