Merchant e-Solutions
Payment Gateway Specification

MERCHANT
e-SOLUTIONS
a cielo company

Merchant e-Solutions

May 2019

Version 4.27

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1. Introduction

The Merchant e-Solutions Payment Gateway API lets merchants and resellers process live credit card transactions.

Documentation

Merchant e-Solutions technical documentation and SDK libraries are available at:

http://developer.merchante-solutions.com

The PCI Security Standards Council manages the rules that merchants must follow when using payment cards. Those rules are available at:

https://www.pcisecuritystandards.org/

Revisions

Date	Version	Change
May 2019	4.27	**Offline Transaction** Removed reference to Offline transactions from page 6 due to Control Force Post mandates. Added a note regarding Offline transactions that are no longer allowed due to the Control Force Post mandate effective January 24, 2019 on page 30.
February 2019	4.26	**Credit Voucher Updates** Updated the current and future responses for Refund's on settled transactions on page 61. Updated the current and future responses for Credit Sample on page 64.
December 2018	4.25	**Control Force Post Mandate** Updated the description for error code 058 where Offline/Force Post transactions are no longer allowed by default on page 41.
September 2018	4.24	**October CAU Updates:** Added documentation and a table with the new values for AMEX Zero Value Account Verification (ZVAV) Authorization changes on pages 10 & 15.

Date	Version	Change
August 2018	4.23	Added a retry_id field for Refund on page 25 Added a retry_id field for Credit on page 26
May 2018	4.22	Card on File (CoF) fields have been updated on Page 31.
October 2017	4.21	**The following changes have been made to comply with the card brand updates:** Removed Batch Processing information. Batch Processing is now a separate document. Added a new section for Card on File. Page 4 Added a new section for Card on File/Tokenization. Page 11 Added a field for Card on File to the Card Not Present Sale Section. Page 20 Added a field for Card on File to the Card Not Present Pre-Authorization section. Page 22 Added a table for the Account Data Source Code. Page 19
July 2017	4.20	Updated product_level table add new MC product code
May 2017	4.19	Updated optional American Express fields; Added Visa B2B Product Code; Formatting changes
January 2017	4.18	Added Delete Stored Cards
January 2017	4.17	Modified response codes 124 and 125: Changed 124 to 000 and modified its description; Removed 125
December 2016	4.16	Removed Foreign Exchange transaction information related to error codes 224-228; Modified re-authorization usage
January 2016	4.15	Removed reference to GET methods; Added merchant_city, merchant_state, merchant_zip to Dynamic DBA section
July 2015	4.14	Readability fixes
December 2014	4.13	Added Hotel, Cruise, Auto Rental data and gateway error codes; Added response control fields; Commented on field for product level result code; Removed Fraud section;

Date	Version	Change
		Updated URL for response download; Removed Amex CID enablement requirement

2. Description

The Merchant e-Solutions Payment Gateway API provides a simple and secure method of processing credit card payments over the Internet.

By sending an HTTPS POST request with minimal transaction information to the payment gateway, merchants can avoid the complex protocols and message formats unique to the credit card industry.

Credit Card Processing

Processing a payment through the API involves two key steps: authorization and capture.

Authorization - Getting approval for the transaction from the card issuer

Capture – Finalizing a transaction so that funds can change hands

Authorization depends on factors such as:

- Credit availability
- Account status (card not reported stolen, for example)

After a transaction is authorized, the transaction amount is removed from the available credit on the account. This change is temporary. To finish the transaction and have money change hands, the transaction must be captured.

Some merchants can charge customers immediately, and in those cases, the authorization can be automatically marked for capture.

Other merchants might need to wait for an item to ship before billing the customer. Those merchants can authorize a payment and then mark it for capture only after the item ships.

Card on File

Card on File fields are required for merchants to store card information securely through the Merchant e-Solutions Payment Gateway API. This is also required if a merchant is storing card information for future use outside of the Payment Gateway API.

Visa® and Mastercard® have introduced a new framework for dealing with Card on File (CoF) transactions. This framework includes mandatory rules and processing requirements that must be adhered to when merchants store a cardholder's payment credential for use on future purchases. The term "payment credential" is used here as the merchant may not have the full card number in their possession. Instead, the merchant may have a "token" or payment credential that is linked to the card number. The merchant is only required to follow the stored credential framework when they are storing the credentials for use on future purchases.

For additional information regarding the CoF framework, please see the Implementation Support Guide https://merchante-solutions.app.box.com/v/StoredCredIG

Settlement

Each day, at a time chosen by the merchant, all approved transactions are marked for capture and automatically settled. If not set by merchant, the default time is 9PM PDT. Each group of settled transactions is called a batch.

Settlement - the process of moving money to or from a merchant account

Settling a transaction after 7 days causes a change in the Interchange rate, which means higher processing costs. This also increases the risk of a chargeback.

Best Practice: Settle transactions within 7 days of the authorization. To settle a transaction after 7 days, authorize a new transaction and void the original one.

No transaction should be settled more than 28 days after the authorization date.

Settlement Amounts

You can't settle a transaction for more than the authorized amount unless the merchant type allows tips. Merchants allowed to add tips include:

5812 - Restaurants
5813 - Bars and Taverns
5814 - Fast Food Restaurants
4121 - Taxicabs & Limousines
7230 - Hair Salons
7298 - Health & Beauty Spas

Settling a transaction for less than the authorized amount causes a partial authorization reversal, which means that part of the original request is cancelled. The amount of time it takes for the canceled amount to be returned to the customer varies by bank.

International Processing and Currency

By default the system uses United States Dollars (currency_code=840). Contact your Merchant e-Solutions representative to have your account approved for:

- International transactions
- Foreign Currency Exchange (FX) transactions

Transaction Types

Name	transaction_type	Description
Sale	D	If approved, transaction is automatically marked for capture and settled
Pre-Authorization	P	Transaction is authorized but not marked for capture **Note:** Use Capture to mark the transaction for capture. A transaction marked for capture is included in the next scheduled settlement.
Settle	S	Marks a pre-authorized transaction for capture

Name	transaction_type	Description
		Best Practice: There should be at least 15 seconds between a Pre-Authorization request and a Settle request. **Multi-Capture**: You can capture part of a pre-authorized amount. You cannot capture an authorization older than 30 days. Each multi-capture request gets a unique transaction_id response. **Note:** Multi-Capture is not available for FX transactions.
Re-Authorization	J	Resubmits a declined transaction Extends Mastercard pre-authorized transaction expiration date Transactions older than 28 days cannot be re-authorized. **Best Practice**: If a re-authorization is declined, contact the customer for a recommended day to resubmit. Re-authorization is available for United States Dollar transactions only.
Void	V	Cancels a Pre-Authorization transaction **Best Practice:** If you need to cancel a captured transaction, use Refund instead of Void.
Refund	U	If a transaction is not captured, voids the transaction If a transaction is captured, credits the cardholder The response lists **Void**, **Adjustment**, or **Credit** as confirmation. You cannot refund a transaction for more than the original amount. Partial Refund: Provide the transaction amount parameter in the request. Multiple refunds are permitted for a single sale transaction up to but not over the original sale amount. The refund can also support a refund of a credit.
Credit	C	Sends funds to a cardholder **Best Practice:** Use Refund instead of Credit whenever possible. Credit transactions if approved, a credit will be issued to the merchant. The response message will be similar to the sales response with an authorization code.
Store Card	T	Stores a customer's card number for one time use

Name	transaction_type	Description
		Use the transaction_id in the response as the customer's card_id.
Delete Stored Card	X	Removes stored card information
Verification Only	A	Verifies cardholder information The card services verify different amounts of information. See Verification transactions for more information. Verification is available for United States transactions only.
Inquiry	I	Requests the response from an earlier transaction Inquiry is only available for 48 hours after the original transaction. A retry ID must be submitted with every transaction to use this function.
Close Batch	Z	Starts a batch close via the API Batch Close is normally used for Point of Sale terminals that have a close function.

Customer Purchases

The credit card associations require information about how customers make a purchase.

Description	Field Value
Card-Present Card is physically present with the merchant at the time of sale **Note:** Keying a card by hand instead of using an electronic card reader can produce a higher transaction fee.	**moto_ecommerce_ind** moto_ecommerce_ind = Z Not a Mail/Telephone Order

Description	Field Value

Card Not Present
 	
Mail/Telephone Order (MOTO)
 	
Card is not physically present with the merchant; sale happens in writing or by phone
 	
Recurring – A charge that will happen again
 	
Installment – A charge that will happen again and has a defined number of payments (example: 3 payments of $19.99
	moto_ecommerce_ind = 1
	     One Time Mail/Telephone Order
	moto_ecommerce_ind = 2
	     Recurring Mail/Telephone Order
	moto_ecommerce_ind = 3
	     Installment Payment or Prepayment Transactions

E-Commerce Transaction Card is not physically present with the merchant; sale happens on the Internet	moto_ecommerce_ind = 7 E-commerce Order

The default for moto_ecommerce_ind is 7 (E-commerce Order), so if no information is submitted for that field, the system processes the transaction like an Internet sale.

Note: If the card has expired, the expired date is submitted and the moto_ecommerce_ind is set to a 2 or 3, the Payment Gateway will submit 0000 as the expiration date in the authorization request.

3. Risk Management and Security

Address Verification Service (AVS)

The Address Verification Service lets merchants submit customer information, generally the billing address and ZIP code, in the transaction request. The system compares the request to the billing information on file with the bank and responds with how well the values match.

Merchants must choose how to handle transactions with partial or no matches. The Account Verification Service result will not affect the transaction; it will be processed regardless of the result.

> **Best Practice**: A Verification Only transaction will let you confirm the billing address and ZIP code of a customer before submitting a sale.

Using the Account Verification Service qualifies card-not-present transactions for the best possible Interchange rate.

You can use this service by submitting cardholder_street_address and cardholder_zip request fields. The response is available in the avs_result field.

Cardholder Verification Codes

Each card issuer puts a 3 or 4-digit security code on its card, though the companies use different names for the code.

- Visa: Card Verification Value 2 (CVV2)
- Mastercard: Card Verification Code 2 (CVC2)
- American Express: Card Identification Data (CID)
- Discover: Card Identification Data (CID)

The gateway will process the transaction regardless of the verification response. Some banks will decline a transaction if a **No Match** response occurs.

The security code for a credit card cannot be saved after a transaction is authorized.

You can use this service by submitting a cvv2 request field. The response is available in the cvv2_result field.

Store Card

Merchants can securely store a cardholder account number and receive a 32-character Globally Unique Identifier to use in its place. The transaction_id in the response from the Store Card request becomes the customer's card_id.

Commercial and Purchase Card Extended Data

Commercial and Purchase card requests may require additional information like purchase order or tax amount. Submitting this information is necessary to qualify for the Commercial or Purchase Card processing rate.

Find additional information about commercial and purchase cards in the Commercial and Purchase Cards request section and the Level 3 Processing section.

Dynamic Doing Business As (DBA)

> **Note:** The use of Dynamic Doing Business As (DBA) requires MeS Risk approval. Please contact Solution Consulting at solution.consulting@merchante-solutions.com for more information.

Security Obligations

Merchants

Merchants who choose to accept credit card payments must follow the Payment Card Industry Data Security Standards. For example, some fields used by the gateway, like card track data or cardholder verification codes, should not be stored.

Information about PCI compliance is available at:

https://www.pcisecuritystandards.org/
http://www.visa.com/cisp

Merchants are also responsible for building safe, secure systems to process API requests and responses. For example, merchants should use HTTPS protocol and POST requests on a network following SSL/TLS standards.

Resellers

Resellers must be certified in Payment Application Data Security Standards.

Merchants who act both as merchants and as resellers need to follow PCI and PA-DSS requirements.

Contact your Merchant e-Solutions representation for more information about reseller certification.

Zero Value Account Verification Service (ZVAV)

American Express is introducing a Zero Value Account Verification Service (ZVAV). This service allows a merchant to validate the legitimacy of a card using a zero-dollar transaction amount. This new service will be provided as an enhancement to the existing AMEX Automated Address Verification Only (AAV) and Card Identification Verification Only (CID) transactions. Once activated, when merchants use the Verification Only services, they will receive the card status, as well as the result of the AAV or CID inquiry. Or they can initiate a verification-only transaction without the AAV or CID and still receive the ZVAV card status results.

4. Card Brand Processing Considerations

Card on File/Tokenization

Although various card brands may have different requirements for storing payment credentials, the current specifications included in this document do not require a merchant to process differently between individual card brands. For integration simplicity, the MeS Gateway will handle each of the respective transactions appropriately.

A Card on File transaction is a transaction where the card credentials come from a file that is managed by the merchant. If the transaction uses card credentials that came directly from the Cardholder and the merchant will only use them for this transaction, then this is NOT a Card on File transaction.

There are 3 types of Card on File transactions:

CIT or Cardholder Initiated Transaction – These are transactions that are initiated by the Cardholder and uses the card credentials that have already been stored by the merchant. An example is a web site customer that logs into that web site account and makes a purchase using the card credentials that are stored by that web site for use on that web site.

MIT or Merchant Initiated Transaction – These are transactions that are initiated by the Merchant per an agreement they have with the Cardholder and uses the card credentials that have already been stored by the merchant. An example is a Fitness Center that automatically processes a monthly transaction for the cardholder's membership.

Initial Card on File transaction – This is the transaction where the issuing bank is notified that the merchant will be storing the card credentials and using them to process additional transactions in the future.

For additional information see the MeS Stored Credential Framework Implementation Guide here.

5. Back Office

The Payment Gateway Back Office provides the following functionality to supplement the integrated processing:

Home provides a snapshot of transactions pending settlement, total pre-authorizations, and one click access to the last settled batch. The back office home page also provides important updates and industry new bulletins.

Administration allows the client to set the settlement time and designate transaction acceptance based on AVS and Cardholder Verification responses.

Transaction processing is available for processing exception transactions manually when the integrated processing is not an option. The client may process all transaction types using a "virtual terminal".

Batch Management allows for the management of unsettled transactions (marking as settled or voiding), as well as the ability to view and print settled batches.

6. Testing

The certification request form must be submitted online in order to obtain testing credentials:

http://developer.merchante-solutions.com/#/certification-request

Upon receipt of the completed form, test credentials will be emailed within 24-48 hours.

Best Practice: It is important to use the test profile for testing to prevent billing for authorizations obtained during testing. MeS will bill for all authorizations obtained using a production profile even if the transactions are part of the testing cycle.

The Merchant e-Solutions certification servers are available 24 x 7 for unattended testing. The certification servers replicate the Payment Gateway production servers and support testing for all available functions.

Certification transactions are processed as tests, so there is no need to worry about settlement to a customer account.

Certification Host: https://cert.merchante-solutions.com/mes-api/tridentApi

Test Card Numbers

Card Type	Length	Card Number
Visa	16	4012301230123010
Visa	13	4012301230158
Mastercard	16	5123012301230120
Mastercard	16	2223000010090980
American Express	15	349999999999991
Discover	19	6011011231231234005
JCB	16	3528288605211810
Visa	19	4012888812348882008
Mastercard	19	5123012301230120001

Business-to-Business Card Numbers

To receive these responses, send Rctl_commercial_card = y with your request.

Card Type	Card Number	Commercial Card Response Indicator
Visa	4000700705251681	B - Business Card
Mastercard	5589548939080095	B - Business Card
Mastercard	5133598939080091	S - Purchasing Card
Visa	4000693061211474	R - Corporate Card
Mastercard	5119718939080093	R - Corporate Card

Address Verification Testing

Street Address	ZIP Code	avs_result Response
123	55555	Y – street and postal code match
123	999991111	Y – street and postal code match (Visa) X – street and postal code match (Mastercard)
123	EH8 9ST	D - exact match, international
123	11101	A - address match, zip mismatch
234	11101	U - address unavailable
345	11101	G - verification unavailable due to international issuer non-participation (Visa and Mastercard only)
456	11101	R - issuer system unavailable, retry
235	11101	S – AVS not supported
177	55555	Z - address mismatch, 5-digit zip match
177	EH8 9ST	Z - address mismatch, international zip match
177	999991111	Z - address mismatch, zip match (Visa) W - address mismatch, zip match (Mastercard)
177	11101	N - address and zip mismatch

American Express Automated Address Verification (AAV)

Field Name	Field Value	avs_result Response
cardholder_street_address	123	Y = Match
cardholder_zip	55555 or 999999999	Y = Match
cardholder_first_name	CHRIS	Y = Match
cardholder_last_name	FROST	Y = Match
cardholder_phone	7035551212	Y = Match
cardholder_email Note: This is an Internet Telephone Data (ITD) field.	CFFROST@EMAILADDRESS.COM	Y = Match

American Express Zero Value Account Verification Messaging (ZVAV)

The American Express Zero Value Account Verification Messaging (ZVAV) functionality allows for the validation of a card's status.

Note: Other action codes may be used to indicate issues with the transaction that are not necessarily specific to ZVAV functionality.

Note: Prepaid Card balance returns are not supported when using ZVAV.

Data Field	Action Code	Response
000	Approved	Indicates a card in good standing
100	Deny	Indicates an invalid card or account
110	Invalid Amount	An amount has been populated other than $0
111	Invalid Account	Indicates an invalid account
115	Requested function not supported	For example, Visa, MC, JCB, etc.

912	Issuer not available	Indicates that the issuer was unable to verify

CVV2, CVC, CID Testing

Visa, Mastercard, and Discover

cvv2 Test Value	cvv2_result Response
123	M - Match
234	P - Not Processed
345	G - Verification unavailable due to international issuer non-participation (Visa only)
789	N - No Match

American Express

American Express verification requires activation to use.

cvv2 Test Value	cvv2_result Response
1234	M - Match
2345	P - Not processed
5678	N - No match

Amount-Driven Response Testing

Test transaction_type Value	Amount Test Value	error_code Response	auth_response_text Response	Visa Description
A	0.00	085	Card OK or Approval	
P or D	0.01	001	Call	Refer to card issuer
P or D	0.02	002	Call	Refer to card issuer, special condition
P or D	0.04	004	Hold-call	Pick up card (no fraud)
P or D	0.05	005	Decline	Do not honor

Test transaction_type Value	Amount Test Value	error_code Response	auth_response_text Response	Visa Description
P or D	0.07	007	Hold-call	Pick up card, special condition (fraud account)
P or D	0.14	014	Card No. Error	Invalid account number (no such number)
P or D	0.15	015	No Such Issuer	No such issuer
P or D	0.19	019	RE Enter	Re-enter transaction
P or D	0.41	041	Hold-call	Lost card, pick up (fraud account)
P or D	0.43	043	Hold-call	Stolen card, pick up (fraud account)
P or D	0.51	051	Decline	Not sufficient funds
P or D	0.54	054	Expired Card	Expired card or expiration date is missing
P or D	0.57	057	Serv Not Allowed	Transaction not permitted to cardholder
P or D	0.59	059	Suspected Fraud	Suspected fraud
P or D	0.84	084	Invalid Auth	(Mastercard) Invalid authorization life cycle
P or D	0.86	086	Can't Verify PIN	Cannot verify PIN; for example, no PVV
P or D	1.10	0TA	CT NOT ALLOWED	(Merchant e-Solutions) Merchant does not accept this type of card

Encrypted PIN Debit Testing

This feature is only available to merchants using PIN pads with Merchant e-Solutions encryption keys.

Enter 1234 as the PIN for Approval. Any other PIN will be declined.

Encrypted PIN Block	KSN	Response
706E3CADE53F11CA	3941013211204321	00 – Approval
43197165510DDD89	3941013211204322	55 - Wrong PIN
CCCCCCCCCCCCCCCC	3941013211204323	81 - Encryption Error

Partial Authorization and Balance Inquiry

To test partial authorization, submit Rctl_partial_auth = y along with any valid amount. The system will respond with approval of 1/3 of the requested amount.

Balance inquiry testing, such as for pre-paid gift cards, is not available in the certification environment.

7. Request Fields

Account Data Source Code

This optional field contains a one-character code identifying the source of the customer data in authorization requests.

Table 5.1 Account data source code

Code	Description
D	Full magnetic stripe read and transmit, Track two
G	Chip Card Read Data (EMV)
H	Full magnetic stripe read and transmit, Track one
P	Manually keyed, Chip Card read capable terminal
Q	Proximity payment device using track data rules (Track 2 Only)
R	Proximity payment device using VSDC or M/Chip data rules (Track 2 Only)
S	Full magnetic stripe read (Track 2 only), Chip Card capable terminal
T	Manually keyed, Track two capable
X	Manually keyed, Track one capable
Y	Subsequent Card on File
@	Manually keyed, terminal has no card reading capability

Card-Present Sale

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhIqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
account_data_source	Example: D If field is provided, must be a value matching the card entry method from table 5.1	Optional	1 Alphanumeric
card_number	Example: 4012301230158	Required if card_swipe or	5 – 22 numeric

Field	Description	Required	Format
	Payment card number Note: Do not send card_swipe or card_id if you send card_number.	card_id not used	
card_swipe	Contents of payment card read by an electronic device Note: card_swipe transactions are always processed as card-present transactions. Do not send card_number or card_id if you send card_swipe.	Required if card_number or card_id not used	-
card_exp_date	Example: 1222 Card expiration date, submit as MMYY	Required	4 numeric
transaction_amount	Example: 12.35 Transaction amount	Required	12 (max) numeric
transaction_type	D Example: D D = sale	Required	1 alphanumeric
moto_ecommerce_ind	Z Example: Z Z = Not a mail/telephone order transaction	7	1 alphanumeric
client_reference_number	Ex: 345892 Merchant-defined reference number Note: Do not send & or =.		96 (max) alphanumeric
retry_id	Ex: 987654 Note: Allows Inquiry transaction of this request.	Required if implementing the Inquiry transaction type	16 (max) alphanumeric

Card Not Present Sale

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk	Required	32 alphanumeric

Field	Description	Required	Format
	API password assigned by Merchant e-Solutions		
account_data_source	Example: @ y for Subsequent Card on File If field is provided, must be a value matching the card entry method from table 5.1	Optional	1 Alphanumeric
card_number	Example: 4012301230158 Payment card number Note: Do not send card_swipe or card_id if you send card_number.	Required if card_id not used	5 – 22 numeric
card_id	Example: 6117bf65fc4f38b7bc0ca4cd46eed6d1 Stored customer card information Note: This is the transaction_id response from a Store Card request	Required if card_number not used	32 alphanumeric
card_exp_date	Example: 1222 Card expiration date, submit as MMYY Note: Do not send card_exp_date if using card_id	Required if card_number sent	4 numeric
card_on_file	Example: Yes or No y or n If the transaction is card on file. (Default=No)	Optional	5 1 alphanumeric
transaction_amount	Example: 12.35 Transaction amount	Required	12 (max) numeric
transaction_type	D Example: D D = sale	Required	1 alphanumeric
invoice_number	Example: 1234567890 Merchant-defined invoice number	For preferred Interchange rate	17 alphanumeric (no special characters)
cardholder_street_address	Example: 2017 South Maple Gl First 19 characters of cardholder's address for address verification service use		19 alphanumeric
cardholder_zip	Example: 10453 Cardholder's ZIP code for address verification use	For preferred Interchange rate	5 or 9 alphanumeric

Field	Description	Required	Format
moto_ecommerce_ind	1 or 2 or 3 or 5 or 6 or 7 Ex: 7 1 = One-time Mail/Telephone Order, 2 = Recurring Order, 3 = Installment Order, 7 = Internet Order	7	1 alphanumeric
client_reference_number	Ex: 345892 Merchant-defined reference number Note: Do not send & or =.		96 (max) alphanumeric
cvv2	Ex: 123 Security code printed on card (CVV, CID, CVV2) for card security code verification use Note: Requires Merchant e-Solutions activation to use.		3 – 4 alphanumeric
retry_id	Ex: 987654 Note: Allows Inquiry transaction of this request.	Required if implementing the Inquiry transaction type	16 (max) alphanumeric

Card Present Pre-Authorization

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
account_data_source	Example: @ If field is provided, must be a value matching the card entry method from table 5.1	Optional	1 Alphanumeric
card_number	Example: 4012301230158 Payment card number Note: Do not send card_swipe or card_id if you send card_number.	If card_id or card_swipe is not used	5 – 22 numeric
card_swipe	Contents of payment card read by an electronic device	Required if card_number or card_id not used	-

Field	Description	Required	Format
	Note: card_swipe transactions are always processed as card-present transactions. Do not send card_number or card_id if you send card_swipe.		
card_id	Example: 6117bf65fc4f38b7bc0ca4cd46eed6d1 Stored customer card information Note: This is the transaction_id response from a Store Card request	If card_swipe or card_number not used	32 alphanumeric
card_exp_date	Example: 1222 Card expiration date, submit as MMYY	For capture	4 numeric
card_on_file	Example: Yes or No If the transaction is card on file. (Default=No)	Optional	5 alphanumeric
transaction_amount	Example: 12.35 Transaction amount	Required	12 (max) numeric
transaction_type	P Example: P P = pre-authorization	Required	1 alphanumeric
invoice_number	Example: 1234567890 Merchant-defined invoice number	For preferred Interchange rate	17 alphanumeric (no special characters)
cardholder_street_address	Example: 2017 South Maple Gl First 19 characters of cardholder's address for address verification use		19 alphanumeric
cardholder_zip	Example: 10453 Cardholder's ZIP code for address verification use	For preferred Interchange rate	5 or 9 alphanumeric
moto_ecommerce_ind	Z or 1 or 2 or 3 or 5 or 6 or 7 Ex: 7 Z = Not a Mail/Telephone Order, 1 = One-time Mail/Telephone Order, 2 = Recurring Mail/Telephone Order, 3 = Installment Mail/Telephone Order, 7 = Internet Order	7	1 alphanumeric
client_reference_number	Ex: 345892 Merchant-defined reference number Note: Do not send & or =.		96 (max) alphanumeric

Field	Description	Required	Format
cvv2	Ex: 123 Security code printed on card (CVV, CID, CVV2) for card security code verification use Note: Requires Merchant e-Solutions activation to use.		3 – 4 alphanumeric
retry_id	Ex: 987654 Note: Sending a retry_id allows an Inquiry transaction for this request.		16 (max) alphanumeric

Settle

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
transaction_amount	Example: 12.35 Transaction amount	Required	12 (max) numeric
transaction_type	S Example: S S = capture pre-authorization	Required	1 alphanumeric
transaction_id	Example: 8fc94e10b12130f4ab8a8ceeac40fc69 Note: Use transaction_id from pre-authorization transaction.	Required	32 alphanumeric
invoice_number	Example: 1234567890 Merchant-defined invoice number	For preferred interchange (if not submitted with pre-authorization)	17 alphanumeric (no special characters)

Re-Authorization

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
transaction_type	J Example: J J = re-authorization	Required	1 alphanumeric
transaction_id	Example: 8fc94e10b12130f4ab8a8ceeac40fc69 Note: Use transaction_id from pre-authorization transaction.	Required	32 alphanumeric

Refund

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
transaction_type	U Example: U U = refund	Required	1 alphanumeric
transaction_id	Example: 8fc94e10b12130f4ab8a8ceeac40fc69 Note: Use transaction_id from pre-authorization or sale transaction.	Required	32 alphanumeric
transaction_amount	Example: 12.30 Note: Send transaction_amount when requesting a partial refund.		12 numeric
retry_id	Ex: 987654 Note: Allows Inquiry transaction of this request.	Required if implementing the Inquiry transaction type	16 (max) alphanumeric

Credit

Use Refund instead of Credit whenever possible. By default accounts are set up to not allow Credits to be processed. Your account must be enabled to allow Credit requests.

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 Alphanumeric
transaction_type	C Example: C C = credit	Required	1 Alphanumeric
account_data_source	Example: @ If field is provided, must be a value matching the card entry method from table 5.1	Optional	1 Alphanumeric
card_number	Example: 4012301230158 Payment card number Note: Do not send card_swipe or card_id if you send card_number.	If card_id or card_swipe is not used	5 – 22 numeric
card_exp_date	Example: 1222 Card expiration date, submit as MMYY	Required	4 numeric
transaction_amount	Example: 12.30	Required	12 numeric
retry_id	Ex: 987654 Note: Allows Inquiry transaction of this request.	Required if implementing the Inquiry transaction type	16 (max) alphanumeric

Void

Use Void to cancel a pre-authorization. If you need to cancel a captured transaction, use Refund.

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 Numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 Alphanumeric
transaction_type	V Example: V V = void	Required	1 Alphanumeric
transaction_id	Example: 8fc94e10b12130f4ab8a8ceeac40fc69 Note: Use transaction_id from pre-authorization or sale transaction.	Required	32 alphanumeric

Creating a Temporary Token

The transaction_id in this response becomes the card_id for this card. Temporary tokens will expire after a single use in an authorization request, or 30 minutes after creation if unused.

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 Numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 Alphanumeric
transaction_type	T Example: T T = store card	Required	1 alphanumeric
card_number	Example: 4012301230158 Payment card number Note: If you send card_number information, do not send card_swipe	Required (if card_swipe not sent)	5 - 22 alphanumeric

Field	Description	Required	Format
card_swipe	Payment card swipe information Note: If you send card_swipe information, do not send card_number	Required (if card_number not sent)	
card_exp_date	Example: 1222 Card expiration date, submit as MMYY	Required if card_number sent	4 numeric

Creating a Permanent Token

Permanent Tokens are created by including "store_card=y" in an authorization request. The transaction response will include the value of the permanent token.

Permanent tokens do not expire and can be used as many times as needed.

Deleting a Permanent Token

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 Alphanumeric
transaction_type	X Example: X X = delete stored card	Required	1 Alphanumeric
card_id	Example: 8fc94e10b12130f4ab8a8ceeac40fc69 Note: This the transaction_id from a Store Card response.	Required	32 alphanumeric

Batch Close

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 Numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric

Field	Description	Required	Format
transaction_type	Z Example: Z Z=Batch Close	Required	1 alphanumeric

Verification

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
account_data_source	Example: @ If field is provided, must be a value matching the card entry method from table 5.1	Optional	1 alphanumeric
card_number	Example: 4012301230158 Payment card number Note: Do not send card_swipe or card_id if you send card_number.	Required	5 – 22 numeric
card_exp_date	Example: 1222 Card expiration date, submit as MMYY	Required	4 numeric
transaction_amount	Example: 12.35 Note: Must submit a value of 0.00 Transaction amount	Required	12 (max) numeric
transaction_type	A Example: A A = verification	Required	1 alphanumeric
moto_ecommerce_ind	Z Example: D Z = Not a mail/telephone order transaction	7	1 alphanumeric

			19
cardholder_street_address	Example: 2017 South Maple Gl First 19 characters of cardholder's address		alphanumeric
cardholder_zip	Example: 10453 Cardholder's ZIP code	For preferred Interchange rate	5 or 9 alphanumeric

Offline

Offline transactions (aka Forced Sale, Force Capture) are used to bypass the authorization process by manually entering a previously obtained authorization code in order to force a transaction into the clearing process.

Effective January 24, 2019, offline transactions are no longer allowed due to the Control Force Post mandate. If you determine you have a business case that requires the use of offline transactions, contact MeS Customer Care at (888) 288-2692 to request an exemption.

Important: This section is reserved. Do not use unless a specific exemption has been granted by Merchant e-Solutions.

The use of force posted transactions is prohibited unless exemption is obtained. As a best practice to mitigate additional risk and expense, Merchant e-Solutions recommends avoiding using offline transactions.

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
account_data_source	Example: @ If field is provided, must be a value matching the card entry method from table 5.1	Optional	1 alphanumeric
card_number	Example: 4012301230158 Payment card number Note: Do not send card_swipe or card_id if you send card_number.	Required	5 – 22 numeric
card_exp_date	Example: 1222 Card expiration date, submit as MMYY	Required	4 numeric

Field	Description	Required	Format
card_id	Example: 6117bf65fc4f38b7bc0ca4cd46eed6d1 Stored customer card information Note: This is the transaction_id response from a Store Card request	Required if card_swipe or card_numbe r not used	32 alphanumeric
transaction_amount	Example: 12.35 Transaction amount	Required	12 (max) numeric
transaction_type	O Example: O O = offline	Required	1 alphanumeric
invoice_number	Example: 1234567890 Merchant-defined invoice number	For preferred Interchange rate	17 alphanumeric (no special characters)
auth_code	Example: 235V73 Authorization code found outside of the API (generally by telephone)	Required	6 alphanumeric
cardholder_street_addre ss	Example: 2017 South Maple Gl First 19 characters of cardholder's address for address verification	For preferred Interchange rate	19 alphanumeric
cardholder_zip	Example: 10453 Cardholder's ZIP code for address verification	For preferred Interchange rate	5 or 9 alphanumeric
moto_ecommerce_ind	1 or 2 or 3 or 5 or 6 or 7 Ex: 7 1 = One-time Mail/Telephone Order, 2 = Recurring Mail/Telephone Order, 3 = Installment Mail/Telephone Order, 7 = Internet Order	7	1 alphanumeric
client_reference_number	Ex: 345892 Merchant-defined reference number Note: Do not send & or =.		96 (max) alphanumeric
cvv2	Ex: 123 Security code printed on card (CVV, CID, CVV2) for security code verification Note: Requires Merchant e-Solutions activation to use.		3 – 4 alphanumeric

Field	Description	Required	Format
retry_id	Ex: 987654 Note: Allows Inquiry transaction of this request.		16 (max) alphanumeric

Inquiry

Field	Description	Required	Format
profile_id	Example: 94100099999900000001 ID issued by Merchant e-Solutions	Required	20 numeric
profile_key	Example: FhcOqsIRkbrsvhlqMgweJHmnLhdnJAwk API password assigned by Merchant e-Solutions	Required	32 alphanumeric
transaction_type	I Example: I I = Inquiry	Required	1 alphanumeric
retry_id	Example: 98765 Note: The is the retry_id sent with the original request.	Required	16 (max) alphanumeric

Additional Request Fields

Commercial and Purchase Cards

For full Level 3 request and response information, see Level 3 Processing.

Field	Description	Required	Format
invoice_number	Example: 1234567890 Merchant-defined invoice number	For preferred Interchange rate	17 alphanumeric (no special characters)
tax_amount	Example: 10.35 Tax amount	For preferred Interchange rate	12 (max) alphanumeric, decimal required
ship_to_zip	Example: 11106 ZIP code where order is delivered Note: This field used for Level III processing.	For preferred Interchange rate	5 - 9 alphanumeric

Card on File (CoF)

Field	Description	Required	Format
card_on_file	The acceptable values are Y for Yes and N for No. A Y means that this is a CoF transaction. An N means that this is not a CoF. The default is N.	Conditional	1 alphanumeric
account_data_source	A value of Y means that the credentials used in this transaction were obtained from a file and not the cardholder.	Conditional	1 alphanumeric
transaction_id	This is submitted in subsequent CoF transactions and is the Trident Tran ID from the last approved authorization request for those credentials.	Conditional	32 alphanumeric
merchant_initiated	Y=This is submitted in subsequent CoF transactions where the transaction was initiated by the merchant. If the transaction was initiated by the cardholder, do not include this field.	Conditional	1 alphanumeric

International Currency

Foreign Currency Exchange (FX) or International processing must be activated for an account to use currency_code. Refer to the [Currency Code Table](#) for a full list of currencies.

Field	Description	Required	Format
currency_code	Example: 840 ISO 4217 currency code for this transaction Note: Default is 840, United States Dollars		3 alpha or numeric

Recurring Payments – Installment

Field	Description	Required	Format
recurring_pmt_num	Example: 1 Payment number of this transaction	Yes	2 numeric

recurring_pmt_count	Example: 3 Total number of payments	Yes	2 numeric

Encrypted PIN Debit

This feature is only available to merchants using PIN pads with Merchant e-Solutions encryption keys.

Field	Description	Required	Format
debit_pin_block	Example: 706E3CADE53F11CA DUKPT encrypted PIN from electronic pin pad	For encrypted debit transactions	16 alphanumeric
debit_ksn	Example: 3941013211204321 Key Serial Number (KSN)	For encrypted debit transactions	16 alphanumeric

American Express Enhanced Address and Cardholder Verification Service

If you send just cardholder_street_address and cardholder_zip, you can find the verification results in the avs_result response.

To verify the other fields listed here, send rctl_Extended_AVS=y with your request. You can find the explanation of enhanced address responses in the Response Control – rctl_Extended_AVS section.

Field	Description	Required	Format
cardholder_first_name	Example: Jess Cardholder first name		15 alphanumeric
cardholder_last_name	Example: Smith Cardholder last name		30 numeric
cardholder_email	Example: jsmith@email.com Cardholder's billing email		60 alphanumeric
cardholder_phone	Example: 8005550101 Cardholder's billing phone		10 numeric, no dashes or special characters
cardholder_street_address	Example: 2017 South Maple Gl First 19 characters of cardholder's address		19 alphanumeric
cardholder_zip	Example: 11106 Cardholder's billing ZIP code	Required	5 - 9 alphanumeric

Optional American Express Mail-, Telephone-, and Internet-Order Fields

These fields are optional. American Express may use this information to make authorization decisions.

Field	Description	Required	Format
ship_to_first_name	Example: Jess First name for shipping purposes	No	15 alphanumeric
ship_to_last_name	Example: Smith Last name for shipping purposes	No	30 alphanumeric
ship_to_phone	Example: 8005550101 Phone number for shipping purposes Note: For international phone numbers, send the last ten digits.	No	10 numeric, no dashes or special characters
ship_to_address	Example: 123 Main Address where purchase will ship to	No	50 alphanumeric
dest_country_code	Example: 840 Country code for the ship-to country Note: Country codes are available in the ISO 3166 standard, quick reference available at Wikipedia's ISO 3166 page	No	3 numeric
ip_address	Example: 74.125.224.72 Customer's IP address	No	15 alphanumeric
cust_host_name	Example: web.pointofpurchase.com Customer's hostname (for Internet sales, generally the domain name)	No	60 alphanumeric
http_browser_type	Example: MOZILLA/5.0 (WINDOWS NT 6.1) Customer's HTTP browser type	No	60 alphanumeric
customer_ani	Example: 6025551212 The customer's phone number as identified by an Automatic Number Identifier (ANI) service	No	15 alphanumeric
customer_ani_ii	Example: 00 The customer's call type as determined by an ANI service	No	2 alphanumeric

Field	Description	Required	Format
product_sku	Example: Unit inventory reference number or SKU (Stock Keeping Unit)	No	15 alphanumeric
shipping_method	Example: 04 Type of shipping 01 = same day, 02 = overnight/next day, 03=priority (2-3 days), 04=ground (4 or more days), 05=electronic, 06=ship to store Note: When you use shipping_method=06, send the store address as ship_to_address	No	2 alphanumeric

Hotel, Cruise, and Auto Rental Enhanced Fields

These fields are required for preferred Interchange rates for hotel, cruise, and auto rental merchants.

Field	Description	Required	Format
statement_date_begin	Example: 07/04/2018 Date of hotel check-in, cruise departure, or start date for auto rental	For Preferred Interchange	10 alphanumeric
statement_date_end	Example: 07/08/2018 Date of hotel check-out, cruise end date, return date for auto rental Note: If the time between statement_begin date and statement_end_date is 99 days or greater, the system will end 99 days	For Preferred Interchange	10 numeric
requester_name	Example: Jess Smith Name of person renting room, taking cruise, or renting car	For Preferred Interchange	30 alphanumeric
name_of_place	Example: Travel Rental Inc Hotel location, cruise ship, or rental agency	For Preferred Interchange	25 alphanumeric
rate_daily	Example: 55.65 Daily rate of room or car rental; Cruise can be entered as a total amount	For Preferred Interchange	12 alphanumeric
no_show_ind	Example: N Whether the charge is for a no-show Y = no-show charge, N = customer checked in or boarded	For Preferred Interchange	1 alphanumeric

industry_code	Example: A Industry type A = auto rental, D = direct marketing, H = hotel or cruise Note: Default is D.	For Preferred Interchange	1 alphanumeric
invoice_number	Example: 34567890 Invoice, folio, rental agreement, or primary tracking number	For Preferred Interchange	17 alphanumeric

Echo Fields

An echo field lets you send information in the request that will be returned in the response.

Field	Description	Required	Format
echo_	Example: echo_customer_id=123456 Add custom field name after echo_ and set that equal to the echo field value		50 (max) alphanumeric

8. Response Control

Response control fields allow interaction with the system based on account or transaction features.

The rctl_commercial_card request field, for example, returns a value that identifies the type of commercial card in the transaction (business card, corporate card, purchasing card, non-commercial card). The rctl_account_balance field returns the pre-paid card balance (if offered by the card issuer).

The request field value can be yes, y, or true.

Field	Description	Transaction Type	Format
rctl_product_level	Example: rctl_product_level=y Legacy feature; returns information about the card provider payment product	A, D, P, J	yes, y, or true
rctl_commercial_card	Example: rct_commcercial_card=y Returns information about the type of commercial card used in the transaction	A, D, P	yes, y, or true
rctl_Extended_AVS	Example: rctl_Extended_AVS=y Returns extended address verification results	D, P	yes, y, or true
rctl_account_balance	Example: rctl_account_balance=y Returns the pre-paid card balance if offered by the card issuer	D, P	yes, y, or true
rctl_partial_auth	Example: rctl_partial_auth=y Returns the authorized amount	D, P	yes, y, or true
rctl_card_number_truncated	Example: rctl_card_number_truncated=y Returns a truncated version of the card number	All	yes, y, or true
rctl_resp_hash	Example: rctl_resp_hash=y Returns a SHA-1 hash of: 1) Transaction ID 2) Profile key 3) Truncated card number (if rctl_card_number_truncated sent)	All	yes, y, or true

9. Response Fields

Field	Description	Format
transaction_id	Example: 12f3befbd035371b9b82d5920465e071 Unique ID that confirms the transaction	32 alphanumeric
error_code	Example: 000 3-character code summarizing the transaction response Note: The Error Codes table describes all error_codes responses	3 - 4 alphanumeric
auth_response_text	Example: Exact Match Text message describing transaction response Note: Special characters require URL encoding.	64 alphanumeric
auth_code	Example: T2067H Returns the pre-paid card balance if offered by the card issuer	6 alphanumeric
avs_result	Example: Y Address verification response	1 alphanumeric
cvv2_result	Example: M CVV2/CID verification response	1 alphanumeric
retry_count	Example: 2 Number of times this transaction has been requested with Inquiry	2 alphanumeric
product_level	Example: A Note: The Product Level table describes the product_level responses	2 alphanumeric
commercial_card	Example: B Note: The Commercial Card table describes the commercial_card responses	1 alphanumeric
extended_AVS	Example: YYYYY Note: The Extended AVS tables describe the extended_AVS responses	5 alphanumeric
account_balance	Example: 32.50 Amount remaining on pre-paid card if offered by card provider	12 (max) numeric
partial_auth	Example: 12.50 Authorized amount	12 numeric

Field	Description	Format
card_number_truncated	Example: 487165xxxxxx2456 Truncated version of the card number	16 alphanumeric

resp_hash	Example: 7569af60aede1bf00c9ece6fa3d3c75d205b3665
	
	SHA-1 hash of:
	
	    1) Transaction ID
	    2) Profile key
	    3) Truncated card number (if rctl_card_number_truncated sent)
		32
		
		alphanumeric

Error_Code

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
000	Approved or successfully completed	
000	Empty Batch	A batch number is required when submitted a transaction_type of Z
001	Refer to card issuer	Refer to card issuer
002	Refer to card issuer, special condition	--
003	Invalid merchant	Invalid merchant
004	Pick up card (no fraud)	Capture card
005	Do not honor	Do not honor
006	Error	--
007	Pick up card, special condition (fraud account)	--
008	--	Honor with ID
010	Partial approval	Partial approval
011	Approved (V.I.P.)	--
012	Invalid transaction	Invalid transaction
013	Invalid amount or currency conversion field overflow	Invalid amount
014	Invalid account number (no such number)	Invalid card number

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
015	No such issuer	Invalid issuer
019	Re-enter transaction	--
021	No action taken	--
025	Unable to locate record in file	--
028	File temporarily not available for update or inquiry	--
030	--	Format error (Verification only) Transaction type not supported by issuer
039	No credit account	--
041	Lost card, pick up (fraud account)	Lost card
043	Stolen card, pick up (fraud account)	Stolen card
051	Not sufficient funds	Insufficient funds / over credit limit
052	No checking account	--
053	No savings account	--
054	Expired card of expiration date is missing	Expired card
055	Incorrect PIN or PIN missing	Invalid PIN
057	Transaction not permitted to cardholder	Transaction not permitted to issuer / cardholder (Verification only) Transaction type not supported by issuer
058	Transaction not permitted to acquirer / terminal (Offline/Force Post)	Transaction not permitted to acquirer / terminal
059	Suspected fraud	--
061	Exceeds approval amount limit	Exceeds withdrawal amount limit
062	Restricted card (card invalid in this region or country)	Restricted card
063	Security violation (source is not correct issuer)	Security violation
064	Transaction does not fulfill AML requirement	--
065	Exceeds withdrawal frequency limit	Exceeds withdrawal count limit
068	--	Response received late
070	--	Contact card issuer
071	--	PIN not changed

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
075	Allowable number of PIN tries exceeded	Allowable number of PIN tries exceeded
076	Unsolicited reversal	Invalid / nonexistent "To Account" specified
077	--	Invalid / nonexistent "From Account" specified
078	--	Invalid / nonexistent account specified (general)
079	Already reversed (by Switch)	--
080	No financial impact	--
081	Cryptographic error found in PIN	Domestic debit transaction not allowed (regional use only)
082	Negative CAM, dCVV, iCVV, or CVV results	--
084	--	Invalid authorization life cycle
085	No reason to decline a request for address verification, CVV2 verification, or a credit voucher or merchandise return	Not declined Valid for all zero amount transactions
086	Cannot verify PIN; for example, no PVV	PIN validation not possible
087	--	Purchase amount only, no cashback allowed
088	--	Cryptographic failure
089	Ineligible to receive financial position information	Unacceptable PIN – transaction declined – retry
091	Issuer or switch inoperative and STIP not applicable or not available for this transaction; Time-out when no stand-in; POS Check Service: Destination unavailable; Credit Voucher and Merchandise Return Authorizations: V.I.P. sent the transaction to the issuer, but the issuer was unavailable.	Authorization system or issuer system inoperative
092	Financial institution or intermediate network facility cannot be found for routing (receiving institution ID is invalid)	Unable to route transaction
093	Transaction cannot be completed – violation of law	--
094	--	Duplicate transmission detected
096	--	System error
101	Invalid ID or Key	Check profile_id and profile_key then retry request
102	Incomplete Request	Provide all required data
103	Invoice Number Length Error	Confirm invoice_number is 17 or fewer characters then retry request
104	Reference Number Length Error	Reference_number must be 11 or fewer characters

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
105	AVS Address Length Error	Not possible in PG because it allows unlimited address chars
106	AVS Zip Length Error	Confirm cardholder_zip is 9 or fewer characters
107	Merchant Name Length Error	Reduce the merchant name length
108	Merchant City Length Error	Reduce the city name length
109	Merchant State Length Error	Provide a valid state
110	Merchant Zip Length Error	Provide a valid 5 or 9-digit zip
111	Merchant Category Code Length Error	Provide a valid Merchant Category Code
112	Merchant Phone Length Error	Provide a valid phone number
113	Reference Number Must Be Numeric	Provide a valid number
114	Missing Card Holder Account Data	Check card_number and card_exp_date; retry request
115	Invalid Card Number	Provide a valid card number
116	Credits Not Allowed	Contact Merchant e-Solutions to have credits enabled
117	Card Type Not Accepted	Contact Merchant e-Solutions to add the card type
118	Currency Type Not Accepted	Contact Merchant e-Solutions to add the currency type
119	Retry ID length error Must be 16 characters or less	Retry request with a valid retry ID
120	An invoice number is required for a 3D enrollment check	Retry request with a purchase ID
121	MOTO/e-Commerce indicator length error	Retry request with a valid indicator
122	Non-USD offline transactions are not supported	Do not submit any International transactions with the Offline transaction code
123	Client Reference Number length error	Resubmit with appropriate length, maximum is 96
127	Invalid Level III Line Item Detail	Correct the data in the line item detail record and resubmit
128	Invalid Level III Merchant Tax ID	Provide a valid Merchant Tax ID
129	Invalid Level III Customer Tax ID	Provide a valid Customer Tax ID
130	Invalid Level III Summary Commodity Code	Provide a valid Summary Commodity Code
131	Invalid Level III Ship to Zip	Provide a valid destination postal code
132	Invalid Level III Ship from Zip	Provide a valid source postal code
133	Invalid Level III Destination Country Code	Provide a valid Destination Country Code
134	Invalid Level III VAT Invoice Number	Provide a valid VAT Invoice Number

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
135	Invalid Level III Alternate Tax Indicator	Provide a valid Alternate Tax Indicator
136	Transaction type does not support Level III data	Remove the level III data OR use a valid transaction type
137	Invalid Level III Discount Amount	Provide a valid Discount Amount
138	Invalid Level III Duty Amount	Provide a valid Duty Amount
139	Invalid Level III Order Date	Provide a valid Order Date
140	Invalid Level III VAT Amount	Provide a valid VAT Amount
141	Invalid Level III VAT Rate	Provide a valid VAT Rate
142	Invalid Level III Alternate Tax Amount	Provide a valid Alternate Tax Amount
143	Invalid Level III Line Item Count	Provide a valid Line Item Count
144	Invalid Level III Card Type	Provide valid line item detail data for the card type
168	Invalid Industry Code	Industry Code submitted conflicts with transaction data submitted. Example: D for direct marketing with hotel check in and check out data
201	Invalid Transaction ID	Correct the transaction ID, then resubmit
202	Invalid Transaction Amount	Confirm transaction_amount is greater than 0 and less than 9999999.99 Correct settlement amount to be less than or equal to the original authorization amount
203	Void Failed	Failed to void transaction, retry void or issue credit
204	Transaction Already Settled	Void failed because transaction has already settled, submit credit
205	Transaction Already Voided	Void failed because transaction is already voided
206	Transaction Already refunded	A refund has already been performed on the transaction
207	Refund failed	Internal error Retry refund
208	Failed to receive a response from auth host	Retry request
209	Invalid tax amount	Correct tax amount and retry request
210	AVS result is declined by user	Correct AVS data and retry request
211	CVV2 result is declined by user	Correct CVV2 data retry request
212	Refund amount must be between zero and the original amount	Correct amount and retry request
213	Only sale transactions can be refunded	Provide a valid transaction ID
214	Only one type of card data allowed per request	Only use one of the following: * card_number

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
		* card_swipe * card_id
215	Invalid Card ID	Provide a valid card ID
216	Failed to load card data, retry request	Retry request
217	Failed to store card data, retry request	Retry request
218	Card ID parameter cannot be included in this type of transaction	Remove the card_id parameter and resubmit
219	Offline transactions require an authorization code	Provide authorization code
220	Failed to delete card data, retry request	Retry request
221	Invalid Card ID	Provide a valid card ID
222	Card ID required	Provide a valid card ID
223	Retry Request ID Lookup Failed	Retry request
229	Failed to find currency code for the requested country code	Check country code and retry request
230	Failed to post transaction the FX service	Internal Only
231	FX amount in base currency is required	Provide the base amount
232	FX transactions not accepted for this account	Contact Merchant e-Solutions
233	Request currency code must match FX rate currency code	Retry request with a currency code that matches the FX currency code
234	Pin debit transactions require track 2 swipe data	Verify track 2 data is sent with the request
235	Invalid pin debit transaction type	Only a sale (D) is supported
236	Non-USD pin debit transactions are not supported	PINNED Debit for USD transactions only
237	Batch Close Failed	Please verify parameters are correct and re-submit
238	Quit Duplicate Batch	The same batch number was submitted within 5 calendar days of another closed batch. Verify batch is not a duplicate and re-submit with a new batch number
239	Invalid retry id	Validate the retry ID and resubmit if valid and within 48 hours of original request. If valid then code 239 means that transaction does not exist.
240	Failed to load declined auth data	System was unable to successfully locate data needed for a new authorization request (only when submitting re-auth or multi-settle requests)
300	Failed to capture International transaction	Retry request
301	Failed to void International transaction	Retry request

error_code	Description	
	Visa, American Express, Discover	**Mastercard**
302	Failed to refund International transaction	Retry request
303	Card Verify not supported	Retry request
304	Failed to reverse International authorization	Retry request
350	Adyen request refused	Check the response for details; response format is Refused – [details]
351	Adyen request failed	Check the response for Adyen details
352	Failed to capture Adyen transaction	Retry request
353	Failed to refund Adyen transaction	Retry request
354	Transaction type not supported by Adyen	Retry request
355	Adyen credit failed	Retry request
356	Adyen request failed	Retry request
357	Adyen void failed	Retry request
400	VBV/MSC Enrollment Check	Retry request
401	VBV/MSC Verification Failed	Retry request
412	Failed to load captured transaction data	Retry request
413	Multiple captures are not supported on FX transactions	FX not supported for re-auth of declines
430	Statement begin date must be the same or before statement end date	--
431	Duration between statement dates must be 99 days or less	--
999	Internal Error	Retry request
B2	Surcharge amount not support by debit network issuer	--
N0	Force STIP	--
N3	Cash service not available	--
N4	Cash request exceeds issuer or approved limit	--
N7	Decline for CVV2 failure	--
N8	Transaction amount exceeds preauthorized approval amount	--
Q1	Card authentication failed	--
R0	Stop payment order	--

Address Verification Service Response Codes

Result Code	Response Message	Visa	MC	Amex	Response Definition
0	Approved	X	x	x	Address verification not requested
A	Address Match	X	x	x	Address match only
B	Address Match	X			Street address match for international transaction postal code not verified because of incompatible formats (both street and postal code sent)
C	Service Unavailable	X			Street address and postal code not verified for international transaction because of incompatible formats (both street and postal code sent)
D	Exact Match	X		x	Street address and postal code match for international transaction; (AMEX only) card member name incorrect, postal code match
E				x	Card member name incorrect, address and postal code match
F	UK Exact Match	X		x	(UK only) Street address and postal code match; (AMEX only) card member name incorrect, address matches
G	Ver Unavailable	X			Issuer does not participate
I	Ver Unavailable	X			Address information not verified for international transaction
K				x	Card member name matches
L				x	Card member name and postal code match
M	Exact Match	X		x	Street address match for international transaction; (AMEX only) card member name, address and postal code match
N	No Match	X	x	x	No address or ZIP/postal code match
O				x	Card member name and address match
P	Postal Code Match	X			Postal code match; both postal code and street address sent, but street address not verified due to incompatible formats
R	Retry	X	x	x	Issuer system unavailable, retry

Result Code	Response Message	Visa	MC	Amex	Response Definition
S	AVS not supported	X	x	x	(Visa U.S. domestic) Address unavailable; (Visa international) issuer does not participate; (AMEX only) Merchant ID not allowed AAV function
U	Verification Unavailable	X	x	x	Address unavailable
W	Domestic and International 9-digit zip match		x	x	(Visa U.S. domestic) If W returned, Visa will replace with a Z; (AMEX only) card member name, address and postal code are all incorrect
X	Domestic and International 9-digit zip and address match		X		(Visa U.S. domestic) If X returned, Visa will replace with a Y
Y	Exact Match	X	x	x	Exact match, street address and postal code match
Z	Zip Match	X	x	x	5-digit ZIP match only

CVV Response Codes

Code	Description
M	CVV2/CVC2 /Discover CID – Match
N	CVV2/CVC2/Discover CID - No Match
P	Not Processed
S	Merchant has indicated that Verification Code is not present on card
U	Issuer is not certified and/or has not provided Visa encryption keys

Response Control – product_level

Field Name	Visa Description	Mastercard Description
A	Visa Classic/Traditional	Mastercard Consumer
B	Visa Traditional Rewards	---
C	Visa Signature	MC World/Elite, MC World Prepaid
D	Visa Signature Preferred	---
E	Reserved	---
F	Reserved	---
G	Visa Business	MC Business/Corporate
G1	Visa Signature Business	MC World/Elite Business
G2	Reserved	MC Business Debit
G3	Visa Business Enhanced (U.S.Only)	
H	Reserved	Mastercard Debit
I	Visa Infinite	---
J	Reserved	---
J1	Reserved	Mastercard General Prepaid
J2	Reserved	MC Prepaid Gift Card
J3	Visa Healthcare	Mastercard Prepaid Benefits
J4	Reserved	Mastercard Prepaid Commercial
K	Visa Corporate	---
K1	Visa GSA Corporate T&E	

Field Name	Visa Description	Mastercard Description
L	Electron	---
M	MC/EuroCard and Diners(when unable to define)	MC/EuroCard and Diners(when unable to define)
N	Reserved	---
N1	Visa Rewards	
O	Reserved	---
P	Reserved	---
Q	Private Label	Private Label
R	Proprietary	---
S	Visa Purchasing	Mastercard Purchasing
S1	Visa Purchasing with Fleet	MC Commercial with Fleet
S2	Visa GSA Purchasing	
S3	Visa GSA Purchasing with Fleet	
S4	Government Services Loan	
S5	Commercial Transport EBT	
S6	Business Loan	
S7	Visa Distribution	
T	Reserved/Interlink	---
U	Visa TravelMoney	---
V	V-Pay	---
X	Visa B2B Virtual Payments	
Additional Card Types		
AX	American Express	American Express
DI	Discover (when code is not returned)	Discover (when code is not returned)
DN	Diners	
JC	JCB	
MC	Mastercard (when code is not returned)	Mastercard (when code is not returned)

Response Control – commercial_card

Field Name	Values
B	Business Card
D	Visa Commerce (reserved for future use)
R	Corporate Card
S	Purchasing Card
0	Non-commercial Card
<SPACE>	Invalid Request Indicator Received

Response Control – rctl_Extended_AVS

Result Code	Response Message
Y	Match
N	No Match
~	Data not sent
U	Data Unavailable
R	Retry
S	Service Not Available

rctl_Extended_AVS Result Code Position Identifier

Position 1	Position 2	Position 3	Position 4	Position 5
Billing postal code result	Billing address result	Billing first and last name result	Billing phone result	Billing email result

Authorization Switch Error Codes

If you receive repeated switch error code responses, contact the Merchant e-Solutions certification team.

Response Code	Response Text	Cause	Resolution
0TA	CT NOT ALLOWED	Account doesn't accept card type	Confirm card acceptance information in back office system
0TB	REENTER EXP DATE	Invalid expiration date	Check expiration date and retry request
0TC	RETRY BAD ADDR	Invalid address or ZIP data	Check AVS data and retry request
0TD	REV NOT ALLOWED	Card type doesn't allow reversals	Authorization cannot be reversed
0TE	BAD MERCHANT KEY	Merchant key not supplied or incorrect	Check profile_key and retry request
003	Merch ID Error	Merchant ID unknown or disabled	Check profile_id and retry request
012	Invalid Trans	Unsupported transaction type	Check transaction_type and retry request
013	Amount Error	Transaction amount is 0 or too long	Check transaction_amount and retry request
077	No Action Taken	Reversal amount larger then original amount	Transaction may not qualify for best level of Interchange
014	Card No. Error	Card number has unknown BIN or fails check digit edit	Re-try card number again, verify with merchant it is a valid card with proper logos for card types the merchants accept
019	RE Enter	Communication error with Visa or Mastercard switches	Retry request
097	System Error	System malfunction	Contact the Merchant e-Solutions certification team
006	Error 25	Message format error	Check request format and retry request
006	Error NN	Transaction error	Record the NN error code and contact the Merchant e-Solutions certification team
057	Error 57	Unsupported international transaction	System supports only card not present authorizations; confirm missing fields and retry request
059	Error 59	Account does not accept international	Contact the Merchant e-Solutions certification team

International Error Codes

Contact your Merchant e-Solutions representative to find out if your account is set up for international transactions or which processor you're using.

Payvision

Response	Error Description	Required Action
0	No errors	
1000	Groups all errors related to the parameters sent.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
2000	Groups all errors related to International.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
3000	Groups all responses related to declines.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
3100	Groups all responses related to referral transactions.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
3200	Groups all errors related to the acquiring bank.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
4000	Groups all errors regarding security issues.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
5000	Groups all unexpected errors.	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution
6000	Groups all codes different than 0 given by the business rules applied to the execution of an operation. (i.e. A rule preventing the execution of a refund because a manual refund is required will produce a result 6000.)	Text portion of response will contain a 2-digit error code that provides additional data to assist with resolution

Adyen

If Adyen returns an error or exception, those failed requests are described below.

Error or Exception Number	Error or Exception Detail	Description
000	Unknown	An unknown error occurred
010	Not allowed	You are not allowed to perform this action
100	No amount specified	There is no amount specified in the request
101	Invalid card number	The specified card number is not valid
102	Unable to determine variant	The system was not able to determine the variant of the card number
103	CVC is not the right length	The length of the CVC code is not correct for the given card number
104	Billing address problem	There was an error in the specified billing address fields
105	Invalid paRes from issuer	The specified paRes from the issuer in the 3D secure authorization request is not correct
107	Recurring is not enabled	You are trying to use recurring, but it is not (yet) enabled for your account
108	Invalid bank account number	The specified bank account number is not valid
109	Invalid variant	The determined variant of the card is not valid
110	BankDetails missing	No bank details specified
111	Invalid BankCountryCode specified	The specified bankCountryCode is not valid (bank payment)
112	This bank country is not supported	The specified bankCountryCode is not supported (bank payment)
117	Invalid billing address	The specified billing address is not valid
125	Invalid recurring contract specified	The specified recurring contract value is not valid
126	Bank Account or Bank Location Id not valid or missing	The specified bank account or bank location Id is not valid or missing (elv payment)
127	Account holder missing	No account holder specified
128	Card Holder Missing	No card holder specified
129	Expiry Date Invalid	The specified expiry data is not a valid date
137	Invalid amount specified	The specified amount is invalid, or above the equivalent of 50,000.00 EUR.
138	Unsupported currency specified	The specified currency is not supported
139	Recurring requires shopperEmail and shopperReference	No shopperEmail or shopperReference specified
140	Invalid expiryMonth[1..12] / expiryYear[>2000], or before now	The specified expiry month/year is not valid or in the past
141	Invalid expiryMonth[1..12] / expiryYear[>2000]	The specified expiry month/year is not valid
142	Bank Name or Bank Location not valid or missing	The specified bank name or bank location Id is not valid or missing (elv payment)
144	Invalid startMonth[1..12] / startYear[>2000], or in the future	The specified start month/year is not valid or in the future
800	Contract not found	The specified recurring contract could not be found
802	Invalid contract	The specified recurring contract is not valid
803	PaymentDetail not found	The specified paymentdetails could not be found
804	Failed to disable	Unable to disable the specified recurring details
805	RecurringDetailReference not available for provided recurring-contract	The specified recurringDetailReferece is not available for the specified recurring contract

Error or Exception Number	Error or Exception Detail	Description
901	Invalid Merchant Account	The specified merchant account is not valid
902	Shouldn't have gotten here without a request!	No request specified, or invalid namespace
903	Internal error	An internal error occurred while processing the request
904	Unable to Process	The request could not be processed
905	Payment details are not supported	The specified payment details are not available for the specified action

10.   Request/Response Samples

Sale Sample

Request:

    POST /mes-api/tridentApi   HTTP/1.1

    Content-Type: application/x-www-form-urlencoded
    Cache-Control: no-cache
    Pragma: no-cache
    User-Agent: Java/1.7.0_21
    Host: cert.merchante-solutions.com
    Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
    Connection: keep-alive
    Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=D&cardholder_street_address=123+Main&cardholder_zip=55555&transaction_amount=1.00&card_number=4012301230123010&card_exp_date=1222&invoice_number=123456

Response:

transaction_id=8fc94e10b12130f4ab8a8ceeac40fc69&error_code=000&auth_response_text=Exact Match&avs_result=Y&cvv2_result=M&auth_code=T2067H

Pre-Authorization Sample

Request:

      POST /mes-api/tridentApi   HTTP/1.1

      Content-Type: application/x-www-form-urlencoded

      Cache-Control: no-cache

      Pragma: no-cache

      User-Agent: Java/1.7.0_21

      Host: cert.merchante-solutions.com

      Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

      Connection: keep-alive

      Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=P&cardholder_street_address=123+Main&cardholder_zip=55555&transaction_amount=1.00&card_number=4012301230123010&card_exp_date=1222&invoice_number=123456

Response:

transaction_id=6117bf65fc4f38b7bc0ca4cd46eed6d1&error_code=000&auth_response_text=Exact Match&avs_result=Y&auth_code=T2067H

Capture Sample

Request:

```
POST /mes-api/tridentApi   HTTP/1.1


Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578
```

profile_id=xxx&profile_key=yyy&transaction_type=S&transaction_amount=1.00&transaction_id
=6117bf65fc4f38b7bc0ca4cd46eed6d1&invoice_number=123456

Response:

transaction_id=12f3befbd035371b9b82d5920465e071&error_code=000&auth_response_text
=Settle Request Accepted

Multi-Capture

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=S&transaction_amount=.25&transaction_id=
a1c142982baa353a976252f7ccf3b18b&invoice_number=123456

Response:

transaction_id=a1c142982baa353a976252f7ccf3b18b&error_code=000&auth_response_text=
Settle Request Accepted

Re-Authorization Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=J&transaction_id=72613b899e3937cfa33efa17
11973c7d

Response:
transaction_id=e48e1bb2823942a6aa6b9ab8af20fe48
&error_code=000&auth_response_text=Zip Match&avs_result=Z&auth_code=T00001

Refund Resulting in a Credit Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=U&transaction_id=91bb6394dd883153ad90af804c7a5ce2

Response:-

Current Response (Supported until June 29, 2019)

transaction_id=aee8b06f9d73353296f9b5076358b63d&error_code=000&auth_response_text=Refund Request Accepted - Credit

Future Response (Effective June 30, 2019)

Response:-

transaction_id=e456406b061233bf8fda621b2d764aa9&error_code=000&auth_response_text=Credit Approved&auth_code=T4167H

Refund Resulting in a Void Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=U&transaction_id=e4f49b483d833695a39b2787c65bbef1

Response:

transaction_id=7c0ab9ec96da370886a116fa7942447a&error_code=000&auth_response_text = Refund Request Accepted - Void

Partial Refund Resulting in an Adjustment Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=U&transaction_amount=0.60&transaction_id
=9f57b14932943a198d51b6a5074fd916

Response:

transaction_id=38356d5c6625379a9b3e55920f5f9e8a&error_code=000&auth_response_text
=Refund Request Accepted - Adjustment $0.40

Partial Refund Resulting in a Credit Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=U&transaction_amount=0.60&transaction_id
=9f57b14932943a198d51b6a5074fd916

Response:

transaction_id=55e31d892e3131c38dd7bba706c1aa00&error_code=000&auth_response_text=
Refund Request Accepted - Credit $0.60

Credit Sample

Request:

> POST /mes-api/tridentApi   HTTP/1.1
>
> Content-Type: application/x-www-form-urlencoded
>
> Cache-Control: no-cache
>
> Pragma: no-cache
>
> User-Agent: Java/1.7.0_21
>
> Host: cert.merchante-solutions.com
>
> Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
>
> Connection: keep-alive
>
> Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=C&transaction_amount=1.00&card_number=4012301230123010&card_exp_date=1222

Response:

Current Credit Response: (Supported until June 29, 2019)

Response:-

transaction_id=c005384e51eb37359b14c798590d25b0&error_code=000&auth_response_text=Credit Approved

Future Credit Response: (Effective June 30, 2019)

Response:-

transaction_id=e456406b061233bf8fda621b2d764aa9&error_code=000&auth_response_text=Credit Approved&auth_code=T4167H

Void Sample

Request:

> POST /mes-api/tridentApi   HTTP/1.1
>
> Content-Type: application/x-www-form-urlencoded
>
> Cache-Control: no-cache
>
> Pragma: no-cache
>
> User-Agent: Java/1.7.0_21
>
> Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=V&transaction_id=bd5661892d69399f8879c
edb427879e7

Response:

transaction_id=d3b221224235331aba05101ae3d35340&error_code=000&auth_response_tex
t=Void Request Accepted

Creating a Temporary Token Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=T&card_number=4012301230123010

Response:

transaction_id=446650ab2a8b3df68390d170cbc0fa0a&error_code=000&auth_response_text
=Card Data Stored

Creating a Permanent Token Sample

Request:

profile_id=xxx&profile_key=xxx&transaction_type=D&card_id=km4l6keh90me92mb819c1ca6b28
si45f&card_exp_date=1222&transaction_amount=1.00&cardholder_street_address=123+N.+Mai
n&cardholder_zip=55555&invoice_number=123456&store_card=y

Response:

transaction_id=443733d0d7f236728d6ae1cbd7950403&error_code=000&auth_response_text=E
xact
Match&avs_result=Y&cvv2_result=M&auth_code=T6416H&card_id=5c51fb49de854a1b819c1ca
6b2d55209

Sale Using Token Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=D&cardholder_street_address=123+Main&cardholder_zip=55555&transaction_amount=1.00&card_exp_date=1222&invoice_number=123456&card_id=446650ab2a8b3df68390d170cbc0fa0a

Response:

transaction_id=51e8ea7ef94e3813a00b2a2331cd2679&error_code=000&auth_response_text=Exact Match&avs_result=Y&cvv2_result=M&auth_code=T7362H

Delete Token Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=X&card_id=446650ab2a8b3df68390d170cbc0fa0a

Response:

transaction_id=51e8ea7ef94e3813a00b2a2331cd2679&error_code=000&auth_response_text
=Stored Card Data Deleted

Batch Close Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=Z

Response:

transaction_id=932f3671fa9f34bc8e1517ebb427b269&error_code=000&auth_response_text=
Batch 328 Closed - USD - Sales: 150 for $8,039.37 Credits: 83 for $83.00 Net: $7956.37

Verification Only Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=A&cardholder_street_address=123+Main&ca
rdholder_zip=55555&transaction_amount=0.00&card_number=4012301230123010&card_exp_
date=1222

Response:

   transaction_id=6117bf65fc4f38b7bc0ca4cd46eed6d1&error_code=000&auth_response_text=
   Exact Match&avs_result=Y&auth_code=T2067H

Inquiry Sample

Submitting a Sale Request with a retry_id

Request:

      POST /mes-api/tridentApi   HTTP/1.1

      Content-Type: application/x-www-form-urlencoded

      Cache-Control: no-cache

      Pragma: no-cache

      User-Agent: Java/1.7.0_21

      Host: cert.merchante-solutions.com

      Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

      Connection: keep-alive

      Content-Length: 578

   profile_id=xxx&profile_key=yyy&transaction_type=D&cardholder_street_address=123+Main&c
   ardholder_zip=55555&transaction_amount=1.00&card_number=4012301230123010&card_exp
   _date=1222&invoice_number=123456&retry_id=37964

Response:

   transaction_id=ad988797986d3f02b0e08a6c9f8c5811&error_code=000&auth_response_text=
   Exact Match&avs_result=Y&auth_code=T9659H&retry_count=2

Submitting an Inquiry Request

Request:

      POST /mes-api/tridentApi   HTTP/1.1

      Content-Type: application/x-www-form-urlencoded

      Cache-Control: no-cache

      Pragma: no-cache

      User-Agent: Java/1.7.0_21

      Host: cert.merchante-solutions.com

      Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

      Connection: keep-alive

      Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=I&retry_id=123456

Response:

transaction_id=51e8ea7ef94e3813a00b2a2331cd2679&error_code=000&auth_response_text =Exact Match&avs_result=Y&cvv2_result=M&auth_code=T7362H&retry_count=2

Partial Authorization Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=9410000xxxxx000000xx&profile_key=xxxxxx&transaction_type=D&card_number= 4012xxxxxxxx8888&card_exp_date=1222&transaction_amount=1.00&&cvv2=123&cardholde r_street_address=123+N.+Main&cardholder_zip=55555&invoice_number=123456&rctl_partia l_auth=true

Response:

transaction_id=d96cdfb30aab3e8d9944f9ab4fd5b646&error_code=010&auth_response_text =Partial Approval&avs_result=Y&cvv2_result=M&auth_code=T2055H&partial_auth=0.33

Echo Field Sample
Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 578

profile_id=xxx&profile_key=yyy&transaction_type=D&cardholder_street_address=123+Main&
cardholder_zip=55555&transaction_amount=1.00&card_number=4012301230123010&card_
exp_date=1222&invoice_number=123456&echo_productline=metals

Response:

transaction_id=1b5fd0095ac63700aae5d95ec84364f0&error_code=000&auth_response_text
=Exact Match&avs_result=Y&auth_code=T4012H&eresp_productline=metals

11.   Level 3 Processing

Commercial and Purchase Cards –Visa and Mastercard Fields Level 3 Fields

Field	Description	Required	Format
line_item_count	Example: 102 Number of line item records included in the request	By Visa and Mastercard	3 numeric
merchant_tax_id	Example: 123456789 Merchant VAT tax number	By Visa	20 alphanumeric
customer_tax_id	Example: 123456789 Customer VAT registration number	By Visa	20 alphanumeric
summary_commodity_code	Example: 123 Summary commodity code	By Visa	4
discount_amount	Example: 10.50 Discount amount	By Visa	12 (max) numeric
shipping_amount	Example: 10.50 Shipping amount	By Visa	12 (max) numeric
duty_amount	Example: 10.50 Duty amount	By Visa and Mastercard	12 (max) numeric
ship_to_zip	Example: 10011 Ship-to ZIP postal code	By Visa and Mastercard	10 alphanumeric
ship_from_zip	Example: 10011 Ship-from ZIP postal code	By Visa and Mastercard	10 alphanumeric
dest_country_code	Example: 826 Destination country code Note: Country codes are available in the ISO 3166 standard, quick reference available at Wikipedia's ISO 3166 page	By Visa and Mastercard	3 numeric
vat_invoice_number	Example: 12345678 Invoice reference number	By Visa	15 numeric
order_date	Example: 160604 Invoice reference number Note: Format is YYMMDD	By Visa	6 numeric
vat_amount	Example: 5.75 Value added tax amount	By Visa	12 numeric

Field	Description	Required	Format
alt_tax_amount	Example: 5.75 Mastercard alternate tax amount Note: If alt_tax_amount_indicator is N, send 0000000000.00	By Mastercard	12 numeric
alt_tax_amount_indicator	Example: Y Mastercard alternate tax indicator Y = Yes, N = No Note: If sending N in this field, send 0000000000.00 in alt_tax_amount	By Mastercard	1 alphanumeric
visa_line_item	Example: 5096<|>carbon dioxide equipment<|>sales<|>1<|>each<|>33439.93<|>2340.79<|>7.0<|>0.00<|>33439.93<|>D Note: See Visa Line Item Fields for a description of each line item	-	-
mc_line_item	Example: Signage<|>Pylon<|>1<|>ea<|>000000000000000<|>5.0<|>stat<|>1400.00<|>N<|>N<|>31064.00<|>D<|>0.00 Note: See Mastercard Line Item Fields for a description of each line item	-	-

Visa Line Item Fields for Level 3

Line item fields are separated by <|>.

Field description	Notes
Item Commodity Code	Maximum 12 characters
Item Descriptor	Maximum 35 characters
Product Code	Maximum 12 characters
Quantity	Maximum 12 characters
Unit of Measure	Maximum 12 characters
Unit Cost	Maximum 12 characters (Example: 1.35)
VAT Tax Amount	Maximum 12 digits
VAT Tax Rate	Maximum 4 digits (7.5 = 7.5%)
Discount per Line Item	Maximum 12 digits
Line Item Total	Maximum 12 digits
Debit or Credit Indicator	D = Debit, C = Credit

Mastercard Line Item Fields for Level 3

Line item fields are separated by <|>.

Field description	Notes
Item Description	Maximum 35 characters
Product Code	Maximum 12 characters
Item Quantity	Maximum 12 characters
Item Unit of Measure	Maximum 12 characters
Alternate Tax Identifier	Maximum 15 characters
Tax Rate Applied	Maximum 4 digits (5.25 = 5.25%)
Tax Type Applied	Maximum 4 characters
Tax Amount	Maximum 12 digits
Discount Indicator	Y = Yes, N = No
Net or Gross Indicator	N = Net, G = Gross
Extended Item Amount	Maximum 9 digits
Debit or Credit Indicator	D = Debit, C = Credit
Discount Amount	Maximum 12 digits

Commercial and Purchase Cards – Additional American Express Fields
CPC Fields

Field	Description	Required	Format
requester_name	Example: J SMITH Name of the person who ordered the service or product	If provided by the customer	38 alphanumeric (uppercase)
cardholder_reference_number	Example: 123456789 Reference number used by the cardholder to identify the transaction	-	17 alphanumeric
ship_to_zip	Example: 11106 Destination postal code	-	5 - 9 alphanumeric
vat_amount	Example: 10.55 Destination postal code	-	12 (max) numeric

line_item_count	Example: 105	-	3 (max) numeric
	Destination postal code		
amex_line_item	Example: SKILL SAW<|>4<|>205.50	-	-
	Note: See American Express Line Item Fields for a description of each line item		

American Express Line Item Fields

Line item fields are separated by <\|>.

Field description	Notes
Item Description	Maximum 40 characters
Item Quantity	Maximum 3 characters
Item Unit Cost	Maximum 12 characters

Level 3/Corporate Card Sale Sample

Request:

POST /mes-api/tridentApi   HTTP/1.1

Content-Type: application/x-www-form-urlencoded

Cache-Control: no-cache

Pragma: no-cache

User-Agent: Java/1.7.0_21

Host: cert.merchante-solutions.com

Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

Content-Length: 750

profile_id=xxx&profile_key=yyy&transaction_type=D&cardholder_street_address=123&cardholder_zip=55555&cvv2=123&transaction_amount=1.00&card_number=4012888813348882&card_exp_date=1222&invoice_number=209e3212d67d2b49d&ship_to_zip=99216&ship_from_zip=99212&line_item_count=1&merchant_tax_id=123&customer_tax_id=123&summary_commodity_code=123&discount_amount=1.00&shipping_amount=1.00&duty_amount=1.00&dest_country_code=840&vat_invoice_number=123&order_date=090908&vat_amount=1.00&alt_tax_amount=1.00&alt_tax_amount_indicator=Y&visa_line_item=5096%3C%7C%3EStuff%3C%7C%3Esales%3C%7C%3E1%3C%7C%3Eeach%3C%7C%3E123.123%3C%7C%3E1.95%3C%7C%3E7.0%3C%7C%3E0.00%3C%7C%3E66.66%3C%7C%3ED

Response:

transaction_id=d96cdfb30aab3e8d9944f9ab4fd5b646&error_code=010&auth_response_text=Exact Match&avs_result=Y&cvv2_result=M&auth_code=T2055H

Level 3/Corporate Card Stored Card Sale Sample

Request:

>   POST /mes-api/tridentApi   HTTP/1.1
>
>   Content-Type: application/x-www-form-urlencoded
>
>   Cache-Control: no-cache
>
>   Pragma: no-cache
>
>   User-Agent: Java/1.7.0_21
>
>   Host: cert.merchante-solutions.com
>
>   Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
>
>   Connection: keep-alive
>
>   Content-Length: 750

profile_id=xxx&profile_key=yyy&transaction_type=D&cardholder_street_address=123&cardholder_zip=55555&cvv2=123&transaction_amount=1.00&card_id=8fc94e10b12130f4ab8a8ceeac40fc69&invoice_number=209e3212d67d2b49d&ship_to_zip=99216&ship_from_zip=99212&line_item_count=1&merchant_tax_id=123&customer_tax_id=123&summary_commodity_code=123&discount_amount=1.00&shipping_amount=1.00&duty_amount=1.00&dest_country_code=840&vat_invoice_number=123&order_date=090908&vat_amount=1.00&alt_tax_amount=1.00&alt_tax_amount_indicator=Y&visa_line_item=5096%3C%7C%3EStuff%3C%7C%3Esales%3C%7C%3E1%3C%7C%3Eeach%3C%7C%3E123.123%3C%7C%3E1.95%3C%7C%3E7.0%3C%7C%3E0.00%3C%7C%3E66.66%3C%7C%3ED

Response:

transaction_id=d96cdfb30aab3e8d9944f9ab4fd5b646&error_code=010&auth_response_text=Exact Match&avs_result=Y&cvv2_result=M&auth_code=T2055H

Level 3/Corporate Card Capture Sample

Request:

>   POST /mes-api/tridentApi   HTTP/1.1
>
>   Content-Type: application/x-www-form-urlencoded
>
>   Cache-Control: no-cache
>
>   Pragma: no-cache
>
>   User-Agent: Java/1.7.0_21
>
>   Host: cert.merchante-solutions.com
>
>   Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
>
>   Connection: keep-alive
>
>   Content-Length: 650

profile_id=xxx&profile_key=yyy&transaction_type=S&transaction_amount=1.00&transaction_id=0dd82a4f676730c1b789c1f43279dc40&invoice_number=e19b17e690b5c053f&ship_from_zip=99212&line_item_count=1&merchant_tax_id=123&customer_tax_id=123&summary_commodity_code=123&discount_amount=1.00&shipping_amount=1.00&duty_amount=1.00&dest_country_code=840&vat_invoice_number=123&order_date=090908&vat_amount=1.00&alt_t

ax_amount=1.00&alt_tax_amount_indicator=Y&visa_line_item=5096%3C%7C%3EStuff%3C%7C%3Esales%3C%7C%3E1%3C%7C%3Eeach%3C%7C%3E123.123%3C%7C%3E1.95%3C%7C%3E7.0%3C%7C%3E0.00%3C%7C%3E66.66%3C%7C%3ED

Response:

transaction_id=d96cdfb30aab3e8d9944f9ab4fd5b646&error_code=010&auth_response_text=Exact Match&avs_result=Y&cvv2_result=M&auth_code=T2055H