
Vantiv eCommerce Python SDK

Release 9.14.0

Vantiv eCommerce

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1.1 Using dict

```
1  #Example for SDK
2  from __future__ import print_function, unicode_literals
3
4  from vantisv sdk import *
5
6  # Initial Configuration object. If you have saved configuration in '.vantiv_python_
↳ sdk.conf' at system environment
7  # variable: VANTIV_SDK_CONFIG or user home directory, the saved configuration will
↳ be automatically load.
8  conf = utils.Configuration()
9
10 # Configuration need following attributes for online request:
11 # attributes = default value
12 # user = ''
13 # password = ''
14 # merchantId = ''
15 # reportGroup = 'Default Report Group'
16 # url = 'https://www.testlitle.com/sandbox/communicator/online'
17 # proxy = ''
18 # print_xml = False
19
20 # Transaction presented by dict
21 txn_dict = {
22     'authorization': {
23         'orderId': '1',
24         'amount': 10010,
25         'orderSource': 'ecommerce',
26         'id': 'ThisIsRequiredby11',
27         'billToAddress': {
28             'name': 'John & Mary Smith',
29             'addressLine1': '1 Main St.',
```

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```

30         'city': 'Burlington',
31         'state': 'MA',
32         'zip': '01803-3747',
33         'country': 'USA'
34     },
35     'card': {
36         'number': '4100000000000000',
37         'expDate': '1215',
38         'cardValidationNum' : '349',
39         'type': 'VI'
40     },
41     'enhancedData':{
42         'detailTax': [
43             {'taxAmount':100},
44             {'taxAmount':200},
45         ],
46     }
47 }
48 }
49
50 # Send request to server and get response as dict
51 response = online.request(txn_dict, conf)
52
53 print('Message: %s' % response['authorizationResponse']['message'])
54 print('LittleTransaction ID: %s' % response['authorizationResponse']['littleTxnId'])
55
56 # Configuration need following attributes for batch request:
57 # attributes = default value
58 # sftp_username = ''
59 # sftp_password = ''
60 # sftp_url = ''
61 # batch_requests_path = '/tmp/vantiv_sdk_batch_request'
62 # batch_response_path = '/tmp/vantiv_sdk_batch_response'
63 # fast_url = ''
64 # fast_ssl = True
65 # fast_port = ''
66 # id = ''
67
68 # Initial batch transactions container class
69 transactions = batch.Transactions()
70
71 # Add transaction to batch transactions container
72 transactions.add(txn_dict)
73
74 # Sent batch to server via socket and get response as dict
75 response = batch.stream(transactions, conf)
76
77 print('Message: %s' % response['batchResponse']['authorizationResponse']['message'])
78 print('LittleTransaction ID: %s' % response['batchResponse']['authorizationResponse']['
↪ 'littleTxnId'])

```

1.2 Using object

```

1  #Example for SDK
2  from __future__ import print_function, unicode_literals
3
4  from vantivsdk import *
5
6  # Initial Configuration object. If you have saved configuration in '.vantiv_python_
↳ sdk.conf' at system environment
7  # variable: VANTIV_SDK_CONFIG or user home directory, the saved configuration will
↳ be automatically load.
8  conf = utils.Configuration()
9
10 # Configuration need following attributes for online request:
11 # attributes = default value
12 # user = ''
13 # password = ''
14 # merchantId = ''
15 # reportGroup = 'Default Report Group'
16 # url = 'https://www.testlitle.com/sandbox/communicator/online'
17 # proxy = ''
18 # print_xml = False
19
20 # Initial Transaction.
21 transaction = fields.authorization()
22 transaction.orderId = '1'
23 transaction.amount = 10010
24 transaction.orderSource = 'ecommerce'
25 transaction.id = 'ThisIsRequiredby11'
26
27 # Create contact object
28 contact = fields.contact()
29 contact.name = 'John & Mary Smith'
30 contact.addressLine1 = '1 Main St.'
31 contact.city = 'Burlington'
32 contact.state = 'MA'
33 contact.zip = '01803-3747'
34 contact.country = 'USA'
35 # The type of billToAddress is contact
36 transaction.billToAddress = contact
37
38 # Create cardType object
39 card = fields.cardType()
40 card.number = '4100000000000000'
41 card.expDate = '1215'
42 card.cardValidationNum = '349'
43 card.type = 'VI'
44 # The type of card is cardType
45 transaction.card = card
46
47 # detail tax
48 detailTaxList = list()
49
50 detailTax = fields.detailTax()
51 detailTax.taxAmount = 100
52 detailTaxList.append(detailTax)
53

```

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```

54 detailTax2 = fields.detailTax()
55 detailTax2.taxAmount = 200
56 detailTaxList.append(detailTax2)
57
58 enhancedData = fields.enhancedData()
59 enhancedData.detailTax = detailTaxList
60
61 # Send request to server and get response as dict
62 response = online.request(transaction, conf)
63
64 print('Message: %s' % response['authorizationResponse']['message'])
65 print('LittleTransaction ID: %s' % response['authorizationResponse']['littleTxnId'])
66
67 # Configuration need following attributes for batch request:
68 # attributes = default value
69 # sftp_username = ''
70 # sftp_password = ''
71 # sftp_url = ''
72 # batch_requests_path = '/tmp/vantiv_sdk_batch_request'
73 # batch_response_path = '/tmp/vantiv_sdk_batch_response'
74 # fast_url = ''
75 # fast_ssl = True
76 # fast_port = ''
77 # id = ''
78
79 # Initial batch transactions container class
80 transactions = batch.Transactions()
81
82 # Add transaction to batch transactions container
83 transactions.add(transaction)
84
85 # Sent batch to server via socket and get response as dict
86 response = batch.stream(transactions, conf)
87
88 print('Message: %s' % response['batchResponse']['authorizationResponse']['message'])
89 print('LittleTransaction ID: %s' % response['batchResponse']['authorizationResponse']['
↪ 'littleTxnId'])

```

2.1 batch.stream

`vantivsdk.batch.stream(transactions, conf, return_format='dict', timeout_send=60, timeout_rev=2)`
stream batch request to IBC (inbound batch communicator) via socket and get return object

Parameters

- **transactions** – an instance of batch.Transactions.
- **conf** – An instance of utils.Configuration.
- **return_format** – Return format. The default is 'dict'. Could be one of 'dict', 'object' or 'xml'.
- **timeout_send** – Positive int. Timeout in second for socket connection when sending.
- **timeout_rev** – Positive int. Timeout in second for socket connection when receiving.

Returns response XML in desired format.

2.2 batch.download

`vantivsdk.batch.download(filename, conf, delete_remote=False, timeout=60)`
Download Processed Session File from server via sFTP
Get xml file from server and save to local file system

Parameters

- **filename** – filename of file in outbound folder at remote server with '.asc' as extension.

- **conf** – An instance of `utils.Configuration`.
- **delete_remote** – If delete the remote file after download. The default is `False`
- **timeout** – Timeout in second for ssh connection for sftp.

Returns path for file that saved in local file system.

Raises Exception depends on when get it.

2.3 batch.submit

`vantivsdk.batch.submit(transactions, conf, filename="", timeout=60)`

Submitting a Session File for Processing to server via sFTP

1. Generate littleRequest.xml.
2. Save xml at local file system.
3. Send xml file to server.

Parameters

- **transactions** – an instance of `batch.Transactions`.
- **conf** – An instance of `utils.Configuration`.
- **filename** – String. File name for generated xml file. If the file exist, a timestamp string will be added.
- **timeout** – Positive int. Timeout in second for ssh connection for sftp.

Returns filename of file in inbound folder at remote server with '.asc' as extension.

Raises Exception depends on when get it.

2.4 batch.retrieve

`vantivsdk.batch.retrieve(filename, conf, return_format='dict', save_to_local=False, delete_remote=False, timeout=60)`

Retrieving Processed Session File from server via sFTP

1. Get xml file string from server and return object
2. If `save_to_local`, save to local file system

Parameters

- **filename** – filename of file in outbound folder at remote server with '.asc' as extension.
- **conf** – An instance of `utils.Configuration`.
- **return_format** – Return format. The default is 'dict'. Could be one of 'dict', 'object' or 'xml'.
- **save_to_local** – whether save file to local. default is false.
- **delete_remote** – If delete the remote file after download. The default is `False`
- **timeout** – Timeout in second for ssh connection for sftp.

Returns response XML in desired format.

Raises Exception depends on when get it.

2.5 batch.Transactions

class `vantivsdk.batch.Transactions`

Container of transactions for batch request

Then transactions could be RFRRequest and any batch request supported transactions and recurring-Transaction. RFRRequest cannot exist in the same instance with any other transactions.

A instance cannot contain more than 1,000,000 transactions.

sameDayFunding

Since v11.1. Used for Dynamic Payout Funding Instructions only. Set to True to mark this Batch of Funding Instructions for same day funding.

Type bool

add (*transaction*)

Add transaction to the container class.

Parameters **transaction** – an instance of Transactions or RFRRequest which could process by Batch.

Returns None

Raises Exceptions.

is_rfr_request

A property, whether current instance include a RFRRequest

Returns Boolean

recurringTransactions

A property, return a new list of recurringTransactions.

Returns list of recurringTransactions

transactions

A property, return a new list of transactions.

Returns list of transactions

2.6 online.request

`vantivsdk.online.request` (*transaction, conf, return_format='dict', timeout=30*)

Send request to server.

Parameters

- **transaction** – An instance of transaction class
- **conf** – An instance of `utils.Configuration`
- **return_format** – Return format. The default is 'dict'. Could be one of 'dict', 'object' or 'xml'.
- **timeout** – timeout for the request in seconds. timeout is not a time limit on the entire response.
- **the time that server has not issued a response. (It's) –**

Returns response XML in desired format.

Raises `VantivExceptions`.

2.7 utils.Configuration

```
class vantivsdk.utils.Configuration(conf_dict={})
    Setup Configuration variables.

    user
        authentication.user
        Type Str

    password
        authentication.password
        Type Str

    merchantId
        The unique string to identify the merchant within the system.
        Type Str

    reportGroup
        To separate your transactions into different categories,
        Type Str

    url
        Url for server.
        Type Str

    proxy
        Https proxy server address. Must start with "https://"
        Type Str

    sftp_username
        Username for sftp
        Type Str

    sftp_password
        Password for sftp
        Type Str

    sftp_url
        Address for sftp
        Type Str

    batch_requests_path
        Location for saving generated batch request xml
        Type Str

    batch_response_path
        Location for saving batch response xml
        Type Str

    fast_url
        Fast address, using for batch stream
        Type Str

    fast_port
        Fast port, using for batch stream
        Type Str
```

print_xml

Whether print request and response xml

Type Str

save()

Save Class Attributes to .vantiv_python_sdk.conf

Returns full path for configuration file.

Raises IOError – An error occurred

3.1 accountUpdate

```
class vantivsdk.fields.accountUpdate
```

Variables

- **cardOrToken** – instance of *vantivsdk.fields.card*, *vantivsdk.fields.token*,
- **customerId** – String or Number
- **id** – String or Number
- **orderId** – String or Number
- **reportGroup** – String or Number

3.2 activate

```
class vantivsdk.fields.activate
```

Variables

- **amount** – String or Number
- **card** – instance of *vantivsdk.fields.cardType*
- **customerId** – String or Number
- **id** – String or Number
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

- **virtualGiftCard** – instance of *vantivsdk.fields.virtualGiftCardType*

3.3 activateReversal

class *vantivsdk.fields.activateReversal*

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- *reportGroup* – String or Number

3.4 authReversal

class *vantivsdk.fields.authReversal*

Variables

- **actionReason** – String or Number
- **amount** – String or Number
- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- **paypalNotes** – String or Number
- *reportGroup* – String or Number
- **surchargeAmount** – String or Number

3.5 authorization

class *vantivsdk.fields.authorization*

Variables

- **advancedFraudChecks** – instance of *vantivsdk.fields.advancedFraudChecksType*
- **allowPartialAuth** – String or Number
- *amexAggregatorData* – instance of *vantivsdk.fields.amexAggregatorData*
- **amount** – String or Number
- **applepay** – instance of *vantivsdk.fields.applepayType*
- *billMeLaterRequest* – instance of *vantivsdk.fields.billMeLaterRequest*

- **billToAddress** – instance of `vantivsdk.fields.billToAddress`
- **card** – instance of `vantivsdk.fields.cardType`
- **cardholderAuthentication** – instance of `vantivsdk.fields.fraudCheckType`
- **customBilling** – instance of `vantivsdk.fields.customBilling`
- **customerId** – String or Number
- **customerInfo** – instance of `vantivsdk.fields.customerInfo`
- **debtRepayment** – String or Number
- **enhancedData** – instance of `vantivsdk.fields.enhancedData`
- **filtering** – instance of `vantivsdk.fields.filteringType`
- **fraudFilterOverride** – String or Number
- **healthcareIIAS** – instance of `vantivsdk.fields.healthcareIIAS`
- **id** – String or Number
- **littleTxnId** – String or Number
- **merchantData** – instance of `vantivsdk.fields.merchantDataType`
- **mpos** – instance of `vantivsdk.fields.mposType`
- **orderId** – String or Number
- **orderSource** – String or Number
- **originalNetworkTransactionId** – String or Number
- **originalTransactionAmount** – String or Number
- **paypage** – instance of `vantivsdk.fields.cardPaypageType`
- **paypal** – instance of `vantivsdk.fields.payPal`
- **pos** – instance of `vantivsdk.fields.pos`
- **processingInstructions** – instance of `vantivsdk.fields.processingInstructions`
- **processingType** – String or Number
- **recurringRequest** – instance of `vantivsdk.fields.recurringRequestType`
- **recyclingRequest** – instance of `vantivsdk.fields.recyclingRequestType`
- **reportGroup** – String or Number
- **secondaryAmount** – String or Number
- **shipToAddress** – instance of `vantivsdk.fields.shipToAddress`
- **surchargeAmount** – String or Number
- **taxType** – String or Number
- **token** – instance of `vantivsdk.fields.cardTokenType`
- **wallet** – instance of `vantivsdk.fields.wallet`

3.6 balanceInquiry

class `vantivsdk.fields.balanceInquiry`

Variables

- **card** – instance of `vantivsdk.fields.cardType`
- **customerId** – String or Number
- **id** – String or Number
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.7 cancelSubscription

class `vantivsdk.fields.cancelSubscription`

Variables **subscriptionId** – String or Number

3.8 capture

class `vantivsdk.fields.capture`

Variables

- **amount** – String or Number
- **customBilling** – instance of `vantivsdk.fields.customBilling`
- **customerId** – String or Number
- **enhancedData** – instance of `vantivsdk.fields.enhancedData`
- **id** – String or Number
- **littleTxnId** – String or Number
- **partial** – String or Number
- **paypalNotes** – String or Number
- **paypalOrderComplete** – String or Number
- **pin** – String or Number
- **processingInstructions** – instance of `vantivsdk.fields.processingInstructions`
- **reportGroup** – String or Number
- **surchargeAmount** – String or Number

3.9 captureGivenAuth

class `vantivsdk.fields.captureGivenAuth`

Variables

- **`amexAggregatorData`** – instance of `vantivsdk.fields.amexAggregatorData`
- **`amount`** – String or Number
- **`authInformation`** – instance of `vantivsdk.fields.authInformation`
- **`billMeLaterRequest`** – instance of `vantivsdk.fields.billMeLaterRequest`
- **`billToAddress`** – instance of `vantivsdk.fields.billToAddress`
- **`card`** – instance of `vantivsdk.fields.cardType`
- **`customBilling`** – instance of `vantivsdk.fields.customBilling`
- **`customerId`** – String or Number
- **`debtRepayment`** – String or Number
- **`enhancedData`** – instance of `vantivsdk.fields.enhancedData`
- **`id`** – String or Number
- **`merchantData`** – instance of `vantivsdk.fields.merchantDataType`
- **`mpos`** – instance of `vantivsdk.fields.mposType`
- **`orderId`** – String or Number
- **`orderSource`** – String or Number
- **`originalNetworkTransactionId`** – String or Number
- **`originalTransactionAmount`** – String or Number
- **`paypage`** – instance of `vantivsdk.fields.cardPaypageType`
- **`pos`** – instance of `vantivsdk.fields.pos`
- **`processingInstructions`** – instance of `vantivsdk.fields.processingInstructions`
- **`processingType`** – String or Number
- **`reportGroup`** – String or Number
- **`secondaryAmount`** – String or Number
- **`shipToAddress`** – instance of `vantivsdk.fields.shipToAddress`
- **`surchargeAmount`** – String or Number
- **`taxType`** – String or Number
- **`token`** – instance of `vantivsdk.fields.cardTokenType`

3.10 createPlan

```
class vantisdk.fields.createPlan
```

Variables

- **active** – String or Number
- **amount** – String or Number
- **description** – String or Number
- **intervalType** – String or Number
- **name** – String or Number
- **numberOfPayments** – String or Number
- **planCode** – String or Number
- **trialIntervalType** – String or Number
- **trialNumberOfIntervals** – String or Number

3.11 credit

```
class vantisdk.fields.credit
```

Variables

- **actionReason** – String or Number
- **amexAggregatorData** – instance of *vantisdk.fields.amexAggregatorData*
- **amount** – String or Number
- **billMeLaterRequest** – instance of *vantisdk.fields.billMeLaterRequest*
- **billToAddress** – instance of *vantisdk.fields.billToAddress*
- **card** – instance of *vantisdk.fields.cardType*
- **customBilling** – instance of *vantisdk.fields.customBilling*
- **customerId** – String or Number
- **enhancedData** – instance of *vantisdk.fields.enhancedData*
- **id** – String or Number
- **littleTxnId** – String or Number
- **merchantData** – instance of *vantisdk.fields.merchantDataType*
- **mpos** – instance of *vantisdk.fields.mposType*
- **orderId** – String or Number
- **orderSource** – String or Number
- **paypalNotes** – String or Number
- **paypage** – instance of *vantisdk.fields.cardPaypageType*

- **paypal** – instance of *vantivsdk.fields.payPal*
- **pin** – String or Number
- **pos** – instance of *vantivsdk.fields.pos*
- **processingInstructions** – instance of *vantivsdk.fields.processingInstructions*
- **reportGroup** – String or Number
- **secondaryAmount** – String or Number
- **surchargeAmount** – String or Number
- **taxType** – String or Number
- **token** – instance of *vantivsdk.fields.cardTokenType*

3.12 deactivate

class *vantivsdk.fields.deactivate*

Variables

- **card** – instance of *vantivsdk.fields.cardType*
- **customerId** – String or Number
- **id** – String or Number
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.13 deactivateReversal

class *vantivsdk.fields.deactivateReversal*

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- **reportGroup** – String or Number

3.14 depositReversal

class *vantivsdk.fields.depositReversal*

Variables

- **customerId** – String or Number
- **id** – String or Number

- **littleTxnId** – String or Number
- **reportGroup** – String or Number

3.15 echeckCredit

```
class vantivsdk.fields.echeckCredit
```

Variables

- **amount** – String or Number
- **billToAddress** – instance of *vantivsdk.fields.billToAddress*
- **customBilling** – instance of *vantivsdk.fields.customBilling*
- **customerId** – String or Number
- **echeckOrEcheckToken** – instance of *vantivsdk.fields.echeck*, *vantivsdk.fields.echeckToken*,
- **id** – String or Number
- **littleTxnId** – String or Number
- **merchantData** – instance of *vantivsdk.fields.merchantDataType*
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number
- **secondaryAmount** – String or Number

3.16 echeckPreNoteCredit

```
class vantivsdk.fields.echeckPreNoteCredit
```

Variables

- **billToAddress** – instance of *vantivsdk.fields.billToAddress*
- **customerId** – String or Number
- **echeck** – instance of *vantivsdk.fields.echeck*
- **id** – String or Number
- **merchantData** – instance of *vantivsdk.fields.merchantDataType*
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.17 echeckPreNoteSale

```
class vantisdk.fields.echeckPreNoteSale
```

Variables

- **billToAddress** – instance of *van tiv sdk . fields . billToAddress*
- **customerId** – String or Number
- **echeck** – instance of *van tiv sdk . fields . echeck*
- **id** – String or Number
- **merchantData** – instance of *van tiv sdk . fields . merchantDataType*
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.18 echeckRedeposit

```
class vantisdk.fields.echeckRedeposit
```

Variables

- **customerId** – String or Number
- **echeckOrEcheckToken** – instance of *van tiv sdk . fields . echeck*, *van tiv sdk . fields . echeckToken*,
- **id** – String or Number
- **littleTxnId** – String or Number
- **merchantData** – instance of *van tiv sdk . fields . merchantDataType*
- **reportGroup** – String or Number

3.19 echeckSale

```
class vantisdk.fields.echeckSale
```

Variables

- **amount** – String or Number
- **billToAddress** – instance of *van tiv sdk . fields . billToAddress*
- **customBilling** – instance of *van tiv sdk . fields . customBilling*
- **customerId** – String or Number
- **echeckOrEcheckToken** – instance of *van tiv sdk . fields . echeck*, *van tiv sdk . fields . echeckToken*,
- **id** – String or Number
- **littleTxnId** – String or Number
- **merchantData** – instance of *van tiv sdk . fields . merchantDataType*

- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number
- **secondaryAmount** – String or Number
- **shipToAddress** – instance of *vantivsdk.fields.shipToAddress*
- **verify** – String or Number

3.20 echeckVerification

```
class vantivsdk.fields.echeckVerification
```

Variables

- **amount** – String or Number
- **billToAddress** – instance of *vantivsdk.fields.billToAddress*
- **customerId** – String or Number
- **echeckOrEcheckToken** – instance of *vantivsdk.fields.echeck*,
vantivsdk.fields.echeckToken,
- **id** – String or Number
- **littleTxnId** – String or Number
- **merchantData** – instance of *vantivsdk.fields.merchantDataType*
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.21 echeckVoid

```
class vantivsdk.fields.echeckVoid
```

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- **reportGroup** – String or Number

3.22 forceCapture

```
class vantivsdk.fields.forceCapture
```

Variables

- **amexAggregatorData** – instance of *vantivsdk.fields.amexAggregatorData*

- **amount** – String or Number
- **billToAddress** – instance of *vantivsdk.fields.billToAddress*
- **card** – instance of *vantivsdk.fields.cardType*
- **customBilling** – instance of *vantivsdk.fields.customBilling*
- **customerId** – String or Number
- **debtRepayment** – String or Number
- **enhancedData** – instance of *vantivsdk.fields.enhancedData*
- **id** – String or Number
- **merchantData** – instance of *vantivsdk.fields.merchantDataType*
- **mpos** – instance of *vantivsdk.fields.mposType*
- **orderId** – String or Number
- **orderSource** – String or Number
- **paypage** – instance of *vantivsdk.fields.cardPaypageType*
- **pos** – instance of *vantivsdk.fields.pos*
- **processingInstructions** – instance of *vantivsdk.fields.processingInstructions*
- **processingType** – String or Number
- **reportGroup** – String or Number
- **secondaryAmount** – String or Number
- **surchargeAmount** – String or Number
- **taxType** – String or Number
- **token** – instance of *vantivsdk.fields.cardTokenType*

3.23 fraudCheck

```
class vantivsdk.fields.fraudCheck
```

Variables

- **advancedFraudChecks** – instance of *vantivsdk.fields.advancedFraudChecksType*
- **amount** – String or Number
- **billToAddress** – instance of *vantivsdk.fields.billToAddress*
- **customerId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number
- **shipToAddress** – instance of *vantivsdk.fields.shipToAddress*

3.24 load

```
class vantisdk.fields.load
```

Variables

- **amount** – String or Number
- **card** – instance of *vanativsdk.fields.cardType*
- **customerId** – String or Number
- **id** – String or Number
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.25 loadReversal

```
class vantisdk.fields.loadReversal
```

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- **reportGroup** – String or Number

3.26 payFacCredit

```
class vantisdk.fields.payFacCredit
```

Variables

- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number

3.27 payFacDebit

```
class vantisdk.fields.payFacDebit
```

Variables

- **amount** – String or Number

- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- *reportGroup* – String or Number

3.28 physicalCheckCredit

```
class vantisdk.fields.physicalCheckCredit
```

Variables

- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- *reportGroup* – String or Number

3.29 physicalCheckDebit

```
class vantisdk.fields.physicalCheckDebit
```

Variables

- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- *reportGroup* – String or Number

3.30 queryTransaction

```
class vantisdk.fields.queryTransaction
```

Variables

- **customerId** – String or Number
- **id** – String or Number
- **origAccountNumber** – String or Number
- **origActionType** – String or Number
- **origId** – String or Number

- **origLittleTxnId** – String or Number
- **origOrderId** – String or Number
- **reportGroup** – String or Number

3.31 refundReversal

```
class vantivsdk.fields.refundReversal
```

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- **reportGroup** – String or Number

3.32 registerTokenRequest

```
class vantivsdk.fields.registerTokenRequest
```

Variables

- **accountNumber** – String or Number
- **applepay** – instance of *vantivsdk.fields.applepayType*
- **cardValidationNum** – String or Number
- **customerId** – String or Number
- **echeckForToken** – instance of *vantivsdk.fields.echeckForTokenType*
- **id** – String or Number
- **mpos** – instance of *vantivsdk.fields.mpostType*
- **orderId** – String or Number
- **paypageRegistrationId** – String or Number
- **reportGroup** – String or Number

3.33 reserveCredit

```
class vantivsdk.fields.reserveCredit
```

Variables

- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number

- **id** – String or Number
- **reportGroup** – String or Number

3.34 reserveDebit

```
class vantisdk.fields.reserveDebit
```

Variables

- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number

3.35 sale

```
class vantisdk.fields.sale
```

Variables

- **advancedFraudChecks** – instance of *vantisdk.fields.advancedFraudChecksType*
- **allowPartialAuth** – String or Number
- **amexAggregatorData** – instance of *vantisdk.fields.amexAggregatorData*
- **amount** – String or Number
- **applepay** – instance of *vantisdk.fields.applepayType*
- **billMeLaterRequest** – instance of *vantisdk.fields.billMeLaterRequest*
- **billToAddress** – instance of *vantisdk.fields.billToAddress*
- **card** – instance of *vantisdk.fields.cardType*
- **cardholderAuthentication** – instance of *vantisdk.fields.fraudCheckType*
- **customBilling** – instance of *vantisdk.fields.customBilling*
- **customerId** – String or Number
- **customerInfo** – instance of *vantisdk.fields.customerInfo*
- **debtRepayment** – String or Number
- **enhancedData** – instance of *vantisdk.fields.enhancedData*
- **filtering** – instance of *vantisdk.fields.filteringType*
- **fraudCheck** – instance of *vantisdk.fields.fraudCheckType*

- **fraudFilterOverride** – String or Number
- **giropay** – instance of `vantivsdk.fields.giropayType`
- **healthcareIIAS** – instance of `vantivsdk.fields.healthcareIIAS`
- **id** – String or Number
- **ideal** – instance of `vantivsdk.fields.idealType`
- **littleInternalRecurringRequest** – instance of `vantivsdk.fields.littleInternalRecurringRequestType`
- **littleTxnId** – String or Number
- **merchantData** – instance of `vantivsdk.fields.merchantDataType`
- **mpos** – instance of `vantivsdk.fields.mposType`
- **orderId** – String or Number
- **orderSource** – String or Number
- **originalNetworkTransactionId** – String or Number
- **originalTransactionAmount** – String or Number
- **paypalNotes** – String or Number
- **paypalOrderComplete** – String or Number
- **paypage** – instance of `vantivsdk.fields.cardPaypageType`
- **paypal** – instance of `vantivsdk.fields.payPal`
- **pos** – instance of `vantivsdk.fields.pos`
- **processingInstructions** – instance of `vantivsdk.fields.processingInstructions`
- **processingType** – String or Number
- **recurringRequest** – instance of `vantivsdk.fields.recurringRequestType`
- **recyclingRequest** – instance of `vantivsdk.fields.recyclingRequestType`
- **reportGroup** – String or Number
- **secondaryAmount** – String or Number
- **sepaDirectDebit** – instance of `vantivsdk.fields.sepaDirectDebitType`
- **shipToAddress** – instance of `vantivsdk.fields.shipToAddress`
- **sofort** – instance of `vantivsdk.fields.sofortType`
- **surchargeAmount** – String or Number
- **taxType** – String or Number
- **token** – instance of `vantivsdk.fields.cardTokenType`
- **wallet** – instance of `vantivsdk.fields.wallet`

3.36 submerchantCredit

```
class vantisdk.fields.submerchantCredit
```

Variables

- **accountInfo** – instance of *vanativsdk.fields.echeckType*
- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number
- **submerchantName** – String or Number

3.37 submerchantDebit

```
class vantisdk.fields.submerchantDebit
```

Variables

- **accountInfo** – instance of *vanativsdk.fields.echeckType*
- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number
- **submerchantName** – String or Number

3.38 unload

```
class vantisdk.fields.unload
```

Variables

- **amount** – String or Number
- **card** – instance of *vanativsdk.fields.cardType*
- **customerId** – String or Number
- **id** – String or Number
- **orderId** – String or Number
- **orderSource** – String or Number
- **reportGroup** – String or Number

3.39 unloadReversal

```
class vantivsdk.fields.unloadReversal
```

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- **reportGroup** – String or Number

3.40 updateCardValidationNumOnToken

```
class vantivsdk.fields.updateCardValidationNumOnToken
```

Variables

- **cardValidationNum** – String or Number
- **customerId** – String or Number
- **id** – String or Number
- **littleToken** – String or Number
- **orderId** – String or Number
- **reportGroup** – String or Number

3.41 updatePlan

```
class vantivsdk.fields.updatePlan
```

Variables

- **active** – String or Number
- **planCode** – String or Number

3.42 updateSubscription

```
class vantivsdk.fields.updateSubscription
```

Variables

- **billToAddress** – instance of *vantivsdk.fields.billToAddress*
- **billingDate** – String or Number
- **card** – instance of *vantivsdk.fields.cardType*
- **createAddOn** – instance of *vantivsdk.fields.createAddOnType*
- **createDiscount** – instance of *vantivsdk.fields.createDiscountType*

- **deleteAddOn** – instance of *vantivsdk.fields.deleteAddOnType*
- **deleteDiscount** – instance of *vantivsdk.fields.deleteDiscountType*
- **paypage** – instance of *vantivsdk.fields.cardPaypageType*
- **planCode** – String or Number
- **subscriptionId** – String or Number
- **token** – instance of *vantivsdk.fields.cardTokenType*
- **updateAddOn** – instance of *vantivsdk.fields.updateAddOnType*
- **updateDiscount** – instance of *vantivsdk.fields.updateDiscountType*

3.43 vendorCredit

class *vantivsdk.fields.vendorCredit*

Variables

- **accountInfo** – instance of *vantivsdk.fields.echeckType*
- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number
- **vendorName** – String or Number

3.44 vendorDebit

class *vantivsdk.fields.vendorDebit*

Variables

- **accountInfo** – instance of *vantivsdk.fields.echeckType*
- **amount** – String or Number
- **customerId** – String or Number
- **fundingSubmerchantId** – String or Number
- **fundsTransferId** – String or Number
- **id** – String or Number
- **reportGroup** – String or Number
- **vendorName** – String or Number

3.45 void

class `vantivsdk.fields.void`

Variables

- **customerId** – String or Number
- **id** – String or Number
- **littleTxnId** – String or Number
- ***processingInstructions*** – instance of `vantivsdk.fields.processingInstructions`
- ***reportGroup*** – String or Number

4.1 advancedFraudChecksType

```
class vantivsdk.fields.advancedFraudChecksType
```

Variables

- **customAttribute1** – String or Number
- **customAttribute2** – String or Number
- **customAttribute3** – String or Number
- **customAttribute4** – String or Number
- **customAttribute5** – String or Number
- **threatMetrixSessionId** – String or Number

4.2 advancedFraudResultsType

```
class vantivsdk.fields.advancedFraudResultsType
```

Variables

- **deviceReputationScore** – String or Number
- **deviceReviewStatus** – String or Number
- **triggeredRule** – String or Number

4.3 amexAggregatorData

```
class vantivsdk.fields.amexAggregatorData
```

Variables

- **sellerId** – String or Number
- **sellerMerchantCategoryCode** – String or Number

4.4 applepayHeaderType

```
class vantisdk.fields.applepayHeaderType
```

Variables

- **applicationData** – String or Number
- **ephemeralPublicKey** – String or Number
- **publicKeyHash** – String or Number
- **transactionId** – String or Number

4.5 applepayType

```
class vantisdk.fields.applepayType
```

Variables

- **data** – String or Number
- **header** – instance of *vantisdk.fields.applepayHeaderType*
- **signature** – String or Number
- **version** – String or Number

4.6 authInformation

```
class vantisdk.fields.authInformation
```

Variables

- **authAmount** – String or Number
- **authCode** – String or Number
- **authDate** – String or Number
- **fraudResult** – instance of *vantisdk.fields.fraudResult*

4.7 billMeLaterRequest

```
class vantisdk.fields.billMeLaterRequest
```

Variables

- **authorizationSourcePlatform** – String or Number
- **bmlMerchantId** – String or Number

- ***bmlProductType*** – instance of *vantivsdk.fields.bmlProductType*
- **customerBillingAddressChanged** – String or Number
- **customerEmailChanged** – String or Number
- **customerPasswordChanged** – String or Number
- **customerPhoneChanged** – String or Number
- **itemCategoryCode** – String or Number
- **merchantPromotionalCode** – String or Number
- **preapprovalNumber** – String or Number
- **secretQuestionAnswer** – String or Number
- **secretQuestionCode** – String or Number
- **termsAndConditions** – String or Number
- **virtualAuthenticationKeyData** – String or Number
- **virtualAuthenticationKeyPresenceIndicator** – String or Number

4.8 billToAddress

```
class vantivsdk.fields.billToAddress
```

Variables

- **addressLine1** – String or Number
- **addressLine2** – String or Number
- **addressLine3** – String or Number
- **city** – String or Number
- **companyName** – String or Number
- **country** – String or Number
- **email** – String or Number
- **firstName** – String or Number
- **lastName** – String or Number
- **middleInitial** – String or Number
- **name** – String or Number
- **phone** – String or Number
- **state** – String or Number
- **zip** – String or Number

4.9 bmlProductType

```
class vantivsdk.fields.bmlProductType
```

4.10 card

```
class vantivsdk.fields.card
```

Variables

- **cardValidationNum** – String or Number
- **expDate** – String or Number
- **number** – String or Number
- **pin** – String or Number
- **track** – String or Number
- **type** – String or Number

4.11 cardPaypageType

```
class vantivsdk.fields.cardPaypageType
```

Variables

- **cardValidationNum** – String or Number
- **expDate** – String or Number
- **paypageRegistrationId** – String or Number
- **type** – String or Number

4.12 cardTokenType

```
class vantivsdk.fields.cardTokenType
```

Variables

- **cardValidationNum** – String or Number
- **expDate** – String or Number
- **littleToken** – String or Number
- **type** – String or Number

4.13 cardType

```
class vantivsdk.fields.cardType
```

Variables

- **cardValidationNum** – String or Number
- **expDate** – String or Number
- **number** – String or Number
- **pin** – String or Number

- **track** – String or Number
- **type** – String or Number

4.14 createAddOnType

```
class vantisdk.fields.createAddOnType
```

Variables

- **addOnCode** – String or Number
- **amount** – String or Number
- **endDate** – String or Number
- **name** – String or Number
- **startDate** – String or Number

4.15 createDiscountType

```
class vantisdk.fields.createDiscountType
```

Variables

- **amount** – String or Number
- **discountCode** – String or Number
- **endDate** – String or Number
- **name** – String or Number
- **startDate** – String or Number

4.16 customBilling

```
class vantisdk.fields.customBilling
```

Variables

- **city** – String or Number
- **descriptor** – String or Number
- **phone** – String or Number
- **url** – String or Number

4.17 customerInfo

```
class vantisdk.fields.customerInfo
```

Variables

- **customerCheckingAccount** – String or Number

- **customerRegistrationDate** – String or Number
- **customerSavingAccount** – String or Number
- **customerType** – String or Number
- **customerWorkTelephone** – String or Number
- **dob** – String or Number
- **employerName** – String or Number
- **incomeAmount** – String or Number
- **incomeCurrency** – String or Number
- **residenceStatus** – String or Number
- **ssn** – String or Number
- **yearsAtEmployer** – String or Number
- **yearsAtResidence** – String or Number

4.18 deleteAddOnType

```
class vantivsdk.fields.deleteAddOnType
    Variables addOnCode – String or Number
```

4.19 deleteDiscountType

```
class vantivsdk.fields.deleteDiscountType
    Variables discountCode – String or Number
```

4.20 detailTax

```
class vantivsdk.fields.detailTax
    Variables
        • cardAcceptorTaxId – String or Number
        • taxAmount – String or Number
        • taxIncludedInTotal – String or Number
        • taxRate – String or Number
        • taxTypeIdentifier – String or Number
```

4.21 echeck

```
class vantivsdk.fields.echeck
    Variables
```

- **accNum** – String or Number
- **accType** – String or Number
- **ccdPaymentInformation** – String or Number
- **checkNum** – String or Number
- **routingNum** – String or Number

4.22 echeckForTokenType

```
class vantisdk.fields.echeckForTokenType
```

Variables

- **accNum** – String or Number
- **routingNum** – String or Number

4.23 echeckToken

```
class vantisdk.fields.echeckToken
```

Variables

- **accType** – String or Number
- **checkNum** – String or Number
- **littleToken** – String or Number
- **routingNum** – String or Number

4.24 echeckType

```
class vantisdk.fields.echeckType
```

Variables

- **accNum** – String or Number
- **accType** – String or Number
- **ccdPaymentInformation** – String or Number
- **checkNum** – String or Number
- **routingNum** – String or Number

4.25 enhancedData

```
class vantisdk.fields.enhancedData
```

Variables

- **customerReference** – String or Number

- **deliveryType** – String or Number
- **destinationCountryCode** – String or Number
- **destinationPostalCode** – String or Number
- **detailTax** – instance of *vantivsdk.fields.detailTax*
- **discountAmount** – String or Number
- **dutyAmount** – String or Number
- **invoiceReferenceNumber** – String or Number
- **lineItemData** – instance of *vantivsdk.fields.lineItemData*
- **orderDate** – String or Number
- **salesTax** – String or Number
- **shipFromPostalCode** – String or Number
- **shippingAmount** – String or Number
- **taxExempt** – String or Number

4.26 filteringType

```
class vantivsdk.fields.filteringType
```

Variables

- **chargeback** – String or Number
- **international** – String or Number
- **prepaid** – String or Number

4.27 fraudCheckType

```
class vantivsdk.fields.fraudCheckType
```

Variables

- **authenticatedByMerchant** – String or Number
- **authenticationTransactionId** – String or Number
- **authenticationValue** – String or Number
- **customerIpAddress** – String or Number

4.28 fraudResult

```
class vantivsdk.fields.fraudResult
```

Variables

- **advancedAVSResult** – String or Number

- **advancedFraudResults** – instance of *vantivsdk.fields.advancedFraudResultsType*
- **authenticationResult** – String or Number
- **avsResult** – String or Number
- **cardValidationResult** – String or Number

4.29 giropayType

```
class vantivsdk.fields.giropayType
    Variables preferredLanguage – String or Number
```

4.30 healthcareAmounts

```
class vantivsdk.fields.healthcareAmounts
    Variables
        • RxAmount – String or Number
        • clinicOtherAmount – String or Number
        • dentalAmount – String or Number
        • totalHealthcareAmount – String or Number
        • visionAmount – String or Number
```

4.31 healthcareIIAS

```
class vantivsdk.fields.healthcareIIAS
    Variables
        • IIASFlag – String or Number
        • healthcareAmounts – instance of vantivsdk.fields.healthcareAmounts
```

4.32 idealType

```
class vantivsdk.fields.idealType
    Variables preferredLanguage – String or Number
```

4.33 lineItemData

```
class vantivsdk.fields.lineItemData
    Variables
```

- **commodityCode** – String or Number
- **detailTax** – instance of *vantivsdk.fields.detailTax*
- **itemDescription** – String or Number
- **itemDiscountAmount** – String or Number
- **itemSequenceNumber** – String or Number
- **lineItemTotal** – String or Number
- **lineItemTotalWithTax** – String or Number
- **productCode** – String or Number
- **quantity** – String or Number
- **taxAmount** – String or Number
- **unitCost** – String or Number
- **unitOfMeasure** – String or Number

4.34 littleInternalRecurringRequestType

```
class vantivsdk.fields.littleInternalRecurringRequestType
```

Variables

- **finalPayment** – String or Number
- **recurringTxnId** – String or Number
- **subscriptionId** – String or Number

4.35 merchantDataType

```
class vantivsdk.fields.merchantDataType
```

Variables

- **affiliate** – String or Number
- **campaign** – String or Number
- **merchantGroupingId** – String or Number

4.36 mposType

```
class vantivsdk.fields.mposType
```

Variables

- **encryptedTrack** – String or Number
- **formatId** – String or Number
- **ksn** – String or Number
- **track1Status** – String or Number

- **track2Status** – String or Number

4.37 payPal

```
class vantisdk.fields.payPal
```

Variables

- **payerEmail** – String or Number
- **payerId** – String or Number
- **token** – String or Number
- **transactionId** – String or Number

4.38 pos

```
class vantisdk.fields.pos
```

Variables

- **capability** – String or Number
- **cardholderId** – String or Number
- **catLevel** – String or Number
- **entryMode** – String or Number
- **terminalId** – String or Number

4.39 processingInstructions

```
class vantisdk.fields.processingInstructions
```

Variables **bypassVelocityCheck** – String or Number

4.40 recurringRequestType

```
class vantisdk.fields.recurringRequestType
```

Variables **subscription** – instance of *vantisdk.fields.recurringSubscriptionType*

4.41 recurringSubscriptionType

```
class vantisdk.fields.recurringSubscriptionType
```

Variables

- **amount** – String or Number
- **createAddOn** – instance of *vantisdk.fields.createAddOnType*

- **createDiscount** – instance of *vantivsdk.fields.createDiscountType*
- **numberOfPayments** – String or Number
- **planCode** – String or Number
- **startDate** – String or Number

4.42 recyclingRequestType

```
class vantivsdk.fields.recyclingRequestType
```

Variables

- **recycleBy** – String or Number
- **recycleId** – String or Number

4.43 sepaDirectDebitType

```
class vantivsdk.fields.sepaDirectDebitType
```

Variables

- **iban** – String or Number
- **mandateProvider** – String or Number
- **mandateReference** – String or Number
- **mandateSignatureDate** – String or Number
- **mandateUrl** – String or Number
- **preferredLanguage** – String or Number
- **sequenceType** – String or Number

4.44 shipToAddress

```
class vantivsdk.fields.shipToAddress
```

Variables

- **addressLine1** – String or Number
- **addressLine2** – String or Number
- **addressLine3** – String or Number
- **city** – String or Number
- **companyName** – String or Number
- **country** – String or Number
- **email** – String or Number
- **firstName** – String or Number

- **lastName** – String or Number
- **middleInitial** – String or Number
- **name** – String or Number
- **phone** – String or Number
- **state** – String or Number
- **zip** – String or Number

4.45 sofortType

```
class vantivsdk.fields.sofortType
```

Variables **preferredLanguage** – String or Number

4.46 token

```
class vantivsdk.fields.token
```

Variables

- **cardValidationNum** – String or Number
- **expDate** – String or Number
- **littleToken** – String or Number
- **type** – String or Number

4.47 updateAddOnType

```
class vantivsdk.fields.updateAddOnType
```

Variables

- **addOnCode** – String or Number
- **amount** – String or Number
- **endDate** – String or Number
- **name** – String or Number
- **startDate** – String or Number

4.48 updateDiscountType

```
class vantivsdk.fields.updateDiscountType
```

Variables

- **amount** – String or Number
- **discountCode** – String or Number

- **endDate** – String or Number
- **name** – String or Number
- **startDate** – String or Number

4.49 virtualGiftCardType

```
class vantivsdk.fields.virtualGiftCardType
```

Variables

- **accountNumberLength** – String or Number
- **giftCardBin** – String or Number

4.50 wallet

```
class vantivsdk.fields.wallet
```

Variables

- **walletSourceType** – String or Number
- **walletSourceTypeId** – String or Number

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