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OpenEdge Transactions
API Specification



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OVERVIEW

Use the OpenEdge Transactions API to securely accept credit card and check payment transactions via the platform in US, Canada, Australia, New Zealand, and United Kingdom regions. The API currently accepts only card-not-present transactions and will be extended to card-present transactions later. Because card data is required in the request for this API, integrating clients must be PCI DSS compliant.

The Transactions API supports the following payment types:

Regional Payment Type Support	
Region	Payment Types Supported
US	Credit, Prepaid, Check
CA	Credit, Prepaid, Check
AU	Credit, Check (Direct Debit)
NZ	Credit, Check (Direct Debit). <i>Note: Does not support American Express or Diner's credit cards.</i>
UK	Credit

This is a [HTTPS](#)-based [REST](#) API which uses [JSON](#) payloads for requests and responses. JSON is, by definition, an unordered list of name-value pairs. Partners should parse using standard JSON object/libraries, which are order-agnostic. Partners should not build any one-off manual parsers for JSON, as the order of elements in the response can change over time as new elements are added to the API response. Pending the addition of new elements in the API response, using one-off manual parsers for JSON will result in integration and transaction failure for partners and merchants.

The API endpoints are secured using one-way [TLS](#) (version 1.2).

RESOURCE & URL STRUCTURE

This API uses predictable, resource-oriented RESTful URLs and select HTTP response codes to indicate API errors. These are detailed in the sections below.

HTTP Verbs

This API uses the following HTTP verbs:

HTTP Verbs	
Verb	Description
POST	Create a resource or sub-resource
GET	Retrieve data from a resource or sub-resource
PATCH	Partially update a resource or sub-resource
PUT	Update a resource or sub-resource

URL Structure

This API uses the following resource URL structure:

<https://<hostname>/transactions/<resource>/<path-suffix>?<query-parameters>>

Host Names

This API is available in **partner integration test** and **production** environments.

Environment	Host Name
Partner integration test	api.pit.paygateway.com
Production	api.paygateway.com

Resources

This API uses the following resource collections - sales, auths, returns, and voids. **sales** is a primary transaction resource. **returns** and **voids** are follow-on transactions, sub-resources of sales. The **auths** resource is a primary transaction and currently supports zero-dollar authorizations only.

Transaction Identifiers

Integrating clients can use platform-generated transaction identifiers, sale_id, auth_id, return_id, or checksale_id depending on type of transaction to perform follow-on transactions.

Integrating clients are recommended to use a partner- or merchant-defined identifier for follow-ons. The API accepts an optional, unique reference (reference_id) element as an alternate transaction identifier. This reference_id can also be used to perform follow-on transactions using an alternate set of end-points. Please note that if a reference_id is not sent by the client for a primary transaction, the platform will generate one and send it back in the response.

Refer to the table below for transaction resources with either method of transaction identification.

Transaction Resource Collections						
Verb	Resource	Path Suffix	Query Parameters	Description	Type	Regions Supported
POST	/sales	-	No	Create a sale transaction. The sale request charges a purchase to a credit card account. Transaction response will include sale_id, which can be used for follow-on transactions.	Primary	Australia Canada New Zealand United States United Kingdom
GET	/sales	/{sale_id}	Allowed. Optional. generate_receipt as Boolean indicator to generate receipt.	Request the status and other information of a previously completed sales transaction using sale_id.	Follow-on	Canada United States

Transaction Resource Collections						
Verb	Resource	Path Suffix	Query Parameters	Description	Type	Regions Supported
PATCH	/sales	/sale_id	No	Update the amount of a previously completed, unsettled sales transaction using sale_id.	Follow-on	Canada United States
PUT	/sales	/sale_id/voids	No	Void a previously completed, unsettled sales transaction using sale_id.	Follow-on	Canada United States United Kingdom
POST	/sales	/sale_id/returns	No	Create a return transaction associated with a previously completed, settled sales transaction using sale_id. Transaction response will include return_id, which can be used for follow-on transactions.	Follow-on	Australia Canada New Zealand United States United Kingdom
GET	/sales	/reference_id/ {reference_id}	Allowed. Optional. generate_receipt as Boolean indicator to generate receipt.	Request the status and other information of a previously completed sales transaction using reference_id.	Follow-on using reference_id	Australia Canada New Zealand United States
PATCH	/sales	/reference_id/ {reference_id}	No	Update the amount of a previously completed, unsettled sales transaction using reference_id.	Follow-on using reference_id	Canada United States

Transaction Resource Collections						
Verb	Resource	Path Suffix	Query Parameters	Description	Type	Regions Supported
PUT	/sales	/reference_id/ {reference_id}/ voids	No	Void a previously completed, unsettled sales transaction using reference_id.	Follow-on using reference_id	Canada United States
POST	/sales	/reference_id/ {reference_id}/ returns	No	Create a return transaction associated with a previously completed, settled sales transaction using reference_id.	Follow-on using reference_id	Australia Canada New Zealand United States United Kingdom
POST	/auths	-	No	Create and update authorization transactions. Currently, only \$0.00 authorizations are supported.	Primary	Australia Canada United States New Zealand
POST	/returns	-	No	Use this endpoint to create an independent returns transaction, not associated with any previously completed transaction.	Primary	Canada United States
GET	/returns	/return_id}	Allowed. Optional. generate_receipt as Boolean indicator to generate receipt.	Request the status and other information of a previously completed return transaction using return_id.	Follow-on	Canada United States

Transaction Resource Collections						
Verb	Resource	Path Suffix	Query Parameters	Description	Type	Regions Supported
PUT	/returns	/return_id/voids	No	Void a previously completed, unsettled return transaction	Follow-on	Canada United States United Kingdom
PUT	/returns	/reference_id/{reference_id}/voids	No	Void a previously completed, unsettled return transaction using reference_id.	Follow-on	United Kingdom
POST	/checksales	-	No	Use this endpoint to create a check sales transaction.	Primary	Australia Canada New Zealand United States
GET	/checksales	{checksale_id}	No	Use this endpoint to retrieve a check sales transaction	Follow-on	Canada United States
POST	/checkrefunds	-	No	Use this endpoint to create an independent check refund transaction.	Primary	Canada United States
GET	/checkrefunds	{checkrefund_id}	No	Use this endpoint to retrieve a check refunds transaction.	Follow-on	Canada United States
POST	/checksales	{checksale_id}/checkrefunds	No	Use this endpoint to create a check refund transaction associated with a prior check sale using checksale id. <i>Note: A Get request including reference_id must first be performed to retrieve the checksale_id used for this endpoint.</i>	Follow-on	Australia Canada New Zealand United States

Transaction Resource Collections						
Verb	Resource	Path Suffix	Query Parameters	Description	Type	Regions Supported
POST	/checksales	/reference_id/ {reference_id}/ checkrefunds	No	Use this endpoint to create a check refund transaction associated with a prior check sale using reference id.	Follow-on	Australia Canada New Zealand United States
POST	/setup	/setup/transport_ keys	No	Use this endpoint to stage a transaction to the payment processor.	Primary	United States

SECURITY

API Key and Secret

To consume this API, integrating clients need a discrete set of API Key and Secret for either environment (test and production). The API Key will be issued to clients respective to partner-product and major version consuming the API.

The API-Key needs to be sent with each request in the X-GP-Api-Key header:

Example: *X-GP-Api-Key: XXXXXXXXXXXXXXXXXXXXX*

Each API Key will have an associated API Secret which must be used to generate the AuthTokenV2. Please contact OpenEdge Developer Services to obtain test and production API Keys and Secret.

Note: Both API Key and API Secret are partner-specific, secret data elements and should not be shared or exposed. For troubleshooting purposes, API Key and Secret should be masked or omitted from payloads sent to OpenEdge staff.

AuthTokenV2

AuthTokenV2 is a secure custom [JWT token](#) used for transaction authentication by the platform. Refer to the [AuthTokenV2 Help Document](#) for more information.

Integrating partners will also receive an API Secret associated with the API Key. This API Secret should be used to generate the AuthTokenV2. The authorization header in the request should be as follows:

"Authorization": "AuthToken x.y.z"

Where 'x.y.z' is an AuthTokenV2 JWT.

AuthTokenV2 'Region' Dependencies

The OpenEdge Transactions API validates a number of fields against the value submitted in the 'region' claim of the AuthTokenV2. The fields validated are 'language' and 'country_code' in the **transaction** request object and 'currency_code' in the **payment** object. The valid combinations for these fields are described below.

AuthTokenV2 'region' Field Dependencies			
AuthTokenV2 'region' Value	'language' Value	'country_code' Value	'currency_code' Value
US	en-US	840	840
CA	en-CA (default)	124	124
CA	fr-CA	124	124
AU	en-AU	036	036
NZ	en-NZ	554	554
UK	en-GB	826	840, 756, 978

VERSIONING

The API uses versions to manage backwards-incompatible changes to the API. API versions are in a date format (yyyy-mm-dd). This document refers to the current version, “2019-06-27”.

To set the API version on a specific request, send the **X-GP-Version** header.

Example:

```
X-GP-Version:2019-06-27
```

API RESPONSE HEADER HTTP STATUS CODES

Below is a list of possible HTTP status codes, along with descriptions, that the API can return in the response header.

Response Header HTTP Status Codes		
Code	Description	Status Message
200	Transaction was successful	OK
201	Transaction was created	Created
400	Request was unacceptable, often due to missing or invalid parameter.	Bad Request
401	Valid API key not provided.	Unauthorized
402	The parameters were valid, but the request failed.	Request Failed
403	The request cannot be processed with data provided.	Forbidden
404	The requested resource does not exist.	Not Found
409	The request conflicts with another request, perhaps due to using the same idempotent key.	Conflict
429	Too many requests hit the API too quickly. Recommend an exponential back-off of request.	Too Many Requests
470	Transaction was declined by the processor.	Declined
471	Transaction amount was partially approved by the processor.	Partially Approved

472	Transaction declined with "Call Issuer"	Call Issuer
473	Approved with AVS or CSC Verification Error	Created - Validation Mismatch
474	Approved with AVS or CSC Verification Error	Partially Approved - Validation Mismatch
500	Internal Server Error	Internal Server Error
503	Service Unavailable	Service Unavailable

ERROR CODES

See the table below for a list of possible error codes and the error messages returned by the API, with mapping to corresponding HTTP status codes.

HTTP Status code	API error_code	API error_message
403	processing_forbidden	Duplicate reference_id sent
403	invalid_transaction_referenced	Online captures must reference approved authorizations.
400	invalid_input	Shipping Date not allowed on this account. Please contact support to update Account setup.
400	country_currency_mismatch	country_code does not support currency_code
400	country_currency_mismatch	country_code not supported
400	invalid_input	Invalid input payload: signature_format requires signature_image
400	invalid_input	One of {sale_id /auth_id /capture_id/return_id} or reference_id should be sent
400	invalid_input	Invalid gratuity_amount, gratuity_amount exceeds amount.
400	invalid_card	Invalid card_number. Check the card details or use a different card.
400	invalid_input	Invalid billing address.
400	invalid_payment_token	Invalid payment token. Please retry with valid token or use different payment method.
400	invalid_input	Invalid amount.
400	invalid_input	Invalid approval_code.
400	invalid_input	Invalid card_security_code.
400	invalid_input	Invalid country_code.
400	invalid_input	Invalid currency_code.
400	invalid_input	Invalid expiry_month, expiry_year.
400	invalid_input	Invalid gratuity_amount.
400	invalid_input	Invalid invoice_number.
400	invalid_input	Invalid reference_id.
500	server_error	Server error. Please contact OpenEdge support.
400	invalid_input	Invalid sale_id.
400	invalid_input	Invalid billing postal_code.
400	invalid_input	Invalid pos_type
400	invalid_input	Invalid input data
400	invalid_batch	Batch open for longer than allowed time period. Please try to close batch or contact OpenEdge support.
400	invalid_account	Account information provided does not match transaction on file
400	input_amount_mismatch	Amount provided does not match transaction on file
400	invalid_transaction_referenced	Offline Captures must reference non-approved Authorizations or Sales
403	transaction_not_in_open_batch	Only transactions in the current batch can be voided

HTTP Status code	API error_code	API error_message
400	invalid_transaction_referenced	Returns must reference approved Sales, Authorizations, or Captures
403	invalid_transaction_referenced	Updates must reference approved sale.
403	invalid_transaction_referenced	VOIDS must reference approved sale_id
400	invalid_payment_token	Invalid token referenced; token does not exist.
400	invalid_transaction_referenced	Duplicate reference_id sent.
403	transaction_not_in_open_batch	Only transactions in the current batch can be updated.
400	invalid_transaction_referenced	reference_id does not exist.
400	invalid_amount	Return amount exceeds sales amount for account.
403	processing_forbidden	The original transaction cannot be voided.
404	invalid_transaction_referenced	Invalid transaction referenced; transaction does not exist.
403	invalid_payment_token	Invalid token referenced; token does not exist.
403	invalid_batch	Batch open for longer than allowed time period. Please try to close batch or contact OpenEdge support.
400	invalid_input	Invalid encoded data provided in signature_image

HATEOAS

The API has [HATEOAS](#) support, and every response includes links for applicable follow-on transactions.

Below is a sample response representing an array of HATEOAS links from a successful CreateSale transaction:

```
  "links": [
    {
      "sale_id": [
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000096054",
          "relation": "self",
          "method": "GET",
          "description": "get a sale transaction"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000096054",
          "relation": "self",
          "method": "PATCH",
          "description": "update a sale transaction"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000096054/voids",
          "relation": "void",
          "method": "PUT",
          "description": "void a sale transaction"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000096054/returns",
          "relation": "return",
          "method": "POST",
          "description": "create a return transaction associated with
a sale"
        }
      ]
    },
    {
      "reference_id": [
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
67b4-4c6b-ab1a-6d87fcafdcf9",
          "relation": "self",
          "method": "GET",
          "description": "get a sale transaction using reference id"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
67b4-4c6b-ab1a-6d87fcafdcf9",
          "relation": "self",
          "method": "PATCH",
          "description": "update a sale transaction using reference
id"
        }
      ]
    }
  ]
}
```



```

    },
    {
      "href":
      "https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
      67b4-4c6b-ab1a-6d87fcafdcf9/voids",
      "relation": "void",
      "method": "PUT",
      "description": "void a sale transaction using reference id"
    },
    {
      "href":
      "https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
      67b4-4c6b-ab1a-6d87fcafdcf9/returns",
      "relation": "return",
      "method": "POST",
      "description": "create a return transaction associated with
      a sale using reference id"
    }
  ]
}
]

```

Links in the example can be used as follows:

Use the self-link to perform follow-on transactions (GET or PATCH) on the same resource. Combine the method and the target URL to make the call:

Get using sale_id (generated by platform):

```

"href": "https://api.pit.paygateway.com/transactions/sales/000000096054",
  "relation": "self",
  "method": "GET",
  "description": "get a sale transaction"
},

```

Get using reference_id:

```

{
  "href":
  "https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
  67b4-4c6b-ab1a-6d87fcafdcf9",
  "relation": "self",
  "method": "GET",
  "description": "get a sale transaction using reference id"
},

```

Update using sale_id (generated by platform):

```

{
  "href":
  "https://api.pit.paygateway.com/transactions/sales/000000096054",
  "relation": "self",
  "method": "PATCH",
  "description": "update a sale transaction"
},

```

Updated using reference_id:

```
{
    "href":
    "https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
    67b4-4c6b-ab1a-6d87fcafdcf9",
    "relation": "self",
    "method": "PATCH",
    "description": "update a sale transaction using reference id"
},
```

Use the return link to create a dependent return resource:

Using sale_id (generated by gateway):

```
{
    "href":
    "https://api.pit.paygateway.com/transactions/sales/000000096054/returns",
    "relation": "return",
    "method": "POST",
    "description": "create a return transaction associated with a
sale"
}
```

Using reference_id:

```
{
    "href":
    "https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
    67b4-4c6b-ab1a-6d87fcafdcf9/returns",
    "relation": "return",
    "method": "POST",
    "description": "create a return transaction associated with a
sale using reference id"
}
```

Use the void link to void a transaction resource:

Using sale_id (generated by platform):

```
{
    "href":
    "https://api.pit.paygateway.com/transactions/sales/000000096054/voids",
    "relation": "void",
    "method": "PUT",
    "description": "void a sale transaction"
},
```

Using reference_id:

```
{
    "href":
    "https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI26ea07d9-
    67b4-4c6b-ab1a-6d87fcafdcf9/voids",
    "relation": "void",
    "method": "PUT",
    "description": "void a sale transaction using reference id"
},
```

NOTE:

Many of the fields included in the attached Swagger specification include a string type, such as “String type: Alphanumeric.” These string types correlate to specific schema validation rules. Please refer to [Appendix A – String Type Definitions](#) for list of these string types and their descriptions.

NOTE:

Many of the fields included in the attached Swagger specification include in their descriptions a string type of “Explicit.” These fields only accept values from a discrete list of options, respective to the field. Please refer to [Appendix B – Explicit Field Value Enumerations](#) for a list of these fields and the values which they accept.

NOTE:

A number of fields below include in their descriptions a value type of “Boolean.” These values default to false, unless stated otherwise.

TRANSACTION REQUESTS AND RESPONSES

This section describes the HTTP headers and payload elements for submitting transaction requests with the Transactions API and their corresponding responses.

Transaction Request and Response Header Fields

The following standard and custom HTTP headers are applicable to all Transactions API endpoints. Custom HTTP headers include the “X-GP” prefix.

Header Request Fields		
Field	Type	Required
Authorization	String	Mandatory
Content-Type	String	Mandatory
X-GP-Api-Key	String	Mandatory
X-GP-Request-Id	String	Optional
X-GP-Version	String	Mandatory. Current version is “2019-06-27”.

X-GP-Request-Id

The header field “X-GP-Request-Id” is a unique id identifying the request. This is an optional parameter. If not provided in the request, it will be generated by the platform and returned in the response header. API

consumers may send this parameter in the request for tracking and correlating requests with responses and for troubleshooting timeouts. This value for this parameter should be a UUID(v4) with a prefix 'MER-'. Partners are strongly recommended to generate and send a unique Request-Id with every transaction request.

Example:

```
MER-ba96b9c5-828c-434c-be74-d73c8e853526
```

Please refer to the following JavaScript function as an example for UUID(v4) generation:

```
function uuidv4() {
  return 'xxxxxxxx-xxxx-4xxx-yxxx-xxxxxxxxxxxx'.replace(/[xy]/g, function(c) {
    var r = Math.random() * 16 | 0, v = c == 'x' ? r : (r & 0x3 | 0x8);
    return v.toString(16);
  });
}
```

Sample Transaction Request Header

Sample CreateSale Request Header

```
POST https://<hostname>/transactions/<resource>/<path-suffix>
Content-Type: application/json
Accept: application/json
Date: Mon, 02 Oct 2017 22:21:20 GMT
"Authorization": "AuthToken {AuthTokenV2}"
X-GP-Request-Id: {request_id}
X-GP-Version: 2019-06-27
X-GP-API-Key: {API Key}
```

The following standard and custom HTTP headers are applicable to all Transactions API responses. Custom HTTP headers include the "X-GP" prefix.

Response Header Fields

Field	Type	Required
Content-Type	String	Mandatory
X-GP-Request-Id	String	Mandatory

Sample Transaction Response Header

Sample CreateSale Response Header

```
Date: Wed, 30 Jan 2019 23:33:51 GMT
Content-Type: application/json
Content-Length: 591
Connection: keep-alive
Cache-Control: no-cache
X-GP-Request-Id: MER-40691015-7c2d-4686-9233-dafe954e5c67
```

Sales Transactions

Sales transactions are used to purchase goods and services. When a sale occurs, the cardholder credit limit is checked to see if the funds are available. If the funds are available, an approval code is transmitted to the platform. If approved, the transaction is flagged for inclusion in the settlement batch.

/sales Transaction Request Fields

The sales transaction request charges a purchase to a credit card account.

The following objects are required, optional, or conditional for inclusion in new sales and successive transaction requests.

Sales Transaction Request Paths		
Request	Verb	Path
CreateSale	POST	https://<hostname>/transactions/sales
GetSale	GET	https://<hostname>/transactions/sales/{sale_id}
UpdateSale	PATCH	https://<hostname>/transactions/sales/{sale_id}
VoidSale	PUT	https://<hostname>/transactions/sales/{sale_id}/voids
ReturnSale	POST	https://<hostname>/transactions/sales/{sale_id}/returns
GetSaleReferenceId	GET	https://<hostname>/transactions/sales/reference_id/{reference_id}
UpdateSaleReferenceId	PATCH	https://<hostname>/transactions/sales/reference_id/{reference_id}
VoidSaleReferenceId	PUT	https://<hostname>/transactions/sales/reference_id/{reference_id}/voids
ReturnSaleReferenceId	POST	https://<hostname>/transactions/sales/reference_id/{reference_id}/returns

Sales Transactions Request Payload Fields						
Legend: "M"- Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable						
C1- Sales transactions including payment card information and excluding card token or temporary_token						
C2- Sales transactions including payment card token and excluding payment card information or temporary_token						
C3- Sales transactions including temporary token and excluding payment card information or card token						
O1- Optional for US/Canada sales transactions						
C4- Conditional for Australia/New Zealand sales transactions						
Field	CreateSale	GetSale	UpdateSale	VoidSale	ReturnSale	
URI Parameters	-	M	M	M	M	M
sale_id	-	C1	C1	C1	C1	C1
return_id	-	-	-	-	-	-
reference_id	-	C2	C2	C2	C2	C2
Payload	M	M	M	M	M	M
card	C1, C2	-	-	-	-	-
card_number	C1	-	-	-	-	-
card_security_code	O	-	-	-	-	-
cardholder_name	O1, C4	-	-	-	-	-
expiry_month	C1	-	-	-	-	-
expiry_year	C1	-	-	-	-	-
temporary_token	C3	-	-	-	-	-
token	C2	-	-	-	-	-
customer	O	-	-	-	-	O
title	C	-	-	-	-	O
first_name	C	-	-	-	-	O
middle_name	C	-	-	-	-	O
last_name	C	-	-	-	-	O

Sales Transactions Request Payload Fields

Legend: "M"- Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable

C1- Sales transactions including payment card information and excluding card token or temporary_token

C2- Sales transactions including payment card token and excluding payment card information or temporary_token

C3- Sales transactions including temporary token and excluding payment card information or card token

O1- Optional for US/Canada sales transactions

C4- Conditional for Australia/New Zealand sales transactions

Field	CreateSale	GetSale	UpdateSale	VoidSale	ReturnSale
business_name	C	-	-	-	-
email	O	-	-	-	O
phone	O	-	-	-	O
note	O	-	-	-	O
billing_address	O	-	-	-	O
line1	O	-	-	-	O
line2	O	-	-	-	O
city	O	-	-	-	O
state	O	-	-	-	O
country	O	-	-	-	O
postal_code	O	-	-	-	O
payment	M	-	O	O	M
amount	M	-	O	O	M
currency_code	M	-	-	-	-
gratuity_amount	O1	-	O	-	-
invoice_number	O	-	O	-	O
reference_id	O	-	-	-	-
shipping	C	-	-	-	-
date	C	-	-	-	-
address	O	-	-	-	-
line1	O	-	-	-	-
line2	O	-	-	-	-
city	O	-	-	-	-
state	O	-	-	-	-
country	O	-	-	-	-
postal_code	O	-	-	-	-
transaction	M	-	O	O	O
country_code	M	-	-	-	-
language	O	-	-	-	-
soft_descriptor	O	-	-	-	O
processing_indicators	O	-	O	O	O
address_verification_service	O	-	-	-	-
allow_duplicate	O	-	O	-	O
create_token	C	-	-	-	-
generate_receipt	O	-	O	O	O
partial_approval	O	-	-	-	-
receipt	O	-	-	-	O
clerk_id	O	-	-	-	O

CreateSale Request Fields

The following fields are mandated, conditional, or optional for CreateSale transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

CreateSale Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
card	C	C	Either and not both card object or temporary_payment_token request field required.
card_number	C	C	Either card_number or token (below) required for all CreateSale requests.
card_security_code	O	O	
cardholder_name	O	C	For Australia and New Zealand, required if card_number is sent in request. Optional for other regions.
expiry_month	C	C	Required unless token is included in request. Not-applicable if token is included in request.
expiry_year	C	C	Required unless token is included in request. Not-applicable if token is included in request.
temporary_token	C	C	Cannot be sent with card information or card token.
token	C	C	Either token, temporary_token, or card information (above) required for all CreateSale requests. Token cannot be sent with create_token = TRUE.
customer	O	O	Object is optional. If sent, one of either first_name or last_name or only business_name must be sent. Other fields are optional.
title	C	C	Cannot be sent with business_name. Is otherwise optional.
first_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
middle_name	C	C	Cannot be sent with business_name. Is otherwise optional.
last_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
business_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
email	O	O	

CreateSale Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
phone	O	O	For Australia, phone number must be 10 digits long and begin with '04'. For New Zealand, phone number must be 10 digits long and begin with '02'.
note	O	O	
billing_address	O	O	
line1	O	O	
line2	O	O	
city	O	O	
state	O	O	
country	O	O	
postal_code	O	O	
payment	M	M	
amount	M	M	
currency_code	M	M	See AuthTokenV2 'Region' Dependencies
gratuity_amount	O	-	Only supported for US/Canada.
invoice_number	O	O	
reference_id	O	O	
shipping	C	C	Not used for Australia/New Zealand.
date	C	C	
address	O	O	
line1	O	O	
line2	O	O	
city	O	O	
state	O	O	
country	O	O	
postal_code	O	O	
transaction	M	M	
country_code	M	M	See AuthTokenV2 'Region' Dependencies
language	O	O	See AuthTokenV2 'Region' Dependencies
soft_descriptor	O	O	
processing_indicators	O	O	
address_verification_service	O	-	
allow_duplicate	O	-	
create_token	C	C	If sent as 'TRUE', token cannot also be sent.
generate_receipt	O	-	
partial_approval	O	-	
receipt	O	O	
clerk_id	O	O	

GetSale Request Fields

The following fields are mandated, conditional, or optional for GetSale transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

NOTE:

For Australian GetSale requests, the cardholder name will be returned as "NA".

GetSale Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
URI Parameters	M	M	
sale_id	C1	-	Either and not both sale_id or reference_id must be sent.
reference_id	C2	M	Either and not both sale_id or reference_id must be sent.

UpdateSale Request Fields

The following fields are mandated, conditional, or optional for UpdateSale transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

UpdateSale Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
URI Parameters	M		
sale_id	C1		Either and not both sale_id or reference_id must be sent.
reference_id	C2		Either and not both sale_id or reference_id must be sent.
Payload	M		
payment	O	Transaction type not supported.	
amount	O		
gratuity_amount	O		
invoice_number	O		
transaction	M		
processing_indicators	O		
allow_duplicate	O		
generate_receipt	O		

VoidSale Request Fields

The following fields are mandated, conditional, or optional for VoidSale transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

Field	US/Canada	Australia/ New Zealand	Notes
URI Parameters	M		
sale_id	C1		
return_id	-		
reference_id	C2		
Payload	M	Transaction	
payment	O	type not	
amount	O	supported.	
transaction	O		
processing_indicators	O		
generate_receipt	O		

ReturnSale Request Fields

The following fields are mandated, conditional, or optional for ReturnSale transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

ReturnSale Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
URI Parameters	M	M	
sale_id	C1	C1	
reference_id	C2	C2	
Payload	M	M	
customer	O	O	Object is optional. If sent, one of either first_name or last_name or only business_name must be sent. Other fields are optional.
title	C	C	Cannot be sent with business_name. Is otherwise optional.
first_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
middle_name	C	C	Cannot be sent with business_name. Is otherwise optional.
last_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
business_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
email	O	O	

ReturnSale Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
phone	O	O	For Australia, phone number must be 10 digits long and begin with '04'. For New Zealand, phone number must be 10 digits long and begin with '02'.
note	O	O	
billing_address	O	O	
line1	O	O	
line2	O	O	
city	O	O	
state	O	C	Not allowed for New Zealand.
country	O	O	
postal_code	O	O	
payment	M	M	
amount	M	M	
invoice_number	O	O	
transaction	O	O	
soft_descriptor	O	O	
processing_indicators	O	-	
allow_duplicate	O	-	
generate_receipt	O	-	
receipt	O	O	
clerk_id	O	O	

/sales Transaction Response Fields

Below is a table of all possible transaction response fields, including indicators for whether these fields are required, conditional, echoed from request, or not applicable. Because the receipt object included in the response contains a large number of fields, this table has been truncated to remove those fields. Please see the [Receipt Object](#) section for more information.

Sales Transactions Response Payload Fields					
Legend: "M"-Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable					
*For fields demarcated as C1, C2, etc., these fields are conditional as sets. For instance, either all fields marked as C1 or all fields marked as C2, but not both, should be included for the particular payload object.					
Field	CreateSale	GetSale	UpdateSale	VoidSale	ReturnSale
return_id	-	-	-	-	M
sale_id	M	M	M	M	-
status	M	M	M	M	M
approval_code	C	C	C	-	C
processor_response	M	-	-	-	-
avs_response	C	C	-	-	-
avs_response_description	C	C	-	-	-
cardsecurity_response	M	C	-	-	-
card	M	M	M	M	M
masked_card_number	M	M	M	M	M
cardholder_name	O	-	-	-	-
expiry_month	M	M	M	M	M
expiry_year	M	M	M	M	M
token	C	-	-	-	-
type	M	M	M	M	M
balance	C	-	-	-	-
payment	M	M	M	M	M
amount	M	M	M	M	M
currency_code	O	-	-	-	-
fees	C	C	-	-	-
customer_fee_amount	C	C	-	-	-
gratuity_amount	O	C	O	-	-
invoice_number	O	C	O	-	O
reference_id	C	C	C	C	C
type	M	M	M	M	M
transaction	M	M	M	M	M
batch_amount	M	M	M	M	M
batch_number	M	M	M	M	M
entry_type	C	C	-	-	-
language	M	-	-	-	-
receipt	C	C	C	C	C
links	M	M	M	M	M
return_id	-	-	-	-	M
sale_id	M	M	M	M	-
reference_id	M	M	M	M	M
HATEOAS Base Object	M	M	M	M	M
href	M	M	M	M	M
relation	M	M	M	M	M

Sales Transactions Response Payload Fields

Legend: "M"-Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable

*For fields demarcated as C1, C2, etc., these fields are conditional as sets. For instance, either all fields marked as C1 or all fields marked as C2, but not both, should be included for the particular payload object.

Field	CreateSale	GetSale	UpdateSale	VoidSale	ReturnSale
method	M	M	M	M	M
description	M	M	M	M	M
HATEOAS Links	sale_id	sale_id	sale_id	sale_id	return_id
<i>Note: Only returned for US/Canada transactions.</i>	GetSale	GetSale	GetSale	GetSale	GetReturn
	UpdateSale	UpdateSale	UpdateSale		voidReturn
	VoidSale	VoidSale	VoidSale		
	ReturnSale	ReturnSale	ReturnSale		
	reference_id	reference_id	reference_id	reference_id	
	GetSale	GetSale	GetSale	GetSale	
	UpdateSale	UpdateSale	UpdateSale		
	VoidSale	VoidSale	VoidSale		
	ReturnSale	ReturnSale	ReturnSale		

Sample CreateSale Transaction Request and Response

Below are sample CreateSale request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful CreateSale transaction request. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

NOTE:

Because the "receipt" response payload object contains a large number of fields, the sample response payload below has been truncated to remove it. Please see link within the response payload sample for sample "receipt" response payload object.

Sample CreateSale Request Payload	Sample CreateSale Response Payload
<pre> POST https://<hostname>/transactions/sales Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id: {request_id} X-GP-Version: 2019-06-27 X-GP-Api-Key: {API Key} { "card": { "card_number": "4012888888881881", "card_security_code": "345", "cardholder_name": "Joe Doe", "expiry_month": "03", "expiry_year": "23" }, "customer": { "title": "Mr.", </pre>	<pre> { "sale_id": "00000008639902", "status": "Approved", "approval_code": "ADB123", "avs_response": "full_match", "avs_response_description": "Match - Street Address, Match - Postal Code", "cardsecurity_response": "match", "processor_response": "APPROVAL ADB123", "card": { "masked_card_number": "541333XXXXXX5538", "cardholder_name": "Joe Doe", "expiry_month": "03", "expiry_year": "23", "token": "EnzMcsVlkP", "type": "Visa", "balance": "12.09" </pre>

Sample CreateSale Request Payload	Sample CreateSale Response Payload
<pre> "first_name": "Joe", "middle_name": "Henry", "last_name": "Doe", "email": "jondeo@gmail.com", "phone": "345-090-2334", "note": "This is a sample note", "billing_address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "Utah", "country": "USA", "postal_code": "84042" } }, "payment": { "amount": "23.09", "currency_code": "840", "gratuity_amount": "10.00", "invoice_number": "239087" }, "shipping": { "date": "2018-09-14", "address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "Utah", "country": "USA", "postal_code": "84042" } }, "transaction": { "country_code": "840", "language": "en-US", "processing_indicators": { "allow_duplicate": true, "address_verification_service": true, "create_token": true, "generate_receipt": true, "partial_approval": true, "allow_duplicate": true, } }, "receipt": { "clerk_id": "A1090-John Doe" } } </pre>	<pre> }, "payment": { "amount": "23.09", "currency_code": "840", "gratuity_amount": "10.00", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit", "purchase_order": { "tax_amount": "20.01" } }, "transaction": { "batch_amount": "12.09", "batch_number": "001333", "entry_type": "string", "language": "en-US" }, "receipt": { SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW } } </pre>

Sample GetSale Transaction Request and Response

Below are sample GetSale request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful GetSale transaction request. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

NOTE:

Because the "receipt" response payload object contains a large number of fields, the sample response payload below has been truncated to remove it. Please see link within the response payload sample for sample "receipt" response payload object.

Sample GetSale Request Payload	Sample GetSale Response Payload
NONE-Submit GetSale path only.	<pre> { "transaction_http_status_code": "200", "transaction_http_status_message": "OK", "sale_id": "00000008639902", "status": "Approved", "approval_code": "ADB123", "avs_response": "full_match", "avs_response_description": "Match - Street Address, Match - Postal Code" "cardsecurity_response": "match", "card": { "masked_card_number": "541333XXXXXX5538", "expiry_month": "03", "expiry_year": "23", "type": "Visa" }, "payment": { "amount": "23.09", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit" }, "transaction": { "batch_amount": "12.09", "batch_number": "001333", "entry_type": "string" }, "receipt": {SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW} } </pre>

Sample UpdateSale Transaction Request and Response

Below are sample UpdateSale request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful UpdateSale transaction request. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

NOTE:

Because the "receipt" response payload object contains a large number of fields, the sample response payload below has been truncated to remove it. Please see link within the response payload sample for sample "receipt" response payload object.

Sample UpdateSale Request Payload	Sample UpdateSale Response Payload
<pre> PATCH https://<hostname>/transactions/sales/{sale_id} Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-Api-Key: {API Key} { "payment": { "amount": "23.09", "gratuity_amount": "10.00", "invoice_number": "239087" }, "transaction": { "processing_indicators": { "allow_duplicate": true, "generate_receipt": true } } } </pre>	<pre> { "sale_id": "00000008639902", "status": "Approved", "approval_code": "ADB123", "card": { "masked_card_number": "541333XXXXXX5538", "expiry_month": "03", "expiry_year": "23", "type": "Visa" }, "payment": { "amount": "23.09", "gratuity_amount": "10.00", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit", "purchase_order": { "tax_amount": "20.01" } }, "transaction": { "batch_amount": "12", "batch_number": "0123" } }, "receipt": { SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW } } </pre>

Sample VoidSale Transaction Request and Response

Below are sample VoidSale request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful VoidSale transaction request. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

NOTE:

Because the "receipt" response payload object contains a large number of fields, the sample response payload below has been truncated to remove it. Please see link within the response payload sample for sample "receipt" response payload object.

Sample VoidSale Request Payload	Sample VoidSale Response Payload
<pre> PUT https://<hostname>/transactions/sales/{sale_id} Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-Api-Key: {API Key} { "payment": { "amount": "23.09" }, "transaction": { "processing_indicators": { "generate_receipt": true } } } </pre>	<pre> { "sale_id": "00000008639902", "status": "Approved", "card": { "masked_card_number": "541333XXXXXX5538", "expiry_month": "03", "expiry_year": "23", "type": "Visa" }, "payment": { "amount": "23.09", "reference_id": "XAZR863990", "type": "Credit" }, "transaction": { "batch_amount": "12.09", "batch_number": "001333" }, "receipt": {SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW } } </pre>

Sample ReturnSale Transaction Request and Response

Below are sample returnSale request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful ReturnSale transaction request. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

NOTE:

Because the "receipt" response payload object contains a large number of fields, the sample response payload below has been truncated to remove it. Please see link within the response payload sample for sample "receipt" response payload object.

Sample ReturnSale Request Payload	Sample ReturnSale Response Payload
<pre> POST https://<hostname>/transactions/sales /{sale_id}/returns Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-API-Key: {API Key} { "payment": { "amount": "1300.01", "invoice_number": "123456890" }, "transaction": { "processing_indicators": { "generate_receipt": true, "allow_duplicate": true } }, "customer": { "title": "Mr", "first_name": "Joe", "middle_name": "Henry", "last_name": "Doe", "email": "jondeo@gmail.com", "phone": "345-090-2334", "note": "This is a sample note", "billing_address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "UT", "country": "USA", "postal_code": "84042" } }, "receipt": { "clerk_id": "A1090" } } </pre>	<pre> { "return_id": "000000096556", "status": "Approved", "card": { "masked_card_number": "444422XXXXXX2222", "expiry_month": "12", "expiry_year": "25", "type": "Visa" }, "payment": { "amount": "1300.01", "invoice_number": "123456890", "type": "Credit" }, "transaction": { "batch_amount": "668029.07", "batch_number": "000148" }, "receipt": {SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW} } </pre>

}	
---	--

Authorization Transactions

A pre-authorization is used to verify available funds, put a hold on those funds, and receive an approval number for the transaction. The capture transaction must then be used to finalize a pre-authorization transaction. If the capture transaction is not run, the merchant will not receive their funds. **Currently, only \$0.00 authorizations are supported, which can be used to verify that a card is valid and create a token for the card instrument. For Australia and New Zealand, CreateAuth only creates a card token and does not perform card validation.**

/auths Transaction Request Fields

The following objects are required, optional, or conditional for inclusion in new auth and successive transaction requests.

Auths Transaction Request Path

Request	Verb	Path
CreateAuth	POST	https://<hostname>/transactions/auths

Auths Request Payload

Legend: "M" - Mandatory, "C" - Conditional*, "O" - Optional, "-" - Not applicable

*For fields demarcated as C1, C2, etc., these fields are conditional as sets. For instance, either all fields marked as C1 or all fields marked as C2, but not both, should be included for the particular payload object.

Field	CreateAuth
card	C
card_number	C1
card_security_code	O
cardholder_name	O
expiry_month	C1
expiry_year	C1
temporary_token	C3
token	C2
customer	O
title	O
first_name	O
middle_name	O
last_name	O
email	O
phone	O
note	O
billing_address	O
line1	O
line2	O
city	O
state	O
country	O
postal_code	O
payment	M
amount	M

Auths Request Payload

Legend: "M"- Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable

*For fields demarcated as C1, C2, etc., these fields are conditional as sets. For instance, either all fields marked as C1 or all fields marked as C2, but not both, should be included for the particular payload object.

Field	CreateAuth
currency_code	M
gratuity_amount	O
invoice_number	O
reference_id	O
shipping	C
date	C
address	O
line1	O
line2	O
city	O
state	O
country	O
postal_code	O
transaction	M
country_code	M
language	O
soft_descriptor	O
processing_indicators	O
address_verification_service	O
allow_duplicate	O
create_token	C
generate_receipt	O
partial_approval	O
receipt	O
clerk_id	O

CreateAuth Request Fields

The following fields are mandated, conditional, or optional for CreateAuth transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

CreateAuth Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
card	M	M	Either and not both card object or temporary_payment_token request field required.
card_number	C1	C1	Either card_number or token (below) required for all CreateSale requests.
card_security_code	O	O	
cardholder_name	O	O	

CreateAuth Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
expiry_month	C1	C1	Required unless token is included in request. Not-applicable if token is included in request.
expiry_year	C1	C1	Required unless token is included in request. Not-applicable if token is included in request.
temporary_token	C3	C3	Cannot be sent with card information or card token.
token	C2	C2	Either token or card information (above) required for all CreateAuth requests. Token cannot be sent with create_token = TRUE.
customer	O	O	Object is optional. If sent, one of either first_name or last_name or only business_name must be sent. Other fields are optional.
title	C	C	Cannot be sent with business_name. Is otherwise optional.
first_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
middle_name	C	C	Cannot be sent with business_name. Is otherwise optional.
last_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
business_name	C	C	One of either first_name or last_name or only business_name required if customer object is sent.
email	O	O	
phone	O	O	
note	O	O	
billing_address	O	O	
line1	O	O	
line2	O	O	
city	O	O	
state	O	O	
country	O	-	
postal_code	O	O	
payment	M	M	
amount	M	M	
currency_code	M	M	See AuthTokenV2 'Region' Dependencies
gratuity_amount	O	-	Only supported for US/Canada.
Invoice_number	O	-	
reference_id	O	O	

CreateAuth Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
shipping	C	-	
date	C	-	
address	O	-	
line1	O	-	
line2	O	-	
city	O	-	
state	O	-	
country	O	-	
postal_code	O	-	
transaction	M	M	
country_code	M	M	See AuthTokenV2 'Region' Dependencies
ecommerce_indicator	O	-	
language	O	O	See AuthTokenV2 'Region' Dependencies
soft_descriptor	O	-	
processing_indicators	O	O	
address_verification_service	O	O	
allow_duplicate	-	-	
create_token	C	C	If sent as 'TRUE', token cannot also be sent.
generate_receipt	O	-	
partial_approval	O	-	
receipt	O	O	
clerk_id	O	O	

/auths Transaction Response Fields

Below is a table of all possible transaction response fields, including indicators for whether these fields are required, conditional, echoed from request, or not applicable. Because the receipt object included in the response contains a large number of fields, this table has been truncated to remove those fields. Please see the [Receipt Object](#) section for more information.

Auths Response Payload	
Field	CreateAuth
auth_id	M
status	M
approval_code	C
processor_response	M
avs_response	C
avs_response_description	C
cardsecurity_response	C
card	M
masked_card_number	M
cardholder_name	O
expiry_month	M

Auths Response Payload	
Field	CreateAuth
expiry_year	M
token	C
type	M
balance	C
payment	M
amount	M
currency_code	O
fees	C
customer_fee_amount	C
gratuity_amount	-
invoice_number	O
reference_id	O
type	M
transaction	M
batch_amount	-
batch_number	-
entry_type	C
language	M
receipt	C
HATEOAS Base Object	M
href	M
relation	M
method	M
description	M

Sample CreateAuth Transaction Request and Response

Below are sample authentication request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful CreateAuth transaction request. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

NOTE:

Because the "receipt" response payload object contains a large number of fields, the sample response payload below has been truncated to remove it. Please see link within the response payload sample for sample "receipt" response payload object.

Sample CreateAuth Request Payload	Sample CreateAuth Response Payload
<pre> POST https://<hostname>/transactions/auths Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id: {request_id} X-GP-Version: 2019-06-27 X-GP-Api-Key: {API Key} { "card": { "card_number": "4012888888881881", "card_security_code": "345", "cardholder_name": "Joe Doe", "expiry_month": "03", "expiry_year": "23" }, "customer": { "title": "Mr.", "first_name": "Joe", "middle_name": "Henry", "last_name": "Doe", "email": "jondeo@gmail.com", "phone": "345-090-2334", "note": "This is a sample note", "billing_address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "Utah", "country": "USA", "postal_code": "84042" } }, "payment": { "amount": "0.00", "currency_code": "840", "invoice_number": "239087", "reference_id": "XAZR86399-0" }, }</pre>	<pre> { "auth_id": "000000061689", "status": "Approved", "approval_code": "ADB123", "avs_response": "full_match", "avs_response_description": "Match - Street Address, Match - Postal Code" "processor_response": "APPROVAL ADB123", "cardsecurity_response": "match", "card": { "masked_card_number": "541333XXXXXX5538", "cardholder_name": "Joe Doe", "expiry_month": "03", "expiry_year": "23", "token": "EnzMcsVlkP", "type": "Visa", "balance": "12.09" }, "payment": { "amount": "23.09", "currency_code": "840", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit", "purchase_order": { "tax_amount": "20.01" } }, "transaction": { "entry_type": "string", "language": "en-US" }, "receipt": {SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW} }</pre>

Sample CreateAuth Request Payload	Sample CreateAuth Response Payload
<pre>"shipping": { "date": "2018-09-14", "address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "Utah", "country": "USA", "postal_code": "84042" } }, "transaction": { "country_code": "840", "ecommerce_indicator": "1", "language": "en-US", "soft_descriptor": "string", "processing_indicators": { "address_verification_service": true, "create_token": true, "generate_receipt": true, "partial_approval": true } }, "receipt": { "clerk_id": "A1090-John Doe" } }</pre>	

Return Transactions

Return transactions are used to return funds to a cardholder's account.

/returns Transaction Request Fields

The following objects are required, optional, or conditional for inclusion in new sales and successive transaction requests.

Returns Transaction Request Paths		
Request	Verb	Path
CreateReturn	POST	https://<hostname>/transactions/returns
GetReturn	GET	https://<hostname>/transactions/returns/{return_id}
VoidReturn	PUT	https://<hostname>/transactions/returns/{return_id}/voids
VoidReturnReferenceId (UK only)	PUT	https://<hostname>/transactions/returns/reference_id/{reference_id}/voids

Returns Transactions Request Payload Fields				
Legend: "M"-Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable				
*For fields demarcated as C1, C2, etc., these fields are conditional as sets. For instance, either and not both of all fields marked as C1 or all fields marked as C2 should be included for the particular payload object.				
Field	CreateReturn	GetReturn	voidReturn	
URI Parameters	-	M	M	
return_id	-	C1	C1	
reference_id	-	C2	C2	
Payload	M	M	M	
card	M	-	-	
card_number	C1	-	-	
card_security_code	O	-	-	
cardholder_name	O	-	-	
expiry_month	C1	-	-	
expiry_year	C1	-	-	
token	C2	-	-	
customer	C	-	-	
title	C	-	-	
first_name	C	-	-	
middle_name	C	-	-	
last_name	C	-	-	
email	O	-	-	
phone	O	-	-	
note	O	-	-	
billing_address	O	-	-	
line1	O	-	-	
line2	O	-	-	
city	O	-	-	
state	O	-	-	
country	O	-	-	
postal_code	O	-	-	
payment	M	-	O	
amount	M	-	O	

Returns Transactions Request Payload Fields

Legend: "M"-Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable

*For fields demarcated as C1, C2, etc., these fields are conditional as sets. For instance, either and not both of all fields marked as C1 or all fields marked as C2 should be included for the particular payload object.

Field	CreateReturn	GetReturn	voidReturn
approval_code	-	-	-
currency_code	M	-	-
gratuity_amount	-	-	-
invoice_number	O	-	-
reference_id	O	-	-
shipping	-	-	-
date	-	-	-
address	-	-	-
line1	-	-	-
line2	-	-	-
city	-	-	-
state	-	-	-
country	-	-	-
postal_code	-	-	-
transaction	M	-	O
country_code	M	-	-
language	O	-	-
soft_descriptor	O	-	-
processing_indicators	O	-	O
address_verification_service	-	-	-
allow_duplicate	O	-	-
create_token	-	-	-
generate_receipt	O	-	O
partial_approval	-	-	-
receipt	O	-	-
clerk_id	O	-	-

/returns Transaction Response Fields

Below is a table of all possible transaction response fields, including indicators for whether these fields are required, conditional, echoed from request, or not applicable. Because the receipt object included in the response contains a large number of fields, this table has been truncated to remove those fields. Please see the [Receipt Object](#) section for more information.

Returns Transactions Response Payload Fields

Field	CreateReturn	GetReturn	voidReturn
return_id	M	M	M
status	M	M	M
approval_code	C	C	-
processor_response	-	-	-
card	M	M	M
masked_card_number	M	M	M
cardholder_name	O	-	-
expiry_month	M	M	M

Returns Transactions Response Payload Fields			
Field	CreateReturn	GetReturn	voidReturn
expiry_year	M	M	M
token	-	-	-
type	M	M	M
balance	C	-	-
payment	M	M	M
amount	M	M	M
currency_code	O	M	-
gratuity_amount	-	-	-
invoice_number	O	C	-
reference_id	C	C	O
type	M	M	M
transaction	M	M	M
batch_amount	M	M	M
batch_number	M	M	M
entry_type	C	C	-
language	M	M	-
receipt	C	C	C
links	M	M	M
return_id	M	M	M
reference_id	M	M	M
HATEOAS Base Object	M	M	M
href	M	M	M
relation	M	M	M
method	M	M	M
description	M	M	M
HATEOAS Links	return_id	return_id	return_id
<i>Note: Only returned for US/Canada transactions.</i>	GetReturn	GetReturn	GetReturn
	voidReturn	voidReturn	

CreateReturn Request Fields

The following fields are mandated, conditional, or optional for CreateReturn transaction requests. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

CreateReturn Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
Payload	M		
card	M		
card_number	C	Transaction not supported.	Either card_number or token (below) required for all CreateReturn requests.
card_security_code	O		
cardholder_name	O		

CreateReturn Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
expiry_month	C		Required unless token is included in request. Not-applicable if token is included in request.
expiry_year	C		Required unless token is included in request. Not-applicable if token is included in request.
token	C		Either token or card information (above) required for all CreateReturn requests.
customer	O		Object is optional. If sent, one of either first_name or last_name or only business_name must be sent. Other fields are optional.
title	C		Cannot be sent with business_name. Is otherwise optional.
first_name	C		One of either first_name or last_name or only business_name required if customer object is sent.
middle_name	C		Cannot be sent with business_name. Is otherwise optional.
last_name	C		One of either first_name or last_name or only business_name required if customer object is sent.
business_name	C		One of either first_name or last_name or only business_name required if customer object is sent.
email	O		
phone	O		
note	O		
billing_address	O		
line1	O		
line2	O		
city	O		
state	O		
country	O		
postal_code	O		
payment	M		
amount	M		
currency_code	M		See AuthTokenV2 'Region' Dependencies
invoice_number	O		
reference_id	O		

CreateReturn Request Fields			
Field	US/Canada	Australia/ New Zealand	Notes
transaction	M		
country_code	M		See AuthTokenV2 'Region' Dependencies
language	O		See AuthTokenV2 'Region' Dependencies
soft_descriptor	O		
processing_indicators	O		
allow_duplicate	O		
generate_receipt	O		
receipt	O		
clerk_id	O		

Sample GetReturn Transaction Request and Response

Below is a sample GetReturn response payloads. Note that this sample includes all required and optional fields. Not all fields below are included in a successful GetReturn transaction response. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

Sample GetReturn Request Payload	Sample GetReturn Response Payload
NONE-Submit GetReturn path only.	<pre>{ "return_id": "000000096556", "status": "Approved", "approval_code": "689327", "transaction_http_status_code": 200, "transaction_http_status_message": "OK", "card": { "masked_card_number": "444422XXXXXX2222", "expiry_month": "12", "expiry_year": "25", "type": "Visa" }, "payment": { "amount": "1300.01", "invoice_number": "123456890", "type": "Credit" }, "transaction": { "batch_number": "000148" }, "links": [{ "return_id": [{ "href": "https://api.pit.paygateway.com/transactions/returns/000000096556",</pre>

Sample GetReturn Request Payload	Sample GetReturn Response Payload
	<pre> "relation": "self", "method": "GET", "description": "get a return transaction" }, { "href": "https://api.pit.paygateway.com/transactions/returns/000000096556/voids ", "relation": "void", "method": "PUT", "description": "void a return transaction" }] } </pre>

Check Transactions

/checksales & /checkrefunds Transaction Request Fields

Check transactions use payer account and financial institution information to create Check Sales and Check Refunds transactions.

Information regarding check transactions and checking accounts, including information regarding a returned check, details of a checking account change, and other information relating to the transaction or account is available from NACHA (US), AFT (Canada), Australian Payments Network (Australia), and Payments NZ (New Zealand) about three days after the original transaction. The **nacha** (US), **response_aft_ca** (Canada), **auspaynet** (Australia), and **paymentsnz** (New Zealand) objects in the Get Check responses will include this information, if it is available. See [Appendix C – NACHA Information](#), [Appendix D – AFT Information](#), [Appendix E – APN Information](#), or [Appendix F – Payments NZ Information](#) for more information.

The following objects are required, optional, or conditional for inclusion in new and follow-on check transaction requests.

Check Transaction Request Paths		
Request	Verb	Path
CreateCheckSale	POST	https://<hostname>/transactions/checksales
CreateCheckRefund	POST	https://<hostname>/transactions/checkrefunds
CreateCheckRefundCheckSaleId	POST	https://<hostname>/transactions/checksales/{checksale_id}/checkrefunds
CreateCheckRefundReferenceId	POST	https://<hostname>/transactions/checksales/reference_id/{reference_id}/checkrefunds

/checksales and /checkrefunds Transactions Request Payload Fields

Legend: “M”- Mandatory, “C”- Conditional*, “O”- Optional, “-”- Not applicable

- M1- Mandatory for US. Not applicable for CA.
- M2- Mandatory for CA. Not applicable for US.
- O1- Optional for US only
- C1- US- No Token for Check Sales and Check Refunds
- C2- Canada- No Token for Check Sales and Check Refunds
- C3- US/Canada/AU/NZ- Token for Check Sales and Check Refunds
- C4- US/Canada/AU/NZ- Temporary_token for Check Sales and Get Check Sales
- C5- Dependent checkrefunds or Void checksales using check_sale_id
- C6- Dependent checkrefunds or Void checksales using reference_id
- C7- Void checkrefunds using checkrefund_id.

Field	CreateCheckSale	CreateCheckRefund (Independent)	CreateCheckRefund (Dependent)	GetCheckSales	GetCheckRefunds
URI Parameters					
checksale_id	-	-	C4	C4	-
reference_id	-	-	C5	C5	C5
checkrefund_id	-	-	-	-	C6
Payload					

/checksales and /checkrefunds Transactions Request Payload Fields

Legend: "M"- Mandatory, "C"- Conditional*, "O"- Optional, "-"- Not applicable

- M1- Mandatory for US. Not applicable for CA.
- M2- Mandatory for CA. Not applicable for US.
- O1- Optional for US only
- C1- US- No Token for Check Sales and Check Refunds
- C2- Canada- No Token for Check Sales and Check Refunds
- C3- US/Canada/AU/NZ- Token for Check Sales and Check Refunds
- C4- US/Canada/AU/NZ- Temporary_token for Check Sales and Get Check Sales
- C5- Dependent checkrefunds or Void checksales using check_sale_id
- C6- Dependent checkrefunds or Void checksales using reference_id
- C7- Void checkrefunds using checkrefund_id.

Field	CreateCheckSale	CreateCheckRefund (Independent)	CreateCheckRefund (Dependent)	GetCheckSales	GetCheckRefunds
check	M	M	M	-	-
account_type	M	M	M	-	-
account_number	C1,C2	C1, C2	-	-	-
branch_transit_number	C2	C2	-	-	-
financial_institution_number	C2	C2	-	-	-
routing_number	C1	C1	-	-	-
check_number	O	O	O	-	-
temporary_token	C4	-	-	C4	-
token	C3	C3	-	-	-
customer	C	C	-	-	-
first_name	C1, C2	C1, C2	-	-	-
middle_name	O	O	-	-	-
last_name	C1, C2	C1, C2	-	-	-
payment	M	M	M	-	-
amount	M	M	M	-	-
currency_code	M	M	-	-	-
invoice_number	O	O	-	-	-
reference_id	O	O	-	-	-
fees					
customer_fees	C	C			
transaction	M	M	M	-	-
country_code	M	M	M	-	-
entry_class	M1	M1	M1	-	-
language	O	O	-	-	-
payment_purpose_code	M2	M2	M2	-	-
processing_indicators	O	-	-	-	-
check_verify	O1	-	-	-	-
create_token	C	-	-	-	-

/checksales & /checkrefunds Transaction Response Fields

Below is a table of all possible transaction response fields, including indicators for whether these fields are required, conditional, echoed from request, or not applicable.

/checksales and /checkrefunds Transactions Response Payload Fields					
Legend: "M"-Mandatory, "O"- Optional, "-"- Not applicable					
<small>*For fields demarcated as O1, O2, etc., these fields are conditional as sets. For instance, either all fields marked as O1 or all fields marked as O2, but not both, should be included for the particular payload object. O1 = US with and without Token. O2 = Canada with and without Token.</small>					
Field	CreateCheckSales	CreateCheckRefunds (Dependent)	CreateCheckRefunds (Independent)	GetCheckSales	GetCheckRefunds
check_sale_id	M	-	-	M	-
check_refund_id	-	M	M	-	M
status	M	M	M	M	M
check	M	M	M	M	M
masked_account_number	M-O1, O2	M-O1, O2	M-O1, O2	M-O1, O2	M-O1, O2
branch_transit_number	O2	O2	O2	O2	O2
financial_institution_number	O2	O2	O2	O2	O2
routing_number	O1	O1	O1	O1	O1
check_number	M	M	M	M	M
token	C	-	-	-	-
payment	M	M	M	M	M
amount	M	M	M	M	M
currency_code	M	-	M	-	-
invoice_number	O	-	O	-	-
reference_id	M	C	M	C	C
type	M	M	M	M	M
fees	C	C	-	-	-
customer_fee_amount	C	C	-	-	-
transaction	M	M	M	M	M
entry_class	M	M	M	M	M
language	M	M	M	-	-
verification_code	C	-	-	C	-
nacha	-	-	-	O	O3
return_date	-	-	-	O3	O3
return_code	-	-	-	O3	O3
return_description	-	-	-	O3	O3
noc_code	-	-	-	O3	O3
noc_description	-	-	-	O3	O3
response_aft_ca	-	-	-	O4	O4
return_date	-	-	-	O4	O4
return_code	-	-	-	O4	O4

/checksales and /checkrefunds Transactions Response Payload Fields

Legend: "M" -Mandatory, "O" - Optional, "-" - Not applicable

*For fields demarcated as O1, O2, etc., these fields are conditional as sets. For instance, either all fields marked as O1 or all fields marked as O2, but not both, should be included for the particular payload object. O1 = US with and without Token. O2 = Canada with and without Token.

Field	CreateCheckSales	CreateCheckRefunds (Dependent)	CreateCheckRefunds (Independent)	GetCheckSales	GetCheckRefunds
return_description	-	-	-	O4	O4
auspaynet	-	-	-	O5	O5
return_code	-	-	-	O5	O5
return_description	-	-	-	O5	O5
paymentsnz	-	-	-	O6	O6
return_code	-	-	-	O6	O6
return_description	-	-	-	O6	O6
links	M	-	-	-	-
check_sale_id	M	-	-	-	-
check_refund_id	-	-	-	-	-
reference_id	M	M	-	-	-
HATEOAS Base Object	M	-	-	-	-
href	M	-	-	-	-
relation	M	-	-	-	-
method	M	-	-	-	-
description	M	-	-	-	-
HATEOAS Links	checksale_id	-	-	-	-
<i>Note: Only returned for US/Canada transactions.</i>	checkrefunds	-	-	-	-
	reference_id	-	-	-	-
	checkrefunds	-	-	-	-

Sample CreateCheckSale Transaction Request and Response

Below is a sample CreateCheckSale response payloads. Note that this sample includes all required and optional fields. Not all fields below are included in a successful CreateCheckSale transaction response. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

Sample CreateCheckSale Request Payload	Sample CreateCheckSale Response Payload
<pre> POST https://<hostname>/transactions/checksales Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-API-Key: {API Key} { "check": { "account_type": "Checking", "account_number": "001221111221", "routing_number": "026009593", "check_number": "121002048", "token": "EnzMcSVlkP" }, "customer": { "first_name": "Joe", "middle_name": "Henry", "last_name": "Doe" }, "payment": { "amount": "23.09", "currency_code": "840", "invoice_number": "239087", "reference_id": "XAZR863990" }, "transaction": { "country_code": "840", "entry_class": "WEB", "language": "en-US", "processing_indicators": { "check_verify": false, "create_token": true } } } </pre>	<pre> { "checksale_id": "000008639902", "status": "Approved", "check": { "check_number": "121002048", "masked_account_number": "XXXXXXXXXXXX0099", "routing_number": "123459999", "token": "EnzMcSVlkP" }, "payment": { "amount": "23.09", "currency_code": "840", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit" }, "transaction": { "country_code": "840", "entry_class": "WEB", "language": "en-US", "verification_code": "25457812586C" }, "links": [{ "checksale_id": [{ "href": "https://api.paygateway.com/<api_basepath>/<path>/000000106821", "relation": "self", "method": "POST", "description": "Use this endpoint to perform a follow-on transaction" }], "reference_id": [{ "href": "https://api.paygateway.com/<api_basepath>/<path>/000000106821", "relation": "self", "method": "POST", "description": "Use this endpoint to perform a follow-on transaction" }] }] } </pre>

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Sample Dependent CreateCheckRefund Transaction Request and Response

Below are sample dependent CreateCheckRefund request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required in a successful dependent CreateCheckRefund transaction response. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

Sample Dependent CreateCheckRefund Request Payload	Sample Dependent CreateCheckRefund Response Payload
<pre> POST https://<hostname>/transactions/checksales/{checksale_id}/checkrefunds Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-API-Key: {API Key} { "check": { "account_type": "Checking", "check_number": "121002048" }, "payment": { "amount": "23.09", "invoice_number": "239087" }, "transaction": { "entry_class": "WEB" } } </pre>	<pre> { "checkrefund_id": "000000061689", "status": "Approved", "check": { "check_number": "121002048", "masked_account_number": "XXXXXXXXXXXXXXXX0099", "routing_number": "123459999" }, "payment": { "amount": "23.09", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit" }, "transaction": { "entry_class": "WEB" } } </pre>

Sample Independent CreateCheckRefund Transaction Request and Response

Below are sample independent CreateCheckRefund request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required in a successful independent CreateCheckRefund transaction response. Note that these samples are for US/Canada only. Other regions' requests and responses may differ.

Sample Independent CreateCheckRefund Request Payload	Sample Independent CreateCheckRefund Response Payload
<pre> POST https://<hostname>/transactions/checkrefunds Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-Api-Key: {API Key} { "check": { "account_type": "Checking", "account_number": "001221111221", "branch_transit_number": "12345", "financial_institution_number": "999", "routing_number": "026009593", "check_number": "121002048", "token": "EnzMcSVlkP" }, "customer": { "first_name": "Joe", "middle_name": "Henry", "last_name": "Doe" }, "payment": { "amount": "23.09", "currency_code": "840", "invoice_number": "239087", "reference_id": "XAZR863990" }, "transaction": { "country_code": "840", "entry_class": "WEB", "language": "en-US" } } </pre>	<pre> { "checkrefund_id": "000000061689", "status": "Approved", "check": { "check_number": "121002048", "masked_account_number": "XXXXXXXXXXXXXXXX0099", "masked_branch_transit_number": "XXX99", "masked_financial_institution_number": "XX9", "masked_routing_number": "XXXXX9999" }, "payment": { "amount": "23.09", "currency_code": "840", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit" }, "transaction": { "country_code": "840", "entry_class": "WEB", "language": "en-US" } } </pre>

Setup Transactions

Setup transactions are used to stage a transaction to the payment processor.

/setup Transaction Request Fields

The following objects are required, optional, or conditional for requesting an object used to create a setup transport key. Note that bolded fields denote payload objects. Non-bolded fields denote payload fields nested within those respective payload objects.

Staging API Request Paths		
Request	Verb	Path
SetupTransportKey	POST	https://<hostname>/setup/transport_keys

SetupTransportKey Request Payload Fields		
Legend: "M"-Mandatory, "C"- Conditional, "O"- Optional, "-"- Not applicable		
Field	Length	
payload		M
payment		M
amount		M
invoice_number		M
reference_id		O
purchase_order		O
destination_postal_code		O
po_number		O
tax_amount		O
transaction		M
type		M
processing_indicators		O
allow_duplicate		O
receipt		M
clerk_id		M

SetupTransportKey Request Fields

SetupTransportKey Request Fields			
Field	United States	Canada/Australia/ New Zealand/UK	Notes
payload	M		
payment	M		Payment object in request payload for primary staging sales transactions.
amount	M	Transaction not supported.	For staging a sale/auth/return transaction this will be the total amount charged on the card or account. String type: Decimal. Maximum value: 200000
invoice_number	M		Merchant-generated invoice number for staging transaction. Maximum length: 8. String type: AlphaNumeric.

reference_id	O	Reference ID for transaction. This can be a merchant-generated unique identifier for the transaction. The reference_id in the request will be echoed back in the transaction response. This reference_id can also be used for follow-on transactions. If reference_id is not passed with the request, one will be generated by the payment gateway and returned in the response. String type: AlphaNumeric.
purchase_order	O	Purchase order object in request payload to create or update the amount or other value of a sales, authorizations, or captures transaction.
destination_postal_code	O	Postal code for setup transport keys. Maximum length: 9. String type: AlphaNumeric.
po_number	O	Merchant-generated purchase order number for the transaction. Used for corporate purchase cards. Maximum length: 17. String type: AlphaNumeric.
tax_amount	O	Tax amount for a staging order transaction. String type: Amount. Maximum value: 20000
transaction	M	Transaction object in request payload to create an staging sales transaction.
type	M	Transaction type identifying type of transaction. Enum: [sale, auth, return]
processing_indicators	O	Processing indicator object in request payload to create a primary staging sale transaction.
allow_duplicate	O	allow_duplicate is being used Boolean indicator to allow duplicate transactions from the same terminal using the same card and for the same amount within a pre-defined, configurable time period, defaulted to 15 minutes. Default behavior is to reject duplicates.
request_receipt	M	Receipt object in request payload to create a sales, authorizations,

		or independent returns transaction, or to create a returns associated with a sales transaction.
clerk_id	M	Clerk ID to appear on the receipt. Maximum Length:20. String type: AlphaNumeric.

Sample SetupTransportKey Transaction Request and Response

Below are sample SetupTransportKey request and response payloads. Note that this sample includes all required and optional fields. Not all fields below are required for a successful SetupTransportKey transaction request. Note that these samples are for US only.

Sample SetupTransportKey Request Payload	Sample SetupTransportKey Response Payload
<pre> POST https://<hostname>/setup/transport_keys Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2019 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-Api-Key: {API Key} { "payment": { "amount": "225.09", "invoice_number": "239087", "reference_id": "XAZR863990", "purchase_order": { "destination_postal_code": "84042", "po_number": "2343445", "tax_amount": "20.01" } }, "transaction": { "type": "sale", "processing_indicators": { "allow_duplicate": true } }, "receipt": { "clerk_id": "A1090-John Doe" } } </pre>	<pre> { "transport_key": "29bb6833-3161-4526- 880f-ebba35fd9320", "validation_key": "7384cd5c-cf49-4b4f- 8abd-5911e575c819" } </pre>

RESPONSE PAYLOAD RECEIPT OBJECT

English (US/CA/AU/NZ) Receipt:

```

"receipt": {
  "text": {
    "customer_receipt": "\nBatch #                000111\nTrans ID
000000201461\nOrder ID                PAYAPI-60d736d9-5db2\n                -48ac-
a731-bfac668ff\n                5dd\nReceipt #                123456890\nTrans Type
Purchase\nClerk ID                A1090\nDate/Time                2019-07-24 16:48:05\nCard
Type                Visa\nCard Number                XXXXXXXXXXXXX2222\nEntry Legend                MAG
STRIPE\nEntry Method                CONTACTLESS\nApproval Code                914673\nSales Tax
USD$ 20.01\n\nAmount                USD$129.01\nTip Amount                USD$ 1.00\nTotal
Amount                USD$130.01\n\n                Approved - Thank You\n\n
X                \n                Signature: Joe Doe\n\nBuyer
agrees to pay total amount above\naccording to cardholder's agreement
with\nissuer.\n\n                ****Customer Copy****\n                Retain this copy for
statement\n                verification",
    "merchant_receipt": "\nBatch #                000111\nTrans ID
000000201461\nOrder ID                PAYAPI-60d736d9-5db2\n                -48ac-
a731-bfac668ff\n                5dd\nReceipt #                123456890\nTrans Type
Purchase\nClerk ID                A1090\nDate/Time                2019-07-24 16:48:05\nCard
Type                Visa\nCard Number                XXXXXXXXXXXXX2222\nEntry Legend                MAG
STRIPE\nEntry Method                CONTACTLESS\nApproval Code                914673\nSales Tax
USD$ 20.01\n\nAmount                USD$129.01\nTip Amount                USD$ 1.00\nTotal
Amount                USD$130.01\n\n                Approved - Thank You\n\n
X                \n                Signature: Joe Doe\n\nBuyer
agrees to pay total amount above\naccording to cardholder's agreement
with\nissuer.\n\n                ****Merchant Copy****"
  },
  "id": "201461",
  "attributes": {
    "authorization_agreement": "Buyer agrees to pay total amount above
according to cardholder's agreement with issuer.",
    "copy_label_customer": "****Customer Copy**** Retain this copy for
statement verification",
    "copy_label_merchant": "****Customer Copy**** Retain this copy for
statement verification",
    "signature_line": "X                ",
    "signature_text": "Signature: Joe Doe",
    "verbiage": "Approved - Thank You"
  },
  "labeled_attributes": {
    "amount": {
      "label": "Total Amount",
      "value": "USD$130.01"
    },
    "approval_code": {
      "label": "Approval Code",
      "value": "914673"
    },
    "batch_number": {
      "label": "Batch #",
      "value": "000111"
    },
    "card_type": {
      "label": "Card Type",
      "value": "Visa"
    }
  }
}

```

```
"clerk_id": {
  "label": "Clerk ID",
  "value": "A1090"
},
"entry_legend": {
  "label": "Entry Legend",
  "value": "MAG STRIPE"
},
"entry_method": {
  "label": "Entry Method",
  "value": "CONTACTLESS"
},
"gratuity_amount": {
  "label": "Tip Amount",
  "value": "USD$ 1.00"
},
"masked_card_number": {
  "label": "Card Number",
  "value": "XXXXXXXXXXXXXXXX2222"
},
"number": {
  "label": "Receipt #",
  "value": "123456890"
},
"reference_id": {
  "label": "Order ID",
  "value": "PAYAPI-60d736d9-5db2-48ac-a731-bfac668ff5dd"
},
"subtotal_amount": {
  "label": "Amount",
  "value": "USD$129.01"
},
"tax_amount": {
  "label": "Sales Tax",
  "value": "USD$ 20.01"
},
"total_amount": {
  "label": "Total Amount",
  "value": "USD$130.01"
},
"transaction_datetime": {
  "label": "Date/Time",
  "value": "2019-07-24 16:48:05"
},
"transaction_id": {
  "label": "Trans ID",
  "value": "000000201461"
},
"transaction_type": {
  "label": "Trans Type",
  "value": "Purchase"
}
}
```

French (CA) Receipt:

```
"receipt": {
  "text": {
    "receipt_text_customer": {customer receipt text},
    "receipt_text_merchant": {merchant receipt text}
  },
  "id": "95765",
  "attributes": {
    "copy_label_customer": "*****Copie Du Client***** Conservez cette copie
pour la vérification de la déclaration",
    "copy_label_merchant": "*****Copie Du Client***** Conservez cette copie
pour la vérification de la déclaration",
    "signature_text": "Signature Non Requisite",
    "verbiage": "Approuvee - Merci"
  },
  "labeled_attributes": {
    "amount": {
      "label": "Montant Total",
      "value": "USD$99.09"
    },
    "approval_code": {
      "label": "Code Autor",
      "value": "463018"
    },
    "batch_number": {
      "label": "# Du Lot",
      "value": "000147"
    },
    "card_type": {
      "label": "Type de Carte",
      "value": "Visa"
    },
    "clerk_id": {
      "label": "ID Employ?",
      "value": "A1090"
    },
    "entry_legend": {
      "label": "Entr?e L?gende",
      "value": "MAG STRIPE"
    },
    "entry_method": {
      "label": "M?thode D'Entr?e",
      "value": "CONTACTLESS"
    },
    "gratuity_amount": {
      "label": "Pourboire",
      "value": "USD$ 1.00"
    },
    "masked_card_number": {
      "label": "Numero de Carte",
      "value": "XXXXXXXXXXXXXXXX2222"
    },
    "number": {
      "label": "# de Facture",
      "value": "ss0012-0"
    },
    "reference_id": {
      "label": "Num?ro de commande",
```

```
        "value": "PAYAPI57b07f66-6e27-4056-9b5b-d13ef565623d"
      },
      "subtotal_amount": {
        "label": "Montant",
        "value": "USD$98.09"
      },
      "tax_amount": {
        "label": "taxe de vente",
        "value": "USD$20.01"
      },
      "total_amount": {
        "label": "Montant Total",
        "value": "USD$99.09"
      },
      "transaction_datetime": {
        "label": "Date/Heure",
        "value": "2018-11-29 17:17:41"
      },
      "transaction_id": {
        "label": "ID Transaction",
        "value": "000000095765"
      },
      "transaction_type": {
        "label": "Type de Trans",
        "value": "Achat"
      }
    }
  },
  "links": [
    {
      "sale_id": [
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000095765",
          "relation": "self",
          "method": "GET",
          "description": "get a sale transaction"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000095765",
          "relation": "self",
          "method": "PATCH",
          "description": "update a sale transaction"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000095765/voids",
          "relation": "void",
          "method": "PUT",
          "description": "void a sale transaction"
        },
        {
          "href":
"https://api.pit.paygateway.com/transactions/sales/000000095765/returns",
          "relation": "return",
          "method": "POST",
```

```
    "description": "create a return transaction associated with a
sale"
  }
]
},
{
  "reference_id": [
    {
      "href":
"https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI57b07f66-
6e27-4056-9b5b-d13ef565623d",
      "relation": "self",
      "method": "GET",
      "description": "get a sale transaction using reference id"
    },
    {
      "href":
"https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI57b07f66-
6e27-4056-9b5b-d13ef565623d",
      "relation": "self",
      "method": "PATCH",
      "description": "update a sale transaction using reference id"
    },
    {
      "href":
"https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI57b07f66-
6e27-4056-9b5b-d13ef565623d/voids",
      "relation": "void",
      "method": "PUT",
      "description": "void a sale transaction using reference id"
    },
    {
      "href":
"https://api.pit.paygateway.com/transactions/sales/reference_id/PAYAPI57b07f66-
6e27-4056-9b5b-d13ef565623d/returns",
      "relation": "return",
      "method": "POST",
      "description": "create a return transaction associated with a
sale using reference id"
    }
  ]
}
```

PAYMENT INSTRUMENT TOKEN GENERATION

For CreateSale and CreateAuth transactions, the request field "create_token" is a boolean indicator in the processing_indicators object used to set whether a token for the payment card is created and included in the transaction response. This token can be saved and resubmitted for future card-not-present transactions. Find example requests and responses including a pre-generated Payment Instrument token for transactions below.

Create Sale Transaction with Generated Token

Sample CreateSale Request w/ Token Payload	Sample CreateSale w/ Token Response Payload
<pre> { "payment": { "amount": "203.24", "gratuity_amount": "2.00", "invoice_number": "123456", "reference_id": "OrderId-s85367617", "currency_code": "840" }, "customer": { "title": "Mr.", "first_name": "John", "middle_name": "Edward", "last_name": "Doe", "email": "john.doe@gmail.com", "phone": "801-111-2222", "note": "This is the best customer", "billing_address": { "line1": "123 Main Street", "line2": "Apy 456", "city": "Lehi", "state": "UT", "country": "USA", "postal_code": "84043" } }, "shipping": { "address": { "line1": "123 Main Street", "line2": "Apy 456", "city": "Lehi", "state": "UT", "country": "USA", "postal_code": "84043" } }, "card": { "cardholder_name": "John Doe", "token": "sWcYhICocu" }, "transaction": { "country_code": "840", "language": "en-US", "soft_descriptor": "a", "processing_indicators": { "allow_duplicate": true, </pre>	<pre> { "sale_id": "000000096069", "status": "Approved", "approval_code": "541694", "avs_response": "full_match", "avs_response_description": "Match - Street Address, Match- Postal Code", "processor_response": "DEVELOPMENT APPROVAL", "card": { "masked_card_number": "401288XXXXXX1881", "expiry_month": "03", "expiry_year": "23", "type": "Credit" }, "payment": { "amount": "203.24", "gratuity_amount": "2.00", "invoice_number": "123456", "reference_id": "OrderId-85367617", "type": "Visa" }, "transaction": { "batch_amount": "276.38", "batch_number": "000148", "entry_type": "Keyed" }, "receipt": {SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW} } </pre>

Sample CreateSale Request w/ Token Payload	Sample CreateSale w/ Token Response Payload
<pre> "address_verification_service": true, "create_token": false, "generate_receipt": true, "partial_approval": true } }, "receipt": { "clerk_id": "1234" } }</pre>	

Appendix A – String Type Definitions

For security purposes, the distributed Transactions API specification does not include explicit definitions of string patterns. Instead, fields which only accept values of a specific pattern include in their descriptions a “String Type” tag. The table below includes these tags and their pattern definitions.

String Type Definitions	
String Type	Definition
Hexadecimal	Field accepts hexadecimal string values only.
Decimal	Field accepts a number with a maximum of 999,999.99 and up to two decimal places.
AlphaNumeric	Field accepts alphanumeric string values only. No special characters allowed, unless specified in field description.
ConstantNumber	Field accepts numeric values exactly matching their respective account number, card number, etc.
Numeric	Field accepts a number with no decimals and leading zeroes.
Amount	Field accepts a number of any value with up to two decimal places.
Date	Field accepts a date in format: YYYY-MM-DD
DateShort	Field accepts a date in format: YYMMDD
Month	Field accepts a two-digit number with leading zero. Maximum value is 12.
Year	Field accepts a two-digit number with leading zero. Maximum value is 99.

APPENDIX B – EXPLICIT FIELD VALUE ENUMERATIONS

Some fields included in the OpenEdge Transactions API only accept values from a predetermined list. These fields and their acceptable values are below.

Explicit Field Value Enumerations	
Field	Values Accepted
account_type	<ul style="list-style-type: none"> • "Checking" • "Savings"
avs_response	<ul style="list-style-type: none"> • "full_match" • "partial_match" • "no_match" • "unavailable" • "not_supported"
avs_response_description	<ul style="list-style-type: none"> • "Match - Street Address, Match - Postal Code" • "Match - Street Address, No Match - Postal Code" • "No Match - Street Address, Match - Postal Code" • "No Match - Street Address, No Match - Postal Code" • "Error" • "Retry - System Unavailable or Timed Out" • "Service Not Supported" • "Address Verification Unavailable" • "Global Unavailable" • "International Unavailable" • "N/A"
cardsecurity_response	<ul style="list-style-type: none"> • "match" • "no_match" • "unavailable" • "not_supported"
country_code	<ul style="list-style-type: none"> • "840" US • "124" Canada • "036" Australia • "554" New Zealand
currency_code	<ul style="list-style-type: none"> • "840" US • "124" Canada • "036" Australia • "554" New Zealand
decline_minimizer_reason_code	<ul style="list-style-type: none"> • "contact" • "account_closed"

Explicit Field Value Enumerations	
Field	Values Accepted
ecommerce_indicator	<ul style="list-style-type: none"> • "1" Mail or telephone order • "2" Recurring transaction • "3" Installment transaction • "5" Near-field communication was used to collect card information. • "7" Indicates a secure and encrypted method (SSL, DES, 3DES or RSA, etc) was used from the customer to the merchant (used for Ecommerce).
entry_class	<ul style="list-style-type: none"> • "CCD" • "PPD" • "TEL" • "WEB"
entry_type	<ul style="list-style-type: none"> • "Keyed" • "Swiped" • "Inserted" • "Contactless"
language	<ul style="list-style-type: none"> • "en-US" • "en-CA" • "fr-CA" • "en-AU" • "en-NZ"
type (<i>in card object</i>)	<ul style="list-style-type: none"> • "Visa" • "MasterCard" • "Discover" • "Interac" • "AmericanExpress" • "American Express" • "Diners Club" • "JCB" • "PayPal" • "UnionPay"
type (<i>in payment object</i>)	<ul style="list-style-type: none"> • "Credit" • "Debit/Credit" • "Check"
pos_type	<ul style="list-style-type: none"> • "PC" • "MOBILE" • "TERMINAL" • "ECR"

Explicit Field Value Enumerations	
Field	Values Accepted
signature_format	<ul style="list-style-type: none"> • "PNG"
status	<ul style="list-style-type: none"> • "Approved" • "Approved - AVS & CSC Mismatch" • "Approved - AVS Mismatch" • "Approved - CSC Mismatch" • "Approved - Token Creation Failed" • "Call Issuer" • "Call Issuer - Token Creation Failed" • "Check Approved" • "Check Daily Amount Limit Exceeded" • "Check Monthly Amount Limit Exceeded" • "Check Returned" • "Check Scheduled" • "Check Submitted" • "Check Transaction Amount Limit Exceeded" • "Check Verification Configuration Error" • "Check Verification Failed" • "Closed" • "Declined" • "Declined - Token Creation Failed" • "Ineligible for ACH Network" • "Partially Approved" • "Partially Approved - AVS & CSC Mismatch" • "Partially Approved - AVS Mismatch" • "Partially Approved - CSC Mismatch" • "RDFI Not Qualified to Participate" • "Voided"
track_capabilities	<ul style="list-style-type: none"> • "NONE" • "TRACK1" • "TRACK2" • "BOTH" • "CHIP"

APPENDIX C – NACHA INFORMATION

NACHA Return Reason Codes

For returned US check transactions, these values may be included for the **return_code** response field in the **nacha** object.

NACHA Return Reason Codes		
Code	Description	Definition
C01	ACCOUNT NUMBER	The account number is incorrect or is formatted incorrectly.
C02	TRANSIT / ROUTING NUMBER	A once valid transit / routing number must be changed.
C03	TRANSIT / ROUTING NUMBER & ACCOUNT NUMBER	The transit / routing number and the account number are incorrect.
C04	ACCOUNT NAME	The customer has changed the name on the account or the Company has submitted the name incorrectly.
C05	TRANSACTION CODE	The incorrect transaction type code (a 2-digit number meaning checking or savings account) is wrong.
C06	ACCOUNT NUMBER and TRANSACTION CODE	The account number is incorrect and the type of transaction code is wrong.
C07	TRANSIT / ROUTING NUMBER, ACCOUNT NUMBER & TRANSACTION CODE	The transit / routing number and the the account number and the transaction type code are all incorrect (Three corrections).
C09	INDIVIDUAL ID NUMBER	Individual ID Number is incorrect (applies only to consumer initiated transactions).
C10	COMPANY NAME	Due to merger or consolidation, the Company name is no longer valid (applies only to consumer initiated transactions).
C11	COMPANY IDENTIFICATION	Due to merger or consolidation, the Company ID is no longer valid.
C12	COMPANY NAME & COMPANY IDENTIFICATION	Due to merger or consolidation, the Company name and the Company ID number are no longer valid (applies only to consumer initiated transactions).
C13	ADDENDA FORMAT ERROR	The Entry Detail Record is correct, but information in its Addenda Record is unclear or formatted incorrectly. i.e., not formatted in ANSI or NACHA endorsed banking conventions.
C61	MISROUTED NOTIFICATION OF CHANGE	Misrouted Notification of Change.
C62	INCORRECT TRACE NUMBER	Incorrect Trace Number.
C63	INCORRECT COMPANY IDENTIFICATION NUMBER	Incorrect Company Identification Number.
C64	INCORRECT INDIVIDUAL IDENTIFICATION NUMBER	Incorrect Individual Identification Number.
C65	INCORRECTLY FORMATTED ADDENDA INFORMATION	Incorrectly Formatted Addenda Information.
C66	INCORRECT DISCRETIONARY DATA	Incorrect Discretionary Data.

NACHA Return Reason Codes

Code	Description	Definition
C67	TRANSIT ROUTING NUMBER NOT FROM ORIGINAL ENTRY DETAIL RECORD	Transit Routing number not from original entry detail record.
C68	DFI ACCOUNT NUMBER NOT FROM ORIGINAL ENTRY DETAIL RECORD	DFI Account Number not from original entry detail record.
C69	INCORRECT TRANSACTION CODE	Incorrect Transaction Code

ACH Notifications of Change

The ACH network provides Notifications of Change (NOCs) in the event that some information specific to a US checking account has changed. See the various NACHA NOCs below. For US check responses, these values may be included for the **noc_code** and **noc_descriptions** fields in the **nacha** object.

ACH NOCs

Code	Reason	Description
C01	Incorrect bank account number	Bank account number incorrect or formatted incorrectly
C02	Incorrect transit/routing number	Once valid transit/routing number must be changed
C03	Incorrect transit/routing number and bank account number	Once valid transit/routing number must be changed and causes a change to bank account number structure
C04	Bank account name change	Customer has changed name or ODFI submitted name incorrectly
C05	Incorrect payment code	Entry posted to demand account should contain savings payment codes or vice versa
C06	Incorrect bank account number and transit code	Bank account number must be changed and payment code should indicate posting to another account type (demand/savings)
C07	Incorrect transit/routing number, bank account number and payment code	Changes required in three fields indicated
C09	Incorrect individual ID number	Individual's ID number is incorrect
C10	Incorrect company name	Company name is no longer valid and should be changed.
C11	Incorrect company identification	Company ID is no longer valid and should be changed
C12	Incorrect company name and company ID	Both the company name and company id are no longer valid and must be changed
C01	Incorrect bank account number	Bank account number incorrect or formatted incorrectly

APPENDIX D – AFT INFORMATION

Automated Funds Transfer (AFT) Transaction Codes

For Canada check transactions, the following AFT transaction codes may be included for the **payment_purpose_code** field in the **transaction** request object.

AFT Transaction Codes	
Code	Description
000-149	Unassigned. Held for future use.
150-199	Reserved for MICR Debits
200	Payroll deposit
201	Special payroll
202	Vacation payroll
203	Overtime payroll
204	Advance payroll
205	Commission payroll
206	Bonus payroll
207	Adjustment payroll
230	Pension
231	Federal pension
232	Provincial pension
233	Private pension
240	Annuity
250	Dividend
251	Common dividend
252	Preferred dividend
260	Investment
261	Mutual funds
265	Spousal RSP contribution
266	RESP Contribution
271	RSP Contribution
272	Retirement Income Fund
273	Tax-free savings account
274	RDSP contribution
280	Interest
281	Lottery prize payment
300	Federal payment
301	Agri stabilization
302	AgriInvest
303	HRDC-Training
308	Canada Child Benefit
309	GST
310	CPP
311	Old age security
312	War Veteran's allowance
313	VAC
314	Retired moose and squirrel state benefits
315	PS Superannuation

316	CF Superannuation
317	Tax refund
318	EI
319	PAD CCRA
320	Student loan
321	CSB interest
322	External affairs
323	Savings plan
324	Access grants
330	Insurance
331	Life insurance
332	Auto insurance
333	Property insurance
334	Casualty insurance
335	Mortgage insurance
336	Health/dental claim insurance
350	Loans
351	Personal loans
352	Dealer plan loans
353	Farm improvement loans
354	Home improvement loans
355	Term loans
356	Insurance loans
370	Mortgage
371	Residential mortgage
372	Common mortgage
373	Farm mortgage
380	Taxes
381	Income taxes
382	Sales taxes
383	Corporate taxes
384	School taxes
385	Property taxes
386	Water taxes
400	Rent/leases
401	Residential rent/leases
402	Commercial rent/leases
403	Equipment rent/leases
404	Automobile rent/leases
405	Appliance rent/leases
420	Cash management
430	Bill payment
431	Telephone bill payment
432	Gasoline bill payment
433	Hydro bill payment
434	Cable bill payment
435	Fuel bill payment
436	Utility bill payment
437	Internet access payment

438	Water bill payment
439	Auto payment
440	Poutine payment
450	Miscellaneous payments
451	Customer cheques (sic)
452	Expense payment
460	Accounts payable
470	Fees/dues
480	Donations
600	Provincial/local government payment
601	Family support plan
602	Housing allowance
603	Income security benefits
604	Family benefits
605	Province/territory
606	Workers' compensation board
607	Employment assistance allowance
608	Automobile insurance plane
609	Health care premium
610	Offences and fines (i.e. not saying sorry often enough)
611	Disability payment
612	Parental insurance
613	Student loan
614	Grant/bursary
615	Solidarity tax credit
616	Children assistance
617	tax refund
618	Too-damn-cold allowance
621-649	Unassigned
650	Inter-FI funds transfer debit
651-699	Unassigned
701	Commercial investments
702	Commercial insurance
703	Commercial auto insurance
704	Commercial property insurance
705	Commercial casualty insurance
706	Commercial mortgage insurance
707	Commercial loans
708	Commercial mortgage
709	Commercial taxes
710	Commercial income taxes
711	Commercial sales taxes
712	Commercial GST
713	Commercial property taxes
714	Commercial rent/lease
715	Commercial equipment rent/lease
716	Commercial automobile rent/lease
717	Commercial cash management
718	Commercial bill payment

719	Commercial telephone bill payment
720	Commercial gasoline bill payment
721	Commercial hydro bill payment
722	Commercial cable bill payment
723	Commercial fuel bill payment
724	Commercial utility bill payment
725	Commercial internet bill payment
726	Commercial water bill payment
727	Commercial auto payment
728	Commercial expense payment
729	Commercial accounts payable
730	Commercial fees/dues
731	Commercial creditor insurance
732	Commercial commercial payment
750-899	Internal direct clearer use

AFT Return Reason Codes

For returned Canada check transactions, these values may be included for the **return_code** and **return_description** response fields in the **response_aft_ca** object.

AFT Return Reason Codes	
Code	Description
900	Bank account number incorrect or formatted incorrectly
901	Non-sufficient funds (Debit only)
902	Account not found
903	Payment stopped/recalled
905	Account closed
907	No debit allowed
908	Funds not cleared (Debit only)
909	Currency/account mismatch
910	Payor/payee deceased
911	Account frozen
912	Invalid/incorrect account number
914	Incorrect payor/payee name
915	No agreement existed
916	Not according to agreement – personal
917	Agreement revoked – personal
918	No confirmation/pre-notification – personal
919	Not according to agreement – business
920	Agreement revoked – business
921	No confirmation/pre-notification – business
922	Customer initiated return
990	Institution in default

APPENDIX E – AUSPAYNET INFORMATION

APN Transaction Codes

For returned Australian check transactions, the following APN transaction codes may be included for the **return_code** and **return_descriptions** fields in the **auspaynet** response object, nested in the **transaction** object.

AFT Transaction Codes	
return_code	return_description
2	Payment Stopped
3	Account Closed
4	Customer Deceased
5	No Account Number or Incorrect Account Number
6	Refer to Customer
9	Technically Invalid

APPENDIX F – PAYMENTS NZ INFORMATION

Payments NZ Transaction Codes

For returned New Zealand check transactions, the following Payments NZ transaction codes may be included for the **return_code** and **return_descriptions** fields in the **paymentsnz** response object, nested in the **transaction** object.

AFT Transaction Codes	
return_code	return_description
2	Payment Stopped
3	Account Closed
4	Customer Deceased
5	No Account Number or Incorrect Account Number
6	Refer to Customer
9	Technically Invalid

APPENDIX G – TEMPORARY TOKEN

CreateSale and CreateAuth transaction requests require either the payment card information, token, or temporary_token in the **card** object. See the below sample for a CreateSale transaction request using the temporary_token.

Sample CreateSale Request Payload	Sample CreateSale Response Payload
<pre> POST https://<hostname>/transactions/sales Content-Type: application/json Accept: application/json Date: Mon, 02 Oct 2017 22:21:20 GMT "Authorization": "AuthToken {AuthTokenV2}" X-GP-Request-Id:{request_id} X-GP-Version:2019-06-27 X-GP-Api-Key: {API Key} { "card": { "cardholder_name": "23.09", "temporary_token": {temporary_token} } "customer": { "title": "Mr.", "first_name": "Joe", "middle_name": "Henry", "last_name": "Doe", "email": "jondeo@gmail.com", "phone": "345-090-2334", "note": "This is a sample note", "billing_address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "Utah", "country": "USA", "postal_code": "84042" } }, "payment": { "amount": "23.09", "currency_code": "840", "gratuity_amount": "10.00", "invoice_number": "239087" }, "shipping": { "date": "2018-09-14", "address": { "line1": "2600 NW", "line2": "23th Street", "city": "Lindon", "state": "Utah", "country": "USA", "postal_code": "84042" } }, "transaction": { "country_code": "840", </pre>	<pre> { "sale_id": "00000008639902", "status": "Approved", "approval_code": "ADB123", "avs_response": "full_match", "avs_response_description": "Match - Street Address, Match - Postal Code", "cardsecurity_response": "match", "processor_response": "APPROVAL ADB123", "card": { "masked_card_number": "541333XXXXXX5538", "cardholder_name": "Joe Doe", "expiry_month": "03", "expiry_year": "23", "token": "EnzMcSVlkP", "type": "Visa", "balance": "12.09" }, "payment": { "amount": "23.09", "currency_code": "840", "gratuity_amount": "10.00", "invoice_number": "239087", "reference_id": "XAZR863990", "type": "Credit", "purchase_order": { "tax_amount": "20.01" } }, "transaction": { "batch_amount": "12.09", "batch_number": "001333", "entry_type": "string", "language": "en-US" }, "receipt": { SEE SAMPLE TRANSACTION RESPONSE RECEIPT OBJECT BELOW } } </pre>

Sample CreateSale Request Payload	Sample CreateSale Response Payload
<pre>"language": "en-US", "processing_indicators": { "allow_duplicate": true, "address_verification_service": true, "create_token": true, "generate_receipt": true, "partial_approval": true, "allow_duplicate": true, } }, "receipt": { "clerk_id": "A1090-John Doe" } }</pre>	

APPENDIX H – DEVELOPMENT TESTING RESPONSE CODES

The OpenEdge Transactions API provides platform emulation on the development testing system that allows integrators and programmers to verify responses triggered by specific cent amounts, Address Verification System (AVS), Card Security Code (CSS), and Commercial Card (CC) values.

Any of the following cent values can be submitted appended to any whole dollar amount in the development environment to validate the returned HTTP Code and HTTP Status for Australia and New Zealand.

Australia and New Zealand Test Dollar Amount Values			
Cent Value	Description	HTTP Code	HTTP Status
0.00	Approved	200/201	Approved
0.08	Honour with ID	200/201	Approved
0.10	Partial Amount Approved	471	Approved
0.11	Approved VIP (not used)	200/201	Approved
0.16	Approved, Update Track 3 (unused)	200/201	Approved
0.01	Refer to Issuer	472	Call Issuer
0.02	Refer to Issuer's Special Conditions	472	Call Issuer
0.03	No Merchant	470	Declined
0.04	Pick Up Card	470	Declined
0.05	Do Not Honour	470	Declined
0.06	Error	470	Declined
0.07	Pick Up Card, Special Conditions	470	Declined
0.09	Request in Progress	470	Declined
0.12	Invalid Transaction	470	Declined
0.13	Invalid Amount	470	Declined
0.14	Invalid Card Number	470	Declined
0.15	No Issuer	470	Declined
0.17	3D Secure Error	470	Declined
0.19	Re-enter Transaction	470	Declined
0.21	No Action Taken	470	Declined
0.22	Suspected Malfunction	470	Declined
0.23	Unacceptable Transaction Fee	470	Declined
0.25	Unable to Locate Record on File	470	Declined
0.30	Format Error	470	Declined
0.31	Bank not Supported by Switch	470	Declined
0.33	Expired Card-Pick Up	470	Declined
0.34	Suspected Fraud-Pick Up	470	Declined
0.35	Contact Acquirer-Pick Up	470	Declined
0.36	Restricted Card-Pick Up	470	Declined
0.37	Call Acquirer Security-Pick Up	470	Declined
0.38	Allowable PIN Tries Exceeded	470	Declined
0.39	No Credit Account	470	Declined
0.40	Requested Function not Supported	470	Declined
0.41	Lost Card-Pick Up	470	Declined
0.42	No Universal Amount	470	Declined
0.43	Stolen Card-Pick Up	470	Declined
0.44	No Investment Account	470	Declined
0.51	Insufficient Funds	470	Declined

0.52	No Cheque Account	470	Declined
0.53	No Savings Account	470	Declined
0.54	Expired Card	470	Declined
0.55	Incorrect PIN	470	Declined
0.56	No Card Record	470	Declined
0.57	Trans. not Permitted to Cardholder	470	Declined
0.58	Transaction not Permitted to Terminal	470	Declined
0.59	Suspected Fraud	470	Declined
0.60	Card Acceptor Contact Acquirer	470	Declined
0.61	Exceeds Withdrawal Amount Limits	470	Declined
0.62	Restricted Card	470	Declined
0.63	Security Violation	470	Declined
0.64	Original Amount Incorrect	470	Declined
0.66	Card Acceptor Call Acquirer Security	470	Declined
0.67	Hard Capture-Pick Up Card at ATM	470	Declined
0.68	Response Received Too Late	470	Declined
0.75	Allowable PIN Tries Exceeded	470	Declined
0.90	Cut-off in Progress	470	Declined
0.91	Issuer or Switch is Inoperative	470	Declined
0.92	Financial Institution not Found	470	Declined
0.93	Trans Cannot be Completed	470	Declined
0.94	Duplicate Transmission	470	Declined
0.95	Reconcile Error	470	Declined
0.96	System Malfunction	470	Declined
0.97	Reconciliation Totals Reset	470	Declined
0.98	MAC Error	470	Declined
0.99	Reserved for National Use	470	Declined

CHANGE HISTORY

Change History		
Date	Author	Reason for Update
12/16/2019	KAJ	<ul style="list-style-type: none"> Added Setup Transaction section.
12/09/2019	KAJ	<ul style="list-style-type: none"> Added UK URLs and endpoints. Added UK AuthToken "region" Field Dependancies. Corrected capitalization in checksale and checkreturn URLs. Corrected AuthToken fields in samples to show as strings.
08/08/2019	NSC	<ul style="list-style-type: none"> Added functionality to support temporary_token. Removed CORS support. Added support for AuthTokenV2.
07/25/2019	NSC	<ul style="list-style-type: none"> Added Appendix H – Development Testing Response Codes Added fees object and customer_fee_amount field to CreateSale, CreateCheckSale, GetSale, and GetCheckSale transaction responses for Australia and New Zealand. Added auspaynet and paymentsnz Check response objects. Added temporary_token to Sale and Auth request field (transaction support for temporary_token will be added in a future release).
06/27/2019	NSC	<ul style="list-style-type: none"> Initial publication.