**Banamex API Challenge Specs**

**Every request header will have auth params in the form of access keys and client id.**

**Example:**

curl -X PUT

-H "uuid:e6c9ff8b-3205-49f3-99c1-6679aa27ca0f"

-H "Accept:application/json"

-H "client\_id:{replace with client\_id}"

-H "Content-Type:application/json"

-H "Authorization:Bearer {replace with access\_token}"

-d '{"linkageConfirmationCode":"735937"}'

"https://sandbox.apihub.citi.com/gcb/api/v1/rewards/{rewardLinkCode}/activations"

**Authorization**

This API requires a valid access\_token. You can obtain one through the Authorization Code Grant process using the following scope:

|  |  |
| --- | --- |
| scope | description |
| accounts\_details\_transactions | Retrieve a summary of all accounts, account details and transactions |

You can find detailed instructions on requesting an access\_token by clicking on the Authorize link.

## Pagination

In some cases, we'll return too much data to display in a single response. If additional data is available, a nextStartIndex will be returned. Pass the nextStartIndex in your next request to retrieve the next set of data.

1. **Block the card**

Executes following APIs

Get Cards By Customer ID or account ID

Update Card Status

**1.1 Get Cards By Customer ID or Account ID**

### GET /v1/customers/{hashedcustId}/cards

### GET /v1/ customers/{hashedcustId}/accounts/{hasedacctid}/cards

### 

**Request Parameters:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| hashedcustId | Yes | Path (hashed) | string | Hashed customer id of the account holder |
| hasedacctid | Yes (if custdId not specified) | Path (hashed) | string | Hashed account id |
| nextStartIndex | No | Query | string | In some cases there is more data than what can be returned in a single response. If there is additional data available a nextStartIndex will be returned. Pass the nextStartIndex in your next request to retrieve the next set of data |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

**Error Response:**

|  |  |  |  |
| --- | --- | --- | --- |
| **HTTP Response Code** | **Type** | **Message** | **Description** |
| 400 | Invalid | invalidRequest | Missing or invalid parameters |
| 400 | Error | invalidCustomertId | Customer Id is missing/incorrect |
| 400 | Error | invalidAccountId | Account Id is missing or incorrect |
| 401 | Error | Unauthorized | Authorization credentials are missing or invalid |
| 403 | Error | accessNotConfigured | Access is not configured for this resource |
| 500 | Fatal | serverUnavailable | The request failed due to an internal error/server unavailability |

### Sample Response:

**Type: Application/JSON**

{

"cards": [{

“creditCardAccounts” : [{

"accountStatus" : "ACTIVE"

"accountId": "AB34512DEF984DBBACEA",

"productName": "Citibank Platinum Visa",

"displayAccountNumber" : "XXXXX2391",

"accountNickname" : "Credit Card Account for My Travels",

"outstandingBalance" : 10000.25,

"currencyCode": "USD",

"paymentDueDate" : "2017-04-04",

"balOfLastStmt": "1200.73",

"creditLimit" : 25000.0,

"minimumPaymentAmt": "108.00",

"minimumPaymentDueDate": "2017-04-04"

}],

"checkingAccounts" : [ {

"accountStatus" : "OPEN",

"accountId" : "AB34512DEF984DBBACEA",

"currentBalance" : 10000.25,

"accountNickname" : "Account for Tax Deduction Only",

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "AUD",

"productName" : "Personal Checking Account",

"accountClassification" : "ASSET",

"availableBalance" : 15000.25

} ],

"savingsAccounts" : [ {

"accountStatus" : "OPEN",

"accountId" : "AB34512DEF984DBBACEA",

"currentBalance" : 10000.25,

"accountNickname" : "Personal Savings Account",

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "AUD",

"productName" : "Personal Savings Account",

"accountClassification" : "ASSET",

"availableBalance" : 15000.25

} ]

} ]

}

**Response Schema:**



1.3 **Update Status of Card**

### PUT /v1/customers/{hashedcustId}/cards

### PUT /v1/ customers/{hashedcustId}/accounts/{hasedacctid}/cards

### PUT /v1/cards

Request Body:

{

“cardNumber”: “xxxxxx1234”,

“status”: “LOST”

}

Request Parameters:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| cardNumber | Yes | Body | String | Hashed credit card number |
| status | Yes | Body | String | Updated status of the card |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

**Error Response:**

|  |  |  |  |
| --- | --- | --- | --- |
| **HTTP Response Code** | **Type** | **Message** | **Description** |
| 400 | Invalid | invalidRequest | Missing or invalid parameters |
| 400 | Error | invalidStatus | Wrong status value in request |
| 400 | Error | invalidCardNumber | Card number in update status is invalid |
| 401 | error | unAuthorized | Authorization credentials are missing or invalid |
| 500 | fatal | serverUnavailable | The request failed due to an internal error/server unavailability |

Sample Response:

{

"customerId": "7543-AB-2345",

"cardNumber": "0005491389999000467",

"accountId": "abc-123",

"issueDate": "2014-04-01T12:00:22",

"cardDescription": "Checking VISA Card",

" accountStatus ": "BLOCKED",

"responseCode": "0",

}

**Response schema:**



1. **Account Summary**

The 'account summary' use case allows an authenticated customer to view a summary of a specific account.

Accounts for a customer

### GET /v2/customers/{cloakedCustomerId}/accounts

Returns a summary of all accounts held by Citi customers who have authorized your app.

For example, if a customer has multiple credit card accounts, the accounts will be returned in the array creditCardAccountsSummary within accountGroupSummary.  
Currently, the API supports cards, checking, savings and brokerage accounts.

**Request Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| cloakedCustomerId | Yes | Path | String | Hashed customer Id |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | String | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | String | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | String | The client\_id generated during consumer onboarding |
| nextStartindex | No | Query | String | In some cases there is more data than what can be returned in a single response. If there is additional data available a nextStartIndex will be returned. Pass the nextStartIndex in your next request to retrieve the next set of data. |

Error Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| **HTTP Response Code** | **Type** | **Message** | **Description** |
| 400 | Error | invalidRequest | Missing or invalid request parameters |
| 400 | noAccounts | No active accounts or No accounts linked for customer | noAccounts |
| 401 | Error | unAuthorized | Authorization credentials are missing or invalid |
| 404 | Error | resourceNotFound | Resource not found |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |
|  |  |  |  |

Sample response:

Type: Application/JSON

{

"nextStartIndex" : "fddsadsf32424gffsfsfddsgf3324",

"accountGroupSummary" : [ {

"creditCardAccountsSummary" : [ {

"accountStatus" : "ACTIVE",

"minimumDueAmount" : 256.5,

"accountId" : "AB34512DEF984DBBACEA",

"paymentDueDate" : "2016-10-05",

"availableCredit" : 15000.0,

"accountNickname" : "Credit Card Account for My Travels",

"creditLimit" : 25000.0,

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "USD",

"productName" : "Citibank Platinum Visa",

"accountClassification" : "LIABILITY",

"outstandingBalance" : 10000.25

} ],

"totalPortfolioBalanceAmount" : {

"localCurrencyBalanceAmount" : 8900.12,

"foreignCurrencyCode" : "SGD",

"localCurrencyCode" : "AUD",

"foreignCurrencyBalanceAmount" : 8880.1

},

"totalValueChangePercentage" : 15000.25,

"brokerageAccountsSummary" : [ {

"accountId" : "",

"cashAccountDetails" : {

"fundsAvailableToWithdraw" : 10000.0,

"fundsAvailableToTrade" : 10000.0

},

"brokerageAccountTransactionTypes" : [ { } ],

"accountRegistrationType" : "",

"accountTradingCapableFlag" : true,

"marketValueChangeAmount" : 10000.0,

"displayAccountNumber" : "",

"asOfDateTime" : "2016-04-15",

"totalAccountValueAmount" : 10000.0,

"marginAccountDetails" : {

"dayTradingBuyingPowerAmount" : 10000.0,

"marginableEquityAmount" : 10000.0,

"securityOwed" : 10000.0

},

"marketValueChangePercentage" : 10000.0

} ],

"allAccountsAsOfDate" : "2016-120-12",

"checkingAccountsSummary" : [ {

"accountStatus" : "OPEN",

"accountId" : "AB34512DEF984DBBACEA",

"currentBalance" : 10000.25,

"accountNickname" : "Account for Tax Deduction Only",

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "AUD",

"productName" : "Personal Checking Account",

"accountClassification" : "ASSET",

"availableBalance" : 15000.25

} ],

"totalAvailableBalance" : "",

"accountGroup" : "SAVINGS",

"totalCurrentBalance" : "",

"totalValueChangeAmount" : "",

"savingsAccountsSummary" : [ {

"accountStatus" : "OPEN",

"accountId" : "AB34512DEF984DBBACEA",

"currentBalance" : 10000.25,

"accountNickname" : "Personal Savings Account",

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "AUD",

"productName" : "Personal Savings Account",

"accountClassification" : "ASSET",

"availableBalance" : 15000.25

} ],

"totalOutstandingBalance" : ""

} ]

}

**Response Schema:**

****

**Summary for specific account**

### GET /v1/banamex/accounts/{hashedacctId}

Returns account details in addition to what is provided in the summary for all accounts. To retrieve, simply pass the Account ID returned to you from the account summary. Currently, the API supports cards, checking, savings and brokerage accounts.

**Request Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| hashedacctId | Yes | Path | String | Hashed account id |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | String | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | String | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | String | The client\_id generated during consumer onboarding |

Error Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| **HTTP Response Code** | **Type** | **Message** | **Description** |
| 400 | Error | invalidRequest | Missing or invalid request parameters |
| 400 | noAccounts | No active accounts or No accounts linked for customer | noAccounts |
| 401 | Error | unAuthorized | Authorization credentials are missing or invalid |
| 404 | Error | resourceNotFound | Resource not found |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

**Sample Response:**

**Type: Application/JSON**

{

"brokerageAccount" : {

"accountHoldings" : [ {

"symbol" : "",

"cusip" : "",

"securityName" : "",

"previousHoldingPriceAmount" : 10000.0,

"holdingPriceChangeAmount" : 10000.0,

"holdingValueChangeAmount" : 10000.0,

"asOfDateTime" : "2016-04-15",

"assetClass" : "",

"holdingQuantity" : 10000.0,

"holdingPriceAmount" : 10000.0,

"totalValueAmount" : 10000.0,

"holdingValueChangePercentage" : 10000.0,

"holdingCategory" : "",

"currencyCode" : ""

} ],

"displayAccountNumber" : "",

"asOfDateTime" : "2016-04-15"

},

"savingsAccount" : {

"lastStatementDate" : "2015-06-25",

"productCode" : "SA\_301",

"totalInterestAmount" : 1212.12,

"currentBalance" : 10000.25,

"holdAmount" : 12900.12,

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "EUR",

"openingDate" : "2007-12-01",

"productName" : "Personal Savings Account",

"availableBalance" : 15000.25,

"floatAmount" : 250000.0

},

"checkingAccount" : {

"currentBalance" : 10000.25,

"overdraftLimit" : 15000.25,

"availableOverdraftLimit" : 13200.25,

"productName" : "Checking Account",

"availableBalance" : 11000.25,

"lastStatementDate" : "2015-06-25",

"productCode" : "CA\_300",

"totalInterestAmount" : 1212.12,

"holdAmount" : 12900.12,

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "EUR",

"openingDate" : "2007-12-01",

"floatAmount" : 25000.25

},

"creditCardAccount" : {

"minimumDueAmount" : 1500.25,

"availableCredit" : 3750.5,

"cashAdvanceLimit" : 15000.25,

"creditUsed" : 3750.5,

"productName" : "Citibank Premium Miles Visa",

"cashAdvanceAvailableAmount" : 15000.25,

"paymentDueDate" : "2015-06-12",

"lastStatementDate" : "2015-06-25",

"productCode" : "0071\_VC301",

"lastStatementBalance" : 15000.25,

"lastPaymentDate" : "2015-06-12",

"creditLimit" : 50000.25,

"lastPaymentAmount" : 1500.25,

"displayAccountNumber" : "XXXXX2391",

"currencyCode" : "EUR",

"outstandingBalance" : 10000.25

}

}

**Response Schema:**

****

1. **Transaction History**

All transactions for an account

### [GET](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions) [/v2/accounts/{accountId}/transactions](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions)

Returns an array of transactions for the specified account. For example, the transactions for a credit card account will be returned in a creditCardAccountTransactions array object.   
Currently, the API supports cards, checking, savings and brokerage accounts.

A set of search criteria supported are:

* Search by merchant
* Search by status
* Search by From and To date

Request Parameters:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| acctId | Yes | Path (hashed) | string | Temporary unique identifier associated with an account |
| transactionStatus | No | Query | string | The status of the transactions to be retrieved. Valid values are either POSTED, PENDING or ALL |
| merchantName | No | Query | string | Filter by merchant name |
| nextStartIndex | No | Query | string | In some cases there is more data than what can be returned in a single response. If there is additional data available a nextStartIndex will be returned. Pass the nextStartIndex in your next request to retrieve the next set of data |
| requestSize | No | Query | string | Requested number of transactions. Default 100. |
| transactionFromDate | No | Query | string | Starting range for transaction date in ISO 8601 date format 'YYYY-MM-DD' |
| transactionToDate | No | Query | string | End range for transaction date in ISO 8601 date format 'YYYY-MM-DD'. If transactionToDate is present, transactionFromDate is required. |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

Error Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 400 | Error | invalidRequest | Missing or invalid request parameters |
| 400 | Error | invalidTransactionFromDate | The transactionFromDate provided is invalid. The date format is YYYYMMDD. |
| 400 | Error | invalidTransactionToDate | The transactionToDate provided is invalid. The date format is YYYYMMDD. |
| 400 | Error | transactionFromToDateComboInvalid | The transactionFromDate value is greater (later) than the transactionToDate value. |
| 401 | Error | unAuthorized | Authorization credentials are missing or invalid |
| 404 | Error | resourceNotFound | Resource not found |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |
|  |  |  |  |

**Response Schema:**



Sample Response:

Type: Type: application/json

{

"checkingAccountTransactions" : [ {

"accountId" : "c09d172a-d244-4324-bba9-b03b8aa17a76",

"checkNumber" : 101,

"achAndDebitCardTransactionIndicator" : 23,

"transactionDescriptionCode" : "23",

"transactionAmount" : 12.22,

"transactionDescriptionExtension" : "More information about the transaction",

"transactionPostingDate" : "2016-04-15",

"displayAccountNumber" : "XXXXX2391",

"transactionDescription" : "Jets Pizza",

"transactionDate" : "2016-04-15",

"currencyCode" : "USD",

"transactionInitiationDate" : "2016-04-15"

} ],

"creditCardAccountTransactions" : [ {

"transactionStatus" : "BILLED",

"transactionPostingDate" : "2016-04-15",

"foreignExchangeRate" : 1.55,

"transactionDescription" : "Transaction description",

"merchantDescription" : "DRY CLEANERS",

"transactionCode" : "Transaction code",

"foreignTransactionAmount" : 50.55,

"transactionDate" : "2016-04-15",

"transactionReferenceId" : "4GWHQSB7",

"merchantName" : "KONA CLEANERS A31F A311A MESA CA",

"transactionType" : "PAYMENT",

"accountId" : "c09d172a-d244-4324-bba9-b03b8aa17a76",

"transactionAmount" : 50.55,

"foreignCurrencyCode" : "USD",

"displayAccountNumber" : "XXXXX2391",

"merchantCategory" : "7216",

"currencyCode" : "USD",

"runningBalanceAmount" : 50.55

} ],

"nextStartIndex" : "11",

"brokerageAccountTransactions" : [ {

"shortActivityDescription" : "",

"symbol" : "",

"tradeNumber" : "",

"brokerageAccountTransactionType" : { },

"cusip" : "",

"tradeOrderId" : 23,

"buySellIndicator" : { },

"assetClass" : { },

"cancelCode" : "",

"principalAmount" : 10000.0,

"tradeOrderDuration" : { },

"duplicateCheck" : "",

"tradeOrderDate" : "2016-04-15",

"price" : 10000.0,

"longActivityDescription" : "",

"quantity" : 10000.0,

"netAmount" : 10000.0,

"transactionDateTime" : "2016-04-15",

"transactionStatus" : { },

"accountType" : "",

"settlementDate" : "2016-04-15",

"transactionCode" : "",

"correctionCode" : "",

"transactionId" : 23,

"assetType" : "",

"timeStamp" : "2016-04-15",

"transactionType" : 23,

"accountId" : "c09d172a-d244-4324-bba9-b03b8aa17a76",

"keyCode" : 23,

"tradeOrderType" : { },

"displayAccountNumber" : "XXXXX2391",

"tradeTransaction" : "",

"currencyCode" : "USD"

} ],

"savingsAccountTransactions" : [ {

"accountId" : "c09d172a-d244-4324-bba9-b03b8aa17a76",

"checkNumber" : 101,

"achAndDebitCardTransactionIndicator" : 23,

"transactionDescriptionCode" : "23",

"transactionAmount" : 12.22,

"transactionDescriptionExtension" : "More information about the transaction",

"transactionPostingDate" : "2016-04-15",

"displayAccountNumber" : "XXXXX2391",

"transactionDescription" : "Jets Pizza",

"transactionDate" : "2016-04-15",

"currencyCode" : "USD",

"transactionInitiationDate" : "2016-04-15"

} ]

}

1. **ATM and Branch locations**

The 'ATM and Branch locations' use case allows any end user to view the geo-location of a set of places associated with Banamex.

1. I want to get all the Banamex ATMs only located nearby an address(addressLine1 is mandatory and addressLine2 is optional) and radius passed as an mandatory input
2. I want to get all the Banamex Branches only located nearby an address and radius passed as an input
3. I want to get all the Banamex ATMs and Banamex Branches located nearby an address and radius passed as an input
4. At one call the resultset size can be less than or equal to 20. For more results I need to be provided with pagination option(by passing nextStartIndex)
5. All the search has to be performed within Mexico Country limit, If the address is provided outside mexico, send custom error with appropriate message.
6. On a valid address or radius if there are no results found, We should send empty resultset with appropriate message.
7. The radius of search should be maximum 50000 meters.
8. In the response below are the items minimum expected to see ,
   1. Type – Contains the value “atm” or “bank”
   2. Name – Should contain Banamex
   3. Address – Address of the ATM or Bank
   4. Place id – Unique Id for the place received from google places api
   5. Longitude – Longitude of the ATM/Branch
   6. Latitude – Latitude of the ATM/Branch
   7. Photo URL – Photo reference url of the ATM/Branch
   8. Open now – Boolean value to check the ATM/Branch is open now?
   9. Opening Hours – Opening Hours of the ATM/Branch
   10. Telephone number – Phone number of the ATM/Branch
   11. Bilingual – Boolean value to check whether ATM is Bilingual
   12. Distance – Distance details between ATM/Branch and search location.
9. Handel all error conditions with appropriate error codes and error message.
10. Handle all success scenarios with appropriate Status message.

### [GET](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions) [/v1/banamex/atms/nearby](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions)

### [GET](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions) [/v1/banamex/branches/nearby](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions)

### [GET](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions) [/v2/banamex/atmsandbranches/nearby](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions)

Request Parameters:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| addressLine1 | Yes | Query | string | AddressLine1 corresponding to location which should form the search center |
| addressLine2 | No | Query | String | AddressLine2 corresponding to location which should form the search center |
| radius | Yes | Query | string | Radius in meters within which located ATMs are to be returned |
| nextStartIndex | No | Query | string | In some cases there is more data than what can be returned in a single response. If there is additional data available a nextStartIndex will be returned. Pass the nextStartIndex in your next request to retrieve the next set of data |
| requestSize | No | Query | string | Requested number of transactions. Default 100. |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

Error Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 400 | Error | invalidRequest | Missing or invalid request parameters |
| 400 | Error | invalidAddress | Address provides fails geocoding |
| 400 | Error | invalidRadius | Search radius is invalid |
| 401 | Error | unAuthorized | Authorization credentials are missing or invalid |
| 404 | Error | resourceNotFound | Resource not found |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

Response Schema:



Sample Response:

Type: application/json

[

{

"type": "bank",

"name": "Banamex Bosques De Las Lomas",

"address": "Bosques de la Reforma 187",

"place\_id": "ChIJ0S1aGD0B0oUR2E4mOGoSlG4",

"longitude": "-99.2584681",

"latitude": "19.3932014",

"photo\_URL": "https://maps.googleapis.com/maps/api/place/photo?maxwidth=100&photoreference=,

"open\_now": false,

"opening\_hours": "",

"telephone\_number": "",

"nextStartIndex": "CpQCDAEAAOJ4IHqK8a8ntH6wyj4tSgA-l2hc9ahYV2SLg6Xotwdcn3M38vbZ- "

}, {

"type": "bank",

"name": "Banamex Bosques De Las Lomas",

"address": "Bosques de la Reforma 187",

"place\_id": "ChIJ0S1aGD0B0oUR2E4mOGoSlG4",

"longitude": "-99.2584681",

"latitude": "19.3932014",

"photo\_URL": "https://maps.googleapis.com/maps/api/place/photo?maxwidth=100&photoreference=CmRYAAAAgRX,

"open\_now": false,

"opening\_hours": "",

"telephone\_number": "",

"nextStartIndex": "CpQCDAEAAOJ4IHqK8a8ntH6wyj4tSgA-l2hc9ahYV2SLg6Xotwdcn3M38vbZ- "

}

]

1. **Pay with Points**

The 'Pay with Points' use case allows an authenticated partner to initiate a transaction to be funded by Citi Rewards Points for a specific card.

The general flow for the Pay with Points use case is

* Customer presents payment instrument (card) to partner/merchant
* Partner fetches current value of points associated with card
* Customer approves 'pay with points'
* Partner submits transaction using 'points' payment instrument (a separate card/account)

Pay with Points resources must be called in a specific order:

1) Check rewards eligibility

2) Update rewards program enrollment

3) Create link code

4) Retrieve rewards account balance

## Check rewards eligibility

### [GET](https://sandbox.developerhub.citi.com/api#!/AccountsV2/get_v2_accounts_accountId_transactions) /v1/rewards/{cloakedCreditCardNumber}/eligibility

Checks if the specified credit card is eligible for the Pay with Points program. Credit cards should be hashed using the [SHA-512 algorithm](https://en.wikipedia.org/wiki/Secure_Hash_Algorithm). A value of 'E' will be returned if the cardmember's card is eligible for Pay with Points but the cardmember has not enrolled in Pay with Points. A value of 'Y' will be returned if the cardmember has enrolled in Pay with Points. A value of 'N' will be returned if the cardmember has actively chosen not to enroll in Pay with Points, or the cardmember's card is not eligible for Pay with Points

Sample Curl Request:

curl -X GET -H "client\_id:clientId\_example" -H "Accept:accept\_example" -H "uuid:uuid\_example" -H "Content-Type:contentType\_example" -H "countryCode:countryCode\_example" -H "Authorization:authorization\_example" -H "Accept-Language:acceptLanguage\_example" "https://sandbox.apihub.citi.com/gcb/api/rewards/{cloakedCreditCardNumber}/eligibility?rewardProgram=rewardProgram\_example&merchantCode=merchantCode\_example"

Request Parameters:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| cloakedCreditCardNumber | Yes | Path | string | Hashed credit card number (SHA-512) |
| rewardProgram | Yes | Query | string | The name of the rewards program |
| merchantCode | yes | Query | string | The merchant code |
| countryCode | Yes | Header | string | 2 character ISO country code |
| businessCode | No | Header | String | 3 character business code |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

Error Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 400 | Error | invalidSourceCode | Source/Merchant code invalid |
| 400 | Error | invalidMerchantAccess | Invalid merchant access |
| 400 | Error | unableToProcessRequest | Unable to process request |
| 400 | invalid | invalidAccess | Conversation id cannot be null |
| 400 | invalid | conversationIdLengthExceeded | Conversation id exceeds max char |
| 400 | invalid | merchantCodeBlank | Merchant code is blank |
| 400 | invalid | merchantCodeLengthExceeded | Merchant code exceeds max char |
| 400 | invalid | accountIdBlank | Account number is blank |
| 400 | invalid | countryCodeBlank | Invalid access |
| 401 | Error | invalidAccess | Resource not found |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

Response Schema:

**{}IsEligible**

**eligibilityIndicator**stringA value of 'E' will be returned if the member's card is eligible for Pay with Points and the member has not already opted in (enrolled) to Pay with Points. A value of 'Y' will be returned if a member has already opted in (enrolled) to Pay with Points. A value of 'N' will be returned if the member has actively chosen not to enroll in Pay with Points or the member's card is not eligible for Pay with Points

Sample Response:

Example:Type: application/json

{

"eligibilityIndicator" : "E"

}

## Update Pay with Points enrollment

### [PUT](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/put_v1_rewards_enablement) [/v1/rewards/enablement](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/put_v1_rewards_enablement)

Enrolls or unenrolls a Citi credit card in the Pay with Points Program.

Request Parameters:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| enablementRequest | Yes | Body | application/json | Enablement API request elements |
| countryCode | Yes | Header | string | 2 character ISO country code |
| businessCode | No | Header | String | 3 character business code |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

Response Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 204 | Success |  |  |
| 400 | Error | invalidSourceCode | Source/Merchant code invalid |
| 400 | Error | invalidMerchantAccess | Invalid merchant access |
| 400 | Error | unableToProcessRequest | Unable to process request |
| 400 | invalid | invalidAccess | Conversation id cannot be null |
| 400 | invalid | conversationIdLengthExceeded | Conversation id exceeds max char |
| 400 | invalid | merchantCodeBlank | Merchant code is blank |
| 400 | invalid | merchantCodeLengthExceeded | Merchant code exceeds max char |
| 400 | invalid | accountIdBlank | Account number is blank |
| 400 | invalid | countryCodeBlank | Invalid access |
| 401 | Error | invalidAccess | Resource not found |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

Request Schema:

#### Request Body Schema

**{}EnablementRequest**

**rewardProgram**stringThe name of the rewards program (Example: THANKU)

**merchantCode**stringMerchant code

**enableProgramIndicator**booleanSet to 'false' to disable (opt out of) a rewards program. Set to 'true' to enable (opt in to) a rewards program

**cloakedCreditCardNumber**string(optional)hashed credit card (SHA512). **Either cloakedCreditCardNumber or linkCode MUST be in the request.**

**rewardLinkCode**string(optional)A unique link Code that, when available, should be sent in this request in place of the cloakedCreditCardNumber. **Either cloakedCreditCardNumber or linkCode MUST be in the request.**

## Create link code

### [POST](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/post_v1_rewards_linkage) [/v1/rewards/linkage](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/post_v1_rewards_linkage)

Creates a unique code that links the eligible credit card and your app, which eliminates the need to store Citi credit card numbers on your app or server. The code can be used instead of a hashed credit card number for all API resources, including retrieve point balance and redeem reward points.

Request Parameters:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| linkageRequest | Yes | Body | application/json | Card Information |
| countryCode | Yes | Header | string | 2 character ISO country code |
| businessCode | No | Header | String | 3 character business code |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

Response Codes:

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 204 | Success |  |  |
| 400 | Error | invalidSourceCode | Source/Merchant code invalid |
| 400 | Error | invalidMerchantAccess | Invalid merchant access |
| 400 | Error | invalidAccount | Invalid account |
| 400 | Error | inputLengthExceeded | Input string exceeds allowable length |
| 400 | Error | errorCreatingLink | Pwp create link failed |
| 400 | Error | invalidMemberId | Pwp create link failed |
| 400 | Error | invalidPostalCode | Pwp create link failed |
| 400 | Error | unableToProcessRequest | Unable to process request |
| 400 | invalid | invalidAccess | Conversation id cannot be null |
| 400 | Invalid | conversationIdLengthExceeded | Conversation id exceeds max char |
| 400 | Invalid | merchantCodeBlank | Merchant code is blank |
| 400 | Invalid | merchantCodeLengthExceeded | Merchant code exceeds max char |
| 400 | Invalid | accountIdBlank | Account number is blank |
| 400 | Invalid | countryCodeBlank | Country code is blank |
| 401 | Invalid | invalidAccess | Invalid access |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

#### Response Schema

**{}LinkStatus**

**rewardLinkCode**stringA unique link Code that, when available, should be sent in Rewards API requests in place of the cloakedCreditCardNumber.

#### Request Body Schema

**{}LinkageRequest**

**rewardProgram**stringThe name of the rewards program (Example: THANKU)

**merchantCode**stringMerchant code

**cloakedCreditCardNumber**stringhashed credit card (SHA512)

**billingZipCode**string(optional)billing zip code

## Retrieve rewards balance

### [GET](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/get_v1_rewards_pointBalance) [/v1/rewards/pointBalance](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/get_v1_rewards_pointBalance)

Returns the rewards account balance for the specified rewardLinkCode or hashed credit card number. It also returns conversion rates and increment limits, as well as maximum and minimum redeemable points.

**Request Parameters:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| cloakedCreditCardNumber | Yes | Query | string | Hashed credit card number (SHA-512). <b>Either cloakedCreditCardNumber or linkCode MUST be in the request.</b> |
| countryCode | Yes | Header | string | 2 character ISO country code |
| rewardProgram | Yes | Query | String | The name of the rewards program (Example: THANKU) |
| rewardLinkCode | Yes | Query | String | A unique link Code that, when available, should be sent in this request in place of the cloakedCreditCardNumber. <b>Either cloakedCreditCardNumber or linkCode MUST be in the request.</b> |
| merchantCode | Yes | Query | String | The merchant code |
| businessCode | No | Header | String | 3 character business code |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

**Response Codes:**

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 204 | Success |  |  |
| 400 | Error | invalidSourceCode | Source/Merchant code invalid |
| 400 | Error | invalidMerchantAccess | Invalid merchant access |
| 400 | Error | errorGettingMemberPointBalance | Failed to get member point balance |
| 400 | Error | tooManyConversionRates | Too many conversion rate found |
| 400 | Error | inputLengthExceeded | Input string exceeds allowable length |
| 400 | Error | unableToProcessRequest | Unable to process request |
| 400 | Invalid | invalidAccess | Conversation id cannot be null |
| 400 | Invalid | conversationIdLengthExceeded | Conversation id exceeds max charest |
| 400 | invalid | merchantCodeBlank | Merchant code is blank |
| 400 | Invalid | merchantCodeLengthExceeded | Merchant code exceeds max char |
| 400 | Invalid | linkCodeAndAccountIdBlank | Account number is blank |
| 400 | Invalid | countryCodeBlank | Country code is blank |
| 401 | Invalid | invalidAccess | Invalid access |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

#### Response Schema

**{}pointBalance**

**isRedemptionEligible**booleanReflects a member's ability to utilize points for redemption.

**availablePointBalance**integer(optional)Number of Rewards points available.

**programConversionRate**number(optional)Points/dollar conversion rate for the rewards program

**localCurrencyCode**string(optional)ISO Currency Code

**redemptionPointIncrement**integer(optional)The increment at which available points can be redeemed.

**maximumPointsToRedeem**integer(optional)The maximum number of points that can be used towards a purchase.

**minimumPointsToRedeem**integer(optional)The minimum numb

**Redeem reward points**

[POST](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/post_v1_rewards_redemption) [/v1/rewards/redemption](https://sandbox.developerhub.citi.com/api#!/Rewards_APIs/post_v1_rewards_redemption)

Redeems a specified points amount to cover all or part of a cardmember's purchase. Redemptions are processed as statement credits on the cardmember's account.

**Request Parameters:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Required** | **Place** | **Type** | **Description** |
| redemptionRequest | Yes | Body | application/json |  |
| countryCode | Yes | Header | string | 2 character ISO country code |
| businessCode | No | Header | String | 3 character business code |
| Authorization | Yes | Header | string | OAuth Header |
| uuid | Yes | Header | Striing | A 128 bit universally unique identifier (UUID) that you generate for every request and is used for tracking. It is recommended to use the output from Java UUID class or an equivalent |
| Accept | Yes | Header | string | Content-Types that are acceptable for the response. |
| client\_id | Yes | Header | string | The client\_id generated during consumer onboarding |

**Response Codes:**

|  |  |  |  |
| --- | --- | --- | --- |
| HTTP Response Code | Type | Message | Description |
| 204 | Success |  |  |
| 400 | Error | invalidSourceCode | Source/Merchant code invalid |
| 400 | Error | agentNotActive | Agent not active |
| 400 | Error | conversionRateNotFound | No conversion rate found |
| 400 | Error | errorGeneratingOrderId | Order Id is not generated |
| 400 | Error | errorGettingAccountOrderCount | Failed to get account order count |
| 400 | Error | errorGettingMemberPointBalance | Failed to get member point balance |
| 400 | Error | errorGettingMerchantDetails | Failed to get merchant details |
| 400 | Error | invalidAccount | Invalid account |
| 400 | Error | invalidAgent | Invalid Agent |
| 400 | Error | invalidIncrementValue | Invalid points increment value |
| 400 | Error | invalidMemberId | Invalid memberid |
| 400 | Error | itemNotFound | Item not found |
| 400 | Error | linkCodeAndAccountIdBlank | Both link code and account number is blank |
| 400 | Error | maxTransactionLimitExceeded | Maximum points for the transaction is invalid |
| 400 | Error | merchantNotActive | Merchant is not active |
| 400 | Error | minTransactionLimitNotMet | Minimum points for the transaction is invalid |
| 400 | Error | onlyCashOptionAvailable | Only cash option available |
| 400 | Error | orderFailed | Your order failed |
| 400 | Error | tooManyConversionRates | Too many conversion rate found |
| 400 | Error | unableToProcessRequest | Unable to process request |
| 400 | Invalid | conversationIdLengthExceeded | Conversation id exceeds max char |
| 400 | Invalid | countryCodeBlank | Country code is blank |
| 400 | Invalid | inputLengthExceeded | Input string exceeds allowable length |
| 400 | Invalid | invalidAccess | Conversation id cannot be null |
| 400 | Invalid | merchantCodeBlank | Merchant code is blank |
| 400 | Invalid | missingRequiredFields | Missing required field(s) |
| 401 | Error | invalidAccess | Invalid access |
| 500 | fatal | serverUnavailable | The request failed due to an internal error |

#### Response Schema

**{}RedemptionOrderSummary**

**orderID**stringThe unique order id

**availablePointBalance**integer(optional)The new points balance

#### Request Body Schema

**{}RedemptionRequest**

**rewardProgram**stringThe name of the rewards program (Example: THANKU)

**cloakedCreditCardNumber**string(optional)hashed credit card (SHA512)

**rewardLinkCode**string(optional)A unique link Code that, when available, should be sent in this request in place of the cloakedCreditCardNumber. **Either cloakedCreditCardNumber or linkCode MUST be in the request.**

**merchantCode**stringMerchant code

**transactionReferenceNumber**stringA unique client value for this transaction, used for tracking this business transaction through all of downstream requests.

**redemptionOrder**RedemptionOrder

**{}RedemptionOrder**

**transactionAmount**numberThe total transaction amount

**pointsToRedeem**integerThe number of points to redeem towards the transaction amount

**transactionDescription**string(optional)The description of the transaction