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Description automatically generated

**Mercury API Specification Processor –**

**List All Banks Request**

**Inbound From Client**

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# Document Purpose

The purpose of this document is to provide a detailed specification of the **List All Banks Request** call to be received by the **Mercury Processor API** from the **Client (Mercury Client)** as part of the **List All Banks** Process.

This document will focus on the **Inbound Message** from the **Mercury Client** to the **Mercury Processor API** and will indicate the processing to be completed before responding to the **List All Banks** message to be sent to the **Mercury Client**.

# Process Flow

A screenshot of a computer

Description automatically generated

The **List All Banks** process flow indicated above is initiated on the **Mercury client** and the request will be processed from the **Mercury Client** to the **Mercury Processor API**. After decryption and validation of the message by the **Mercury Processor API** the **List All Banks Request** will be processed the **Mercury Processor API** will respond to the **Mercury Client**. This will be a **synchronous** message.

# List All Banks Request Message from Client

## Overview

This **List All Banks Request API** is invoked during the processing of the List All Banks Request received from the **Mercury Client**.

## Process Flow

A screenshot of a computer

Description automatically generatedWhen receiving the **List All Banks Request** message from the **Mercury Client** for processing, the **Mercury Processor API** need validate, accept and respond to the **Mercury Client** with the list of all the Banks on the Mercury System along with the associated data.

As part of the basic API Processing the following steps need to be followed:

|  |  |
| --- | --- |
| **STEP** | **DESCRIPTION** |
| 1. | Store and Log the Message Request Details in the Message Request Detail table for auditing purposes.  **Table Name:** mrd\_Message\_Request\_Detail |
| 2. | Initialize the **List All Banks Request (In From Client)** Message Class with the details received in the API Call from the **Mercury Client**.  Message Class: **procIFCListAllBanksRequest** |
| 3. | Validate the **Secure Token** contained in the Message against the content of the **List All Banks Request** Message received from the **Mercury Client**.  Error Response Code: **ECL8060006** |
| 4. | Complete the following basic validations on the Message Class   * **Field Types**   Validate if the values received in the message are of the correct type as specified by the Message Class Structure.  Error Response Code: **ECL8060001**   * **Field Lengths**   Validate if the values received conform to the field lengths specified by the Message Class Structure.  Error Response Code: **ECL8060002**   * **Required Fields**   Validate if all the required fields have been received as specified by the Message Class Structure.  Error Response Code: **ECL8060004**   * **Duplicates**   Validate that the message received is not a duplicate. Base validation on the following fields:   * + Transaction Identifier   + Message Request Type   + Direction   + Subscriber ID   + HTTP Response Code (200 cannot already exist)   Error Response Code: **ECL8060021** |
| 5. | Complete the following custom validations on the Message Class   * **Subscriber ID**   Validate if the Subscriber ID exist on the Client API Configuration Table.  Table Name: **cac\_Client\_API\_Configuration**  Error Response Code: **ECL8050022** |
| 6. | If any of the validations have failed, respond to the **Mercury Client** with the appropriate **Error Response Code** and description of the error detected.  Use the[**List All Banks Response**](#Response) structure.  The details of the response to the **Mercury Client** should also be logged against the Entry that was added to the Message Request Detail table. |
| 7. | If all the validations have passed, continue with the retrieval of the Bank Details (from the Bank Details Lookup Table) and the construction of the **Response** to the **List All Banks Request**.  **NOTE:** Construct the appropriate Message Identifier value to be added to the Message Request Detail table (for reference) Example: 20231010\_SASF\_BKLST\_910000000000001 |
| 8. | The details of the response to the **Mercury Client** should also be logged against the Entry that was added to the Message Request Detail table. |

## Message Requirements

|  |  |
| --- | --- |
| **DEVELOPMENT** | |
| **ENDPOINT** | [https://payments-test.azurefd.net/api/beapiGlobalMercuryClientProcessor](https://payments-test.azurefd.net/api/beapirapidpaymentparticipant) |
| **HEADERS** | x-beapiglobalmercuryclientprocessor-api-version  **1.0.0-dev**  Ocp-Apim-Subscription-Key  **TBC**  environment  **LIVE**  subscriberID  **TBC** |

|  |  |
| --- | --- |
| **STAGING** | |
| **ENDPOINT** | [https://payments-test.azurefd.net/api/beapiGlobalMercuryClientProcessor](https://payments-test.azurefd.net/api/beapirapidpaymentparticipant) |
| **HEADERS** | x-beapiglobalmercuryclientprocessor-api-version  **1.0.0-staging**  Ocp-Apim-Subscription-Key  **TBC**  environment  **LIVE**  subscriberID  **TBC** |

|  |  |
| --- | --- |
| **PRODUCTION** | |
| **ENDPOINT** | https://dt-apim-zan-prod-paymenthub.directtransact.co.za/api/beapiGlobalMercuryClientProcessor |
| **HEADERS** | x-beapiglobalmercuryclientprocessor-api-version  **1.0.0**  Ocp-Apim-Subscription-Key  **TBC**  environment  **LIVE**  subscriberID  **TBC** |

## Request

|  |  |
| --- | --- |
| **REQUEST DETAIL** | |
| **ENDPOINT** | {Processor Endpoint}/procIFCListAllBanksRequest |
| **METHOD** | POST |

|  |  |
| --- | --- |
| **REQUEST BODY** | |
| **CLASS NAME** | clsIFCListAllBanksRequest |
| **FIELD** | **DESCRIPTION** |
| secureToken | **Required**  Unique encrypted value constructed from the field values contained in the message  **Format:**  String |
| subscriberID | **Required**  Unique Subscriber ID that is issued by the Payment Hub to uniquely identify the source from where the call is received.  **Format:**  String  **Example:**  902 |
| creationDateTime | **Required**  Creation Date Time of the request from the Payer Participant API.  **Format:** String  yyyy-MM-ddThh:mm:ss:SSSSSS  **Example:**  2021-11-17T11:27:53.015708 |
| transactionIdentifier | **Required**  Unique Identification value assigned by the Mercury Client, to unambiguously identify the request on the Mercury Client System. This identification is used to link the request received from the Mercury Client to the Request that is to be processed by the Mercury Client Processor. This value will also be used to ensure the request is unique and will be used for duplicate validation.  **Format:**  String  **Example:**  54000000000000001 |

## Response

API responses will return HTTP status code in the 2xx range. The response body will contain the response of the API as described in this specification.

NOTE: The **List All Banks Response** will be received for all HTTP Status Codes, but for a Results Code that does not indicates success, the BankDetails Array will be empty and thus not included in the response.

|  |  |
| --- | --- |
| **RESPONSE** | |
| **CLASS NAME** | clsOTCListAllBanksResponse |
| **FIELD** | **DESCRIPTION** |
| messageIdentification | **Required**  Unique Message Identification for the Message Request for which this response structure is created.  **Format:**  String: alphabetic, numeric, and underscores (\_), e.g. spaces are not allowed; max length 35 characters.  YYYYMMDD\_XXXX\_TTTTT\_SSS999999999999  **YYYYMMDD** - Date the message is created  **XXXX –** First 4 characters of the senders **BICCode**  **TTTTT** – Service Code  **SSS** – Unique Subscriber ID  **999999999999** – 12-digit sequence number (for the current day – reset after day)  **Example:**  20231010\_SASF\_BKLST\_910000000000001 |
| messageResultDetail | **Required**  A [**Message Result**](#MessageResult) structure. |
| bankDetails | **Conditional**  Note that this only be populated if the resultCode in the [**Message Result**](#MessageResult)structure indicates a success **(ECL8060000**).  An array of [**Bank Detail**](#BankDetail) structures. |

## Response Codes

Internal Response Codes available for the Message Request Response are listed below. The Response Codes will have a format of **ECLABBCCCC** and is compiled as follows:

**ECL** Fixed value for the Response Code Prefix

**A** Service Indicator where **8** will indicate the **Processor API** as the origin of the response.

**BB** Message Type Indicator (2 digits) where **06** will indicate the **List All Banks Request** Message Type.

**CCCC** Unique value per Response indicating a unique Response.

|  |  |  |
| --- | --- | --- |
| **RESPONSE CODES** | | |
| **HTTP STATUS** | **RESPONSE CODE** | **RESPONSE DESCRIPTION** |
| 200 | ECL8060000 | SUCCESS |
| 200 | ECL8060001 | ERROR\_INVALID\_FIELD\_TYPE |
| 200 | ECL8060002 | ERROR\_INVALID\_FIELD\_LENGTH |
| 200 | ECL8060003 | ERROR\_INVALID\_FIELD\_VALUE |
| 200 | ECL8060004 | ERROR\_REQUIRED\_DATA\_MISSING |
| 200 | ECL8060005 | ERROR\_INTERNAL\_SYSTEM\_ERROR |
| 200 | ECL8060006 | ERROR\_CRYPTOGRAPHY |
| 200 | ECL8060007 | ERROR\_INVALID\_SOURCE\_PARTICIPANT |
| 200 | ECL8060021 | ERROR\_DUPLICATE\_TRANSACTION |
| 200 | ECL8060022 | ERROR\_INVALID\_SUBSCRIBER\_ID |

## Sample Request

{

    "secureToken": "string",

    "subscriberID": "string",

    "creationDateTime": "string",

    "transactionIdentifier": "string"

}

## Sample Request Message

{

    "secureToken": "07ac3cf0add872d8af56e2ac62213b9add6a4fb61977e1fe109c54dda67c1c48",

    "subscriberID": "910",

    "creationDateTime": "2023-10-03T11:27:53.015708",

    "transactionIdentifier": "1A66C164-0EDA-4170-8D13-FBF9E495B680"

}

## Sample Response

{

    "messageRequestID": "string",

    "messageResultDetail": {

        "resultCode": "string",

        "resultDescription": "string",

        "resultMessage": "string",

        "transactionIdentifier": "string",

        "processingTransactionId": "string"

    },

    "bankDetails": [

        {

            "bankId": "string",

            "bankName": "string",

            "bankDefaultBranch": "string",

            "bankBICFI": "string",

            "bankActive": true

        },

{

            "bankId": "string",

            "bankName": "string",

            "bankDefaultBranch": "string",

            "bankBICFI": "string",

            "bankActive": true

        },

        {

            "bankId": "string",

            "bankName": "string",

            "bankDefaultBranch": "string",

            "bankBICFI": "string",

            "bankActive": true

        }

    ]

}

## Sample Request Message Success

{

    "messageRequestID": "20231010\_SASF\_BKLST\_910000000000001",

    "messageResultDetail": {

        "resultCode": "ECL8060000",

        "resultDescription": "SUCCESS",

        "resultMessage": "",

        "transactionIdentifier": "1A66C164-0EDA-4170-8D13-FBF9E495B680",

        "processingTransactionId": "CAE4F68F-BFB1-4FB2-B2B0-4AA94096142E"

    },

    "bankDetails": [

        {

            "bankId": "39",

            "bankName": "STANDARD BANK SOUTH AFRICA",

            "bankDefaultBranch": "51001",

            "bankBICFI": "SBZAZAJ0",

            "bankActive": true

        },

  {

            "bankId": "69",

            "bankName": "BIDVEST BANK",

            "bankDefaultBranch": "462005",

            "bankBICFI": "BIDBZAJ0",

            "bankActive": true

        },

        {

            "bankId": "48",

            "bankName": "CAPITEC BANK CPC",

            "bankDefaultBranch": "470010",

            "bankBICFI": "CABLZAJ0",

            "bankActive": true

        }

    ]

}

## Sample Request Message Error

{

    "messageRequestID": "20231010\_SASF\_BKLST\_910000000000001",

    "messageResultDetail": {

        "resultCode": "ECL8060006",

        "resultDescription": "ERROR\_CRYPTOGRAPHY",

        "resultMessage": "Invalid Secure Token",

        "transactionIdentifier": "1A66C164-0EDA-4170-8D13-FBF9E495B680",

        "processingTransactionId": "CAE4F68F-BFB1-4FB2-B2B0-4AA94096142E"

    }

}

# Embedded Participant Message Structures

## Bank Detail

**Note:** This structure is only used for the List All Banks Message.

|  |  |
| --- | --- |
| **MESSAGE RESULT** | |
| **CLASS NAME** | clsProcBankDetail |
| **FIELD** | **DESCRIPTION** |
| bankId | **Required**  Unique Id assigned to the Bank by the source.  **Format:**  String  **Example:**  42 |
| bankName | **Required**  The Bank Name (to be used to display in the list when the Account details for the Transaction is captured.  **Format:**  String; max length 100 characters.  **Example:**  ABSA Bank |
| bankDefaultBranch | **Optional**  Populated if the Bank has a default Branch Code  **Format:**  String; max length 6 characters.  **Example:**  632005 |
| bankBICFI | **Required**  The BICFI Code Associated with the Bank.  **Format:**  [A-Z0-9]{4,4}[A-Z]{2,2}[A-Z0-9]{2,2}([A-Z0-9]{3,3}){0,1}  **Example:**  ABSAZAJJ |
| bankActive | **Required**  A True/False value indicating the Bank Status  **Format:**  true/false  **Example:**  true |

## Message Result

Note: This structure is used in various Message Request Structures in the Processor API to and from the Client and Host.

|  |  |
| --- | --- |
| **MESSAGE RESULT** | |
| **CLASS NAME** | clsMessageResult |
| **FIELD** | **DESCRIPTION** |
| resultCode | **Required**  Appropriate Response Code for the Message Type  **Format**: String; length 10 characters. |
| resultDescription | **Required**  Appropriate Response Description for the Message Type  **Format:** String; max length 50 characters. |
| resultMessage | **Optional**  Additional Response Detail associated with the Response Code and Description (Example: Field Name that failed the validation)  **Format:** String; max length 256 characters. |
| transactionIdentifier | **Required**  This will be the Transaction Identifier received from the Mercury Client for the List All Banks Request received by Mercury. |
| processingTransactionId | **Conditional**  Based on whether the List All Banks Request was accepted by the Mercury System that received the request, return the Mercury Transaction Id that was assigned for the request. |