**E-Collect Standard API**

Implementation Specifications

Document Version: 2.6

# Executive summary

**E-Collect** Service is used by Customers to streamline processing of their Transactions emanating from various sources. With it Bank’s Customers can provide a prompt, high quality and on-demand service mechanism to their valued Patrons. The E-Collect solution caters to their requirement of receiving on-line payments (NEFT/RTGS/IMPS transfers) for processing.

This guideline document depicts the **E-Collect Standard API** implementation for *Customer*.

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# E-Collect Standard API

The **E-Collect Standard Application is** deployed and running on Bank’s Server. Customer should build their Service as per the specifications shared with him. He then gets on-boarded by Bank’s team by setting up the Configuration as described below.

1. **App Code:** One of the 2 values can be selected

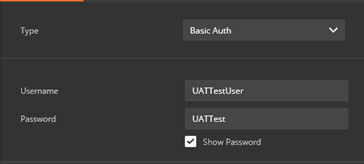
* ECSTDX01 – (XML for SOAP Service)
* ECSTDJ01 – (JSON for REST Service)

1. The **App Codes** for Customers opting for *Standard E-Collect API* will be entered using the above Screen.
2. The **App Codes** for existing E-Collect Customers will be uploaded into the ECOL\_APPS table using a DB Script.
3. Any subsequent Customers that are NOT opting for the E-Collect Standard API will be uploaded in the same manner. (i.e., using a DB Script)

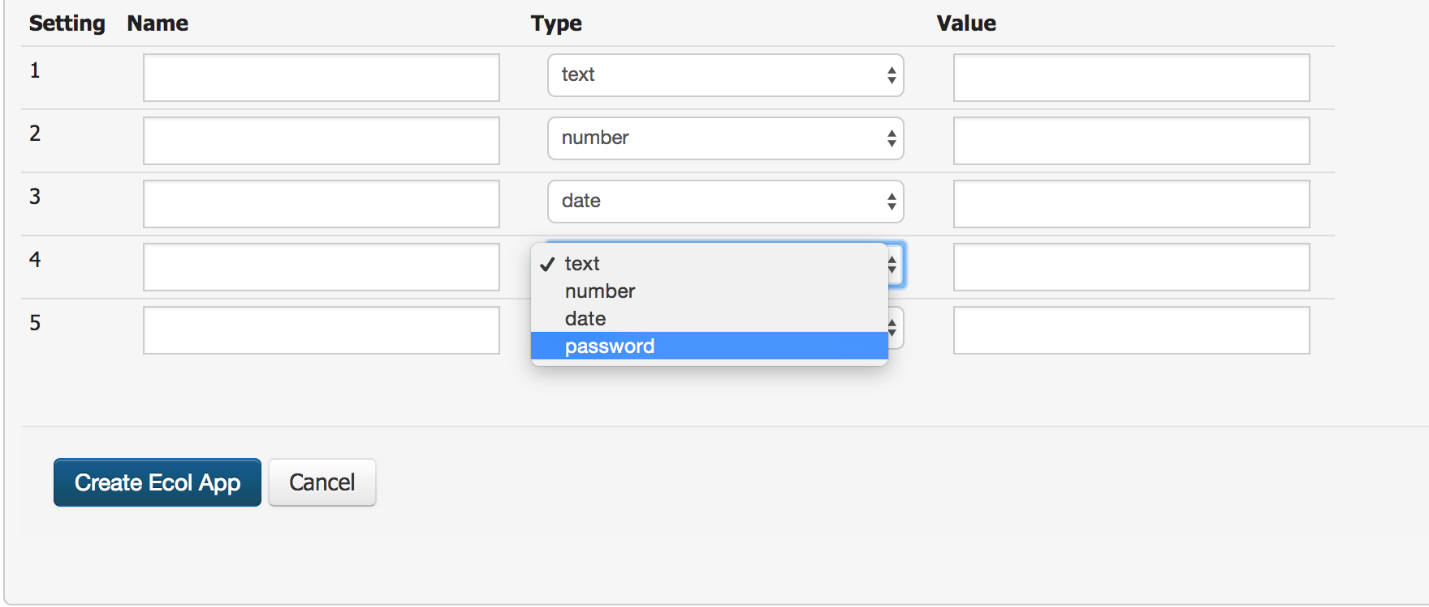
**Customer Code:** Customer ***must*** exist before setting up the E-Collect Apps.

1. **Validate URL:** In case that **Validation Method** in Customer Setup is specified as the *Web Service*, then *Validation URL* **must** be entered.
2. **Notify URL:** If the value specified in **Customer Alert-On** in the Customer Setup is Always, On Credit OR On Return, then *Notification URL* **must** be entered.
3. **HTTP Username:** *Username* as specified for Basic Authenticationby the Customer.

**HTTP Password:**  *Password* as specified for Basic Authenticationby the Customer.



1. **Panel for key-entry of UDF Settings:** Customer’s tags/parameters can be specified using this entry panel in the screen. It allows entry of up to five (5) Key-Value pairs that can be of types: Text, Number Date or Password (encrypted). These are UDF’s defined for passing *Fixed* environment *values* to the Service. They are **optional**.



1. UAT & PILOT TESTING:

* QG will share a set of *Test-Scenarios* in the form of Postman Collection.

1. IP Whitelisting: Please whitelist these IP’s for UAT and Production environments.

* UAT IP’s:

125.99.57.154

115.96.19.123

54.84.112.66

54.209.113.91

123.136.18.22

* Live IP: **123.136.18.22**

1. VALIDATE REQUESTS:

Pass

Pending

Reject

Validate

(Decision)

**Fresh or Duplicate request can be identified by checking the Transaction Logs.**

i.e., in ECOL\_TRANSACTIONS Table

* For NEFT Transactions: UTR + RMTR\_ACCOUNT\_IFSC will have multiple entries in the table.
* For Other Transactions: UTR can be checked for having multiple tuples in the table.

**Note:** If the response for *Validate* has a **credit\_account\_no** tag, then value of Cr Acct# will be taken from it, otherwise **Credit Account Number** specified in the Customer Setup will take effect.

1. NOTIFY REQUESTS:

Retry

Ok

Notify

# SECTIONS TO READ BASED ON: XML / JSON; VALIDATE / NOTIFY

|  |  |  |
| --- | --- | --- |
| **Serial#** | **Perspective** | **Section(s)** |
| 1 | XML | [3](#_XML) |
| 2 | JSON | [4](#_JSON) |
| 3 | VALIDATE | [3.1](#_VALIDATE), [4.1](#_VALIDATE_1) |
| 4 | NOTIFY | [3.2](#_NOTIFY), [4.2](#_NOTIFY_1) |
| 5 | Unit Testing | [5](#_Test-Scenarios_(Postman_Collections)) |
| 6 | Test Scenarios | [6](#_Test-Scenarios_(Postman_Collections)_2) |
| 7 | Frequently Asked Questions | [7](#_Frequently_Asked_Questions:) |
| 8 | Optional Fields & Fields Mapping **(Appendix-A)** | [8](#_APPENDIX-A:_Optional_Fields_2) |
| 9 | SCHEMA Reference  **(Appendix-B)** | [9](#_APPENDIX-B:_SCHEMA_for) |

# XML (Supports SOAP version 1.2)

## VALIDATE

### Optional Fields: Refer to the [APPENDIX](#_APPENDIX-A:_Optional_Fields_1)-A at end of this document

### Schema: Refer please to the [APPENDIX](#_APPENDIX:_SCHEMA_for_1)-B at end of this document

### Purpose: Service Validates that source of transaction is authentic.

#### The Validate request is for ensuring that money is coming into the Customer’s account from an authentic source. i.e., remitter of the money is appropriate and authentic.

### 

### 3.1.3 Sample Request:

**<validate>**

**<customer\_code>TESTX1</customerCode>**

**<bene\_account\_no>TESTX176235233</bene\_account\_no>**

**<bene\_account\_ifsc>YESB0CMSNOC</bene\_account\_ifsc>**

**<bene\_full\_name>reds</bene\_full\_name>**

**<transfer\_type>NEFT</transfer\_type>**

**<transfer\_unique\_no>7346tyeghd</transfer\_unique\_no>**

**<transfer\_timestamp>2018-03-27 17:29:17</transfer\_timestamp>**

**<transfer\_ccy>INR</transfer\_ccy>**

**<transfer\_amt>43.00</transfer\_amt>**

**<rmtr\_account\_no>87654356789</rmtr\_account\_no>**

**<rmtr\_account\_ifsc>HDFC0123456</rmtr\_account\_ifsc>**

**<rmtr\_account\_type>ca</rmtr\_account\_type>**

**<rmtr\_full\_name>refd</rmtr\_full\_name>**

**<rmtr\_address>refdx</rmtr\_address>**

**<attempt\_no> 9</attempt\_no>**

**<rmtr\_to\_bene\_note>pass</rmtr\_to\_bene\_note>**

**<custom>**

**<setting1>765435678</setting1>**

**<setting2>76543245678</setting2>**

**<setting3>6543245678</setting3>**

**<setting4>8765435678</setting4>**

**<setting5>8765435678</setting5>**

**</custom>**

**</validate>**

**Response**:

**<validateResponse>**

**<decision>pass</decision>**

**</validateResponse>**

Response Codes:

|  |  |  |
| --- | --- | --- |
| **Serial No.** | **Result** | **HTTP Status** |
| 1 | pass | 200 |
| 2 | reject | 200 |
| 3 | pending | 200 |
| 4 | Unauthorized | 401 |
| 5 | Internal Server Error | 500 |
| 6 | Bad Request | 400 |

### SAMPLE RESPONSES FOR: PASS / RETURN / FAILURE / RETRY

**'pass' response:**

**<validateResponse>**

**<decision>pass</decision>**

**</validateResponse>**

**[Note:** If the *Validate response* has a **credit\_account\_no** tag, this will take precedence over the **Credit Account Number** specified in the Customer Setup.]

**'reject' response:**

**<validateResponse>**

**<decision>reject</decision>**

**<reject\_reason>invalid request </reject\_reason>**

**</validateResponse>**

**'pending’ response:**

**<validateResponse>**

**<decision>pending</decision>**

**</validateResponse>**

## NOTIFY

### Optional Fields: Refer to the [APPENDIX](#_APPENDIX-A:_Optional_Fields_1)-A at end of this document

### Schema: Refer please to the [APPENDIX](#_APPENDIX:_SCHEMA_for_2)-B at end of this document

### Purpose: Sends Notification to the Customer per the Configuration set in the system.

#### The Notify request is for sending an appropriate Notification to the Customer when the specific event occurs. i.e., Account is Credited, Money Returned to the remitter, etc.

### Sample Request (Credit):

**<notify>**

**<customer\_code>TESTX1</customerCode>**

**<bene\_account\_no>TESTX176235233</bene\_account\_no>**

**<bene\_account\_ifsc>YESB0CMSNOC</bene\_account\_ifsc>**

**<bene\_full\_name>reds</bene\_full\_name>**

**<transfer\_type>NEFT</transfer\_type>**

**<transfer\_unique\_no>7346tyeghd</transfer\_unique\_no>**

**<transfer\_timestamp>2018-03-27 17:29:17</transfer\_timestamp>**

**<transfer\_ccy>INR</transfer\_ccy>**

**<transfer\_amt>43.00</transfer\_amt>**

**<rmtr\_account\_no>87654356789</rmtr\_account\_no>**

**<rmtr\_account\_ifsc>hdfc0123456</rmtr\_account\_ifsc>**

**<rmtr\_account\_type>ca</rmtr\_account\_type>**

**<rmtr\_full\_name>refd</rmtr\_full\_name>**

**<rmtr\_address></rmtr\_address>**

**<rmtr\_to\_bene\_note>pass</rmtr\_to\_bene\_note>**

**<status>CREDITED</status>**

**<credit\_acct\_no>765433456789</credit\_acct\_no>**

**<credited\_at>2017-07-27 11:48:02</credited\_at>**

**<custom>**

**<setting1>765435678</setting1>**

**<setting2>76543245678</setting2>**

**<setting3>6543245678</setting3>**

**<setting4>8765435678</setting4>**

**<setting5>8765435678</setting5>**

**</custom>**

**</notify>**

**Response:**

**<notifyResult>**

**<result>ok</result>**

**</notifyResult>**

### Sample Request (Return):

**<notify>**

**<customer\_code>TESTX1</customerCode>**

**<bene\_account\_no>TESTX176235233</bene\_account\_no>**

**<bene\_account\_ifsc>YESB0CMSNOC</bene\_account\_ifsc>**

**<bene\_full\_name>reds</bene\_full\_name>**

**<transfer\_type>NEFT</transfer\_type>**

**<transfer\_unique\_no>7346tyeghd</transfer\_unique\_no>**

**<transfer\_timestamp>2018-03-27 17:29:17</transfer\_timestamp>**

**<transfer\_ccy>INR</transfer\_ccy>**

**<transfer\_amt>43.00</transfer\_amt>**

**<rmtr\_account\_no>87654356789</rmtr\_account\_no>**

**<rmtr\_account\_ifsc>hdfc0123456</rmtr\_account\_ifsc>**

**<rmtr\_account\_type>ca</rmtr\_account\_type>**

**<rmtr\_full\_name>refd</rmtr\_full\_name>**

**<rmtr\_address></rmtr\_address>**

**<rmtr\_to\_bene\_note>pass</rmtr\_to\_bene\_note>**

**<status>RETURNED</status>**

**<credit\_acct\_no>765433456789</credit\_acct\_no>**

**<returned\_at>2017-07-27 11:48:02</returned\_at >**

**<custom>**

**<setting1>765435678</setting1>**

**<setting2>76543245678</setting2>**

**<setting3>6543245678</setting3>**

**<setting4>8765435678</setting4>**

**<setting5>8765435678</setting5>**

**</custom>**

**</notify>**

**Response:**

**<notifyResult>**

**<result>ok</result>**

**</notifyResult>**

### Response Codes:

|  |  |  |
| --- | --- | --- |
| **Serial No.** | **Result** | **HTTP Status** |
| 1 | ok (Credited) | 200 |
| 2 | ok (Returned) | 200 |
| 3 | retry | 200 |
| 4 | Unauthorized | 401 |
| 5 | Internal Server Error | 500 |
| 6 | Bad Request | 400 |

### SAMPLE RESPONSES FOR: PASS / RETURN / FAILURE / RETRY

**‘retry’ response:**

**<notifyResult>**

**<result>retry</result>**

**</notifyResult>**

**‘ok’ response:**

**<notifyResult>**

**<result>ok</result>**

**</notifyResult>**

# JSON

## VALIDATE

### Optional Fields: Refer to the [APPENDIX](#_APPENDIX-A:_Optional_Fields_1)-A at end of this document

### Schema: Refer please to the [APPENDIX](#_APPENDIX:_SCHEMA_for_3)-B at end of this document

### Purpose: Service Validates that source of transaction is authentic.

#### The Validate request is for ensuring that money is coming the Customer’s account from an authentic source. i.e., remitter of the money is appropriate and authentic.

### Sample Request:

**{**

**"validate": {**

**"customer\_code": "TESTX1",**

**"bene\_account\_no": "TESTX176235233",**

**"bene\_account\_ifsc": "YESB0CMSNOC",**

**"bene\_full\_name": "reds",**

**"transfer\_type": "NEFT",**

**"transfer\_unique\_no": "7346tyeghd",**

**"transfer\_timestamp": "2018-03-27 17:29:17",**

**"transfer\_ccy": "INR",**

**"transfer\_amt": "43.00",**

**"rmtr\_account\_no": "87654356789",**

**"rmtr\_account\_ifsc": "hdfc0123456",**

**"rmtr\_account\_type": "ca",**

**"rmtr\_full\_name": "refd",**

**"rmtr\_address": "refdx",**

**"attempt\_no": 9,**

**"rmtr\_to\_bene\_note": "pass",**

**"custom": {**

**"setting1": "765435678",**

**"setting2": "76543245678",**

**"setting3": "6543245678",**

**"setting4": "8765435678",**

**"setting5": "8765435678"**

**}**

**}**

**}**

**Response**:

**{**

**"validateResponse": {**

**"decision": "pass"**

**}**

**}**

### Response Codes:

|  |  |  |
| --- | --- | --- |
| **Serial No.** | **Result** | **HTTP Status** |
| 1 | pass | 200 |
| 2 | reject | 200 |
| 3 | pending | 200 |
| 4 | Unauthorized | 401 |
| 5 | Internal Server Error | 500 |
| 6 | Bad Request | 400 |

### SAMPLE RESPONSES FOR: PASS / RETURN / FAILURE / RETRY

**'pass' response:**

**{**

**"validateResponse": {**

**"decision": "pass"**

**}**

**}**

**[Note:** If the *Validate response* has a **credit\_account\_no** tag, this will take precedence over the **Credit Account Number** specified in the Customer Setup.]

**'reject' response:**

**{**

**"validateResponse": {**

**"decision": "reject",**

**"reject\_reason": "invalid request "**

**}**

**}**

**'pending’ response:**

**{**

**"validateResponse": {**

**"decision": "pending"**

**}**

**}**

## NOTIFY

### Optional Fields: Refer to the [APPENDIX](#_APPENDIX-A:_Optional_Fields_1)-A at end of this document

### Schema: Refer please to the [APPENDIX](#_APPENDIX:_SCHEMA_for_4)-B at end of this document

### Purpose: Sends Notification to the Customer per the Configuration set in the system.

#### The Notify request is for sending an appropriate Notification to the Customer when the specific event occurs. i.e., Account is Credited, Money Returned to the remitter, etc.

### Sample Request (Credit):

**{**

**"notify": {**

**"customer\_code": "TESTX1",**

**"bene\_account\_no": "TESTX176235233",**

**"bene\_account\_ifsc": "YESB0CMSNOC",**

**"bene\_full\_name": "reds",**

**"transfer\_type": "NEFT",**

**"transfer\_unique\_no": "7346tyeghd",**

**"transfer\_timestamp": "2018-03-27 17:29:17",**

**"transfer\_ccy": "INR",**

**"transfer\_amt": "43.00",**

**"rmtr\_account\_no": "87654356789",**

**"rmtr\_account\_ifsc": "hdfc0123456",**

**"rmtr\_account\_type": "ca",**

**"rmtr\_full\_name": "refd",**

**"rmtr\_to\_bene\_note": "pass",**

**"status": "CREDITED",**

**"credit\_acct\_no": "765433456789",**

**"credited\_at": "2017-07-27 11:48:02",**

**"custom": {**

**"setting1": "765435678",**

**"setting2": "76543245678",**

**"setting3": "6543245678",**

**"setting4": "8765435678",**

**"setting5": "8765435678"**

**}**

**}**

**}**

**Response:**

**{**

**"notifyResult": {**

**"result": "ok"**

**}**

**}**

### Sample Request (Return):

**{**

**"notify": {**

**"customer\_code": "TESTX1",**

**"bene\_account\_no": "TESTX176235233",**

**"bene\_account\_ifsc": "YESB0CMSNOC",**

**"bene\_full\_name": "reds",**

**"transfer\_type": "NEFT",**

**"transfer\_unique\_no": "7346tyeghd",**

**"transfer\_timestamp": "2018-03-27 17:29:17",**

**"transfer\_ccy": "INR",**

**"transfer\_amt": "43.00",**

**"rmtr\_account\_no": "87654356789",**

**"rmtr\_account\_ifsc": "hdfc0123456",**

**"rmtr\_account\_type": "ca",**

**"rmtr\_full\_name": "refd",**

**"rmtr\_to\_bene\_note": "pass",**

**"status": "RETURNED",**

**"credit\_acct\_no": "765433456789",**

**"returned\_at": "2017-07-27 11:48:02.009928",**

**"custom": {**

**"setting1": "765435678",**

**"setting2": "76543245678",**

**"setting3": "6543245678",**

**"setting4": "8765435678",**

**"setting5": "8765435678"**

**}**

**}**

**}**

**Response:**

**{**

**"notifyResult": {**

**"result": "ok"**

**}**

**}**

### Response Codes:

|  |  |  |
| --- | --- | --- |
| **Serial No.** | **Result** | **HTTP Status** |
| 1 | ok (Credited) | 200 |
| 2 | ok (Returned) | 200 |
| 3 | retry | 200 |
| 4 | Unauthorized | 401 |
| 5 | Internal Server Error | 500 |
| 6 | Bad Request | 400 |

### SAMPLE RESPONSES FOR: PASS / RETURN / FAILURE / RETRY

**‘retry’ response:**

**{**

**"notifyResult": {**

**"result": "retry"**

**}**

**}**

**‘ok’ response:**

**{**

**"notifyResult": {**

**"result": "ok"**

**}**

**}**

# Unit Testing

|  |  |  |
| --- | --- | --- |
| **Serial#** | **Test Scenario** | **Expected Result** |
| 1 | VALIDATE request as per the Schema | SUCCESS |
| 2 | VALIDATE request NOT as per the Schema | FAILURE |
| 3 | NOTIFY request as per the Schema | Success |
| 4 | NOTIFY request NOT as per the Schema | FAILURE |

# Test-Scenarios (Postman Collections)

|  |  |  |
| --- | --- | --- |
| **Serial#** | **Test Scenarios** | **Link for Postman Collection** |
| 1 | XML  Validate | <https://github.com/apibanking/e-collect/blob/master/ecollect-xml-validate.postman_collection> |
| 2 | XML  Notify | https://github.com/apibanking/e-collect/blob/master/ecollect-xml-notify.postman\_collection |
| 3 | JSON Validate | https://github.com/apibanking/e-collect/blob/master/ecollect-json-validate.postman\_collection |
| 4 | JSON Notify | https://github.com/apibanking/e-collect/blob/master/ecollect-json-notify.postman\_collection |

# 

# Frequently Asked Questions:

1. What is the significance of attempt\_no field?

* The **attempt\_no** is used internally and this tag can be ignored by the service.

1. Why are we receiving the Schema error?

* Please compare the response that is being sent by the Service with that specified in the document. There will be a difference between the two. You are required to rectify this at the Service end.

1. Why there is no *Duplicate* case for Notify API call?

* For Validate: There is no *Duplicate* case for Validate API. (‘pass’, ‘reject’, ‘pending’…)
* For Notify : Service should either return the **ok** or **retry** for NOTIFICATION API call. In real scenario, seldom there are chances that the same request will be fired twice. To avoid **retry** in such cases, Service should return **‘ok’**

# 8 APPENDIX-A: Optional Fields in *Request & Response* and the Fields Mapping

Following fields are **non-mandatory** in the Validate and Notify request and response.

**Request Fields:**

1. bene\_full\_name
2. rmtr\_account\_type (If this parameter is blank the Tag is dropped)
3. rmtr\_address
4. rmtr\_to\_bene\_note (If this parameter is blank the Tag is dropped)
5. attempt\_no
6. credit\_acct\_no
7. credited\_at
8. returned\_at
9. Custom: **Setting1** through **Setting5**

(User Defined Fields; i.e., Fixed values that are passed to the Service)

**Response Fields:**

1. credit\_account\_no
2. reject\_reason

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Srl#** | **TagName** | **Mandatory**  **<Y/N>** | **DataType (Length)** | **Source/Value** | **Format** | **Sample Value** |
| 1 | customer\_code | Y | String (15) | $ecol\_transactions.CUSTOMER\_CODE |  | NEWCUST |
| 2 | bene\_account\_no | Y | String (64) | $ecol\_transactions.BENE\_ACCOUNT\_NO |  | ABCDEF23456789 |
| 3 | bene\_account\_ifsc | Y | String (20) | $ecol\_transactions.BENE\_ACCOUNT\_IFSC |  | 0987654321 |
| 4 | bene\_full\_name | N | String (255) | $ecol\_transactions.BENE\_FULL\_NAME |  | ASHOKA KING |
| 5 | transfer\_type | Y | String (04) | $ecol\_transactions.TRANSFER\_TYPE |  | NEFT | RTGS | IMPS | UPI |
| 6 | transfer\_unique\_no | Y | String (64) | $ecol\_transactions.TRNSFER\_UNIQUE\_NO |  | PQRS39856574893 |
| 7 | transfer\_timestamp | Y | Date | $ecol\_transactions.CREATED\_AT | YYYY-MM-DDT24HH:MM:SS | 2017-06-30T07:59:02 |
| 8 | transfer\_ccy | Y | String (05) | $ecol\_transactions.TRANSFER\_CCY |  | INR |
| 9 | transfer\_amt | Y | Number | $ecol\_transactions.TRNSFER\_AMOUNT | +ve | 1400.00 |
| 10 | rmtr\_account\_no | Y | String (64) | $ecol\_transactions.RMTR\_ACCOUNT\_NO |  | 8291800010588 |
| 11 | rmtr\_account\_ifsc | Y | String (20) | $ecol\_transactions.RMTR\_ACCOUNT\_IFSC |  | 1234567890 |
| 12 | rmtr\_account\_type | N | String (10) | $ecol\_transactions.RMTR\_ACCOUNT\_TYPE |  | SB |
| 13 | rmtr\_full\_name | Y | String (255) | $ecol\_transactions.RMTR\_FULL\_NAME |  | CHINESE CHECKERS || Can have special characters |
| 14 | rmtr\_address | N | String (255) | $ecol\_transactions.RMTR\_ADDRESS |  | BANARASI HERITAGE || Can have special characters |
| 15 | rmtr\_to\_bene\_note | N | String (255) | $ecol\_transactions.REMITTER\_TO\_BENE\_NOTE |  | Xgdgjhf 6576789988 ADDC || Can have special characters |
| 16 | attempt\_no | N | String (38) | $ecol\_transactions.CREDIT\_ATTEMPT\_NO |  | 1 |
| 17 | status | Y | String (20) | $ecol\_transactions.STATUS |  | NEW |
| 18 | credit\_acct\_no | N | String (25) | $ecol\_transactions.CREDIT\_ACCOUNT\_NO |  | 1234567890123 |
| 19 | credited\_at | N | Date | $ecol\_transactions.CREDITED\_AT | YYYY-MM-DD 24HH:MM:SS | 2017-06-30 13:15:00 |
| 20 | returned\_at | N | Date | $ecol\_transactions.RETURNED\_AT | YYYY-MM-DD 24HH:MM:SS.SSS | 2018-01-24 15:27:46.009928 |

# APPENDIX-B: SCHEMA for REQUEST / RESPONSE

<?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="<http://www.w3.org/2001/XMLSchema>" elementFormDefault="qualified"  xmlns:http="<http://schemas.xmlsoap.org/wsdl/http/>" xmlns:ibmSchExtn="<http://www.ibm.com/schema/extensions>" xmlns:mime="<http://schemas.xmlsoap.org/wsdl/mime/>" xmlns:soap="<http://schemas.xmlsoap.org/wsdl/soap/>" xmlns:soap12="<http://schemas.xmlsoap.org/wsdl/soap12/>" xmlns:soapenc="<http://schemas.xmlsoap.org/soap/encoding/>" xmlns:tm="<http://microsoft.com/wsdl/mime/textMatching/>" xmlns:tns="<http://tempuri.org/>" xmlns:wsdl="<http://schemas.xmlsoap.org/wsdl/>">

<xsd:element  name="validate">

        <xsd:complexType>

          <xsd:all>

            <xsd:element name="customer\_code"  type="customerCodeType"/>

            <xsd:element name="bene\_account\_no" type="beneficiaryAccountNoType"/>

            <xsd:element name="bene\_account\_ifsc" type="beneficiaryAccountIFSCType"/>

            <xsd:element name="bene\_full\_name" type="benificiaryfullNameType" maxOccurs="1" minOccurs="0"/>

            <xsd:element name="transfer\_type"  type="transferType"/>

            <xsd:element name="transfer\_unique\_no" type="transferUniqueNoType"/>

            <xsd:element  name="transfer\_timestamp" type="dateTimeType"/>

            <xsd:element  name="transfer\_ccy" type="transferCcyType"/>

            <xsd:element  name="transfer\_amt" type="transferAmountType"/>

            <xsd:element  name="rmtr\_account\_no" type="remitterAccountNoType"/>

            <xsd:element  name="rmtr\_account\_ifsc" type="remitterIFSCType"/>

            <xsd:element  name="rmtr\_account\_type" type="remitterAccountType"/>

            <xsd:element  name="rmtr\_full\_name" type="remitterNameType" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="rmtr\_address" type="remitterAddressType" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="rmtr\_to\_bene\_note" type="remitterToBeneficiaryNoteType" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="attempt\_no" type="attempt\_noType" maxOccurs="1" minOccurs="1"/>

            <xsd:element name="settings" type="settingsType" maxOccurs="1" minOccurs="0"></xsd:element>

          </xsd:all>

        </xsd:complexType>

      </xsd:element>

       <xsd:element name="validateResponse">

        <xsd:complexType>

          <xsd:all>

            <xsd:element  name="decision" type="decisionType"/>

            <xsd:element  name="credit\_account\_no" type="xsd:string" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="reject\_reason" type="xsd:string" maxOccurs="1" minOccurs="0"/>

          </xsd:all>

        </xsd:complexType>

      </xsd:element>

      <xsd:element name="notify">

        <xsd:complexType>

          <xsd:all>

            <xsd:element name="customer\_code"  type="customerCodeType"/>

            <xsd:element name="bene\_account\_no" type="beneficiaryAccountNoType"/>

            <xsd:element name="bene\_account\_ifsc" type="beneficiaryAccountIFSCType"/>

            <xsd:element name="bene\_full\_name" type="benificiaryfullNameType" maxOccurs="1" minOccurs="0"/>

            <xsd:element name="transfer\_type"  type="transferType"/>

            <xsd:element name="transfer\_unique\_no" type="transferUniqueNoType"/>

            <xsd:element  name="transfer\_timestamp" type="dateTimeType"/>

            <xsd:element  name="transfer\_ccy" type="transferCcyType"/>

            <xsd:element  name="transfer\_amt" type="transferAmountType"/>

            <xsd:element  name="rmtr\_account\_no" type="remitterAccountNoType"/>

            <xsd:element  name="rmtr\_account\_ifsc" type="remitterIFSCType"/>

            <xsd:element  name="rmtr\_account\_type" type="remitterAccountType"/>

            <xsd:element  name="rmtr\_full\_name" type="remitterNameType" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="rmtr\_address" type="remitterAddressType" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="rmtr\_to\_bene\_note" type="remitterToBeneficiaryNoteType" maxOccurs="1" minOccurs="0"/>

            <xsd:element  name="attempt\_no" type="attempt\_noType" maxOccurs="1" minOccurs="1"/>

            <xsd:element  name="status" type="xsd:string">

                <xsd:annotation>

             <xsd:documentation>The status of the transaction</xsd:documentation>

             </xsd:annotation></xsd:element>

            <xsd:element  name="credit\_acct\_no" type="xsd:string" maxOccurs="1" minOccurs="0">

                <xsd:annotation>

             <xsd:documentation>The credit account number which is credited after validation transaction success</xsd:documentation>

             </xsd:annotation></xsd:element>

            <xsd:element  name="credited\_at" type="xsd:dateTime" maxOccurs="1" minOccurs="0">

                    <xsd:annotation>

             <xsd:documentation>The time when credit happened</xsd:documentation>

             </xsd:annotation></xsd:element>

           <xsd:element  name="returned\_at" type="xsd:dateTime" maxOccurs="1" minOccurs="0">

                    <xsd:annotation>

             <xsd:documentation>The time when return happened</xsd:documentation>

             </xsd:annotation></xsd:element>

       <xsd:element name="settings" type="settingsType" maxOccurs="1" minOccurs="0"></xsd:element>

          </xsd:all>

        </xsd:complexType>

      </xsd:element>

       <xsd:element name="notifyResult">

        <xsd:complexType>

          <xsd:all>

            <xsd:element  name="result" type="resultType"/>

          </xsd:all>

        </xsd:complexType>

      </xsd:element>

       <xsd:simpleType name="customerCodeType">

       <xsd:annotation>

   <xsd:documentation>The customer ID that is allocated to the corporate, accessing the service.</xsd:documentation>

    </xsd:annotation>

       <xsd:restriction base="xsd:string">

       <xsd:maxLength value="15" />

       <xsd:whiteSpace value="collapse"></xsd:whiteSpace>

       <xsd:minLength value="4"></xsd:minLength>

       </xsd:restriction>

      </xsd:simpleType>

      <xsd:simpleType name="beneficiaryAccountNoType">

      <xsd:annotation>

       <xsd:documentation>The account number of the beneficiary.</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="64"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="beneficiaryAccountIFSCType">

<xsd:annotation>

         <xsd:documentation>The IFSC code of the beneficiary</xsd:documentation>

          </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="20"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="benificiaryfullNameType">

<xsd:annotation>

         <xsd:documentation>The full name of the beneficiary</xsd:documentation>

          </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="255"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="transferUniqueNoType">

<xsd:annotation>

     <xsd:documentation>The unique number of the transactions</xsd:documentation>

     </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="64"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="transferType">

<xsd:annotation>

    <xsd:documentation>The transfer type of the transactions</xsd:documentation>

    </xsd:annotation>

       <xsd:restriction base="xsd:string">

       <xsd:enumeration value="NEFT"></xsd:enumeration>

       <xsd:enumeration value="IMPS"></xsd:enumeration>

       <xsd:enumeration value="RTGS"></xsd:enumeration>

       <xsd:enumeration value="UPI"></xsd:enumeration>

       </xsd:restriction>

      </xsd:simpleType>

<xsd:simpleType name="dateTimeType">

<xsd:annotation>

    <xsd:documentation>The  timestamp when the transaction was happened</xsd:documentation>

    </xsd:annotation>

     <xsd:restriction base="xsd:dateTime">

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="transferCcyType">

<xsd:annotation>

    <xsd:documentation>The currency code for the transaction</xsd:documentation>

    </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="5"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="transferAmountType">

<xsd:annotation>

    <xsd:documentation>The amount which was transferred in the transaction</xsd:documentation>

    </xsd:annotation>

     <xsd:restriction base="xsd:decimal">

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="remitterAccountNoType">

<xsd:annotation>

        <xsd:documentation> The account number of the remitter</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="64"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="remitterIFSCType">

<xsd:annotation>

        <xsd:documentation>The IFSC code of the remitter.</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="20"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="remitterAccountType">

<xsd:annotation>

        <xsd:documentation> The account type of the remitter</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="10"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="remitterNameType">

<xsd:annotation>

        <xsd:documentation>The full name of the remitter,</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="255"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="remitterAddressType">

<xsd:annotation>

        <xsd:documentation>The address of the remitter</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="255"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="remitterToBeneficiaryNoteType">

<xsd:annotation>

        <xsd:documentation>The friendly note from the remitter to beneficiary</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:string">

         <xsd:maxLength value="255"/>

     </xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="decisionType">

<xsd:annotation>

    <xsd:documentation>The transfer type of the transactions</xsd:documentation>

    </xsd:annotation>

       <xsd:restriction base="xsd:string">

       <xsd:enumeration value="pass"></xsd:enumeration>

       <xsd:enumeration value="reject"></xsd:enumeration>

       <xsd:enumeration value="pending"></xsd:enumeration>

       </xsd:restriction>

      </xsd:simpleType>

      <xsd:simpleType name="resultType">

<xsd:annotation>

    <xsd:documentation>The transfer type of the transactions</xsd:documentation>

    </xsd:annotation>

       <xsd:restriction base="xsd:string">

       <xsd:enumeration value="ok"></xsd:enumeration>

       <xsd:enumeration value="retry"></xsd:enumeration>

       </xsd:restriction>

      </xsd:simpleType>

      <xsd:simpleType name="attempt\_noType">

<xsd:annotation>

        <xsd:documentation>The attempt for the transaction</xsd:documentation>

        </xsd:annotation>

     <xsd:restriction base="xsd:integer">

     </xsd:restriction>

</xsd:simpleType>

    <xsd:complexType name="settingsType">

     <xsd:sequence>

     <xsd:any/>

     </xsd:sequence>

    </xsd:complexType>

      </xsd:schema>