Salary & Corporate Payments Interface Specification Low Level Design Document

**EIDIKOSYSTEMS INTEGRATORS**



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| Prepared By | Reviewed By | Approved By |
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Document Classification: CONFIDENTIAL

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**Approval**

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**Revision History**

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# Introduction

## General Description

This Interface Design document outlines the integration requirements for the Salary & Corporate Payments***(Request and Response)***interface used as banking operations. It summarizes the business processes, which use this interface. It also covers error handling and exception scenarios.

# Purpose

The purpose of this document is to capture events that trigger the interface, main steps within the interface and the integration architecture. This document is intended for use by the developers of the applications identified, the integration development team, and by the test organizations responsible for the testing of these applications.

# Scope

## In Scope

This document focuseson outlining the interface design for the Salary & Corporate Payments***(Request and Response)***interface. Central to this document are the following:

* Overview of the business process that drives the need for the interface
* Proposed integration approach
* Trigger events and business dependencies on this interface
* Sequence /Flow Chart diagram of the interface
* Data mapping between the source and the target
* Error handling and exception scenarios
* Validation and backup requirements

# Channels Involved

The following table lists Salary & Corporate Payments channels

|  |  |
| --- | --- |
| **Item #** | **Channel Name** |
| 1 | Batch-ZEPS |

# Interface Dependencies

## External Dependencies

The following table lists interface specific External requirements.

|  |  |
| --- | --- |
| **Item #** | **External Requirements** |
| 1 | ORADSN Database |
| 2 | Core Banking System(Temenos-T24) |
| 3 | FTP |

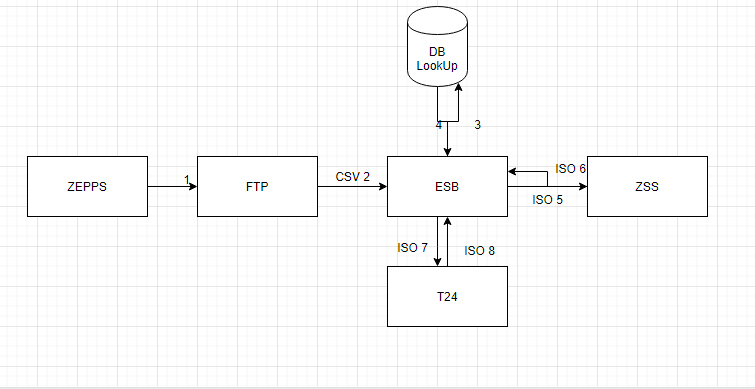
## Internal Dependencies

The following table lists interface specific internal requirements.

|  |  |
| --- | --- |
| **Item #** | **Internal Requirements** |
| 1 | Steward Database – (SQLDB) |
| 2 | StewardBankCommonEsql (Shared Library) |
| 3 | DB Logging App (Audit Logging) |
| 4 | SB\_CSV\_Lib (DFDL - Shared Library) |

# Business Process Summary

## Process Overview



### Figure: 1 Process flow Approach for Salary & Corporate Payments.

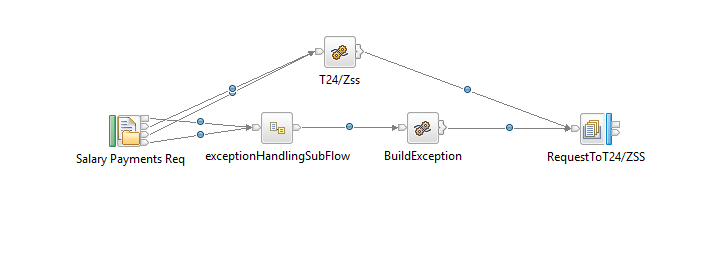
### Salary & Corporate Payments Steps

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1 | ESB receives the request CSV files from FTP. |
| 2 | After receiving the CSV files from FTP into ESB we validate them in DFDL. |
| 3 | According to the Credit Account number received we check with ISAVE\_CARD\_MAPPING table from database to check whether they are ZSS accounts or T24 accounts. |
| 4 | The account numbers that are present in the ISAVE table & also starting with ‘2’ are ZSS accounts, other than this are T24 accounts. |
| 5 | The responses from ZSS or T24, success or failure status are updated in SB\_ISAVE\_PAYNET\_SCP\_TRACKING table. |
| 6 | On Successful calls of ZSS or T24, Request and Response will be placed in the RAW\_LOG\_SB\_REQ to log the request in Database. |
| 7 | On Unsuccessful calls of ZSS or T24 Request and Response will be placed in the ERROR\_LOG\_SB\_REQ to log the request in Data Base(ERR\_AUDIT\_LOGGING). |

# IIB Implementation Process Flow

## Salary & Corporate Payments Successful Request Response Flows

### Process Diagram



### Figure: 2 Salary Corporate Payments Route Flow.

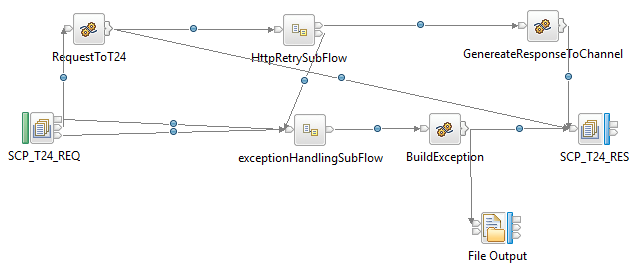
### Process Flow Steps

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1. | ESB receives the request CSV files from FTP the SB\_CSV\_Lib DFDL takes the CSV data as DFDL data. |
| 2. | Router Application based on Isave/ZSS or T24 accounts checking from ISAVE\_CARD\_MAPPING table the data is sent corresponding ZSS or T24 flows through queues such as SCP\_ZSS\_REQ or SCP\_T24\_REQ. |
| 3. | On successful parsing of the CSV data into DFDL the further process is progressed. |
| 4. | Initial CSV request is logged in the RAW\_LOG\_SB\_REQ, SB\_ISAVE\_PAYNET\_SCP\_TRACKING is inserted into Database. |
| 5. | On Unsuccessful parsing of the CSV data into DFDL, it will be placed in the ERROR\_LOG\_SB\_REQ to log the request in Database (ERR\_AUDIT\_LOGGING). |

### ISAVE\_CARD\_MAPPING Details

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item #** | **DB Field Name** | **Field Description** | **Data Type** | **Length** | **Mandatory(Yes/No)** | **Comments** |
| 1 | PAN | Pan card number | Varchar | 19 | Y | The Pan card number. |
| 2 | SEQ\_NR | Sequence number | Varchar | 03 | N | The Sequence number. |
| 3 | MSISDN | MSISDN Number | Varchar | 14 | N | The MSISDN Number. |
| 4 | ACCOUNT\_ID | Credit Account Number | Varchar | 28 | Y | The Credit Account Number. |
| 5 | ACCOUNT\_TYPE | Type of Account | Varchar | 02 | N | The type of account for Account number. |
| 6 | ACCOUNT\_PRODUCT | Product of Account | Varchar | 20 | N | The Product of account for Account number. |
| 7 | FCA\_ACCOUNT | FCA account number | Varchar | 28 | N | The FCA account number |
| 8 | DATE\_UPDATED | Date Field | Varchar | 20 | Y | The first Updated table date. |
| 9 | LAST\_UPDATED\_USEER | Last Updated Date Field | Varchar | 20 | Y | The latest Updated table date. |

## SalaryCorporatePaymentsT24CallFlow Process workflow Diagram



### Figure: 3 Salary & Corporate Payments T24 Flow.

### Process Flow Steps

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1. | After receiving the data from Route application through SB\_T24\_REQ queue it trigs the SalaryCorporatePaymentsT24CallFlow. |
| 2. | The CSV data is mapped to T24 API URL pathParameters as info provided by the T24 team. After framing the T24 URL request we hit the HTTP Subflow. |
| 3. | There are three scenarios in framing a T24 Request URL:   1. If the ‘purpose’ of CSV data contains Salary or Salaries, we have to frame the T24 SalaryPayments URL. 2. If the ‘purpose’ of CSV data does not contain Salary or Salaries and ‘Bank’ contains the Steward Bank, we have to frame the T24 CorporatePayments Internal URL.(This is for StewardBank Accounts.) 3. If the ‘purpose’ of CSV data does not contain Salary or Salaries and ‘Bank’ does not contains the Steward Bank, we have to frame the T24 CorporatePayments External URL. (This is for OtherBank Accounts.) |
| 4. | After Framing the Request T24 URL is logged in RAW\_LOG\_SB\_REQ and SB\_ISAVE\_PAYNET\_SCP\_TRACKING is inserted into Database. |
| 5. | If the T24 call is successful, then JSON response is generated. The successful response of the service is validated by using HTTP-Status-Code in ESB payload & the header status as success, other than is an unsuccessful response. |
| 6. | T24 Response is logged in RAW\_LOG\_SB\_REQ (RAW\_AUDIT\_LOGGING) and SB\_ISAVE\_PAYNET\_SCP\_TRACKING in Database. And the T24\_Status in SB\_ISAVE\_PAYNET\_SCP\_TRACKING table is updated as Success. |
| 6. | On Unsuccessful call T24 Response will be placed in ERROR\_LOG\_SB\_REQ to log the request in database (ERR\_AUDIT\_LOGGING). And the T24\_Status in SB\_ISAVE\_PAYNET\_SCP\_TRACKING table is updated as Failure. |

## Retry Process workflow

### Process Flow Diagram

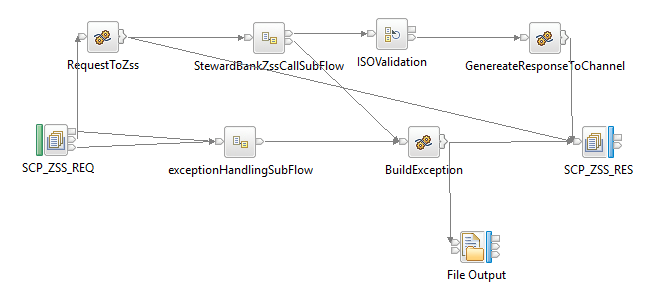


**Figure: 4 HTTP Retry for Salary Corporate Payments T24 Flow**

### Process Flow steps

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1 | HTTP Retry call is used to call the backend service for multiple times |
| 2 | On Successful call of backend service, response will be generated and send back to Business Application For further process |
| 3 | On Unsuccessful call of backend service it Retry for 3 times and sends error message to Business Application for further Process |

## SalaryCorporatePaymentsZSSCallFlow Process workflow Diagram



### Figure: 5 Salary & Corporate Payments ZSS Flow.

### Process Flow steps:

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1. | After receiving the data from Route application through SB\_ZSS\_REQ queue it trigs the SalaryCorporatePaymentsZSSCallFlow. |
| 2. | Framing the ZSS request(0200) by using CommonEsql Procedures we do field to field mapping from CSV fields to ISO8583 fields. As mapping info provided by Steward Team. |
| 3. | The processing code is 210020, as all the mapped fields of data sent in Request to make ZSS call. |
| 4. | After Framing the ZSS Request(0200) is logged in RAW\_LOG\_SB\_REQ (RAW\_AUDIT\_LOGGING) and SB\_ISAVE\_PAYNET\_SCP\_TRACKING in Database. |
| 5. | If the ZSS call is successful, then ISO8583(0210) response is generated. The successful response of the service is validated by using the ISO8583 field responseCode\_039 as ‘00’ other than is an unsuccessful response. |
| 6. | ZSS Response in ISO8583 Format is logged in RAW\_LOG\_SB\_REQ (RAW\_AUDIT\_LOGGING) and SB\_ISAVE\_PAYNET\_SCP\_TRACKING in Database. And the T24\_Status in SB\_ISAVE\_PAYNET\_SCP\_TRACKING table is updated as Success. |
| 9 | On Unsuccessful call T24 Response will be placed in the ERROR\_LOG\_SB\_REQ to log the request in Data Base(ERR\_AUDIT\_LOGGING). And the T24\_Status in SB\_ISAVE\_PAYNET\_SCP\_TRACKING table is updated as Failure. |

## SB\_ISAVE\_PAYNET\_SCP\_TRACKING Table Details:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item #** | **DB Field Name** | **Field Description** | **Data Type** | **Length** | **Mandatory(Yes/No)** | **Comments** |
| 1 | PAYNET\_GUID | Unique ID number. | Varchar | 50 | Y | An Unique identifier. |
| 2 | PAYNET\_STAN\_NUM | STAN Number | Varchar | 50 | N | The STAN number from ZSS response. |
| 3 | PAYNET\_STANDATE | STAN Date | Varchar | 50 | N | The STAN Date from ZSS response. |
| 4 | PAYNET\_RRN\_REF | Retrieval Reference Number | Varchar | 50 | N | The Retrieval Reference Number from ZSS response. |
| 5 | PAYNET\_ISO\_ZSS\_REQUEST\_MSG | ZSS Request Message | Varchar | 4000 | N | The ZSS Request Message after Framing from CSV to ISO8583. |
| 6 | PAYNET\_RESPONSE\_CODE | Response Code Number | Varchar | 20 | Y | The Response Code from ZSS or T24 response. |
| 7 | PAYNET\_CSV\_FILENAME | CSV File Name | Varchar | 50 | N | The input CSV File Name. |
| 8 | PAYNET\_CSV\_FIELDS | CSV Field Names | Varchar | 1000 | N | The fields in CSV data. |
| 9 | PAYNET\_CSV\_AMOUNT | Amount | Varchar | 50 | Y | Amount field in CSV data. |
| 10 | PAYNET\_CSV\_DTACCOUNT | Debit Account Number | Varchar | 20 | Y | Debit Account Number field in CSV data. |
| 11 | PAYNET\_CSV\_CRACCOUNT | Credit Account Number | Varchar | 20 | Y | Credit Account Number field in CSV data. |
| 12 | PAYNET\_CSV\_DTDATE | Date field in CSV | Varchar | 50 | N | Date field in CSV data. |
| 13 | PAYNET\_T24\_REQUEST\_URL | T24 Request URL | Varchar | 2000 | Y | Framed T24 Request URL. |
| 14 | PAYNET\_ZSS\_RESPONSE | ZSS Response Message | Varchar | 4000 | Y | The ISO8583 Response after ZSS call. |
| 15 | PAYNET\_ZSS\_STATUS | ZSS Status | Varchar | 10 | Y | Success or Failure status. |
| 16 | PAYNET\_T24\_RESPONSE | T24 Response Message | Varchar | 4000 | Y | The JSON Response after ZSS call. |
| 17 | PAYNET\_T24\_STATUS | T24 Status | Varchar | 10 | Y | Success or Failure status. |
| 18 | PAYNET\_CSV\_STATUS | CSV Status | Varchar | 10 | Y | Success or Failure status when file gets picked. |
| 19 | PAYNET\_DATECREATED | Creation Date | TIMESTAMP | (6) | Y | Created date of the record. |
| 20 | PAYNET\_DATEUPDATED | Updated Date | TIMESTAMP | (6) | Y | Updated date of the record. |
| 21 | PAYNET\_TAXABLE | Taxable | Varchar | 10 | Y | Whether the record is Taxable True or False. |

## RAW\_AUDIT Process Flow:

### Process Flow Diagram



**Figure: 6 Raw\_Audit\_Logging Flow**

### Process Flow Steps:

|  |  |
| --- | --- |
| **S. No** | **Activities** |
|  | The RAW\_AUDIT locks the input Request and Response |
|  | After the query is executed the record is inserted into the Database. |
|  | Final Response is inserted into the Database and then Response is logged into the RAW\_LOG\_SB\_REQ. |

## ERROR\_AUDIT Process Flow:

### Process Flow Diagram:



**Figure: 7 Exception Subflow**



**Figure: 8 Error\_Audit\_Logging Flow**

### Process Flow Steps:

|  |  |
| --- | --- |
| **S. No** | **Activities** |
|  | The ERROR\_AUDIT\_Q locks the input Request. |
|  | After the query is executed the record is inserted into the Database. |
|  | Final Response is inserted into the Database and then Response is logged into the ERR\_LOG\_SB\_REQ. |

# Interface Definitions

## Request Message Definition

### CSV Request Message Structure /Schema

**Request Type:** DFDL

**Request Format:** CSV

**Request CSV Fields:** tran id, date, remitter account number, beneficiary bank name, beneficiary bank code, beneficiary account number, beneficiary name, amount, currency, purpose, remitter name

### T24 URL Request Message Structure /Schema

**Request METHOD:** ‘POST’

**Request Format:** application/json

**Request URL for Salary Payments T24 URL:** http://IPAddress:Port /stwbc/api/v1.0.0/stwb/payments/salary/{batchId}/{orderingCustomerName}/{paymentCurrency}/{transactionAmount}/{executionDate}/{invoiceReference}/{creditAccountId}/{customer}

**Request URL for Corporate Payments Internal T24 URL:** http://IPAddress:Port /stwbc/api/v1.0.0/stwb/corppay/internal/{debitCurrency}/{creditAccountId}/{orderingCustomerName}/{paymentCurrency}/{transactionAmount}/{executionDate}/{narrative}/{invoiceReference}

**Request URL for Corporate Payments External T24 URL:** http://IPAddress:Port /stwbc/api/v1.0.0/stwb/corppay/rtgs/{orderingCustomerName}/{paymentCurrency}/{transactionAmount}/{executionDate}/{orderingReference}/{debitCurrency}/{beneficiaryName}/{branch}/{beneficiaryAccountId}

## Response Message Definition

**Response Type:** JSON

### Salary Payments T24 Response Message Details:

|  |
| --- |
| {  "header": {  "transactionStatus": "Live",  "audit": {  "T24\_time": 461,  "parse\_time": 1,  "responseParse\_time": 3,  "requestParse\_time": 659,  "versionNumber": "1"  },  "id": "PI2022807XNKCMYN",  "status": "success"  },  "body": {  "orderingReference": "123456",  "chargeBearer": "SHA",  "debitCurrency": "ZWL",  "invoiceReferences": [  {  "invoiceReference": "SALARYTEST"  }  ],  "transactionAmount": 324.87,  "endToEndReference": "100121",  "executionDate": "20200815",  "debitAccountId": "ZWL1400800010001",  "orderingCustomerName": "MAZOE INTERNATIONAL",  "creditAccountId": "1000000047",  "paymentCurrency": "ZWL",  "paymentOrderProductId": "SALARY"  }  } |
|  |

### Salary Payments T24 Response Message Table Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/ Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | header | String | Y | Header tag |
| 2 | transactionStatus | String | Y | Transaction Status |
| 3 | audit | String | Y | Audit time |
| 4 | T24\_time | String | Y | T24 Time. |
| 5 | parse\_time | String | Y | Parsing time. |
| 6 | responseParse\_time | String | Y | Response Parse Time |
| 7 | requestParse\_time | String | Y | Request Parse Time |
| 8 | versionNumber | String | Y | Version Number |
| 9 | id |  | Y | Id Number |
| 10 | status | String | Y | Status |
| 11 | body | String | Y | Body tag. |
| 12 | orderingReference | String | Y | Ordering Reference Number |
| 13 | chargeBearer | String | Y | Charge Bearer |
| 14 | debitCurrency | String | Y | Currency |
| 15 | invoiceReferences\* | String | Y | Invoice References |
| 16 | invoiceReference | String | Y | Invoice References |
| 17 | transactionAmount |  | Y | Amount |
| 18 | endToEndReference | String | Y | End To End Reference number. |
| 19 | executionDate | String | Y | Date |
| 20 | debitAccountId | String | Y | Debit Account |
| 21 | orderingCustomerName | String | Y | CustomerName |
| 22 | creditAccountId | String | Y | Credit Account |
| 23 | paymentCurrency | String | Y | Currency |
| 24 | paymentOrderProductId | String | Y | Payment Order Product Id |

### Corporate Payments Internal T24 Response Messages Details:

**Response Type:** JSON

|  |
| --- |
| {  "header": {  "transactionStatus": "Live",  "audit": {  "T24\_time": 597,  "parse\_time": 1,  "responseParse\_time": 2,  "requestParse\_time": 731,  "versionNumber": "1"  },  "id": "PI2022807XNK8FSK",  "status": "success"  },  "body": {  "chargeBearer": "SHA",  "narratives": [  {  "narrative": "STEWARD"  }  ],  "debitCurrency": "ZWL",  "invoiceReferences": [  {  "invoiceReference": "HERBERT"  }  ],  "transactionAmount": 55.78,  "endToEndReference": "NOTPROVIDED",  "executionDate": "20200815",  "debitAccountId": "ZWL1400800010001",  "orderingCustomerName": "MAZOE INTERNATIONAL",  "creditAccountId": "1000000047",  "paymentCurrency": "ZWL",  "paymentOrderProductId": "CORPPAYINT"  }  } |
|  |

### Corporate Payments Internal T24 Response Message Table Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/ Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | header | String | Y | Header Tag. |
| 2 | transactionStatus | String | Y | Transaction Status |
| 3 | audit | Decimal | Y | Audit Times |
| 4 | T24\_time | String | Y | T24 time |
| 5 | parse\_time | String | Y | Parse time |
| 6 | responseParse\_time | String | Y | Response Parse time |
| 7 | requestParse\_time | String | Y | Request Parse time |
| 8 | versionNumber | String | Y | Version Number |
| 9 | id |  | Y | Id Number |
| 10 | status | String | Y | Status |
| 11 | body | String | Y | Body Tag. |
| 12 | chargeBearer | String | Y | Charge Bearer |
| 13 | narratives | String | Y | Narratives |
| 14 | narrative | String | Y | Narrative |
| 15 | debitCurrency | String | Y | Currency |
| 16 | invoiceReferences | String | Y | Invoice References |
| 17 | invoiceReference | String | Y | Invoice Reference Number |
| 18 | transactionAmount | String | Y | Amount |
| 19 | endToEndReference | String | Y | End To End Reference |
| 20 | executionDate | String | Y | Date |
| 21 | debitAccountId | String | Y | Debit Account |
| 22 | orderingCustomerName | String | Y | Ordering Customer Name |
| 23 | creditAccountId | String | Y | Credit Account |
| 24 | paymentCurrency | String | Y | Currency |
| 25 | paymentOrderProductId | String | Y | Payment Order Product Id |

### Corporate Payments External T24 Response Messages Table Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/ Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | header | String | Y | Header Tag. |
| 2 | transactionStatus | String | Y | Transaction Status |
| 3 | audit | Decimal | Y | Audit Times. |
| 4 | T24\_time | String | Y | T24 time |
| 5 | parse\_time | String | Y | Parse time |
| 6 | responseParse\_time | String | Y | Response Parse time |
| 7 | requestParse\_time | String | Y | Request Parse time |
| 8 | versionNumber | String | Y | Version Number |
| 9 | id |  | Y | Id Number |
| 10 | status | String | Y | status |
| 11 | body | String | Y | Body tag. |
| 12 | chargeBearer | String | Y | Charge Bearer |
| 13 | debitCurrency | String | Y | Currency |
| 14 | endToEndReference | String | Y | End To End Reference |
| 15 | executionDate |  | Y | Date |
| 16 | additionalInformations | String | Y | Additional Informations |
| 17 | additionalInformation | String | Y | Additional Information |
| 18 | debitAccountId | String | Y | Debit Account |
| 19 | beneficiaryAccountId | String | Y | Beneficiary Account Number |
| 20 | orderingCustomerName | String | Y | Customer Name |
| 21 | orderingReference | String | Y | Ordering Reference |
| 22 | beneficiaryName | String | Y | Beneficiary Name |
| 23 | transactionAmount | String | Y | Amount |
| 24 | paymentCurrency | String | Y | Currency |
| 25 | paymentOrderProductId | String | Y | Payment Order Product Id |

### Corporate Payments External T24 Response Message Details:

**Response Type:** JSON

|  |
| --- |
| {  "header": {  "transactionStatus": "Live",  "audit": {  "T24\_time": 360,  "parse\_time": 1,  "responseParse\_time": 3,  "requestParse\_time": 262,  "versionNumber": "1"  },  "id": "PI2022807XNKBTS1",  "status": "success"  },  "body": {  "chargeBearer": "SHA",  "debitCurrency": "ZWL",  "endToEndReference": "NOTPROVIDED",  "executionDate": "20200815",  "additionalInformations": [  {  "additionalInformation": "ZW0010001"  }  ],  "debitAccountId": "ZWL1400800010001",  "beneficiaryAccountId": "1000000047",  "orderingCustomerName": "MAZOE INTERNATIONAL",  "orderingReference": "CORPRTGS",  "beneficiaryName": "HERBERT",  "transactionAmount": 55.78,  "paymentCurrency": "ZWL",  "paymentOrderProductId": "CORPPAYEXT"  }  } |

## Salary & Corporate Payments ZSS Request Structure /Schema

**Request Type:** DFDL

**Request Format:** ISO 8583 Message Structure

### Request Message Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | DFDL Element | Data Type | Mandatory | Length of the Field |
|  | PrimaryAccountNumber\_002 | n-LL | O | **Upto 19** |
| 2 | P ProcessingCode\_003 | String | M | 6 |
| 3 | AmountTransaction\_004 | Decimal | M | 12 |
| 4 | AmountSettlement\_005 | Decimal | O | 12 |
| 5 | AmountCardHolderBilling\_006 | Decimal | O | 12 |
| 6 | TransmissionDatetime\_007 | dateTiemNoYear | M | 10 |
| 7 | AmountCardHolderBillingFee\_008 | Decimal | O | 8 |
| 8 | ConversionRateSettlement\_009 | String | O | 8 |
| 9 | ConversionRateCardholderBilling\_010 | String | O | 8 |
| 10 | SystemsTraceAuditNumber\_011 | String | O | 6 |
| 11 | TimeLocalTransaction\_012 | Time | M | **6** |
| 12 | DateLocalTransaction\_013 | monthDay | M | 4 |
| 13 | DateExpiration\_014 | yearMonth | M | 4 |
| 14 | DateSettlement\_015 | monthDay | O | 4 |
| 15 | DateConversion\_016 | monthDay | O | 4 |
| 16 | DateCapture\_017 | monthDay | O | 4 |
| 17 | MerchantType\_018 | String | M | 4 |
| 18 | AcquiringInstitutionCountryCode\_019 | String | O | 3 |
| 19 | PANExtendedCountryCode\_020 | String | O | 3 |
| 20 | ForwardingInstitutionCountryCode\_021 | String | O | 3 |
| 21 | PointOfServiceEntryMode\_022 | String | M | 3 |
| 22 | CardSequenceNumber\_023 | String | O | 3 |
| 23 | NetworkInternationalIdentifier\_024 | String | O | 3 |
| 24 | PointOfServiceConditionCode\_025 | String | M | 2 |
| 25 | PointOfServiceCaptureCode\_026 | String | M | 2 |
| 26 | AuthorizingIdentificationResponseLength\_027 | String | O | 1 |
| 27 | AmountTransactionFee\_028 | String | M | 9 |
| 28 | AmountSettlementFee\_029 | String | O | 9 |
| 29 | AmountTransactionProcessingFee\_030 | String | M | 9 |
| 30 | AmountSettlementProcessingFee\_031 | String | O | 9 |
| 31 | AcquiringInstitutionIdentificationCode\_032 | LL | M | 1-99 |
| 32 | ForwardingInstitutionIdentificationCode\_033 | LL | M | 1-99 |
| 33 | PrimaryAccountNumberExtended\_034 | LL | O | 1-99 |
| 34 | Track2Data\_035 | LL | O | 1-99 |
| 35 | Track3Data\_036 | LLL | O | 1-999 |
| 36 | RetrievalReferenceNumber\_037 | String | M | 12 |
| 37 | AuthorizationIdentificationResponse\_038 | String | O | 6 |
| 38 | ResponseCode\_039 | String | O | 2 |
| 39 | ServiceRestrictionCode\_040 | String | O | 3 |
| 40 | CardAcceptorTerminalIdentification\_041 | String | M | 8 |
| 41 | CardAcceptorIdentificationCode\_042 | String | M | 15 |
| 42 | CardAcceptorNameLocation\_043 | String | M | 40 |
| 43 | AdditionalResponseData\_044 | LL | O | 1-99 |
| 44 | Track1Data\_045 | LL | O | 1-99 |
| 45 | AdditionalDataISO\_046 | LLL | O | 1-999 |
| 46 | AdditionalDataNational\_047 | LLL | O | 1-999 |
| 47 | AdditionalDataPrivate\_048 | LLL | O | 1-999 |
| 48 | CurrencyCodeTransaction\_049 | String | M | 3 |
| 49 | CurrencyCodeSettlement\_050 | String | O | 3 |
| 50 | CurrencyCodeCardholderBilling\_051 | String | O | 3 |
| 51 | PersonalIdentificationNumberData\_052 | String | O | 8 |
| 52 | SecurityRelatedControlInformation\_053 | String | O | 16 |
| 53 | AdditionalAmounts\_054 | LLL | O | 1-999 |
| 54 | ReservedISO\_055 | LLL | O | 1-999 |
| 55 | ReservedISO\_056 | LLL | O | 1-999 |
| 56 | ReservedNational\_057 | LLL | O | 1-999 |
| 57 | ReservedNational\_058 | LLL | O | 1-999 |
| 58 | ReservedNational\_059 | LLL | M | 1-999 |
| 59 | AdviceReasonCode\_060 | LLL | O | 1-999 |
| 60 | ReservedPrivate\_061 | LLL | O | 1-999 |
| 61 | ReservedPrivate\_062 | LLL | O | 1-999 |
| 62 | ReservedPrivate\_063 | LLL | O | 1-999 |
| 63 | MessageAuthenticationCode\_064 | hexBinary | O | 8 |
| 64 | TertiaryBitmap\_065 | hexBinary | O | 8 |
| 65 | SettlementCode\_066 | String | O | 1 |
| 66 | ExtendedPaymentCode\_067 | String | O | 2 |
| 67 | ReceivingInstitutionCountryCode\_068 | String | O | 3 |
| 68 | SettlementInstitutionCountryCode\_069 | String | O | 3 |
| 69 | NetworkManagementInformationCode\_070 | String | O | 3 |
| 70 | MessageNumber\_071 | String | O | 4 |
| 71 | MessageNumberLast\_072 | String | O | 4 |
| 72 | DateAction\_073 | date | O | 6 |
| 73 | CreditsNumber\_074 | String | O | 10 |
| 74 | CreditsReversalNumber\_075 | String | O | 10 |
| 75 | DebitsNumber\_076 | String | O | 10 |
| 76 | DebitsReversalNumber\_077 | String | O | 10 |
| 77 | TransferNumber\_078 | String | O | 10 |
| 78 | TransferReversalNumber\_079 | String | O | 10 |
| 79 | InquiriesNumber\_080 | String | O | 10 |
| 80 | AuthorizationsNumber\_081 | String | O | 10 |
| 81 | CreditsProcessingFeeAmount\_082 | String | O | 12 |
| 82 | CreditsTransactionFeeAmount\_083 | String | O | 12 |
| 83 | DebitsProcessingFeeAmount\_084 | String | O | 12 |
| 84 | DebitsTransactionFeeAmount\_085 | String | O | 12 |
| 85 | CreditsAmount\_086 | String | O | 16 |
| 86 | CreditsReversalAmount\_087 | String | O | 16 |
| 87 | DebitsAmount\_088 | String | O | 16 |
| 88 | DebitsReversalAmount\_089 | String | O | 16 |
| 89 | OriginalDataElements\_090 | String | O | 42 |
| 90 | FileUpdateCode\_091 | String | O | 1 |
| 91 | FileSecurityCode\_092 | String | O | 2 |
| 92 | ResponseIndicator\_093 | String | O | 5 |
| 93 | ServiceIndicator\_094 | String | O | 7 |
| 94 | ReplacementAmounts\_095 | String | O | 42 |
| 95 | MessageSecurityCode\_096 | String | O | 8 |
| 96 | AmountNetSettlement\_097 | String | O | 16 |
| 97 | Payee\_098 | String | O | 25 |
| 98 | SettlementInstitutionIdentificationCode\_099 | LL | O | 1-99 |
| 99 | ReceivingInstitutionIdentificationCode\_100 | LL | M | 1-99 |
| 100 | FileName\_101 | LL | O | 1-99 |
| 101 | AccountIdentification1\_102 | LL | O | 1-99 |
| 102 | AccountIdentification2\_103 | LL | M | 1-99 |
| 103 | TransactionDescription\_104 | LL | O | 1-99 |
| 104 | ReservedISO\_105 | LLL | O | 1-999 |
| 105 | ReservedISO\_106 | LLL | O | 1-999 |
| 106 | ReservedISO\_107 | LLL | O | 1-999 |
| 107 | ReservedISO\_108 | LLL | O | 1-999 |
| 108 | ReservedISO\_109 | LLL | O | 1-999 |
| 109 | ReservedISO\_110 | LLL | O | 1-999 |
| 110 | ReservedISO\_111 | LLL | O | 1-999 |
| 111 | ReservedNational\_112 | LLL | O | 1-999 |
| 112 | ReservedNational\_113 | LLL | O | 1-999 |
| 113 | ReservedNational\_114 | LLL | O | 1-999 |
| 114 | ReservedNational\_115 | LLL | O | 1-999 |
| 115 | ReservedNational\_116 | LLL | O | 1-999 |
| 116 | ReservedNational\_117 | LLL | O | 1-999 |
| 117 | ReservedNational\_118 | LLL | O | 1-999 |
| 118 | ReservedNational\_119 | LLL | O | 1-999 |
| 119 | ReservedPrivate\_120 | LLL | O | 1-999 |
| 120 | ReservedPrivate\_121 | LLL | O | 1-999 |
| 121 | ReservedPrivate\_122 | LLL | O | 1-999 |
| 122 | ReservedPrivate\_123 | LLL | M | 1-999 |
| 123 | ReservedPrivate\_124 | LLL | O | 1-999 |
| 124 | ReservedPrivate\_125 | LLL | O | 1-999 |
| 125 | ReservedPrivate\_126 | LLL | O | 1-999 |
| 126 | ReservedPrivate\_127 | String | M | 6 |
| 127 | Postilion\_Bitmaps\_Group\_127\_1 |  | O |  |
| 128 | SwitchKeyPostilionPrivate\_127\_2 | LL | M | 1-99 |
| 129 | RoutingInformationPostilionPrivate\_127\_3 | String | O | 48 |
| 130 | POSDataPostilionPrivate\_127\_4 | String | O | 22 |
| 131 | ServiceStationDataPostilionPrivate\_127\_5 | String | O | 73 |
| 132 | AuthorizationProfilePostilionPrivate\_127\_6 | String | O | 2 |
| 133 | CheckDataPostilionPrivate\_127\_7 | LL | O | 1-99 |
| 134 | RetentionDataPostilionPrivate\_127\_8 | LLL | O | 1-999 |
| 135 | AdditionalNodeDataPostilionPrivate\_127\_9 | LLL | M | 1-999 |
| 136 | CVVPostilionPrivate\_127\_10 | String | O | 3 |
| 137 | OriginalKeyPostilionPrivate\_127\_11 | LL | O | 1-99 |
| 138 | OriginalKeyPostilionPrivate\_127\_12 | LL | M | 1-99 |
| 139 | PosGeographicDataPostilionPrivate\_127\_13 | String | O | 17 |
| 140 | SponsorBankPostilionPrivate\_127\_14 | String | O | 8 |
| 141 | AddressVerificationDataPostilionPrivate\_127\_15 | LL | O | 1-99 |
| 142 | AddressVerificationResultPostilionPrivate\_127\_16 | String | O | 1 |
| 143 | CardHolderInformationPostilionPrivate\_127\_17 | LL | O | 1-99 |
| 144 | ValidationDataPostilionPrivate\_127\_18 | LL | O | 1-99 |
| 145 | BankDetailsPostilionPrivate\_127\_19 | String | O | 31 |
| 146 | OriginatorAuthorizerDatePostilionPrivate\_127\_20 | String | O | 8 |
| 147 | RecordIdentificationPostilionPrivate\_127\_21 | LL | O | 1-99 |
| 148 | StructuredDataPostilionPrivate\_127\_22 | LLLLL | M | 1-99999 |
| 149 | PayeeNameAddressPostilionPrivate\_127\_23 | String | O | 253 |
| 150 | PayerAccountPostilionPrivate\_127\_24 | LL | O | 1-99 |
| 151 | ICCDataPostilionPrivate\_127\_25 | LLLL | O | 1-9999 |
| 152 | ICCData\_Bitmaps\_Group\_127\_25\_1 |  | O |  |
| 153 | AmountAuthorizedPostilionPrivate\_127\_25\_2 | String | O | 12 |
| 154 | AmountOtherPostilionPrivate\_127\_25\_3 | String | O | 12 |
| 155 | ApplicationIdentifierPostilionPrivate\_127\_25\_4 | LL | O | 1-99 |
| 156 | ApplicationInterchangeProfilePostilionPrivate\_127\_25\_5 | String | O | 4 |
| 157 | ApplicationTransactionCounterPostilionPrivate\_127\_25\_6 | String | O | 4 |
| 158 | ApplicationUsageControlPostilionPrivate\_127\_25\_7 | String | O | 4 |
| 159 | AuthorizationResponseCodePostilionPrivate\_127\_25\_8 | String | O | 2 |
| 160 | CardAuthReliabilityIndicatiorPostilionPrivate\_127\_25\_9 | String | O | 1 |
| 161 | CardAuthResultsCodePostilionPrivate\_127\_25\_10 | String | O | 1 |
| 162 | ChipConditionCodePostilionPrivate\_127\_25\_11 | String | O | 1 |
| 163 | CryptogramPostilionPrivate\_127\_25\_12 | String | O | 16 |
| 164 | CryptogramInformationDataPostilionPrivate\_127\_25\_13 | String | O | 2 |
| 165 | CvmListPostilionPrivate\_127\_25\_14 | LLL | O | 1-999 |
| 166 | CvmResultsPostilionPrivate\_127\_25\_15 | String | O | 6 |
| 167 | InterfaceDeviceSerialNumberPostilionPrivate\_127\_25\_16 | String | O | 8 |
| 168 | IssuerActionCodePostilionPrivate\_127\_25\_17 | String | O | 11 |
| 169 | IssuerApplicationDataPostilionPrivate\_127\_25\_18 | LL | O | 1-99 |
| 170 | IssuerScriptResultsPostilionPrivate\_127\_25\_19 | LLL | O | 1-999 |
| 171 | TerminalApplicationVersionNumberPostilionPrivate\_127\_25\_20 | String | O | 4 |
| 172 | TerminalCapabilitiesPostilionPrivate\_127\_25\_21 | String | O | 6 |
| 173 | TerminalCountryCodePostilionPrivate\_127\_25\_22 | String | O | 3 |
| 174 | TerminalTypePostilionPrivate\_127\_25\_23 | String | O | 2 |
| 175 | TerminalVerificationResultPostilionPrivate\_127\_25\_24 | String | O | 10 |
| 176 | TerminalCategoryCodePostilionPrivate\_127\_25\_25 | String | O | 1 |
| 177 | TransactionCurrencyCodePostilionPrivate\_127\_25\_26 | String | O | 3 |
| 178 | TransactionDatePostilionPrivate\_127\_25\_27 | String | O | 6 |
| 179 | TransactionSequenceCounterPostilionPrivate\_127\_25\_28 | L | O | 1-9 |
| 180 | TransactionTypePostilionPrivate\_127\_25\_29 | String | O | 2 |
| 181 | UnpredictableNumberResultPostilionPrivate\_127\_25\_30 | String | O | 8 |
| 182 | IssuerAuthDataPostilionPrivate\_127\_25\_31 | LL | O | 1-99 |
| 183 | IssuerScriptTemplate1PostilionPrivate\_127\_25\_32 | LLLL | O | 1-9999 |
| 184 | IssuerScriptTemplate2PostilionPrivate\_127\_25\_33 | LLLL | O | 1-9999 |
| 185 | OriginalNodePostilionPrivate\_127\_26 | LL | O | 1-99 |
| 186 | CardVerificationResultPostilionPrivate\_127\_27 | String | O | 1 |
| 187 | AmericanExpressCardIdentifierPostilionPrivate\_127\_28 | String | O | 4 |
| 188 | SecureData3DPostilionPrivate\_127\_29 | hexBinary | O | 40 |
| 189 | SecureData3DResultPostilionPrivate\_127\_30 | String | O | 1 |
| 190 | IssuerNetworkIDPostilionPrivate\_127\_31 | LL | O | 1-99 |
| 191 | UCAFDataPostilionPrivate\_127\_32 | LL | O | 1-99 |
| 192 | ExtendedTransactionTypePostilionPrivate\_127\_33 | String | M | 4 |
| 193 | AccountTypeQualifierPostilionPrivate\_127\_34 | String | O | 2 |
| 194 | AcquirerNetworkIDPostilionPrivate\_127\_35 | LL | O | 1-99 |
| 195 | CustomerIDPostilionPrivate\_127\_36 | LL | O | 1-99 |
| 196 | ExtendedResponseCodePostilionPrivate\_127\_37 | String | O | 4 |
| 197 | AdditionalPOSDataCodePostilionPrivate\_127\_38 | LL | O | 1-99 |
| 198 | OriginalResponseCodePostilionPrivate\_127\_39 | String | O | 2 |
| 199 | MessageAuthenticationCode\_128 | hexBinary | O | 8 |

### Response Message Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | DFDL Element | Data Type | Mandatory | Length of the Field |
|  | PrimaryAccountNumber\_002 | n-LL | O | **Upto 19** |
| 2 | P ProcessingCode\_003 | String | M | 6 |
| 3 | AmountTransaction\_004 | Decimal | M | 12 |
| 4 | AmountSettlement\_005 | Decimal | O | 12 |
| 5 | AmountCardHolderBilling\_006 | Decimal | O | 12 |
| 6 | TransmissionDatetime\_007 | dateTiemNoYear | M | 10 |
| 7 | AmountCardHolderBillingFee\_008 | Decimal | O | 8 |
| 8 | ConversionRateSettlement\_009 | String | O | 8 |
| 9 | ConversionRateCardholderBilling\_010 | String | O | 8 |
| 10 | SystemsTraceAuditNumber\_011 | String | M | 6 |
| 11 | TimeLocalTransaction\_012 | Time | M | **6** |
| 12 | DateLocalTransaction\_013 | monthDay | M | 4 |
| 13 | DateExpiration\_014 | yearMonth | O | 4 |
| 14 | DateSettlement\_015 | monthDay | M | 4 |
| 15 | DateConversion\_016 | monthDay | O | 4 |
| 16 | DateCapture\_017 | monthDay | O | 4 |
| 17 | MerchantType\_018 | String | M | 4 |
| 18 | AcquiringInstitutionCountryCode\_019 | String | O | 3 |
| 19 | PANExtendedCountryCode\_020 | String | O | 3 |
| 20 | ForwardingInstitutionCountryCode\_021 | String | O | 3 |
| 21 | PointOfServiceEntryMode\_022 | String | M | 3 |
| 22 | CardSequenceNumber\_023 | String | O | 3 |
| 23 | NetworkInternationalIdentifier\_024 | String | O | 3 |
| 24 | PointOfServiceConditionCode\_025 | String | M | 2 |
| 25 | PointOfServiceCaptureCode\_026 | String | O | 2 |
| 26 | AuthorizingIdentificationResponseLength\_027 | String | O | 1 |
| 27 | AmountTransactionFee\_028 | String | M | 9 |
| 28 | AmountSettlementFee\_029 | String | O | 9 |
| 29 | AmountTransactionProcessingFee\_030 | String | M | 9 |
| 30 | AmountSettlementProcessingFee\_031 | String | O | 9 |
| 31 | AcquiringInstitutionIdentificationCode\_032 | LL | M | 1-99 |
| 32 | ForwardingInstitutionIdentificationCode\_033 | LL | M | 1-99 |
| 33 | PrimaryAccountNumberExtended\_034 | LL | O | 1-99 |
| 34 | Track2Data\_035 | LL | O | 1-99 |
| 35 | Track3Data\_036 | LLL | O | 1-999 |
| 36 | RetrievalReferenceNumber\_037 | String | M | 12 |
| 37 | AuthorizationIdentificationResponse\_038 | String | M | 6 |
| 38 | ResponseCode\_039 | String | M | 2 |
| 39 | ServiceRestrictionCode\_040 | String | O | 3 |
| 40 | CardAcceptorTerminalIdentification\_041 | String | M | 8 |
| 41 | CardAcceptorIdentificationCode\_042 | String | M | 15 |
| 42 | CardAcceptorNameLocation\_043 | String | M | 40 |
| 43 | AdditionalResponseData\_044 | LL | O | 1-99 |
| 44 | Track1Data\_045 | LL | O | 1-99 |
| 45 | AdditionalDataISO\_046 | LLL | O | 1-999 |
| 46 | AdditionalDataNational\_047 | LLL | O | 1-999 |
| 47 | AdditionalDataPrivate\_048 | LLL | O | 1-999 |
| 48 | CurrencyCodeTransaction\_049 | String | M | 3 |
| 49 | CurrencyCodeSettlement\_050 | String | O | 3 |
| 50 | CurrencyCodeCardholderBilling\_051 | String | O | 3 |
| 51 | PersonalIdentificationNumberData\_052 | String | O | 8 |
| 52 | SecurityRelatedControlInformation\_053 | String | O | 16 |
| 53 | AdditionalAmounts\_054 | LLL | M | 1-999 |
| 54 | ReservedISO\_055 | LLL | O | 1-999 |
| 55 | ReservedISO\_056 | LLL | O | 1-999 |
| 56 | ReservedNational\_057 | LLL | O | 1-999 |
| 57 | ReservedNational\_058 | LLL | O | 1-999 |
| 58 | ReservedNational\_059 | LLL | M | 1-999 |
| 59 | AdviceReasonCode\_060 | LLL | O | 1-999 |
| 60 | ReservedPrivate\_061 | LLL | O | 1-999 |
| 61 | ReservedPrivate\_062 | LLL | O | 1-999 |
| 62 | ReservedPrivate\_063 | LLL | O | 1-999 |
| 63 | MessageAuthenticationCode\_064 | hexBinary | O | 8 |
| 64 | TertiaryBitmap\_065 | hexBinary | O | 8 |
| 65 | SettlementCode\_066 | String | O | 1 |
| 66 | ExtendedPaymentCode\_067 | String | O | 2 |
| 67 | ReceivingInstitutionCountryCode\_068 | String | O | 3 |
| 68 | SettlementInstitutionCountryCode\_069 | String | O | 3 |
| 69 | NetworkManagementInformationCode\_070 | String | O | 3 |
| 70 | MessageNumber\_071 | String | O | 4 |
| 71 | MessageNumberLast\_072 | String | O | 4 |
| 72 | DateAction\_073 | date | O | 6 |
| 73 | CreditsNumber\_074 | String | O | 10 |
| 74 | CreditsReversalNumber\_075 | String | O | 10 |
| 75 | DebitsNumber\_076 | String | O | 10 |
| 76 | DebitsReversalNumber\_077 | String | O | 10 |
| 77 | TransferNumber\_078 | String | O | 10 |
| 78 | TransferReversalNumber\_079 | String | O | 10 |
| 79 | InquiriesNumber\_080 | String | O | 10 |
| 80 | AuthorizationsNumber\_081 | String | O | 10 |
| 81 | CreditsProcessingFeeAmount\_082 | String | O | 12 |
| 82 | CreditsTransactionFeeAmount\_083 | String | O | 12 |
| 83 | DebitsProcessingFeeAmount\_084 | String | O | 12 |
| 84 | DebitsTransactionFeeAmount\_085 | String | O | 12 |
| 85 | CreditsAmount\_086 | String | O | 16 |
| 86 | CreditsReversalAmount\_087 | String | O | 16 |
| 87 | DebitsAmount\_088 | String | O | 16 |
| 88 | DebitsReversalAmount\_089 | String | O | 16 |
| 89 | OriginalDataElements\_090 | String | O | 42 |
| 90 | FileUpdateCode\_091 | String | O | 1 |
| 91 | FileSecurityCode\_092 | String | O | 2 |
| 92 | ResponseIndicator\_093 | String | O | 5 |
| 93 | ServiceIndicator\_094 | String | O | 7 |
| 94 | ReplacementAmounts\_095 | String | O | 42 |
| 95 | MessageSecurityCode\_096 | String | O | 8 |
| 96 | AmountNetSettlement\_097 | String | O | 16 |
| 97 | Payee\_098 | String | O | 25 |
| 98 | SettlementInstitutionIdentificationCode\_099 | LL | O | 1-99 |
| 99 | ReceivingInstitutionIdentificationCode\_100 | LL | M | 1-99 |
| 100 | FileName\_101 | LL | O | 1-99 |
| 101 | AccountIdentification1\_102 | LL | O | 1-99 |
| 102 | AccountIdentification2\_103 | LL | M | 1-99 |
| 103 | TransactionDescription\_104 | LL | O | 1-99 |
| 104 | ReservedISO\_105 | LLL | O | 1-999 |
| 105 | ReservedISO\_106 | LLL | O | 1-999 |
| 106 | ReservedISO\_107 | LLL | O | 1-999 |
| 107 | ReservedISO\_108 | LLL | O | 1-999 |
| 108 | ReservedISO\_109 | LLL | O | 1-999 |
| 109 | ReservedISO\_110 | LLL | O | 1-999 |
| 110 | ReservedISO\_111 | LLL | O | 1-999 |
| 111 | ReservedNational\_112 | LLL | O | 1-999 |
| 112 | ReservedNational\_113 | LLL | O | 1-999 |
| 113 | ReservedNational\_114 | LLL | O | 1-999 |
| 114 | ReservedNational\_115 | LLL | O | 1-999 |
| 115 | ReservedNational\_116 | LLL | O | 1-999 |
| 116 | ReservedNational\_117 | LLL | O | 1-999 |
| 117 | ReservedNational\_118 | LLL | O | 1-999 |
| 118 | ReservedNational\_119 | LLL | O | 1-999 |
| 119 | ReservedPrivate\_120 | LLL | O | 1-999 |
| 120 | ReservedPrivate\_121 | LLL | O | 1-999 |
| 121 | ReservedPrivate\_122 | LLL | O | 1-999 |
| 122 | ReservedPrivate\_123 | LLL | M | 1-999 |
| 123 | ReservedPrivate\_124 | LLL | O | 1-999 |
| 124 | ReservedPrivate\_125 | LLL | O | 1-999 |
| 125 | ReservedPrivate\_126 | LLL | O | 1-999 |
| 126 | ReservedPrivate\_127 | String | M | 6 |
| 127 | Postilion\_Bitmaps\_Group\_127\_1 |  | O |  |
| 128 | SwitchKeyPostilionPrivate\_127\_2 | LL | O | 1-99 |
| 129 | RoutingInformationPostilionPrivate\_127\_3 | String | M | 48 |
| 130 | POSDataPostilionPrivate\_127\_4 | String | O | 22 |
| 131 | ServiceStationDataPostilionPrivate\_127\_5 | String | O | 73 |
| 132 | AuthorizationProfilePostilionPrivate\_127\_6 | String | M | 2 |
| 133 | CheckDataPostilionPrivate\_127\_7 | LL | O | 1-99 |
| 134 | RetentionDataPostilionPrivate\_127\_8 | LLL | O | 1-999 |
| 135 | AdditionalNodeDataPostilionPrivate\_127\_9 | LLL | O | 1-999 |
| 136 | CVVPostilionPrivate\_127\_10 | String | O | 3 |
| 137 | OriginalKeyPostilionPrivate\_127\_11 | LL | O | 1-99 |
| 138 | OriginalKeyPostilionPrivate\_127\_12 | LL | O | 1-99 |
| 139 | PosGeographicDataPostilionPrivate\_127\_13 | String | O | 17 |
| 140 | SponsorBankPostilionPrivate\_127\_14 | String | O | 8 |
| 141 | AddressVerificationDataPostilionPrivate\_127\_15 | LL | O | 1-99 |
| 142 | AddressVerificationResultPostilionPrivate\_127\_16 | String | O | 1 |
| 143 | CardHolderInformationPostilionPrivate\_127\_17 | LL | O | 1-99 |
| 144 | ValidationDataPostilionPrivate\_127\_18 | LL | O | 1-99 |
| 145 | BankDetailsPostilionPrivate\_127\_19 | String | O | 31 |
| 146 | OriginatorAuthorizerDatePostilionPrivate\_127\_20 | String | M | 8 |
| 147 | RecordIdentificationPostilionPrivate\_127\_21 | LL | O | 1-99 |
| 148 | StructuredDataPostilionPrivate\_127\_22 | LLLLL | M | 1-99999 |
| 149 | PayeeNameAddressPostilionPrivate\_127\_23 | String | O | 253 |
| 150 | PayerAccountPostilionPrivate\_127\_24 | LL | O | 1-99 |
| 151 | ICCDataPostilionPrivate\_127\_25 | LLLL | O | 1-9999 |
| 152 | ICCData\_Bitmaps\_Group\_127\_25\_1 |  | O |  |
| 153 | AmountAuthorizedPostilionPrivate\_127\_25\_2 | String | O | 12 |
| 154 | AmountOtherPostilionPrivate\_127\_25\_3 | String | O | 12 |
| 155 | ApplicationIdentifierPostilionPrivate\_127\_25\_4 | LL | O | 1-99 |
| 156 | ApplicationInterchangeProfilePostilionPrivate\_127\_25\_5 | String | O | 4 |
| 157 | ApplicationTransactionCounterPostilionPrivate\_127\_25\_6 | String | O | 4 |
| 158 | ApplicationUsageControlPostilionPrivate\_127\_25\_7 | String | O | 4 |
| 159 | AuthorizationResponseCodePostilionPrivate\_127\_25\_8 | String | O | 2 |
| 160 | CardAuthReliabilityIndicatiorPostilionPrivate\_127\_25\_9 | String | O | 1 |
| 161 | CardAuthResultsCodePostilionPrivate\_127\_25\_10 | String | O | 1 |
| 162 | ChipConditionCodePostilionPrivate\_127\_25\_11 | String | O | 1 |
| 163 | CryptogramPostilionPrivate\_127\_25\_12 | String | O | 16 |
| 164 | CryptogramInformationDataPostilionPrivate\_127\_25\_13 | String | O | 2 |
| 165 | CvmListPostilionPrivate\_127\_25\_14 | LLL | O | 1-999 |
| 166 | CvmResultsPostilionPrivate\_127\_25\_15 | String | O | 6 |
| 167 | InterfaceDeviceSerialNumberPostilionPrivate\_127\_25\_16 | String | O | 8 |
| 168 | IssuerActionCodePostilionPrivate\_127\_25\_17 | String | O | 11 |
| 169 | IssuerApplicationDataPostilionPrivate\_127\_25\_18 | LL | O | 1-99 |
| 170 | IssuerScriptResultsPostilionPrivate\_127\_25\_19 | LLL | O | 1-999 |
| 171 | TerminalApplicationVersionNumberPostilionPrivate\_127\_25\_20 | String | O | 4 |
| 172 | TerminalCapabilitiesPostilionPrivate\_127\_25\_21 | String | O | 6 |
| 173 | TerminalCountryCodePostilionPrivate\_127\_25\_22 | String | O | 3 |
| 174 | TerminalTypePostilionPrivate\_127\_25\_23 | String | O | 2 |
| 175 | TerminalVerificationResultPostilionPrivate\_127\_25\_24 | String | O | 10 |
| 176 | TerminalCategoryCodePostilionPrivate\_127\_25\_25 | String | O | 1 |
| 177 | TransactionCurrencyCodePostilionPrivate\_127\_25\_26 | String | O | 3 |
| 178 | TransactionDatePostilionPrivate\_127\_25\_27 | String | O | 6 |
| 179 | TransactionSequenceCounterPostilionPrivate\_127\_25\_28 | L | O | 1-9 |
| 180 | TransactionTypePostilionPrivate\_127\_25\_29 | String | O | 2 |
| 181 | UnpredictableNumberResultPostilionPrivate\_127\_25\_30 | String | O | 8 |
| 182 | IssuerAuthDataPostilionPrivate\_127\_25\_31 | LL | O | 1-99 |
| 183 | IssuerScriptTemplate1PostilionPrivate\_127\_25\_32 | LLLL | O | 1-9999 |
| 184 | IssuerScriptTemplate2PostilionPrivate\_127\_25\_33 | LLLL | O | 1-9999 |
| 185 | OriginalNodePostilionPrivate\_127\_26 | LL | O | 1-99 |
| 186 | CardVerificationResultPostilionPrivate\_127\_27 | String | O | 1 |
| 187 | AmericanExpressCardIdentifierPostilionPrivate\_127\_28 | String | O | 4 |
| 188 | SecureData3DPostilionPrivate\_127\_29 | hexBinary | O | 40 |
| 189 | SecureData3DResultPostilionPrivate\_127\_30 | String | O | 1 |
| 190 | IssuerNetworkIDPostilionPrivate\_127\_31 | LL | O | 1-99 |
| 191 | UCAFDataPostilionPrivate\_127\_32 | LL | O | 1-99 |
| 192 | ExtendedTransactionTypePostilionPrivate\_127\_33 | String | O | 4 |
| 193 | AccountTypeQualifierPostilionPrivate\_127\_34 | String | O | 2 |
| 194 | AcquirerNetworkIDPostilionPrivate\_127\_35 | LL | O | 1-99 |
| 195 | CustomerIDPostilionPrivate\_127\_36 | LL | O | 1-99 |
| 196 | ExtendedResponseCodePostilionPrivate\_127\_37 | String | O | 4 |
| 197 | AdditionalPOSDataCodePostilionPrivate\_127\_38 | LL | O | 1-99 |
| 198 | OriginalResponseCodePostilionPrivate\_127\_39 | String | O | 2 |
| 199 | MessageAuthenticationCode\_128 | hexBinary | O | 8 |
|  |  |  |  |  |

# Logging Mechanism

## Insert into Raw\_Audit\_Table:

**Table Name: RAW\_AUDIT\_TABLE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item #** | **DB Field Name** | **Field Description** | **Data Type** | **Length** | **Mandatory(Yes/No)** | **Comments** |
| 1 | MSGID | MessageID | Varchar | 100 | Y | From input request |
| 2 | LOGGING\_TIME | Logging Time | TimeStamp | 6 | Y | Name |
| 3 | MESSAGE | Message(Request/Response) | Clob | - | Y | Request from channel |
| 4 | MESSAGETYPE | Type of Message(Request/Response) | Varchar | 100 | Y | Type of message either Request or Response |
| 5 | APPNAME | Application Name | Varchar | 100 | Y | Name of the Application |
| 6 | BROKER | Broker Name | Varchar | 100 | Y | Broker Name |
| 7 | TIME\_LOCAL\_TRANSACTION | Transaction Time | Varchar | 20 | Y | Time of the Transaction |
| 8 | DATE\_LOCAL\_TRANSACTION | Transaction Date | Varchar | 20 | Y | Date of the Transaction |
| 9 | RETRIEVAL\_REFERENCE\_NUMBER | Retrieval Reference Number | Varchar | 20 | Y |  |

## Insert into Error\_Audit\_Table:

**Table Name: ERROR\_AUDIT\_TABLE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item #** | **DB Field Name** | **Field Description** | **Data Type** | **Length** | **Mandatory(Yes/No)** | **Comments** |
| 1 | MSGID | MessageID | Varchar | 50 | Y | From input request |
| 2 | LOGGING\_TIME | Application Name | Timestamp | 50 | Y | Time of the logging |
| 3 | MESSAGE | Message Type(Request/Response) | Clob | 50 | Y | Request of the Message |
| 4 | MESSAGETYPE | Message Type | Varchar | 50 | Y | Type of message either Request or Response |
| 5 | APPNAME | Application Name | Varchar | 4000 | Y | Name of the Application |
| 6 | BROKER | Broker Name | Varchar | - | Y | Name of the Broker |
| 7 | ERRORDESCRIPTION | Exception | Clob | 4000 | Y | Exception Information |
| 8 | TIME\_LOCAL\_TRANSACTION | Transaction Time | Varchar | 20 | Y | Time of the Transaction |
| 9 | DATE\_LOCAL\_TRANSACTION | Transaction Date | Varchar | 20 | Y | Date of the Transaction |
| 9 | RETRIEVAL\_REFERENCE\_NUMBER | Retrieval Reference Number | Varchar | 20 | Y | Retrieval Reference Number |
| 10 | BORKER\_ERROR\_CODE | Broker Error Code | Varchar |  | Y | Error code generate by Broker |
| 11 | USER\_DEFINE\_ERROR\_CODE | User Defined Error Code | Varchar |  | Y | User Defined Code |

## File Based Logging

### Log4j:

As part of auditing the request we have to use Log4j mechanism in the application to log the request in the file.

File Path: To be specified, while deploying the application