Loan repayment Interface Specification Low Level Design Document

**EIDIKOSYSTEMS INTEGRATORS**



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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 Loan Repayment ***(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 Loan Repayment ***(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
* Error handling and exception scenarios
* Validation and backup requirements

# Channels Involved

The following table lists Loan repayment channels

|  |  |
| --- | --- |
| **Item #** | **Channel Name** |
| 1 | Mobile Application |
| 2 | Self Service |
| 3 | Agent Portal |

# Interface Dependencies

## External Dependencies

The following table lists interface specific External requirements.

|  |  |
| --- | --- |
| **Item #** | **External Requirements** |
| 1 | ORADSN Database |
| 2 | Core Banking System |

## Internal Dependencies

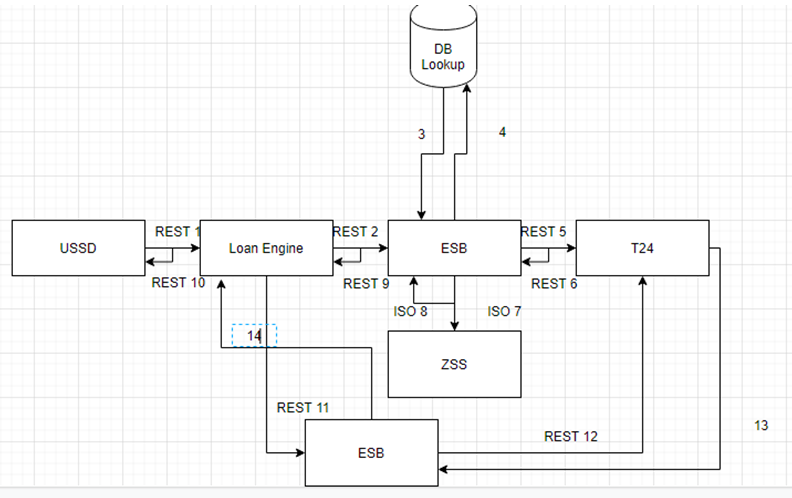
The following table lists interface specific internal requirements.

|  |  |
| --- | --- |
| **Item #** | **Internal Requirements** |
| 1 | HTTP Router Interface (Gateway) |
| 2 | HTTP Retry Interface (Subflow) |
| 3 | DB Logging App (Audit Logging) |
| 4 | StewardBankCommonEsql (Shared Library) |

# Business Process Summary

## Process Overview

The **Loan repayment** process primarily involves to



REST

### Figure:1 Process flow Approach for Loan repayment.

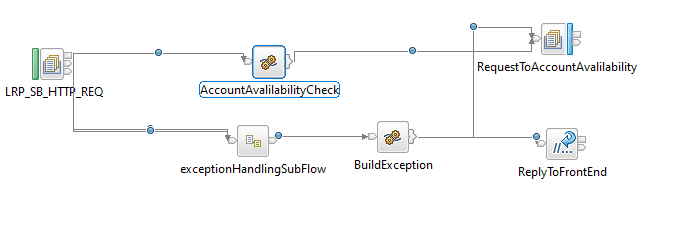
### Loan repayment Steps

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1 | ESB receives the request from channel (Portal Backend). |
| 2 | Requestchannel is the http request accepts the request from the channel |
| 3 | ESb frames the request based on the ACCOUN NO, I fhte ACCOIUNT NO is belongs to ISAVE LOOKUP TABLE and ACCOUNT NO start with 2 then it is routed to ZSS ESB frames the Request URL According to the T24 requires and send to the T24. |
| 4 | ZSS or T24 will Respond back to the ESB with Response |
| 5 | The same ZSS or T24 Response, ESB will send back to the channel. |
| 6 | On Successful call of ZSS or T24 Response will be placed in theRAW\_LOG\_SB\_REQto logthe response in Data Base(RAW\_AUDIT\_LOGGING |
| 7 | On Unsuccessful call of ZSS or T24 Response will beplaced in theERROR\_LOG\_SB\_REQto log the response in Data Base(ERR\_AUDIT\_LOGGING |

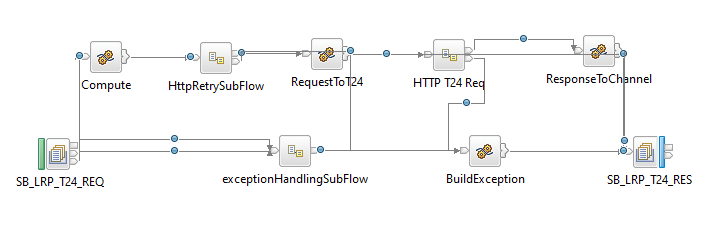
# IIB Implementation Process Flow

## Loan Repayment Successfull Request Response Flow

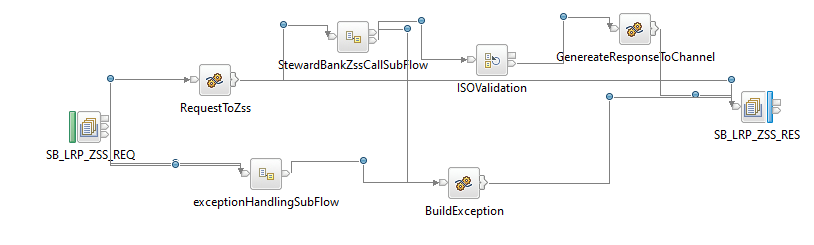
### Process Diagram



**Figure:2 Loan Repayment Flow**

****

**Figure:3 Loan RepaymentT24 Flow**

****

**Figure:4 Loan RepaymentZSS Flow**

### Process Flow Steps

|  |  |
| --- | --- |
| **S. No** | **Activities** |
| 1. | ESB receives the request from the channel using the HTTP Router Application based on procesingCode& channel trigs the Business Application(LoanRepaymentFlow) using Business Queue (LRP\_SB\_HTTP\_REQ) i.e Request from channel. |
| 2 | Initial request and response are logged in the RAW\_LOG\_SB\_REQ and is insert in Data Base(RAW\_AUDIT\_LOGGING). |
| 3 | After logging of request ESB frames the Request to ZSS server or URL to T24 server. |
| 4 | After Framing theZSS or T24 Request is logged in RAW\_LOG\_SB\_REQ and is insert in Data Base |
| 5 | If theZSS call is successful,then ISO response is generate,then it is converting it to JSON.. |
| 6 | Or If the T24 call is successful, then JSON response is generate. |
| 7 | The ZSS response in ISO Formate is logged in RAW\_SB\_REQ and insert in DataBase(RAW\_AUDIT\_LOGGING) |
| 8 | T24 Response in JSON Format is logged in RAW\_LOG\_SB\_REQ and insert in Data Base (RAW\_AUDIT\_LOGGING) |
| 9 | After the Response is generated by ZSS or T24 call same response is sending back to Channel with the help of HTTP Router Application. Here ESB frames the Channel Response(T24 Response) |
| 10 | T24 Response is logged in RAW\_LOG\_SB\_REQ and is insert in Data Base(RAW\_AUDIT\_LOGGING) |
| 11 | On Unsuccessfull calls of T24 Request and Response will be placed in the ERROR\_LOG\_SB\_REQto log the request in Data Base(ERR\_AUDIT\_LOGGING) |

## Retry Process workflow

### Process Flow Diagram



**Figure:3 HTTP Retry for Loan repayment**

### Process Flow steps

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

**7.3Raw\_Audit Process Flow:**

**7.3.1Process Flow Diagram:**



**Figure:4Raw\_Audit\_Logging Flow**

**7.3.2 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. |

**7.4HTTP Router Process Flow**

**7.4.1 Incoming Router Process Flow Diagram:**



**Figure:5Incoming Router Flow**

**7.4.2 Process Flow Steps:**

|  |  |
| --- | --- |
| **S. No** | IIB receives the request from channel. |
|  | ESB receives the request from channel. |
|  | Requestchannel is the http request accepts the request from the channel |
|  | The request message is placed in theRAW\_LOG\_SB\_REQto log the request in Data Base(RAW\_AUDIT\_LOGGING) |
|  | According to the Channel Request message fields such as channel and processing code it picks the queue name of the business flow from INTEGRATION\_SOL\_DETAILS table and propagates it to the business flow. |
|  | It validates the processingCode, Channel and domain of input from INTEGRATION\_SOL\_DETAILS if it fails to validate the error response is logged in the logs and in Data Base (ERROR\_AUDIT\_LOG) |
|  | After the validation Request message is passed through ESB. If the queue name presents in MQ manager the ESB business flow triggers otherwise the error response is sent to the front end as Unable to open queue. |
|  | If it is success or failure response will store them in RAW\_AUDIT\_LOG table or ERROR\_AUDIT\_LOG and logging into log file. |
|  | The request from channel is sent to ESB LoanRepayment Flow |

**7.4. Integration Solution Details**

**Table Name: INTEGRATION\_SOL\_DETAILS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item #** | **DB Field Name** | **Field Description** | **Data Type** | **Length** | **Mandatory(Yes/No)** | **Comments** |
| 1 | PROC\_CODE | Processing Code | Varchar | 20 | Y | From input request |
| 2 | REQ\_QUEUE | TCPIP Request Queue | Varchar | 20 | N | This Request Queue Name field is used for ISO Related Application |
| 3 | RES\_QUEUE | TCPIP Response Queue | Varchar | 20 | N | This Response Queue Name field is used for ISO Related Application |
| 4 | HTTP\_REQ | HTTP Request Queue | Varchar | 20 | Y | This Request Queue Name field is used for REST Related Application |
| 5 | HTTP\_RES | HTTP Response Queue | Varchar | 20 | Y | This Response Queue Name field is used for REST Related Application |
| 6 | CHANNEL | Channel | Varchar | 20 | Y | Channel Name |
| 7 | MSGDOMAIN | Message Domain | Varchar | 20 | Y | Request Message Format |
|  |  |  |  |  |  |  |

**7.4.4 Outgoing Router Process Flow Diagram**



**Figure:6 Outgoing Router Flow**

**7.4.5 Process Flow Steps:**

|  |  |
| --- | --- |
| **S. No** | **Activities** |
|  | TheOutgoingHttpRes brings the Channel Response |
|  | Channel Response will be logged in RAW\_LOG\_SB\_REQ and insert in Data Base. |
|  | Finally Channel Response will be send to the Front End. |

**7.5 Error\_Audit Process Flow**

**7.5.1 Process Flow Diagram:**



**Figure:7 Exception Subflow**



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

**7.5.2 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 Data Base. |
|  | Final Response is inserted into the DataBase and then Response is logged into the ERR\_LOG\_SB\_REQ. |

# Interface Definitions

## Request Message Definition

### ChannelRequest Message Structure /Schema

Request URL: http://192.168.1.233:8080/stwbc/api/v1.0.0/stwb/enquiries/paymentDate

|  |  |
| --- | --- |
| **S. No** | **Activities** |
|  | Here we are doing the first HTTP retrying to get the date fields. |
|  | The response we will get is Last Working Date, Current Working Date, Next Working Date |
|  | While framing the T24 Request we check with current Date, if it is Sunday we are taking the next working date as our date field to frame T24 |

**Request Type:** HTTP

**Request Format:**JSON

**Request URL:** <http://192.168.1.233:8080/stwbc/api/v1.0.0/stwb/payment/loanRepay/{debitAccount}/{debitCurrency}/{transactionAmount}/{creditAccountId}/{executionDate}/{customer}>

8.1.2 ChannelRequest Message Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/ Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | creditAccountNumber | String | Y | Credit Account Number |
| 2 | debitAccountNumber | String | Y | Debit Account Number |
| 3 | Channel | String | Y | Channel |
| 4 | debitAmount | String | Y | Debit Amount |
| 5 | mobileNumber | String | Y | Mobile  Number |
| 6 | debitCurrency | String | Y | Debit Currency |
| 7 | processingCode | String | Y | Processing Code |
| 8 | transactionType | String | Y | transactionType |
| 9 | debitReference | String | Y | debitReference |
| 10 | paymentDetails | String | Y | paymentDetails |
| 11 | thirdPartyReference | String | Y | thirdPartyReference |

### 

### 8.1.3 Channel Sample Source Messages

|  |
| --- |
| {  "creditAccountNumber" : "1000000163",  "debitAccountNumber" : "ZWL1447400010001",  "channel":"T24",  "debitAmount":"12.00",  "mobileNumber":"263779368855",  "debitCurrency":"ZWL",  "processingCode":"120000",  "transactionType":"AC",  "debitReference":"ECO H-FEE",  "paymentDetails":"HANDLING FEE",  "thirdPartyReference":"35929427-2"  } |

### 8.1.4 T24 Request Message Structure /Schema

**Request Type:** HTTP

**Request Format:**JSON

**Request URL:** <http://192.168.1.233:8080/stwbc/api/v1.0.0/stwb/payment/loanRepay/{debitAccount}/{debitCurrency}/{transactionAmount}/{creditAccountId}/{executionDate}/{customer}>

8.1.5 T24 Response Message Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/ Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | Header | String | Y | Header Tag |
| 2 | Audit | String | Y | Audit Tag |
| 2 | T24\_Time | String | Y | T24 Time. |
| 2 | Parse\_Time | String | Y | Parse\_Time. |
| 2 | Page\_start | String | Y | Page Start. |
| 2 | page\_Token | String | Y | Page Token. |
| 2 | Total\_Size | String | Y | Total Size |
| 2 | Page\_Size | String | Y | Page Size |
| 1 | Body | String | Y | Body Tag |
| 2 | Item\* | String | Y | Markets details |
| 3 | companyId | String | Y | Company ID |
| 3 | lastWorkingDate | String | Y | Last Wotking Date |
| 3 | nextWorkingDate | String | Y | Next Work Date |
| 2 | currentWorkingDate | String | Y | Current Wortking Date |

Second Call T24 Response Message Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/ Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | Header | String | Y | Header Tag |
| 1 | Transaction Status | String | Y | Transaction Status |
| 2 | Audit | String | Y | Main Tag. |
| 2 | T24\_Time | String | Y | T24 Time. |
| 2 | Parse\_Time | String | Y | Parse Time. |
| 2 | ResponseParser\_Time | String | Y | Response Parser Time. |
| 2 | Request Parse\_Time | String | Y | Request Parse Time |
| 2 | Version Number | String | Y | Version Number |
| 2 | Id | String | Y | Id |
| 2 | Status | String | Y | Status |
| 1 | Body | String | Y | Body Tag |
| 2 | OrderingRefarence | String | Y | Ordering Refarence |
| 2 | orderingCustomerId | String | Y | Ordering Customer ID |
| 2 | debitCurrency | String | Y | Debit Curency |
| 2 | transactionAmount | String | Y | Transaction Amount |
| 2 | endToEndReference | String | Y | End To End Refarence |
| 2 | executionDate | String | Y | Execution Date |
| 2 | debitAccountId | String | Y | Debit account Id |
| 2 | creditAccountId | String | Y | Credit Account Id |
| 2 | paymentCurrency | String | Y | Payment Currency |
| 2 | paymentOrderProductId | String | Y | Payment Order Product Id |

### 8.1.6 T24 Sample Source Messages

|  |
| --- |
| {  "header": {  "transactionStatus": "Live",  "audit": {  "T24\_time": 447,  "parse\_time": 1,  "responseParse\_time": 1,  "requestParse\_time": 2,  "versionNumber": "1"  },  "id": "PI202320TRCS6DR8",  "status": "success",  "channel": "\*236#",  "processingCode": "120000",  "responseCode": "200"  },  "body": {  "orderingReference": "35929427-2",  "orderingCustomerId": "100121",  "debitCurrency": "ZWL",  "transactionAmount": 12,  "endToEndReference": "NOTPROVIDED",  "executionDate": "20200819",  "debitAccountId": "1000000163",  "creditAccountId": "ZWL1447400010001",  "paymentCurrency": "ZWL",  "paymentOrderProductId": "LOANPAY"  }  } |

### Data Base Response Codes

001 = "Fatal Exception";

002 = "Recoverable Exception";

003 = "Configuration Exception";

004 = "Security Exception";

005 = "Parser Exception";

006 = "Conversion Exception";

007 = "Data Base Exception";

008 = "User Exception";

009 = "Cast Exception";

010 = "Message Exception";

011 = "SQL Exception";

012 = "Socket Exception";

013 = "Socket Timeout Exception";

014 = "Unknown Exception";

015 = "Failure";

## Response Message Definition

### Channel Response Message Structure/Schema

**Response Type:** JSON

### 8.2.2 Channel Response Message Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item #** | **Tag Name/Field Name** | **Data Type** | **Mandatory(Yes/No)** | **Comments** |
| 1 | LoanRepaymentResponse | String | Y | Main Tag |
| 2 | Header | String | Y | Header Tag |
| 2 | Channel | String | Y | channel |
| 3 | processingCode | String | Y | Processing Code |
| 3 | accountType | String | Y | Account Name |
| 3 | responseCode | String | Y | Response Code |
| 4 | Status | String | Y | Status |
| 4 | Body | String | Y | Body |
| 4 | LoanRepaymentData\* | String | Y | Response Data |

### 8.2.3 Channel Sample Response Messages

|  |
| --- |
| {  "LoneRepayment": {  "header": {  "transactionStatus": "Live",  "audit": {  "T24\_time": 447,  "parse\_time": 1,  "responseParse\_time": 1,  "requestParse\_time": 2,  "versionNumber": "1"  },  "id": "PI202320TRCS6DR8",  "status": "success",  "channel": "\*236#",  "processingCode": "120000",  "responseCode": "200"  },  "body": {  "orderingReference": "35929427-2",  "orderingCustomerId": "100121",  "debitCurrency": "ZWL",  "transactionAmount": 12,  "endToEndReference": "NOTPROVIDED",  "executionDate": "20200819",  "debitAccountId": "1000000163",  "creditAccountId": "ZWL1447400010001",  "paymentCurrency": "ZWL",  "paymentOrderProductId": "LOANPAY"  }  }  } |

### 

### Request Message Schema For ZSS

**Request Type:** TCPIP

**Request Format:** ISO8583

ZSS Request Message Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | DFDL Element | Data Type | Mandatory | Length of the Field |
|  | PrimaryAccountNumber\_002 | n-LL | O | **Upto 19** |
| 2 | P ProcessingCode\_003 | String | O | 6 |
| 3 | AmountTransaction\_004 | Decimal | M | 12 |
| 4 | AmountSettlement\_005 | Decimal | O | 12 |
| 5 | AmountCardHolderBilling\_006 | Decimal | O | 12 |
| 6 | TransmissionDatetime\_007 | dateTiemNoYear | O | 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 | O | **6** |
| 12 | DateLocalTransaction\_013 | monthDay | O | 4 |
| 13 | DateExpiration\_014 | yearMonth | O | 4 |
| 14 | DateSettlement\_015 | monthDay | O | 4 |
| 15 | DateConversion\_016 | monthDay | O | 4 |
| 16 | DateCapture\_017 | monthDay | O | 4 |
| 17 | MerchantType\_018 | String | O | 4 |
| 18 | AcquiringInstitutionCountryCode\_019 | String | O | 3 |
| 19 | PANExtendedCountryCode\_020 | String | O | 3 |
| 20 | ForwardingInstitutionCountryCode\_021 | String | O | 3 |
| 21 | PointOfServiceEntryMode\_022 | String | O | 3 |
| 22 | CardSequenceNumber\_023 | String | O | 3 |
| 23 | NetworkInternationalIdentifier\_024 | String | O | 3 |
| 24 | PointOfServiceConditionCode\_025 | String | O | 2 |
| 25 | PointOfServiceCaptureCode\_026 | String | O | 2 |
| 26 | AuthorizingIdentificationResponseLength\_027 | String | O | 1 |
| 27 | AmountTransactionFee\_028 | String | O | 9 |
| 28 | AmountSettlementFee\_029 | String | O | 9 |
| 29 | AmountTransactionProcessingFee\_030 | String | O | 9 |
| 30 | AmountSettlementProcessingFee\_031 | String | O | 9 |
| 31 | AcquiringInstitutionIdentificationCode\_032 | LL | O | 1-99 |
| 32 | ForwardingInstitutionIdentificationCode\_033 | LL | O | 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 | O | 12 |
| 37 | AuthorizationIdentificationResponse\_038 | String | O | 6 |
| 38 | ResponseCode\_039 | String | O | 2 |
| 39 | ServiceRestrictionCode\_040 | String | O | 3 |
| 40 | CardAcceptorTerminalIdentification\_041 | String | O | 8 |
| 41 | CardAcceptorIdentificationCode\_042 | String | O | 15 |
| 42 | CardAcceptorNameLocation\_043 | String | O | 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 | O | 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 | O | 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 | O | 1-99 |
| 100 | FileName\_101 | LL | O | 1-99 |
| 101 | AccountIdentification1\_102 | LL | M | 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 | O | 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 | O | 6 |
| 127 | Postilion\_Bitmaps\_Group\_127\_1 |  | O |  |
| 128 | SwitchKeyPostilionPrivate\_127\_2 | LL | O | 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 | 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 | 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 |  |
|  | AmountAuthorizedPostilionPrivate\_127\_25\_2 | String | O | 12 |
| 153 | AmountOtherPostilionPrivate\_127\_25\_3 | String | O | 12 |
| 154 | ApplicationIdentifierPostilionPrivate\_127\_25\_4 | LL | O | 1-99 |
| 155 | ApplicationInterchangeProfilePostilionPrivate\_127\_25\_5 | String | O | 4 |
| 156 | ApplicationTransactionCounterPostilionPrivate\_127\_25\_6 | String | O | 4 |
| 157 | ApplicationUsageControlPostilionPrivate\_127\_25\_7 | String | O | 4 |
| 158 | AuthorizationResponseCodePostilionPrivate\_127\_25\_8 | String | O | 2 |
| 159 | CardAuthReliabilityIndicatiorPostilionPrivate\_127\_25\_9 | String | O | 1 |
| 160 | CardAuthResultsCodePostilionPrivate\_127\_25\_10 | String | O | 1 |
| 161 | ChipConditionCodePostilionPrivate\_127\_25\_11 | String | O | 1 |
| 162 | CryptogramPostilionPrivate\_127\_25\_12 | String | O | 16 |
| 163 | CryptogramInformationDataPostilionPrivate\_127\_25\_13 | String | O | 2 |
| 164 | CvmListPostilionPrivate\_127\_25\_14 | LLL | O | 1-999 |
| 165 | CvmResultsPostilionPrivate\_127\_25\_15 | String | O | 6 |
| 166 | InterfaceDeviceSerialNumberPostilionPrivate\_127\_25\_16 | String | O | 8 |
| 167 | IssuerActionCodePostilionPrivate\_127\_25\_17 | String | O | 11 |
| 168 | IssuerApplicationDataPostilionPrivate\_127\_25\_18 | LL | O | 1-99 |
| 169 | IssuerScriptResultsPostilionPrivate\_127\_25\_19 | LLL | O | 1-999 |
| 170 | TerminalApplicationVersionNumberPostilionPrivate\_127\_25\_20 | String | O | 4 |
| 171 | TerminalCapabilitiesPostilionPrivate\_127\_25\_21 | String | O | 6 |
| 172 | TerminalCountryCodePostilionPrivate\_127\_25\_22 | String | O | 3 |
| 173 | TerminalTypePostilionPrivate\_127\_25\_23 | String | O | 2 |
| 174 | TerminalVerificationResultPostilionPrivate\_127\_25\_24 | String | O | 10 |
| 175 | TerminalCategoryCodePostilionPrivate\_127\_25\_25 | String | O | 1 |
| 176 | TransactionCurrencyCodePostilionPrivate\_127\_25\_26 | String | O | 3 |
| 177 | TransactionDatePostilionPrivate\_127\_25\_27 | String | O | 6 |
| 178 | TransactionSequenceCounterPostilionPrivate\_127\_25\_28 | L | O | 1-9 |
| 179 | TransactionTypePostilionPrivate\_127\_25\_29 | String | O | 2 |
| 180 | UnpredictableNumberResultPostilionPrivate\_127\_25\_30 | String | O | 8 |
| 181 | IssuerAuthDataPostilionPrivate\_127\_25\_31 | LL | O | 1-99 |
| 182 | IssuerScriptTemplate1PostilionPrivate\_127\_25\_32 | LLLL | O | 1-9999 |
| 183 | IssuerScriptTemplate2PostilionPrivate\_127\_25\_33 | LLLL | O | 1-9999 |
| 184 | OriginalNodePostilionPrivate\_127\_26 | LL | O | 1-99 |
| 185 | CardVerificationResultPostilionPrivate\_127\_27 | String | O | 1 |
| 186 | AmericanExpressCardIdentifierPostilionPrivate\_127\_28 | String | O | 4 |
| 187 | SecureData3DPostilionPrivate\_127\_29 | hexBinary | O | 40 |
| 188 | SecureData3DResultPostilionPrivate\_127\_30 | String | O | 1 |
| 189 | IssuerNetworkIDPostilionPrivate\_127\_31 | LL | O | 1-99 |
| 190 | UCAFDataPostilionPrivate\_127\_32 | LL | O | 1-99 |
| 191 | ExtendedTransactionTypePostilionPrivate\_127\_33 | String | O | 4 |
| 192 | AccountTypeQualifierPostilionPrivate\_127\_34 | String | O | 2 |
| 193 | AcquirerNetworkIDPostilionPrivate\_127\_35 | LL | O | 1-99 |
| 194 | CustomerIDPostilionPrivate\_127\_36 | LL | O | 1-99 |
| 195 | ExtendedResponseCodePostilionPrivate\_127\_37 | String | O | 4 |
| 195 | AdditionalPOSDataCodePostilionPrivate\_127\_38 | LL | O | 1-99 |
| 196 | OriginalResponseCodePostilionPrivate\_127\_39 | String | O | 2 |
| 197 | MessageAuthenticationCode\_128 | hexBinary | O | 8 |

### ZSS Response Message Structure/Schema

**Response Type:** ISO8583

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | DFDL Element | Data Type | Mandatory | Length of the Field |
|  | PrimaryAccountNumber\_002 | LL | O | **Upto 19** |
| 2 | 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 | 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 | 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 | M | 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 | M | 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 | M | 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 | 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 |  |
|  | AmountAuthorizedPostilionPrivate\_127\_25\_2 | String | O | 12 |
| 153 | AmountOtherPostilionPrivate\_127\_25\_3 | String | O | 12 |
| 154 | ApplicationIdentifierPostilionPrivate\_127\_25\_4 | LL | O | 1-99 |
| 155 | ApplicationInterchangeProfilePostilionPrivate\_127\_25\_5 | String | O | 4 |
| 156 | ApplicationTransactionCounterPostilionPrivate\_127\_25\_6 | String | O | 4 |
| 157 | ApplicationUsageControlPostilionPrivate\_127\_25\_7 | String | O | 4 |
| 158 | AuthorizationResponseCodePostilionPrivate\_127\_25\_8 | String | O | 2 |
| 159 | CardAuthReliabilityIndicatiorPostilionPrivate\_127\_25\_9 | String | O | 1 |
| 160 | CardAuthResultsCodePostilionPrivate\_127\_25\_10 | String | O | 1 |
| 161 | ChipConditionCodePostilionPrivate\_127\_25\_11 | String | O | 1 |
| 162 | CryptogramPostilionPrivate\_127\_25\_12 | String | O | 16 |
| 163 | CryptogramInformationDataPostilionPrivate\_127\_25\_13 | String | O | 2 |
| 164 | CvmListPostilionPrivate\_127\_25\_14 | LLL | O | 1-999 |
| 165 | CvmResultsPostilionPrivate\_127\_25\_15 | String | O | 6 |
| 166 | InterfaceDeviceSerialNumberPostilionPrivate\_127\_25\_16 | String | O | 8 |
| 167 | IssuerActionCodePostilionPrivate\_127\_25\_17 | String | O | 11 |
| 168 | IssuerApplicationDataPostilionPrivate\_127\_25\_18 | LL | O | 1-99 |
| 169 | IssuerScriptResultsPostilionPrivate\_127\_25\_19 | LLL | O | 1-999 |
| 170 | TerminalApplicationVersionNumberPostilionPrivate\_127\_25\_20 | String | O | 4 |
| 171 | TerminalCapabilitiesPostilionPrivate\_127\_25\_21 | String | O | 6 |
| 172 | TerminalCountryCodePostilionPrivate\_127\_25\_22 | String | O | 3 |
| 173 | TerminalTypePostilionPrivate\_127\_25\_23 | String | O | 2 |
| 174 | TerminalVerificationResultPostilionPrivate\_127\_25\_24 | String | O | 10 |
| 175 | TerminalCategoryCodePostilionPrivate\_127\_25\_25 | String | O | 1 |
| 176 | TransactionCurrencyCodePostilionPrivate\_127\_25\_26 | String | O | 3 |
| 177 | TransactionDatePostilionPrivate\_127\_25\_27 | String | O | 6 |
| 178 | TransactionSequenceCounterPostilionPrivate\_127\_25\_28 | L | O | 1-9 |
| 179 | TransactionTypePostilionPrivate\_127\_25\_29 | String | O | 2 |
| 180 | UnpredictableNumberResultPostilionPrivate\_127\_25\_30 | String | O | 8 |
| 181 | IssuerAuthDataPostilionPrivate\_127\_25\_31 | LL | O | 1-99 |
| 182 | IssuerScriptTemplate1PostilionPrivate\_127\_25\_32 | LLLL | O | 1-9999 |
| 183 | IssuerScriptTemplate2PostilionPrivate\_127\_25\_33 | LLLL | M | 1-9999 |
| 184 | OriginalNodePostilionPrivate\_127\_26 | LL | O | 1-99 |
| 185 | CardVerificationResultPostilionPrivate\_127\_27 | String | O | 1 |
| 186 | AmericanExpressCardIdentifierPostilionPrivate\_127\_28 | String | O | 4 |
| 187 | SecureData3DPostilionPrivate\_127\_29 | hexBinary | O | 40 |
| 188 | SecureData3DResultPostilionPrivate\_127\_30 | String | O | 1 |
| 189 | IssuerNetworkIDPostilionPrivate\_127\_31 | LL | O | 1-99 |
| 190 | UCAFDataPostilionPrivate\_127\_32 | LL | O | 1-99 |
| 191 | ExtendedTransactionTypePostilionPrivate\_127\_33 | String | O | 4 |
| 192 | AccountTypeQualifierPostilionPrivate\_127\_34 | String | O | 2 |
| 193 | AcquirerNetworkIDPostilionPrivate\_127\_35 | LL | O | 1-99 |
| 194 | CustomerIDPostilionPrivate\_127\_36 | LL | O | 1-99 |
| 195 | ExtendedResponseCodePostilionPrivate\_127\_37 | String | O | 4 |
| 195 | AdditionalPOSDataCodePostilionPrivate\_127\_38 | LL | O | 1-99 |
| 196 | OriginalResponseCodePostilionPrivate\_127\_39 | String | O | 2 |
| 197 | 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\_N | 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 |
|  | TIME\_LOCAL\_TRANSACTION | Transaction Time | Varchar | 20 | Y | Time of the Transaction |
|  | DATE\_LOCAL\_TRANSACTION | Transaction Date | Varchar | 20 | Y | Date of the Transaction |
|  | RETRIEVAL\_REFERENCE\_NUMBER | Retrieval Reference Number | Varchar | 20 | Y | Retrieval Reference Number |
|  | BORKER\_ERROR\_CODE | Broker Error Code | Varchar |  | Y | Error code generate by Broker |
|  | USER\_DEFINE\_ERROR\_CODE | User Defined Error Code | Varchar |  | Y | User Defined Code |

## 9.3 File Based Logging

### 9.3.1 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