APPLICATION SERVER GATEWAY

**SWITCHING - GATEWAY**

**NON-ELECTRICITY-BILL MODULE**

**Connection and Reconciliation Technical Specification**

Version 1.0.1 (May 2009)



**PT. PLN (PERSERO) DISTRIBUSI JAWA BARAT DAN BANTEN 2009**

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# REVISIONS

|  |  |  |
| --- | --- | --- |
| **VERSION** | **DATE** | **DESCRIPTION** |
| 1.0.0 | April 22nd, 2009 | Initial Version |
| 1.0.1 | May 8 th, 2009 | Various miscellanous improper texts |

# SECTION 1 CONNECTION

## Background

PLN-DJBB (Perusahaan Listrik Negara – Distribusi Jawa Barat dan Banten) is government company supplies electricity in Jawa Barat and Banten. As one of public company, one of major purpose is how to increase customer satisfaction by improving its customer service level including easing the customer pay their monthly electricity-related bills using a single and centralized data access through a unified gateway with financial standard messaging protocol, ISO8583:2003 ([http://www.iso.org](http://www.iso.org/)).

The simple idea is all registered switching need to access PLN-DJBB database must enter through single unified and standard gateway using standard message and standard mechanism. Further, direct access to database is highly prohibited.

## Global Process Flow

Global process flow of payment can be illustrated as following:

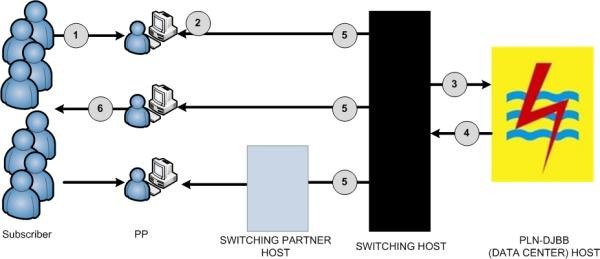


Figure 1. Global Process Flow

1. Customer come to SWITCHING/SWITCHING PARTNER PP to pay their non-elelectricty-bill charges
2. After type-in REGISTRATION NUMBER (13 digits), SWITCHING PP will send the request to SWITCHING HOST
3. SWITCHING HOST will create a standard message using PLN-DJBB Standard Message and sent it to PLN-DJBB GATEWAY HOST (later, known as GATEWAY only)
4. PLN-DJBB HOST will do a checking with its internal database and GATEWAY will response with appropriate information to SWITCHING HOST
5. SWITCHING HOST will re-package the message and response to SWITCHING PP
6. SWITCHING PP will receive the information and print the receipt if the payment process was successful

# SECTION 2

# CONNECTION ARCHITECTURE

## Connection Architecture

Please notify carefully the following illustration described how every involved system are interact each others.

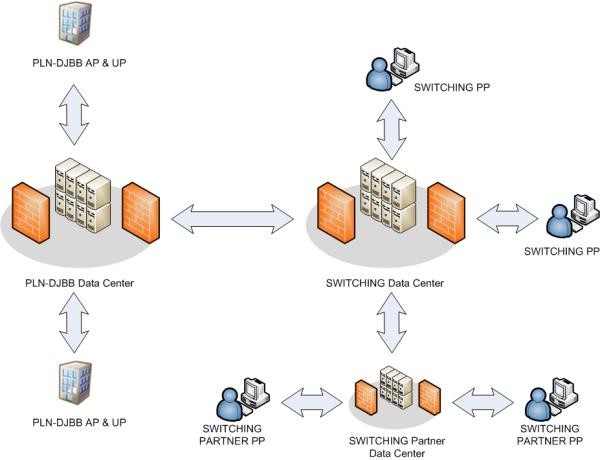


Figure 2. Connection Architecture

SWITCHING System can access PLN-DJBB System using dedicated communication channel, fiber channel for instance for link reliability and availability reasons. Any other connection other than mentioned, must be discussed first with PLN-DJBB.

## Messaging System

TCP/IP Communication System will bring the information from SWITCHING System and PLN-DJBB- Application Server Gateway and vice-versa.

The standard communication protocol that used by PLN-DJBB Application Server is TCP/IP (“telnet” like), where client must send a negative byte value -1 (hexa -1x01 in JAVA/C instead of bytes of CRLF characters for real telnet application) to indicate END OF MESSAGE (EOM). Every request message will be responded by an appropriate reply according to each request type.

# SECTION 3

**MESSAGING PROTOCOL SPECIFICATION**

## Standard Messaging Protocol

PLN-DJBB message is ISO8583:2003 based message, a well-known and wide-used financial messaging protocol to be exchanged between SWITCHING SYSTEM and PLN-DJBB SYSTEM.

There are four basic message types as following:

* INQUIRY

INQUIRY is a transaction to get non-electricity-bill information and status (paid or not paid). INPUT : REGISTRATION NUMBER

OUTPUT : non-electricity-bill information, status

* PAYMENT

PAYMENT is a transaction to set customer status as paid. INPUT : REGISTRATION NUMBER, Transaction Amount OUTPUT : Success or Fail

* REVERSAL

REVERSAL is a transaction to reverse customer status as not paid.

INPUT : REGISTRATION NUMBER, Transaction Amount, PLN-DJBB Reference Number OUTPUT : Success or Fail

* NETWORK MANAGEMENT

NETWORK MANAGEMENT is transaction related to connection networking functions such as sign-on, sign-off, and echo.

Each message must be trailed by a negative byte value -1 (hexa -1x01 in JAVA/C) indicates end of message (EOM). The SWITCHING must be blocked, wait for a response from PLN-DJBB Gateway (synchronous). If a connection time-out was occurred (20-40 seconds were lapsed), SWITCHING can assume the network link was broken and response with TIMEOUT was occurred (for payment transaction see **Failed Flow**).

## Message Sequence and Flow

Message sequence and flow can be illustrated as following:

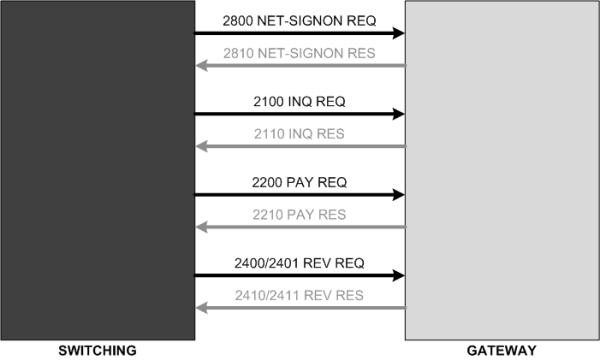


Figure 3. Global Message Flow

Before doing any transaction activities, SWITCHING must sign-on first by sending a message with type 2800 – Network Management Request and action 001 – Sign-On to GATEWAY with a predefined identification code (SWITCHING ID) provided by PLN-DJBB. If the SWITCHING signed-on successfully (described in response message sent by GATEWAY with type 2810 – Network Management Response), SWITCHING can do any transactions as long as available network connection to GATEWAY.

To enable non-electricity-bill payment, SWITCHING must send message type 2100 – Inquiry Request to PLN DJBB GATEWAY System. The key information must be send in this message is REGISTRATION NUMBER, the transaction unique number. GATEWAY will response with message type 2110 – Inquiry Response, consists of customer non-electricity-bill related information and status such as transaction amount, etc.

If customer pays the charge, SWITCHING must send a message with type 2200 – Payment Request to GATEWAY. GATEWAY will flag the non-electricity-bill record in database as paid. GATEWAY will response with message type 2210 – Payment Response with appropriate response code and information. The key information in this message is the flagging status, success or fail.

If technical problem was occurred, broken network link for instance, there is possibility that SWITCHING does not get the payment response sent by GATEWAY. In this case, SWITCHING must sent message with type 2400 – Reversal Request to GATEWAY. By referencing this message, GATEWAY will try to unflag the non-electricity-bill status with several conditions verifications. If all conditions are met, GATEWAY will accept the reversal request and reversed non-electricity-bill status back to not paid and send a response message with type 2410 – Reversal Response. If SWITCHING still does not get the reversal response from GATEWAY, SWITCHING must sent message with type 2401 – Reversal Repeat Request. If SWITCHING still does not receive a reversal repeat response message from GATEWAY, SWITCHING must send the second reversal repeat request and wait for GATEWAY response message (message type 2411 – Reversal Repeat Response). These

procedures must be taken and reported as log along with reconciliation process as reference data to determine if a suspect transaction is accepted or not by PLN-DJBB.

SWITCHING also can check the GATEWAY service availability by sending message with type 2800 – Network Management Request and action 301 – Echo Test.

Detail message/protocol specification can be read at **Attachment A**.

# SECTION 4 MESSAGE FLOW

While sending/receiving message, SWITCHING may get one of two following situations:

* Normal
* FAIL to get payment response message
* Late Response
* Repeat Reversal

SWITCHING must be aware of critical transaction such as payment when the situation is not NORMAL. SWITCHING must send reversal request if it was occurred and send maximum 2 reversal repeat request if SWITCHING does not get reversal response in a period of time. PLN-DJBB was recommended that the grace period for sending and receiving messages are 20 seconds. Grace period here means how long SWITCHING or GATEWAY must be wait the message before disconnecting the connection and assumes that other party or network is broken.

## Normal Flow

Normal flow is a successful transaction (see Figure 4). Following steps are normal flow:

1. SWITCHING sends message type 2100
2. GATEWAY responses with message type 2110
3. When customer pays the bill, SWITCHING will send message type 2200 to GATEWAY. This time, the message means to update registration charge status as ‘paid’
4. GATEWAY will send message type 2210 contains payment request status

### LEGEND:

INQ : Inquiry (asking non-electricity-bill charge) PAY : Payment (pay the charge)

REQ : Request

RES : Response

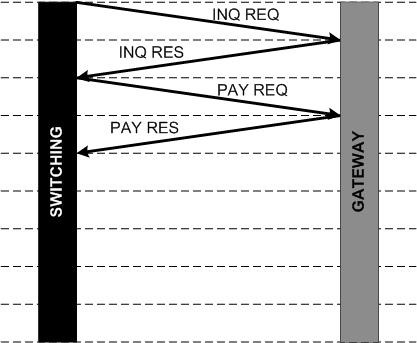


Figure 4. Normal Flow

## Failed Flow

Failed transaction occurs when payment response message does not arrive in a period of time or SWITCHING send improper message stream (see Figure 5). Message does not arrive usually caused by failure of network or long-time processing in GATEWAY. In this condition SWITCHING can assume connection time-out was occurred. When the SWITCHING sends improper message, GATEWAY will send the exact message as sent by SWITCHING without further processing.

Following steps are example of failed flow for message does not arrive in period of time:

1. Same as step number 1-3 on **Normal Flow**
2. Same as step 4 on **Normal Flow**, but fail to reach SWITCHING
3. SWITCHING will wait for a period of time, then send message type 2400 – Reversal Request
4. GATEWAY sends the reversal response, message type 2410 – Reversal Response

### LEGEND:

INQ : Inquiry (asking non-electricity-bill charge) PAY : Payment (pay the charge)

RVS : Reversal

RVR : Reversal-Repeat

REQ : Request

RES : Response

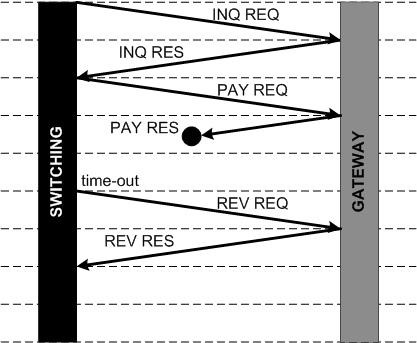


Figure 5. Failed Flow

## Time-out (Late Response) Flow

Sometimes payment message response is arrived after specific of time (time-out).

Following steps are example of failed flow for message does not arrive in period of time:

1. Same as step number 1-3 on **Normal Flow**
2. Same as step 4 on **Normal Flow**, but GATEWAY was late to send the response
3. SWITCHING will wait for a period of time, then send message type 2400 – Reversal Request
4. GATEWAY sends the reversal response, message type 2410 – Reversal Response
5. SWITCHING receive message type 2210 after grace period (time-out). SWITCHING must consider that it is a failed transaction.

### LEGEND:

INQ : Inquiry (asking non-electricity-bill charge) PAY : Payment (pay the charge)

RVS : Reversal

RVR : Reversal-Repeat

REQ : Request

RES : Response

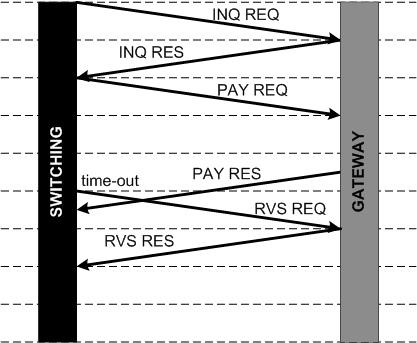


Figure 6. Time-out Flow

## Repeat Reversal Flow

Repeat reversal flow usually occurs if first reversal request was failed/time-out.

Following steps are example of failed flow for message does not arrive in period of time:

1. Same as step number 1-3 on **Normal Flow**
2. Same as step 4 on **Normal Flow**, but GATEWAY was late to send the response
3. SWITCHING will wait for a period of time, then send message type 2400 – Reversal Request
4. But GATEWAY does not send the reversal response. SWITCHING must send message type 2401 - Reversal Repeat Request.
5. If success, GATEWAY will send reversal response

### LEGEND:

INQ : Inquiry (asking non-electricity-bill charge) PAY : Payment (pay the charge)

RVS : Reversal

RVR : Reversal-Repeat

REQ : Request

RES : Response

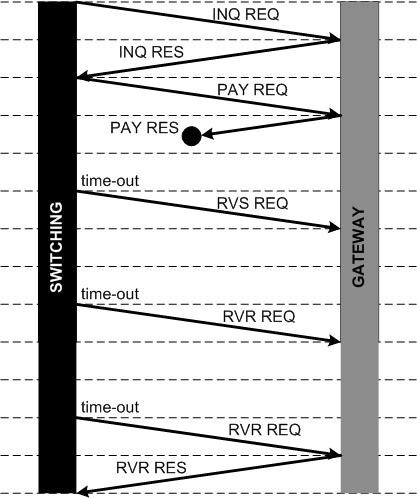


Figure 7. Repeat Reversal Flow

# SECTION 5 RECONCILIATION

## What is Reconciliation?

Reconciliation is the process of matching all payment transaction report from between GATEWAY and SWITCHING. Result of reconciliation report is equal payment transaction data between both parties.

Every working day, Collecting Agent (CA) is responsible for consolidating and matching all the transaction files. These files come from GATEWAY and SWITCHING. Reconciliation is based on settlement date which is stated in payment response from GATEWAY. Settlement date determine which transaction must be reported in certain date. The settlement time is defined by PLN-DJBB. Currently is set to 23:59:59. With this setting, all transactions occur between 00:00:00 – 23:59:59 in the same day, must be reported as one day transaction.

GATEWAY is always available for payment except the GATEWAY send information *cut-off* in its response message.

Based on reconciliation result, CA will transfer transaction fund to PLN-DJBB account in the next day (transaction day + 1).

All parties must develop reconciliation application to support reconciliation process based on each party responsibility.

## Reconciliation Process Flow and Timing

Reconciliation process can be illustrated as following:

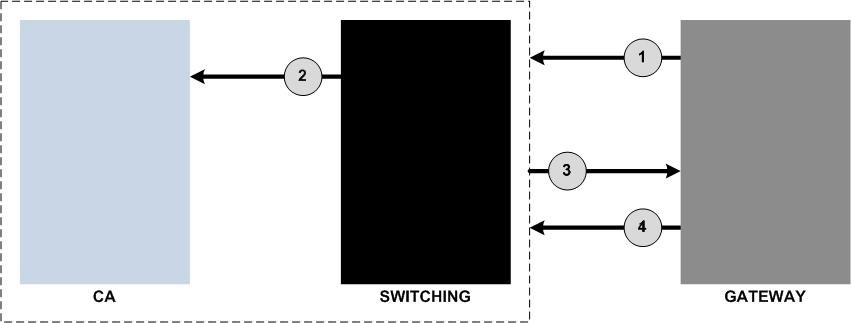


Figure 8. Reconciliation Process Flow

|  |  |  |  |
| --- | --- | --- | --- |
| **NO** | **TIME** | **ACTIVITY** | **ACTOR** |
| 1 | (D+1) 00:00 – 08:00 | Transaction Data Generation  **AAAAAAA-53504-CCYYMMDD-BBBBBBB.txt AAAAAAA-53504-CCYYMMDD-BBBBBBB.txt.ctl**  These files are stored in PLN-DJBB FTP Server (10.2.12.253:21, user/pwd is defined by PLN-DJBB), path: ntag/transaction. After SWITCHING download  .txt, move these files to path ntag/transaction/process.  **CAUTION**: DO NOT download file **.txt** if is no **.txt.ctl** | PLN-DJBB |
| 2 | (D+1) 00:00 – 08:00 | Transaction Data Generation  **AAAAAAA-53504-CCYYMMDD-BBBBBBB.ftr AAAAAAA-53504-CCYYMMDD-BBBBBBB.ftr.ctl**  These files are stored in SWITCHING FTP Server  (server and user/pwd are defined by SWITCHING). | SWITCHING |
| 3 | (D+1) 08:00 – 10:00 | Reconciliation process between CA and SWITCHING by comparing **.txt** (downloaded by SWITCHING for CA) and **.ftr**, with suspect transaction in **AAAAAAA-53504- CCYYMMDD-BBBBBBB.rcn** as the result may contains *cancel* or *force* payment transaction. Store location is defined by SWITCHING.  These files must be uploaded to PLN-DJBB FTP Server in path: ntag/suspect.  If the .rcn contains suspect transactions, SWITCHING must provide file **AAAAAAA-53504-CCYYMMDD- BBBBBBB.log** contains log information (specification  can be read at **Attachment D**) | SWITCHING-CA |
| 4 | (D+1) 10:00 – 12:00 | PLN-DJBB processes .rcn with final suspect transaction in **AAAAAAA-53504-CCYYMMDD-BBBBBBB.fcn** as the  result contains approved or not of *cancel* or *force*  transaction.  PLN-DJBB will store this file in PLN-DJBB FTP Server, path: ntag/final.  SWITCHING can download this file if there is  **AAAAAAA-53504-CCYYMMDD-BBBBBBB.fcn.ctl** file. | PLN-DJBB, SWITCHING |

|  |  |  |  |
| --- | --- | --- | --- |
| 5 | (D+1)  12:00 – 13:00 | Final Report Generation of transaction fund must be  transferred into PLN-DJBB account | SWITCHING |
| 6 | (D+1)  13:00 – 15:00 | Time to Transfer of transaction fund to PLN-DJBB  account based on Final Report | CA |

### LEGEND:

D : Transaction Day

D+1 : Transaction Day + 1

AAAAAAA : 7 digits of Switching Identification Code

CCYYMMDD : Transaction day, e.g. 20080401 means April 1st, 2008 BBBBBBB : 7 digits of Bank Identification Code



All generated files in reconciliation process (.txt, .ftr, .rcn, .fcn) are:

1 row = 1 transaction

Text file with pipe (|) delimiter separated values.

**HINT:** You can open or import this file with Excel using CSV format and define the pipe (|) character as value delimiter.

Always have header (first row) and checksum row (last row). Reconciliation file without transaction minimal contains 2 rows: header row and checksum row.

Detail reconciliation file specification can be read at **Attachment B**.

All control files for each reconciliation files (.txt.ctl, .ftr.ctl, .rcn.ctl, .fcn.ctl) are:

Text file with pipe (|) delimiter separated values.



Only have one row contains total number transaction (bill month payment) and total amount of transaction.

Detail reconciliation control file specification can be read at **Attachment C**.

## Days of Reconciliation File Generation

Reconciliation can be done in working day only (Monday – Friday). According to this condition, there are three reconciliation types:

1. **Type-1 Reconciliation**, transaction was settled on Monday-Thursday will be reconciled on day D+1. Reconciliation file contains transaction with that settlement day only.
2. **Type-2 Reconciliation**, transaction was settled on Friday up to Sunday will be reconciled on consecutive Monday or next first working day. Reconciliation file contains transactions settled on Friday up to Sunday.
3. **Type-3 Reconciliation**, transaction was occurred in non working days or holidays will be reconciled on next first working day. Reconciliation file contains previous day of first holiday and holiday transactions.

**PLEASE READ THE FOLLOWING TERMS CAREFULLY:**

1. Reconciliation is based on settlement date **NOT** transaction date.
2. Date in reconciliation filename is reconciliation date (when reconciliation was taken)
3. Filename pattern is: **AAAAAAA-53504-CCYYMMDD-BBBBBBB**, **AAAAAAA** = Switching Identification Code (defined by PLN-DJBB), **53504** = PAN for NON-ELECTRICITY-BILL, **CCYY** = Year with century (4 digits), **MM** = month (2 digits, zero left-padding), **DD** = date (2 digits, zero left- padding), BBBBBBB = Bank Identification Code
4. Reconciliation file is always generated and reconciliation is always taken even there is no transactions (“empty recon file” contains header and checksum rows only)

Example of Type-1 Reconciliation:

Transaction with settlement date is Monday, April 7th, 2008



Reconciliation date is Tuesday, April 8th, 2008 and reconciliation process will be taken on Tuesday, April 8th, 2008

 Reconciliation Files:

* + PLN-DJBB Transaction Report (**AAAAAAA-53504-20080408-BBBBBBB.txt**)
  + SWITCHING Transaction Report (**AAAAAAA-53504-20080408-BBBBBBB.ftr**)
  + CA Reconciliation (Suspect) Report (**AAAAAAA-53504-20080408-BBBBBBB.rcn**)
  + PLN-DJBB Final Reconciliation (Suspect) Result Report (**AAAAAAA-53504-20080408- BBBBBBB.fcn**)

Example of Type-2 Reconciliation:

Transaction with settlement date is Friday, April 11th, 2008



Reconciliation date is Monday, April 14th, 2008 and reconciliation process will be taken on Monday, April 14th, 2008

 Reconciliation Files:

* + PLN-DJBB Transaction Report (**AAAAAAA-53504-20080414-BBBBBBB.txt**)
  + SWITCHING Transaction Report (**AAAAAAA-53504-20080407-BBBBBBB.ftr**)
  + CA Reconciliation (Suspect) Report (**AAAAAAA-53504-20080414-BBBBBBB.rcn**)
  + PLN-DJBB Final Reconciliation (Suspect) Result Report (**AAAAAAA-53504-20080414- BBBBBBB.fcn**)

Example of Type-3 Reconciliation:

 Transaction with settlement date is Thursday, May 1st, 2008 (holiday). In this case, the reconciliation for settlement date on Wednesday, April 31st, 2008 also included.

 Reconciliation date is Friday, May 2nd, 2008 and reconciliation process will be taken on Friday, May 2nd, 2008

 Reconciliation Files:

* + PLN-DJBB Transaction Report (**AAAAAAA-53504-20080502-BBBBBBB.txt**)
  + SWITCHING Transaction Report (**AAAAAAA-53504-20080502-BBBBBBB.ftr**)
  + CA Reconciliation (Suspect) Report (**AAAAAAA-53504-20080502-BBBBBBB.rcn**)
  + PLN-DJBB Final Reconciliation (Suspect) Result Report (**AAAAAAA-53504-20080502- BBBBBBB.fcn**)

# SECTION 6 CONNECTION TESTING

## Development

PLN-DJBB provides dedicated Development Application Server for development phase. This server has address 10.2.12.253:63100 (or other as specified by PLN-DJBB). Switching can connect to this server to test its application. Subscriber ID (IDPEL) for testing purpose can be achieved from PLN- DJBB data center administrator. Please read following procedures how to do connection and functional testing using Development Application Server:

 Propose to PLN-DJBB Gateway Administrator to get a Switching Identification Code. These 7- digits must be registered at Gateway and sent as Switching ID in message stream. Each switching must have a unique identification code. If a switching sent message stream without a Switching ID or with an invalid/unregistered Switching ID, Gateway will responses with Unregistered Switching (response code = 0032).

 Register your 7-digits (number only) of bank code as switching partner. Bank Code is defined by Bank Indonesia (BI) as 3-digits of code. For compliance reason, switching can add zero right- padding to the code, e.g. if Bank X has BI Code 001, then the bank code must be registered to Gateway is 0010000. This information also must be sent as Bank Code in message stream. If a switching sent message stream without a Bank Code or with an invalid/unregistered Bank Code for the Switching ID, Gateway will response with Unregistered Bank Code (response code = 0031).

## User Acceptance Test (UAT)

After development testing has been completed, switching can propose to PLN-DJBB to do a UAT. UAT will use Development Application Server connected to Development Database Server. The UAT result will determine a switching can start its operational or not using Production Gateway. UAT document can be obtained as separated document.

UAT scopes the following testing types:

 Functional Testing

Test every implemented functions and check if the responses as expected or not (true/false). The testing items are described in UAT document.

 Performance Testing

Customer service is one of primary concerns of PLN-DJBB. To serve better, switching as one of the service components must comply with all following performance constraints:

* + Switching application must have speed to complete transactions with minimum 5 transactions per seconds (TPS). The testing scenario are:
    - Create a testing driver (client) application for switching application to simulate

1.000 transactions hit the switching application.

* + - Get the start time and end time of execution to get how long the switching to complete those transactions.

**TPS = 1.000 / time to complete (in seconds)**

* + Switching must complete a transaction (inquiry or payment) maximum in 5 seconds (response time/RT). **Time to complete** also indicates the longest transaction has been taken, with maximum execution must be in 5 seconds also.

**RT = time to complete (in seconds) / 1.000**

Based on UAT result, PLN-DJBB will give further instruction how to connect to Production Application Server (Gateway) and ready for daily operations.

# ATTACHMENT A MESSAGE/PROTOCOL SPECIFICATION

## Network Management Request Message

Message Type Identifier : 2800

Sender : SWITCHING

Purpose : Request network management action to GATEWAY

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2800 = NetMan Request | YES |  |
| 2 | Bit Map |  | h | 16 |  | Bit Map  0010000001010000 = use field 12,  40, 48 of ISO8583:2003 Data Element | YES | 1 |
| 3 | Date & Time, Local  Transaction |  | n | 14 | CCYYMMDDhhmmss | Date & Time of local transaction | YES | 12 |
| 4 | Action Code |  | n | 3 |  | 001 = sign-on  002 = sign-off 301 = echo test | YES | 40 |
| 5 | Length of Additional Private Data |  | n | 3 | zero left-padding | Length of additional private data (sub field of data element 48) for MTI=2800  Sum of sub-fields length  007 | YES | 48 |
| 6 | Additional Private Data |  |  |  |  |  | YES | 48 |
| Switcher ID | an | 7 | zero left-padding | Switcher Identification Code (provided by PLN)  0000000 | Custom (sub data element 48:1) | 48 |

## Network Management Response Message

Message Type Identifier : 2810

Sender : GATEWAY

Purpose : Response the network management action request to SWITCHING

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2810 = NetMan Response | YES |  |
| 2 | Bit Map |  | h | 16 |  | Bit Map  0010000003010000 = use field 12, 39,  40, 48 of ISO8583 Data Element | YES | 1 |
| 3 | Date & Time, Local  Transaction |  | n | 14 | CCYYMMDDhhmmss | Date & Time of local transaction | YES | 12 |
| 4 | Response Code |  | n | 4 |  | 0000 = successful 0005 = ERROR - Other  0011 = ERROR - Need to sign-on 0030 = ERROR - Invalid message 0032 = ERROR - Unregistered Switching  0068 = ERROR - Timeout  0090 = ERROR - Cut-off is in progress | YES | 39 |
| 5 | Action Code |  | n | 3 |  | 001 = sign-on  002 = sign-off 301 = echo test | YES | 40 |
| 6 | Length of Additional Private Data |  | n | 3 | zero left-padding | Length of additional private data (sub field of data element 48) for MTI=2810  Sum of sub-fields length  007 | YES | 48 |
| 7 | Additional Private Data |  |  |  |  |  | YES | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Switcher ID | an | 7 | zero left-padding | Identical to same field in network management request message | Custom (sub data element  48:1) | 48 |

## Inquiry Request Message

Message Type Identifier : 2100

Sender : SWITCHING

Purpose : Request non-electricity-bill information of based on a registration number to GATEWAY

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2100 = Inquiry Request | YES |  |
| 2 | Bit Map |  | h | 16 |  | Primary Bitmap  4030004100010000 = use field 2, 11,  12, 26, 32, 48 of ISO8583:2003 Data  Element | YES | 1 |
| 3 | Length of PAN |  | n | 2 | zero left-padding | Length of PAN 05 | YES | 2 |
| 4 | Primary Account Number (PAN) | X | n | 5 |  | Billing Code for NON-EL-BILL 53504 | YES | 2 |
| 5 | Switcher Trace Audit Number |  | n | 12 |  | Switcher Trace Audit Number 000000000000 | YES | 11 |
| 6 | Date & Time, Local  Transaction |  | n | 14 | CCYYMMDDhhmmss | Date & Time of local transaction | YES | 12 |
| 7 | Merchant Category Code |  | n | 4 |  | 6010 = Teller  6011 = ATM  6012 = POS  6013 = AutoDebit/giralisasi  6014 = Internet  6015 = Kiosk  6016 = Phone Banking / Call Center 6017 = Mobile Banking  6018 = EDC | YES | 26 |
| 8 | Length of Bank Code |  | n | 2 | zero left-padding | Length of Bank Code 07 |  | 32 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | Bank Code |  | an | 7 | zero left-padding | Bank Code | YES | 32 |
| 10 | Length of Additional Private Data |  | n | 3 | zero left-padding | Length of additional private data (sub field of data element 48) for MTI=2100  Sum of sub-fields length  023 | YES | 48 |
| 11 | Additional Private Data | Switcher length |  | 3 |  |  | YES | 48 |
| Switcher ID | an | 7 | zero left-padding | Switcher Identification Code | Custom (sub data element  48:1) | 48 |
| Registration Number | n | 13 | space left-padding | Registration Number 0000000000000 | Custom (sub data element  48:2) | 48 |
| Transaction Code | n | 3 | zero left-padding | Transaction Code RESERVED  Currently always set to 000 | Custom (sub data element 48:3) | 48 |

## Inquiry Response Message

Message Type Identifier : 2110

Sender : GATEWAY

Purpose : Response the inquiry request to SWITCHING

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2110 = Inquiry Response | YES |  |
| 2 | Bit Map |  | h | 16 |  | Primary Bitmap 5030004102010004 = use field 2, 4,  11, 12, 26, 32, 39, 48, 62 of  ISO8583:2003 Data Element | YES | 1 |
| 3 | Length of PAN |  | n | 2 | zero left-padding | Identical to same field in inquiry request message | YES | 2 |
| 4 | Primary Account Number (PAN) |  | n | 5 |  | Identical to same field in inquiry request message | YES | 2 |
| 5 | Transaction Amount |  | n | 16 |  |  | YES | 4 |
| ISO Currency Code | n | 3 |  | ISO Currency Code Indonesian Rupiah = 360 360 | YES | 4 |
| Currency Minor Unit | n | 1 |  | Number of decimal value 0 = no decimal value  n = n-last digits of value amount are decimal values  0 | YES | 4 |
| Value Amount | n | 12 | zero left-padding | Transaction Amount  (Total Transaction Amount from DE48 without decimal values) 000000000000 | YES | 4 |
| 6 | Switcher Trace Audit Number |  | n | 12 |  | Identical to same field in inquiry request message | YES | 11 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | Date & Time, Local Transaction |  | n | 14 | CCYYMMDDhhmmss | Identical to same field in inquiry request message | YES | 12 |
| 8 | Merchant Category Code |  | n | 4 |  | Identical to same field in inquiry request message | YES | 26 |
| 9 | Length of Bank Code |  | n | 2 | zero left-padding | Identical to same field in inquiry request message |  | 32 |
| 10 | Bank Code |  | an | 7 | zero left-padding | Identical to same field in inquiry request message | YES | 32 |
| 11 | Response Code (RC) |  | n | 4 |  | 0000 = successful 0005 = ERROR - Other  0011 = ERROR - Need to sign-on 0015 = ERROR - Unknown Registration Number  0016 = ERROR - PRR Subscriber 0017 = ERROR - Subscriber still have bills to pay  0030 = ERROR - Invalid message 0031 = ERROR - Unregistered Bank Code  0032 = ERROR - Unregistered Switching  0033 = ERROR - Unregistered Product 0034 = ERROR - Unregistered Terminal  0045 = ERROR - Invalid admin charges  0048 = ERROR - Registration is expired  0068 = ERROR - Timeout in Switching 0088 = ERROR - Bill already paid  0090 = ERROR - Cut-off is in progress | YES | 39 |
| 12 | Length of Additional Private Data |  | n | 3 | zero left-padding | Length of additional private data (sub field of data element 48) for MTI=2110  Sum of sub-fields length 133 if RC != 0000  235 if RC = 0000 | YES | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | Additional Private Data |  |  |  |  |  |  |  |
| Switcher ID | an | 7 | zero left-padding | Identical to same field in inquiry request message | Custom (sub data element  48:1) | 48 |
| Registration Number | n | 13 | space left-padding | Identical to same field in inquiry request message | Custom (sub data element  48:2) | 48 |
| Transaction Code | n | 3 | zero left-padding | Transaction Code RESERVED  Currently always set to 000 | Custom (sub data element 48:3) | 48 |
| Transaction Name | ans | 25 | space right-padding | Transaction Name | Custom (sub data element  48:4) | 48 |
| Registration Date | n | 8 | CCYYMMDD | Registration Date in CM@X Available if RC in {0000, 0048, 0088} | Custom (sub data element  48:5) | 48 |
| Expiration Date | n | 8 | CCYYMMDD | Expiration Date of Registration Available if RC in {0000, 0048, 0088} | Custom (sub data element  48:6) | 48 |
| Subscriber ID | n | 12 | zero left-padding | Subscriber ID  Available if RC in {0000, 0088} | Custom (sub data element  48:7) | 48 |
| Subscriber Name | an | 25 | space right-padding | Subscriber Name  Available if RC in {0000, 0088} | Custom (sub data element  48:8) | 48 |
| PLN Reference Number | an | 32 | zero right-padding | PLN Reference Number Available if RC in {0000, 0088} | Custom (sub data element  48:9) | 48 |
| Service Unit | an | 5 |  | Service Unit Code Available if RC=0000 | Custom (sub  data element 48:10) | 48 |
| Service Unit Address | an | 35 | space right-padding | Service Unit Address Available if RC=0000 | Custom (sub data element  48:11) | 48 |
| Service Unit Phone | ns | 15 | space right-padding | Service Unit Phone Available if RC=0000 | Custom (sub data element  48:12) | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Total Transaction Amount Minor Unit | n | 1 | zero left-padding | Total Transaction Amount Minor Unit Available if RC=0000  Currently always set to 2 | Custom (sub data element 48:13) | 48 |
| Total Transaction Amount |  | 17 | zero left-padding | Total Transaction Amount TA = RPTAG + AC  Available if RC=0000 00000000000000000 | Custom (sub data element 48:14) | 48 |
| PLN-BILL Minor Unit | n | 1 | zero left-padding | PLN-Bill Minor Unit Available if RC=0000 Currently always set to 2 | Custom (sub data element 48:15) | 48 |
| PLN-BILL Value (RPTAG) | n | 17 | zero left-padding | PLN-Bill  Available if RC=0000 00000000000000000 | Custom (sub data element 48:16) | 48 |
| Administration Charge Minor Unit | n | 1 | zero left-padding | Administration Charge Minor Unit Available if RC=0000  Currently always set to 2 | Custom (sub data element 48:17) | 48 |
| Administration Charge (AC) | n | 10 | zero left-padding | Administration Charge Available if RC=0000 0000000000 | Custom (sub data element 48:18) | 48 |
| 14 | Length of Additional Private Data #2 |  | n | 3 | zero left-padding | Length of additional private data #2 (sub field of data element 62) for MTI=2110  Sum of sub-fields length Available if RC=0000 020 | YES | 48 |
| 15 | Additional Private Data #2 |  |  |  |  | Available if RC=0000 | YES | 62 |
| Bill Component Type | n | 2 | zero left-padding | Bill Component Type Always set to 01 | Custom (sub  data element 62:1) | 62 |
| Bill Component Minor Unit | n | 1 | zero left-padding | Bill Component Minor Unit Currently always set to 2 | Custom (sub  data element 62:2) | 62 |
| Bill Component Value Amount | n | 17 | zero left-padding | Bill Component Value Amount 00000000000000000 | Custom (sub data element  62:3) | 62 |

## Payment Request Message

Message Type Identifier : 2200

Sender : SWITCHING

Purpose : Request non-electricity-bill payment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2200 = Payment Request | YES |  |
| 2 | Bit Map |  | h | 16 |  | Primary Bitmap 5030004100010004 = use field 2, 4,  11, 12, 26, 32, 48, 62 of  ISO8583:2003 Data Element | YES | 1 |
| 3 | Length of PAN |  | n | 2 | zero left-padding | Length of PAN 05 | YES | 2 |
| 4 | Primary Account Number (PAN) |  | n | 5 |  | Billing Code for NON-EL-BILL 53504 | YES | 2 |
| 5 | Transaction Amount |  | n | 16 |  |  | YES | 4 |
| ISO Currency Code | n | 3 |  | Must be identical to same field in inquiry response message | YES | 4 |
| Currency Minor Unit | n | 1 |  | Must be identical to same field in inquiry response message | YES | 4 |
| Value Amount | n | 12 | zero left-padding | Transaction Amount (with admin charges) and will be validated by Switcher  TC = RPTAG + AC 000000000000 | YES |  |
| 6 | Partner Central Trace Audit Number |  | n | 12 |  | Must be identical to same field in inquiry response message | YES | 11 |
| 7 | Date & Time, Local  Transaction |  | n | 14 | CCYYMMDDhhmmss | Date & Time of local transaction | YES | 12 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | Merchant Category Code |  | n | 4 |  | Must be identical to same field in inquiry response message | YES | 26 |
| 9 | Length of Bank Code |  | n | 2 | zero left-padding | Must be identical to same field in inquiry response message |  | 32 |
| 10 | Bank Code |  | an | 7 | zero left-padding | Must be identical to same field in inquiry response message | YES | 32 |
| 11 | Length of Additional Private Data |  | n | 3 | zero left-padding | Must be identical to same field in inquiry response message | YES | 48 |
| 12 | Additional Private Data |  |  |  |  |  | YES | 48 |
| Switcher ID | an | 7 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:1) | 48 |
| Registration Number | n | 13 | space left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:2) | 48 |
| Transaction Code | an | 3 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub  data element 48:3) | 48 |
| Transaction Name | ans | 25 | space right-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:4) | 48 |
| Registration Date | n | 8 | CCYYMMDD | Must be identical to same field in inquiry response message | Custom (sub data element  48:5) | 48 |
| Expiration Date | n | 8 | CCYYMMDD | Must be identical to same field in inquiry response message | Custom (sub  data element 48:6) | 48 |
| Subscriber ID | n | 12 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub  data element 48:7) | 48 |
| Subscriber Name | an | 25 | space right-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:8) | 48 |
| PLN Reference Number | an | 32 | zero right-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:9) | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Switcher Receipt Reference Number | an | 32 | zero right-padding | Switcher Receipt Reference Number Switcher must provide the value of receipt reference number printed on customer receipt | Custom (sub data element 48:10) | 48 |
| Service Unit | an | 5 |  | Must be identical to same field in inquiry response message | Custom (sub data element  48:11) | 48 |
| Service Unit Address | an | 35 | space right-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:12) | 48 |
| Service Unit Phone | ns | 15 | space right-padding | Must be identical to same field in inquiry response message | Custom (sub  data element 48:13) | 48 |
| Total Transaction Amount Minor Unit | n | 1 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:14) | 48 |
| Total Transaction Amount |  | 17 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:15) | 48 |
| PLN-BILL Minor Unit | n | 1 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub  data element 48:16) | 48 |
| PLN-BILL Value (RPTAG) | n | 17 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:17) | 48 |
| Administration Charge Minor Unit | n | 1 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  48:18) | 48 |
| Administration Charge (AC) | n | 10 | zero left-padding | Must be identical to same field in inquiry response message (managed partner central only) | Custom (sub data element 48:19) | 48 |
| 13 | Length of Additional Private Data #2 |  | n | 3 | zero left-padding | Length of additional private data #2 (sub field of data element 62) for MTI=2200  Sum of sub-fields length Available if RC=0000 016 | YES | 62 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | Additional Private Data #2 |  |  |  |  |  | YES | 62 |
| Bill Component Type | n | 2 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  62:1) | 62 |
| Bill Component Minor Unit | n | 1 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub data element  62:2) | 62 |
| Bill Component Value Amount | n | 17 | zero left-padding | Must be identical to same field in inquiry response message | Custom (sub  data element 62:3) | 62 |

## Payment Response Message

Message Type Identifier : 2210

Sender : GATEWAY

Purpose : Response the payment request to SWITCHING

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2210 = Payment Response | YES |  |
| 2 | Bit Map |  | h | 16 |  | Primary Bitmap 5032004102010006 = use field 2, 4,  11, 12, 15, 26, 32, 39, 48, 62, 63 of  ISO8583:2003 Data Element | YES | 1 |
| 3 | Length of PAN |  | n | 2 | zero left-padding | Identical to same field in payment request message | YES | 2 |
| 4 | Primary Account Number (PAN) |  | n | 5 |  | Identical to same field in payment request message | YES | 2 |
| 5 | Transaction Amount |  | n | 16 |  |  | YES | 4 |
| ISO Currency Code | n | 3 |  | Identical to same field in payment request message | YES | 4 |
| Currency Minor Unit | n | 1 |  | Identical to same field in payment request message | YES | 4 |
| Value Amount | n | 12 | zero left-padding | Identical to same field in payment request message | YES | 4 |
| 6 | Switcher Trace Audit Number |  | n | 12 |  | Identical to same field in payment request message | YES | 11 |
| 7 | Date & Time, Local Transaction |  | n | 14 | CCYYMMDDhhmmss | Identical to same field in payment request message | YES | 12 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | Date, Settlement |  | n | 8 | CCYYMMDD | Date of settlement (refer to PLN cut- off for reconciliation purpose)  For instance, if cut-off at 16:00:00 (PLN Gateway Time), then all payment start from 16:00:01 must be reconciled as next-day transaction | YES | 15 |
| 9 | Merchant Category Code |  | n | 4 |  | Identical to same field in payment request message | YES | 26 |
| 10 | Length of Bank Code |  | n | 2 | zero left-padding | Identical to same field in payment request message |  | 32 |
| 11 | Bank Code |  | an | 7 | zero left-padding | Identical to same field in payment request message | YES | 32 |
| 12 | Response Code (RC) |  | n | 4 |  | 0000 = successful 0005 = ERROR - Other  0011 = ERROR - Need to sign-on 0013 = ERROR - Invalid Transaction Amount  0015 = ERROR - Unknown Registration Number  0030 = ERROR - Invalid message 0031 = ERROR - Unregistered Bank Code  0032 = ERROR - Unregistered Switching  0033 = ERROR - Unregistered Product 0048 = ERROR - Registration is expired  0068 = ERROR - Timeout  0088 = ERROR - Bills already paid 0090 = ERROR - Cut-off is in progress 0093 = ERROR - Invalid Switcher Trace Audit Number  0097 = ERROR - Switching ID and/or Bank Code is not identical with inquiry  0098 = ERROR - PLN Reference  Number is not valid | YES | 39 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | Length of Additional Private Data |  | n | 3 | zero left-padding | Identical to same field in payment request message | YES | 48 |
| 14 | Additional Private Data |  |  |  |  |  | YES | 48 |
| Switcher ID | an | 7 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:1) | 48 |
| Registration Number | n | 13 | space left-padding | Identical to same field in payment request message | Custom (sub data element  48:2) | 48 |
| Transaction Code | an | 3 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:3) | 48 |
| Transaction Name | ans | 25 | space right-padding | Identical to same field in payment request message | Custom (sub data element  48:4) | 48 |
| Registration Date | n | 8 | CCYYMMDD | Identical to same field in payment request message | Custom (sub data element  48:5) | 48 |
| Expiration Date | n | 8 | CCYYMMDD | Identical to same field in payment request message | Custom (sub data element  48:6) | 48 |
| Subscriber ID | n | 12 | zero left-padding | Identical to same field in payment request message | Custom (sub  data element 48:7) | 48 |
| Subscriber Name | an | 25 | space right-padding | Identical to same field in payment request message | Custom (sub data element  48:8) | 48 |
| PLN Reference Number | an | 32 | zero right-padding | Identical to same field in payment request message | Custom (sub  data element 48:9) | 48 |
| Switcher Receipt Reference Number | an | 32 | zero right-padding | Identical to same field in payment request message | Custom (sub  data element 48:10) | 48 |
| Service Unit | an | 5 |  | Identical to same field in payment request message | Custom (sub data element  48:11) | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Service Unit Address | an | 35 | space right-padding | Identical to same field in payment request message | Custom (sub data element  48:12) | 48 |
| Service Unit Phone | ns | 15 | space right-padding | Identical to same field in payment request message | Custom (sub data element  48:13) | 48 |
| Total Transaction Amount Minor Unit | n | 1 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:14) | 48 |
| Total Transaction Amount |  | 17 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:15) | 48 |
| PLN-BILL Minor Unit | n | 1 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:16) | 48 |
| PLN-BILL Value (RPTAG) | n | 17 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:17) | 48 |
| Administration Charge Minor Unit | n | 1 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:18) | 48 |
| Administration Charge (AC) | n | 10 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  48:19) | 48 |
| 15 | Length of Additional Private Data #2 |  | n | 3 | zero left-padding | Identical to same field in payment request message | YES | 62 |
| 16 | Additional Private Data #2 |  |  |  |  |  | YES | 62 |
| Bill Component Type | n | 2 | zero left-padding | Identical to same field in payment request message | Custom (sub  data element 62:1) | 62 |
| Bill Component Minor Unit | n | 1 | zero left-padding | Identical to same field in payment request message | Custom (sub  data element 62:2) | 62 |
| Bill Component Value Amount | n | 17 | zero left-padding | Identical to same field in payment request message | Custom (sub data element  62:3) | 62 |
| 17 | Length of Info Text |  | n | 3 ***(berubah jadi 5)*** |  | Length of Info Text |  | 63 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | Info Text |  | ans | 999 |  | Custom Message from PLN  e.g. "Hemat Listrik & Ayo Bebas Narkoba" |  | 63 |

## Reversal (Repeat) Request Message

Message Type Identifier : 2400 / 2401

Sender : SWITCHING

Purpose : Request to reverse a non-electricity-bill transaction

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2400 = Reversal Request  2401 = Reversal Repeat Request (2x) | YES |  |
| 2 | Bit Map |  | h | 16 |  | Primary Bitmap 5030004100010104 = use field 2, 4,  11, 12, 26, 32, 48, 56, 62 of  ISO8583:2003 Data Element | YES | 1 |
| 3 | Length of PAN |  | n | 2 | zero left-padding | Must be identical to same field in payment request message | YES | 2 |
| 4 | Primary Account Number (PAN) |  | n | 5 |  | Must be identical to same field in payment request message | YES | 2 |
| 5 | Transaction Amount |  | n | 16 |  |  | YES | 4 |
| ISO Currency Code | n | 3 |  | Must be identical to same field in payment request message | YES | 4 |
| Currency Minor Unit | n | 1 |  | Must be identical to same field in payment request message | YES | 4 |
| Value Amount | n | 12 | zero left-padding | Must be identical to same field in payment request message | YES | 4 |
| 6 | Partner Central Trace Audit Number |  | n | 12 |  | Must be identical to same field in payment request message | YES | 11 |
| 7 | Date & Time, Local Transaction |  | n | 14 | CCYYMMDDhhmmss | Date & Time of local transaction | YES | 12 |
| 8 | Merchant Category Code |  | n | 4 |  | Must be identical to same field in payment request message | YES | 26 |
| 9 | Length of Bank Code |  | n | 2 | zero left-padding | Must be identical to same field in payment request message |  | 32 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | Bank Code |  | n | 7 | zero left-padding | Must be identical to same field in payment request message | YES | 32 |
| 11 | Length of Additional Private Data |  | n | 3 | zero left-padding | Must be identical to same field in payment request message | YES | 48 |
| 12 | Additional Private Data |  |  |  |  |  | YES | 48 |
| Switcher ID | an | 7 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:1) | 48 |
| Registration Number | n | 13 | space left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:2) | 48 |
| Transaction Code | an | 3 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:3) | 48 |
| Transaction Name | ans | 25 | space right-padding | Must be identical to same field in payment request message | Custom (sub data element  48:4) | 48 |
| Registration Date | n | 8 | CCYYMMDD | Must be identical to same field in payment request message | Custom (sub data element  48:5) | 48 |
| Expiration Date | n | 8 | CCYYMMDD | Must be identical to same field in payment request message | Custom (sub data element  48:6) | 48 |
| Subscriber ID | n | 12 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:7) | 48 |
| Subscriber Name | an | 25 | space right-padding | Must be identical to same field in payment request message | Custom (sub  data element 48:8) | 48 |
| PLN Reference Number | an | 32 | zero right-padding | Must be identical to same field in payment request message | Custom (sub data element  48:9) | 48 |
| Switcher Receipt Reference Number | an | 32 | zero right-padding | Must be identical to same field in payment request message | Custom (sub  data element 48:10) | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Service Unit | an | 5 |  | Must be identical to same field in payment request message | Custom (sub data element  48:11) | 48 |
| Service Unit Address | an | 35 | space right-padding | Must be identical to same field in payment request message | Custom (sub data element  48:12) | 48 |
| Service Unit Phone | ns | 15 | space right-padding | Must be identical to same field in payment request message | Custom (sub data element  48:13) | 48 |
| Total Transaction Amount Minor Unit | n | 1 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:14) | 48 |
| Total Transaction Amount |  | 17 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:15) | 48 |
| PLN-BILL Minor Unit | n | 1 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:16) | 48 |
| PLN-BILL Value (RPTAG) | n | 17 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:17) | 48 |
| Administration Charge Minor Unit | n | 1 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  48:18) | 48 |
| Administration Charge (AC) | n | 10 | zero left-padding | Must be identical to same field in payment request message | Custom (sub  data element 48:19) | 48 |
| 13 | Length of Original Data Element |  | n | 2 |  | Length of Original Data Element 37 | YES | 56 |
| 14 | Original Data Element |  |  |  |  |  | YES | 56 |
| Original MTI | n | 4 |  | MTI of Payment 2200 | Custom (sub data element  56:1) | 56 |
| Original Switcher Trace Audit Number | n | 12 |  | Original Switcher Trace Audit Number in payment request  message | Custom (sub data element  56:2) | 56 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Original Date & Time Local Transaction | n | 14 | CCYYMMDDhhmmss | Original Date & Time Local Transaction in payment request  message | Custom (sub data element  56:3) | 56 |
| Original Bank Code | n | 7 | zero left-padding | Original Bank Code in payment request message | Custom (sub data element  56:4) | 56 |
| 15 | Length of Additional Private Data #2 |  | n | 3 | zero left-padding | Length of additional private data #2 (sub field of data element 62) for MTI=2400/2401  Sum of sub-fields length Available if RC=0000 016 | YES | 62 |
| 16 | Additional Private Data #2 |  |  |  |  |  | YES | 62 |
| Bill Component Type | n | 2 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  62:1) | 62 |
| Bill Component Minor Unit | n | 1 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  62:2) | 62 |
| Bill Component Value Amount | n | 17 | zero left-padding | Must be identical to same field in payment request message | Custom (sub data element  62:3) | 62 |

## Reversal (Repeat) Response Message

Message Type Identifier : 2410 / 2411

Sender : GATEWAY

Purpose : Response the reversal request to SWITCHING

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIELD** | **NAME** | **SUB FIELD** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **ISO8583:2003** | |
| **STANDARD** | **DATA ELEMENT** |
| 1 | MTI |  | n | 4 |  | Message Type Indicator 2410 = Reversal Response  2411 = Reversal Repeat Response | YES |  |
| 2 | Bit Map |  | h | 16 |  | Bit Map  5030004102010104 = use field 2, 4,  11, 12, 26, 32, 39, 48, 56, 62 of  ISO8583:2003 Data Element | YES | 1 |
| 3 | Length of PAN |  | n | 2 | zero left-padding | Identical to same field in reversal request message | YES | 2 |
| 4 | Primary Account Number (PAN) |  | n | 5 |  | Identical to same field in reversal request message | YES | 2 |
| 5 | Transaction Amount |  | n | 16 |  |  | YES | 4 |
| ISO Currency Code | n | 3 |  | Identical to same field in reversal request message | YES | 4 |
| Currency Minor Unit | n | 1 |  | Identical to same field in reversal request message | YES | 4 |
| Value Amount | n | 12 | zero left-padding | Identical to same field in reversal request message | YES | 4 |
| 6 | Partner Central Trace Audit Number |  | n | 12 |  | Identical to same field in reversal request message | YES | 11 |
| 7 | Date & Time, Local Transaction |  | n | 14 | CCYYMMDDhhmmss | Identical to same field in reversal request message | YES | 12 |
| 8 | Merchant Category Code |  | n | 4 |  | Identical to same field in reversal request message | YES | 26 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | Length of Bank Code |  | n | 2 | zero left-padding | Identical to same field in reversal request message |  | 32 |
| 10 | Bank Code |  | n | 7 | zero left-padding | Identical to same field in reversal request message | YES | 32 |
| 11 | Response Code (RC) |  | n | 4 |  | 0000 = successful 0005 = ERROR - Other  0011 = ERROR - Need to sign-on 0012 = ERROR - Settlement had been done  0013 = ERROR - Invalid Transaction Amount  0015 = ERROR - Unknown Registration Number  0030 = ERROR - Invalid message 0031 = ERROR - Unregistered Bank Code  0032 = ERROR - Unregistered Switching  0033 = ERROR - Unregistered Product 0048 = ERROR - Registration is expired  0063 = ERROR - No payment 0068 = ERROR - Timeout  0090 = ERROR - Cut-off is in progress 0092 = ERROR - Switcher Receipt Reference Number is not available 0093 = ERROR - Invalid Switcher Trace Audit Number  0094 = ERROR - Reversal had been done  0097 = ERROR - Invalid original data element  0098 = ERROR - PLN Reference  Number is not valid | YES | 39 |
| 12 | Length of Additional Private Data |  | n | 3 | zero left-padding | Identical to same field in reversal request message | YES | 48 |
| 13 | Additional Private Data |  |  |  |  |  | YES |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Switcher ID | an | 7 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:1) | 48 |
| Registration Number | n | 13 | space left-padding | Identical to same field in reversal request message | Custom (sub data element  48:2) | 48 |
| Transaction Code | an | 3 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:3) | 48 |
| Transaction Name | ans | 25 | space right-padding | Identical to same field in reversal request message | Custom (sub data element  48:4) | 48 |
| Registration Date | n | 8 | CCYYMMDD | Identical to same field in reversal request message | Custom (sub data element  48:5) | 48 |
| Expiration Date | n | 8 | CCYYMMDD | Identical to same field in reversal request message | Custom (sub data element  48:6) | 48 |
| Subscriber ID | n | 12 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:7) | 48 |
| Subscriber Name | an | 25 | space right-padding | Identical to same field in reversal request message | Custom (sub data element  48:8) | 48 |
| PLN Reference Number | an | 32 | zero right-padding | Identical to same field in reversal request message | Custom (sub  data element 48:9) | 48 |
| VSI Receipt Reference Number | an | 32 | zero right-padding | Identical to same field in reversal request message | Custom (sub data element  48:10) | 48 |
| Service Unit | an | 5 |  | Identical to same field in reversal request message | Custom (sub data element  48:11) | 48 |
| Service Unit Address | an | 35 | space right-padding | Identical to same field in reversal request message | Custom (sub  data element 48:12) | 48 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Service Unit Phone | ns | 15 | space right-padding | Identical to same field in reversal request message | Custom (sub data element  48:13) | 48 |
| Total Transaction Amount Minor Unit | n | 1 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:14) | 48 |
| Total Transaction Amount |  | 17 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:15) | 48 |
| PLN-BILL Minor Unit | n | 1 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:16) | 48 |
| PLN-BILL Value (RPTAG) | n | 17 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:17) | 48 |
| Administration Charge Minor Unit | n | 1 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:18) | 48 |
| Administration Charge (AC) | n | 10 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  48:19) | 48 |
| 14 | Length of Original Data Element |  | n | 2 |  | Identical to same field in reversal request message | YES | 56 |
| 15 | Original Data Element |  |  |  |  |  | YES | 56 |
| Original MTI | n | 4 |  | Identical to same field in reversal request message | Custom (sub data element  56:1) | 56 |
| Original Partner Central Trace Audit Number | n | 12 |  | Identical to same field in reversal request message | Custom (sub  data element 56:2) | 56 |
| Original Date & Time Local Transaction | n | 14 | CCYYMMDDhhmmss | Identical to same field in reversal request message | Custom (sub data element  56:3) | 56 |
| Original Bank Code | n | 7 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  56:4) | 56 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16 | Length of Additional Private Data #2 |  | n | 3 | zero left-padding | Identical to same field in reversal request message | YES | 62 |
| 17 | Additional Private Data #2 |  |  |  |  |  | YES | 62 |
| Bill Component Type | n | 2 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  62:1) | 62 |
| Bill Component Minor Unit | n | 1 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  62:2) | 62 |
| Bill Component Value Amount | n | 17 | zero left-padding | Identical to same field in reversal request message | Custom (sub data element  62:3) | 62 |

## Message Stream Examples

**NETWORK MANAGEMENT:SIGN-ON**

**REQUEST :** 280000100000010100002008050207230000100710000D3

**RESPONSE :** 2810001000000301000020080502072300000000100710000D3

**NETWORK MANAGEMENT:SIGN-OFF**

**REQUEST :** 280000100000010100002008050207230000200710000D3

**RESPONSE :** 2810001000000301000020080502072300000000200710000D3

**INQUIRY: OK**

**REQUEST :** 21004030004100010000055350410000000000120090419072300601507011000002310000D35355520100001000

**RESPONSE :** 2110503000410201000405535043600000000550000100000000001200904190723006015070110000000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A53555JL RAYA 123 022-12345678

2000000000550000002000000000550000002000000000002001200000000000000000

**PAYMENT: OK**

**REQUEST :** 220050300041000100040553504360000000055000010000000000120090419072305601507011000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A809AAAE3427B7F0419A9F501DE47EB6053555JL RAYA 123

022-12345678 2000000000550000002000000000550000002000000000002001200000000000000000

**RESPONSE :** 221050320041020100060553504360000000055000010000000000120090419072305200904196015070110000000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A809AAAE3427B7F0419A9F501DE47EB6053555JL RAYA 123

022-12345678 2000000000550000002000000000550000002000000000002001200000000000000000033Hemat Listrik & Ayo Bebas Narkoba

**REVERSAL: OK**

**REQUEST :** 240050300041000101040553504360000000055000010000000000120090419072325601507011000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A809AAAE3427B7F0419A9F501DE47EB6053555JL RAYA 123

022-12345678 2000000000550000002000000000550000002000000000037220010000000000120090419072305011000002001200000000000000000

**RESPONSE :** 2410503000410201010405535043600000000550000100000000001200904190723256015070110000000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A809AAAE3427B7F0419A9F501DE47EB6053555JL RAYA 123

022-12345678 2000000000550000002000000000550000002000000000037220010000000000120090419072305011000002001200000000000000000

**REVERSAL REPEAT: OK**

**REQUEST :** 240150300041000101040553504360000000055000010000000000120090419072325601507011000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A809AAAE3427B7F0419A9F501DE47EB6053555JL RAYA 123

022-12345678 2000000000550000002000000000550000002000000000037220010000000000120090419072305011000002001200000000000000000

**RESPONSE :** 2411503000410201010405535043600000000550000100000000001200904190723256015070110000000023510000D35355520100001000PERUBAHAN DAYA 2009041720090516535550000001SUBSCRIBER NAME E5BA37AC52083904FDEF185BE297009A809AAAE3427B7F0419A9F501DE47EB6053555JL RAYA 123

022-12345678 2000000000550000002000000000550000002000000000037220010000000000120090419072305011000002001200000000000000000

# ATTACHMENT B RECONCILIATION SPECIFICATION

## Transaction File by PLN-DJBB (.txt)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **COLUMN NAME** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **CHECKSUM ROW** |
| 1 | Date & Time, Local  Transaction | n | 14 | CCYYMMDDhhmmss | Date & Local time when the transaction  takes place | CCYYMMDD000000 |
| 2 | Switcher ID | an | 7 | zero left-padding | Switcher Identification Code | Switcher ID |
| 3 | Merchant Category Code | n | 4 | zero left-padding | Merchant Category Code | 0000 (fixed) |
| 4 | PLN Reference Number | an | 32 |  | PLN Reference Number | Total number of transaction |
| 5 | Switcher Receipt Reference Number | an | 32 | space right-padding | Switcher Receipt Reference Number | 00000000000000000000000000000000  (fixed) |
| 6 | Subscriber ID | n | 12 | space left-padding | Subscriber Identification Code | 000000000000 (fixed) |
| 7 | Registration Number | n | 13 |  | Registration Number | 0000000000000 (fixed) |
| 8 | Date, Registration | n | 8 | CCYYMMDD | Date when the registration was taken | 00000000 (fixed) |
| 9 | Transaction Code | n | 2 | zero left-padding | Transaction Code | 00 (fixed) |
| 10 | Transaction Amount | n | 17 | zero left-padding | Total Amount Payable to PLN last 2 digits are decimal | SUM (Transaction Amount) |
| 11 | Bank Code | an | 7 | zero left-padding | Bank Code (defined by BI and PLN-DJBB) | Bank Code |

## Example

DT|SWITCHERID|MERCHANT|REFNUM|SREFNUM|SUBID|REGNUM|REGD|TRAN\_CODE|TRAN\_AMOUNT|BANKCODE 20090419072305|10000D3|6015|E5BA37AC52083904FDEF185BE297009A|809AAAE3427B7F0419A9F501DE47EB60|535550000001|5355520100001|20090417|20|00000000055000000|0110000

20090419081107|10000D3|6015|6B29C48AEDF69A44995BED1C8479903D|55A1057BC86A34140DAD19D68D3F6175|535550000101|5355520100003|20090415|20|00000000025000000|0110000

20090419081200|10000D3|6015|1915E73B87C14124695FD196B7744289|18C8C5C7BC124CD461438C22E11A5547|535550001001|5355519100011|20090410|19|00000000020000000|0110000

20090419000000|10000D3|0000|00000000000000000000000000000003|00000000000000000000000000000000|000000000000|0000000000000|00000000|00|00000000100000000|0110000

Above example shows PLN-DJBB generate recon file .txt contains 3 transactions.

## Transaction File by SWITCHING (.ftr)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **COLUMN NAME** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **CHECKSUM ROW** |
| 1 | Date & Time, Local  Transaction | n | 14 | CCYYMMDDhhmmss | Date & Local time when the transaction  takes place | CCYYMMDD000000 |
| 2 | Switcher ID | an | 7 | zero left-padding | Switcher Identification Code | Switcher ID |
| 3 | Merchant Category Code | n | 4 | zero left-padding | Merchant Category Code | 0000 (fixed) |
| 4 | PLN Reference Number | an | 32 |  | PLN Reference Number | Total number of transaction |
| 5 | Switcher Receipt Reference Number | an | 32 | space right-padding | Switcher Receipt Reference Number | 00000000000000000000000000000000  (fixed) |
| 6 | Subscriber ID | n | 12 | space left-padding | Subscriber Identification Code | 000000000000 (fixed) |
| 7 | Registration Number | n | 13 |  | Registration Number | 0000000000000 (fixed) |
| 8 | Date & Time, Registration | n | 8 | CCYYMMDD | Date when the registration was taken | 00000000 (fixed) |
| 9 | Transaction Code | n | 2 | zero left-padding | Transaction Code | 00 (fixed) |
| 10 | Transaction Amount | n | 17 | zero left-padding | Total Amount Payable to PLN last 2 digits are decimal | SUM (Transaction Amount) |
| 11 | Bank Code | an | 7 | zero left-padding | Bank Code (defined by BI and PLN-DJBB) | Bank Code |

## Example

DT|SWITCHERID|MERCHANT|REFNUM|SREFNUM|SUBID|REGNUM|REGD|TRAN\_CODE|TRAN\_AMOUNT|BANKCODE 20090419072305|10000D3|6015|E5BA37AC52083904FDEF185BE297009A|809AAAE3427B7F0419A9F501DE47EB60|535550000001|5355520100001|20090417|20|00000000055000000|0110000

20090419081200|10000D3|6015|1915E73B87C14124695FD196B7744289|18C8C5C7BC124CD461438C22E11A5547|535550001001|5355519100011|20090410|19|00000000020000000|0110000

20090419000000|10000D3|0000|00000000000000000000000000000002|00000000000000000000000000000000|000000000000|0000000000000|00000000|00|00000000075000000|0110000

Above example shows SWITCHING generate recon file .ftr contains 2 transactions.

## Reconciliation File by CA (.rcn)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **COLUMN NAME** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **CHECKSUM ROW** |
| 1 | Reconciliation Result Type | n | 1 |  | 1 = Force Payment  2 = Cancel Payment | 0 |
| 2 | Date & Time, Local Transaction | n | 14 | CCYYMMDDhhmmss | Date & Local time when the transaction takes place | CCYYMMDD000000 |
| 3 | Switcher ID | an | 7 | zero left-padding | Switcher Identification Code | Switcher ID |
| 4 | Merchant Category Code | n | 4 | zero left-padding | Merchant Category Code | 0000 (fixed) |
| 5 | PLN Reference Number | an | 32 |  | PLN Reference Number | Total number of transaction |
| 6 | Switcher Receipt Reference Number | an | 32 | space right-padding | Switcher Receipt Reference Number | 00000000000000000000000000000000  (fixed) |
| 7 | Subscriber ID | n | 12 | space left-padding | Subscriber Identification Code | 000000000000 (fixed) |
| 8 | Registration Number | n | 13 |  | Registration Number | 0000000000000 (fixed) |
| 9 | Date & Time, Registration | n | 8 | CCYYMMDD | Date when the registration was taken | 00000000 (fixed) |
| 10 | Transaction Code | n | 2 | zero left-padding | Transaction Code | 00 (fixed) |
| 11 | Transaction Amount | n | 17 | zero left-padding | Total Amount Payable to PLN last 2 digits are decimal | SUM (Transaction Amount) |
| 12 | Bank Code | an | 7 | zero left-padding | Bank Code (defined by BI and PLN-DJBB) | Bank Code |



**NOTES**

Fields must be matched are *PLN Reference Number, Switcher Receipt Reference Number, Subscriber ID, Registration Number, Transaction Code, Transaction Amount*.

## Example

FLAG|DT|SWITCHERID|MERCHANT|REFNUM|SREFNUM|SUBID|REGNUM|REGD|TRAN\_CODE|TRAN\_AMOUNT|BANKCODE 2|20090419081107|10000D3|6015|6B29C48AEDF69A44995BED1C8479903D|55A1057BC86A34140DAD19D68D3F6175|535550000101|5355520100003|20090415|20|00000000025000000|01100

00

0|20090419000000|10000D3|0000|00000000000000000000000000000003|00000000000000000000000000000000|000000000000|0000000000000|00000000|00|00000000100000000|01100

00

Above example shows CA generate recon file .rcn contains intersection result of two recon files (.txt from PLN-DJBB and .ftr from SWITCHING). It is based on earlier examples of .txt dan .ftr.

## Final Reconciliation File by PLN-DJBB (.fcn)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **COLUMN NAME** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** | **CHECKSUM ROW** |
| 1 | Reconciliation Result Type | n | 1 |  | 3 = Success for FORCE PAYMENT request  4 = Fail for for FORCE PAYMENT request  5 = Success for CANCEL PAYMENT request  6 = Fail for for CANCEL PAYMENT request | 0 |
| 2 | Date & Time, Local Transaction | n | 14 | CCYYMMDDhhmmss | Date & Local time when the transaction takes place | CCYYMMDD000000 |
| 3 | Switcher ID | an | 7 | zero left-padding | Switcher Identification Code | Switcher ID |
| 4 | Merchant Category Code | n | 4 | zero left-padding | Merchant Category Code | 0000 (fixed) |
| 5 | PLN Reference Number | an | 32 |  | PLN Reference Number | Total number of transaction |
| 6 | Switcher Receipt Reference Number | an | 32 | space right-padding | Switcher Receipt Reference Number | 00000000000000000000000000000000  (fixed) |
| 7 | Subscriber ID | n | 12 | space left-padding | Subscriber Identification Code | 000000000000 (fixed) |
| 8 | Registration Number | n | 13 |  | Registration Number | 0000000000000 (fixed) |
| 9 | Date & Time, Registration | n | 8 | CCYYMMDD | Date when the registration was taken | 00000000 (fixed) |
| 10 | Transaction Code | n | 2 | zero left-padding | Transaction Code | 00 (fixed) |
| 11 | Transaction Amount | n | 17 | zero left-padding | Total Amount Payable to PLN last 2 digits are decimal | SUM (Transaction Amount) |
| 12 | Bank Code | an | 7 | zero left-padding | Bank Code (defined by BI and PLN-DJBB) | Bank Code |

## Example

FLAG|DT|SWITCHERID|MERCHANT|REFNUM|SREFNUM|SUBID|REGNUM|REGD|TRAN\_CODE|TRAN\_AMOUNT|BANKCODE 5|20090419081107|10000D3|6015|6B29C48AEDF69A44995BED1C8479903D|55A1057BC86A34140DAD19D68D3F6175|535550000101|5355520100003|20090415|20|00000000025000000|01100

00

0|20090419000000|10000D3|0000|00000000000000000000000000000003|00000000000000000000000000000000|000000000000|0000000000000|00000000|00|00000000100000000|01100

00

Above example shows PLN-DJBB generate recon file .fcn contains processing result (APPROVE or REJECT) to each rows of recon file .rcn sent by CA. PLN-DJBB will check row per row and do manual checking to transaction log which must be provided by SWITCHING accompanying recon file .rcn if there is minimal 1 suspect transaction in .rcn.

# ATTACHMENT C

**RECONCILIATION CONTROL FILE SPECIFICATION**

## Specification

All reconciliation control files have same specification as following:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NO** | **COLUMN NAME** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** |
| 1 | Total Number of Transaction | n | 32 | zero left-padding | Total number of transaction (CHECKSUM VALUE OF FIELD PLN REFERENCE NUMBER) |
| 2 | Total of Transaction Amount | n | 17 | zero left-padding | Total Amount Payable to PLN (CHECKSUM VALUE OF FIELD TRANSACTION AMOUNT) |

## Example

Example of reconciliation control file content:

00000000000000000000000000000003|00000000001000000

This content means there is 3 transactions with total amount Rp. 1.000.000,00.

# ATTACHMENT D

**LOG FILE SPECIFICATION**

## Description

Suspect Transaction Log file:

Must be provided if there is minimal one suspect transaction in reconciliation file .rcn Contains logged message streams were sent to and received from GATEWAY by SWITCHING Has filename format **AAAAAAA-53504-CCYYMMDD-BBBBBBB.log**



**HINT:** Primary conditions that a suspect (cancel) transaction can be approved by PLN-DJBB are suspect (cancel) transactions occurs when broken network link and execution of reversal procedures. Suspect (force) transaction should not be occurred in major conditions.

## Specification

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NO** | **COLUMN NAME** | **TYPE** | **LENGTH** | **FORMAT** | **DESCRIPTION** |
| 1 | Transaction Date-Time | n | 14 | space right-padding | Transaction Date-Time |
| 2 | PLN Reference Number | an | 32 |  | PLN Reference Number |
| 3 | Registration Number | n | 13 |  | Registration Number |
| 4 | Subscriber ID | n | 12 | space left-padding | Subscriber ID |
| 5 | Transaction Amount | n | 17 | zero left-padding | Total Amount Payable to PLN last 2 digits are decimal |
| 6 | Message Stream | ans |  |  | Logged Message Stream |

**NOTE:** The content must be ordered by Registration Number in ascending, then Transaction Date-Time in ascending. Each field is delimited with pipe (|) character.

## Example

20090419081107|6B29C48AEDF69A44995BED1C8479903D|5355520100001|535550000001|00000000020000000|INQUIRY\_REQUEST\_STREAM

20090419081107|6B29C48AEDF69A44995BED1C8479903D|5355520100001|530000000001|00000000020000000|INQUIRY\_RESPONSE\_STREAM

20090419081110|6B29C48AEDF69A44995BED1C8479903D|5355520100001|530000000001|00000000020000000|PAYMENT\_REQUEST\_STREAM

20090419081130|6B29C48AEDF69A44995BED1C8479903D|5355520100001|530000000001|00000000020000000|REVERSAL\_REQUEST\_STREAM

20090419081150|6B29C48AEDF69A44995BED1C8479903D|5355520100001|530000000001|00000000020000000|REVERSAL\_REPEAT\_REQUEST\_STREAM

20090419081210|6B29C48AEDF69A44995BED1C8479903D|5355520100001|530000000001|00000000020000000|REVERSAL\_REPEAT\_REQUEST\_STREAM

**NOTE:** INQUIRY\_REQUEST\_STREAM and others in same field represents the real message stream. Current use is for practical writing reason only.

Above example shows that transaction for Registration Number 5355520100001 with amount 200.000 is failed and the SWITCHING sends reversal and two reversal-repeat requests without response from GATEWAY (this condition probably because of broken network link). If there is a suspect (cancel) transaction (in file .rcn) for that Subscriber ID with above transaction logs, the suspect (cancel) transaction will be processed without further verification. Otherwise, manual verification must be taken between PLN-DJBB and SWITCHING.