

India IMPS Payments User Guide

# **Oracle Banking Payments**

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India IMPS Payments User Guide  
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# 1. About this Manual

## 1.1 Introduction

This manual is designed to help you to quickly get familiar with the features of India IMPS Payments in Oracle Banking Payments. It takes you through the various stages in processing a Inbound/Outbound IMPS Payments and NPCI Connectivity.

You can further obtain information specific to a particular field by placing the cursor on the relevant field and striking <F1> on the keyboard.

## 1.2 Audience

This manual is intended for the following User/User Roles:

Role	Function
Payment Department Operators	Payments Transaction Input functions except Authorization
Back Office Payment Department Operators	Payments related maintenances/Payment Transaction Input functions except Authorization
Payment Department Officers	Payments Maintenance/ Transaction Authorization
Bank's Financial Controller/ Payment Department Manager	Host level processing related setup for Payments and PM Dashboard/Query functions

## 1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

## 1.4 Organization





This manual is organized into the following chapters.:

Chapter	Description
Chapter 1	<i>About this Manual</i> gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	<i>IMPS Overview</i> provides introduction of IMPS.
Chapter 3	<i>IMPS Maintenances</i> provides information on IMPS Payments related maintenances.
Chapter 4	<i>IMPS Outbound Payments</i> provides information on IMPS Payments related initiation and processing of outbound payments.
Chapter 5	<i>IMPS Inbound Payments</i> provides information on IMPS Payments related initiation and processing of inbound payments.

Chapter	Description
Chapter 6	<i>Function ID Glossary</i> has alphabetical listing of Function/Screen ID's used in the module with page references for quick navigation.

## 1.5 Glossary of Icons

This User Manual may refer to all or some of the following icons:

Icons	Function
	Exit
	Add row
	Delete row
	Option List

## 1.6 Abbreviations Glossary

Abbreviation	Detailed Description
<b>IMPS</b>	Immediate Payment Service
<b>NPCI</b>	National Payments Corporation of India
<b>ISO 8583</b>	International standard for financial transaction card originated interchange messaging
<b>NFS</b>	National Financial Switch
<b>OBPM</b>	Oracle Banking Payments Module
<b>RRN</b>	Retrieval Reference Number
<b>OR</b>	Original Request
<b>VR</b>	Verification Request
<b>NBIN</b>	National Bank Identification Number
<b>MMID</b>	Mobile Money Identifier
<b>P2A, P2P</b>	IMPS Transaction Types: P2A: Person to Account P2P: Person to Mobile Number

---

## 2. IMPS Overview

Immediate Payment Service, commonly known as IMPS, is an instant real time interbank electronic funds transfer service. This service can be accessed any time 24X7X365 and across channels like Internet, Mobile, ATM and Branch. This facility is provided by NPCI through NFS Switch. Messages used for the connection between the NPCI Central switch, remitter and beneficiary is based on ISO-8583:1987 standard.

To make it more scalable and future ready, it is imperative to migrate it to customizable API based XML messaging. This new XML platform allows more data carrying capacity to capture originator details for domestic and FIR transactions. It also allow Banks to have a common code for multiple NPCI platforms like IMPS and UPI, enabling optimization of resources and making the ecosystem future ready through API based solutions.

### **Key features of Immediate Payment Service (IMPS)**

- Supports IMPS Person to Person (P2P) and Person to Account (P2A) transactions.
- Supports following transactions types and messages -
  - IMPS Outbound and Inbound Request Pay and Response Pay XML
  - IMPS Outbound and Inbound Check Transaction Request and Response XML
  - Outbound Prefunded transactions
  - TCC Upload files
  - Acknowledgement Message
  - Heartbeat Request and Response messages
- Supports following functionalities
  - Beneficiary registration for outbound transactions
  - Account type validations - NRE Account
  - Transaction level limit check, Daily Limit Check
  - Notification to channels on transaction processing
- Initiation of IMPS Outbound transactions using following options
  - UI screens
  - SOAP/Rest Service
- Supports maintenances for NPCI Connectivity

---

## 3. IMPS Maintenances

### 3.1 IMPS Maintenances

This section lists the key common maintenances that are required for processing of outbound and inbound India IMPS Payments:

- Network Maintenance (PMDNWMNT)
- Source Maintenance (PMDSORCE)
- Source Network Preferences (PMDSORNW)
- External System Maintenances for Sanctions, External Credit Approval and Accounting
- Reject Code Maintenance (PMDRJMNT)
- IMPS Transaction Limits (PMDDFLMT)
- India Payment Mobile Money Identifier Maintenance (PMDEXACP)
- Beneficiary Registration (PMDBENRN)
- IFSC Directory (PMDIFSMN)
- Branch and IFSC Code Mapping (PMDIFSBR)
- India Tax Preference (PMDINTXP)

For more details on above mentioned maintenance screens, refer to Payments Core User Guide.

This chapter contains the specific maintenances for IMPS in the following sections:

- [Section 3.1.1, "Outbound Payment Preferences"](#)
- [Section 3.1.2, "Inbound Payment Preferences"](#)
- [Section 3.1.3, "Account Type Restrictions"](#)
- [Section 3.1.4, "NBIN - IFSC Mapping"](#)
- [Section 3.1.5, "India Payments Network and Queue Connection"](#)
- [Section 3.1.5, "IMPS Network Code Source Preference"](#)
- [Section 3.1.7, "IMPS Adapter Definition"](#)
- [Section 3.1.6, "IMPS XML NPCI Connectivity Maintenance"](#)

#### 3.1.1 Outbound Payment Preferences

You can maintain the Outbound Preferences for India IMPS through this screen.

You can invoke 'IMPS Outbound Payment Preferences Detailed' screen by typing 'PJDNWOPF' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

Following are the actions allowed from this screen:

- New
- Save
- Copy
- Print
- Enter Query
- Unlock
- Delete
- Authorize

Specify the following fields:

### Network Code

Select the network code of the India IMPS from the list of values.

If only one Network is maintained with payment type as 'IMPS' for the host code, the same gets defaulted in this field. In case multiple networks are found for the same combination, all applicable networks are listed. You can select the required network.

### Network Description

System defaults the description of the network selected.

### Network Type Description

System defaults the Network Type Description on the Network code selected.



**Network Service ID**

Specify the Network Service ID.

**Host Code**

System defaults the host code of transaction branch on clicking 'New'.

**Host Code Description**

System defaults the description of the Host Code displayed.

**Transaction Currency**

System defaults the transaction currency as 'INR' for India IMPS payments

**IMPS Transaction Type**

'P2A' option is checked by default. This is a mandatory field and you can modify the option defaulted. IMPS transaction types allowed for the network are:

- **P2A:** When checked, this indicates 'Account Number + IFSC based' IMPS transaction type
- **P2P:** When checked, this indicates 'MMID + Mobile Number' based IMPS transaction type

---

**Note**

It is mandatory to maintain at least one IMPS transaction type for the network as required.

---

**Transaction Limit**

Minimum and maximum limit amount per transaction type for IMPS Payments as required by the bank can be maintained here. This can be modified. Transaction limit has a one-to-one mapping with IMPS Transaction type.

**P2A Minimum Amount**

Specify the minimum limit allowed per IMPS transaction type.

**P2A Maximum Amount**

Specify the maximum limit allowed per IMPS transaction type.

**P2P Minimum Amount**

Specify the minimum limit allowed per IMPS transaction type.

**P2P Maximum Amount**

Specify the maximum limit allowed per IMPS transaction type.

**P2U Minimum Amount**

Specify the minimum limit allowed per IMPS transaction type.

**P2U Maximum Amount**

Specify the maximum limit allowed per IMPS transaction type.

---

**Note**

- If IMPS Transaction type checked is 'P2A', only P2A transaction limit can be maintained.
- If Transaction limit values are entered in P2P without selecting respective IMPS transaction types, system throws a warning message 'Please select applicable IMPS transaction types before maintaining Transaction Limit'.

---

## **Pricing Details**

### **Transaction Pricing Code**

Select the pricing code from the list of values. All the valid Pricing codes maintained in 'Pricing Code Detailed' (PPDCDMNT) are listed here. Pricing codes to be applied for India IMPS can be selected. Computation of Charges and Tax are based on the pricing code linked here.

## **Accounting Codes**

### **Debit Liquidation**

This is a mandatory field. Select the accounting code for the Credit/Debit Leg (Intermediary GL) of event DRLQ/CRLQ.

### **Credit Liquidation**

This is a mandatory field. Select the accounting code for the Credit Leg (Clearing GL) of event CRLQ.

### **Designated Branch**

Specify the Designated Branch from the list of values.

## **Network Account Details**

### **Network Account**

Select the Network Account from the list of values. All the valid network accounts are listed here. The Network account if maintained here, is replaced with Clearing GL while posting the credit accounting for outbound payments.

## **Processing Preferences**

### **Time-Out Period (In Seconds)**

System automatically generates Verification Request (VR) for the Outbound Payment if no Original Response is received from NPCI Switch within the time out period maintained in seconds here.

This is maintained as 30 seconds for IMPS network code and is modifiable.

### **Retry Count for Check Transaction Request**

This is maintained as '3' for IMPS network code and is modifiable. Based on this, system auto generates Verification Request every '30' seconds with a maximum retry count of '3' for VR as per current NPCI directive. If not maintained, no VR is generated.

### **Check Transaction Request Interval**

You can specify the interval/gap between the two Check Transaction Request.

### **Accounting Preference**

You can set the preference for accounting during the outbound transaction processing, in this field. Select the accounting preferences from the drop-down values. The options are:

- **Before Messaging** - If the accounting preference chosen for the Network is 'Before Messaging', the Message Generation and Hand-off of Original Request message is subsequent to debit/credit accounting for the outbound payment. However the payment processor does not wait for the accounting success/failure response from Accounting/DDA system.
  - In case of payment rejection as per OR/VR response from network, Accounting reversal request is sent to DDA system and payment status is reversed.

- **On Confirmation from CI** - If the accounting preference selected is 'On confirmation from NPCI', the debit /credit accounting is passed only after the receipt of OR/VR response from network. If the payment is rejected the balance block (ECA) reversal request is sent to DDA system.

### 3.1.1.1 **IMPS Outbound Payment Preference Summary**

You can view all the Outbound payments preferences maintained, in this summary screen.

You can invoke 'IMPS Outbound Payment Preferences Detailed Summary' screen by typing 'PJSNWOPF' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You can search for the records using one or more of the following parameters:

- Authorization Status
- Record Status
- Network Code
- Host Code
- Transaction Currency

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

### 3.1.2 **Inbound Payment Preferences**

You can maintain the Inbound Preferences for India IMPS through this screen.

You can invoke 'IMPS Inbound Payment Preferences Detailed' screen by typing 'PJDNWIPF' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

Following are the actions allowed from this screen:

- New
- Save
- Copy
- Print
- Enter Query
- Unlock
- Delete
- Authorize

Specify the following fields:

### Network Code

Select the network code of the India IMPS from the list of values.

If only one Network is maintained with payment type as 'IMPS' for the host code, the same gets defaulted in this field. In case multiple networks are found for the same combination, all applicable networks are listed. You can select the required network.

### Network Description

System defaults the description of the network selected.

### Network Type Description

System defaults the Network Type Description on the Network code selected.

### Host Code

System defaults the host code of transaction branch on clicking 'New'.

### **Host Code Description**

System defaults the description of the Host Code displayed.

### **Source Code**

Select the Source Code from the list of values. This is a mandatory field. Source codes maintained in the PMDSORCE screen are listed here. This is used as source code, for inbound payment processing.

For Inbound IMPS payment only 'Upload' source type is applicable.

### **Source Code Description**

System defaults the description, based on the Source Code selected.

### **Transaction Currency**

System defaults the transaction currency as 'INR' for India IMPS payments.

### **IMPS Transaction Type**

'P2A' option is checked by default. This is a mandatory field and you can modify the option defaulted. IMPS transaction types allowed for the network are:

- **P2A:** When checked, this indicates 'Account Number + IFSC based' IMPS transaction type.
- **P2P:** When checked, this indicates 'MMID + Mobile Number' based IMPS transaction type.

---

#### **Note**

It is mandatory to maintain at least one IMPS transaction type for the network as required.

---

### **Payment Preferences**

#### **Beneficiary Name Match required**

This flag indicates, whether 'Beneficiary Name Match' is required for the inbound IMPS payments. Check this box to enable, beneficiary name match. This is unchecked by default.

#### **Beneficiary Validation Amount**

Specify the Amount in INR currency.

### **Accounting Codes**

#### **Debit Liquidation**

This is a mandatory field. Select the accounting code for the Debit Leg (Clearing GL) of event DRLQ.

#### **Credit Liquidation**

This is a mandatory field. Select the accounting code for the Credit/Debit Leg (Clearing GL) of event DRLQ/CRLQ.

### **Pricing Details**

#### **Transaction Pricing Code**

Select the pricing code from the list of values. All the valid Pricing codes maintained in 'Pricing Code Detailed' (PPDCDMNT) are listed here. Pricing codes to be applied for India IMPS can be selected. Computation of Charges and Tax are based on the pricing code linked here.

## **Network Account Details**

### **Network Account**

Select the Network Account from the list of values. All the valid network accounts are listed here. The Network account if maintained here, is replaced with Clearing GL while posting the credit accounting for outbound payments.

### **3.1.2.1 Inbound Payment Preferences Summary**

You can view all the Inbound payments preferences maintained, in this summary screen.

You can invoke 'IMPS Inbound Payment Preferences Summary' screen by typing 'PJSNWIPF' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

IMPS Inbound Payment Preferences Summary

Search Advanced Search Reset Clear All

Case Sensitive

Authorization Status  Record Status

Network Code  Host Code

Transaction currency

Records per page 15 1 Of 1 Go Lock Columns 0

Authorization Status	Record Status	Network Code	Host Code	Transaction currency	Beneficiary Name Match Required	Credit Liquidation	Debit Liquidation	National Bank Identifier
----------------------	---------------	--------------	-----------	----------------------	---------------------------------	--------------------	-------------------	--------------------------

Exit

You can search for the records using one or more of the following parameters:

- Authorization Status
- Record Status
- Network Code
- Host Code
- Transaction Currency

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

### 3.1.3 Account Type Restrictions

You can maintain the account type restrictions applicable for the IMPS payments in this screen.

You can invoke 'Account Type Restrictions' screen by typing 'PJDACSTR' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button. Click 'New' button on the Application toolbar.

The screenshot shows the 'Account Type Restrictions' application window. At the top, there is a 'New' button and an 'Enter Query' field. The main form area contains several input fields: 'Host Code \*', 'Network Code \*', 'Host Description', 'Network Description', and 'Network Type Description'. Below these are two sections for payment restrictions: 'Outbound Payment Restrictions' and 'Inbound Payment Restrictions'. Each section has two radio buttons: 'Allowed' and 'Disallowed'. The 'Disallowed' option is selected in both sections. Below the form are two data grids, each with columns for 'Account Type \*' and 'Account Type Code'. The bottom of the window contains a status bar with fields for 'Maker', 'Checker', 'Date Time', 'Mod No', 'Record Status', and 'Authorization Status', along with an 'Exit' button.

#### **Host Code**

System defaults the host code of transaction branch on clicking 'New'.

#### **Host Code Description**

System defaults the description of the host code displayed.

#### **Network Code**

Select the network code 'IMPS' from the list of values.

If only one Network is maintained with payment type as 'IMPS' for the host code, the same gets defaulted in this field. In case multiple networks are found for the same combination, all applicable networks are listed. You can select the required network.

#### **Network Code Description**

System defaults the description of the host code displayed.

#### **Network Type Description**

System defaults the Network Type Description of the Network code selected.

#### **Outbound Payment Restrictions/Inbound Payment Restrictions**

Payment restrictions can be maintained for Outbound Payments and Inbound Payments separately for specific networks.

#### **Restriction Type**

The options are 'Disallowed' and 'Allowed'. System defaults the value as 'Disallowed'

Disallowed – This option indicates, that the list of Account types maintained is in disallowed list.

Allowed – This option indicates, that the list of Account types maintained is in allowed list.

---

**Note**

- Click on '+' button to add new row for selecting Account type details.
  - Click on '-' button to delete the Account type details added. To delete a specific record, check the record and click on '-' button.
  - Click on 'Single View' button to view the complete details for the record selected.
- 

**Account Type**

Select the Account Type from the list of values. You can add multiple records in this grid. The account types listed are:

Account Type	Account Type Code
Savings Bank	10
Current Account	11
Cash Credit	13
Loan Account	14
Overdraft	12
NRE	40

**Account Type Code**

System defaults the Account Type Code, based on the Account Type selected.

---

**Note**

System validates the records added while saving. If no record is maintained for Account Type, then error message is displayed as - 'Please maintain Allowed/Disallowed Account Type for the Network Code'.

---

**3.1.3.1 Account Type Restrictions Summary**

You can view all the account type restrictions maintained, in this summary screen.



You can invoke 'Account Type Restrictions Summary' screen by typing 'PJSACSTR' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

Account Type Restrictions Summary

Search Advanced Search Reset Clear All

Case Sensitive

Authorization Status  Record Status

Host Code  Network Code

Records per page 15  1 Of 1  Lock Columns 0

Authorization Status	Record Status	Host Code	Network Code	Outbound Payment Restriction Type	Inbound Payment Restriction Type
----------------------	---------------	-----------	--------------	-----------------------------------	----------------------------------

Exit

You can search for the records using one or more of the following parameters:

- Authorization Status
- Record Status
- Host Code
- Network Code

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

### 3.1.4 **NBIN - IFSC Mapping**

You can maintain the mapping between NBIN and IFSC through this screen.

You can invoke 'NBIN Maintenance' screen by typing 'PJDNBIFS' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button. Click 'New' button on the Application toolbar.

The screenshot shows the 'NBIN Maintenance' application window. At the top, there is a title bar with the text 'NBIN Maintenance' and standard window controls. Below the title bar is a menu bar with 'New' and 'Enter Query' options. The main content area contains three input fields: 'Bank IFSC Code \*', 'Bank Name', and 'National Bank Identification Number \*'. The bottom section is a light blue footer with labels for 'Maker', 'Checker', 'Date Time:', 'Mod No', 'Record Status', and 'Authorization Status'. An 'Exit' button is located in the bottom right corner.

Following are the actions allowed from this screen:

- New
- Save
- Copy
- Print
- Enter Query
- Unlock
- Delete
- Authorize

Specify the following fields:

#### **Bank IFSC Code**

Select the Bank IFSC Code from the list of values. This maintenance is per bank participating in IMPS network. The Bank IFSC Codes listed in the LOV are unique.

System builds an internal table for the Bank IFSC Code, i.e. only the first four characters of the IFSC Code based on the Local Payment Bank Directory maintenance (STDBKMNT) where the 11-character IFSC Code (Bank Code) is maintained.

#### **Bank Name**

System defaults the Bank Name of the IFSC Code selected.

#### **National Bank Identification Number**

Specify the unique NBIN number in this field. This is a unique 4-digit number allotted by NPCI for all banks participating in IMPS. This field is modifiable.

Based on the NBIN and IFSC Code mapping done here, system automatically derives NBIN (example, 4267) by matching only the first four alphabetic characters of the beneficiary IFSC Code (SDPS0000072) input in the IMPS Outbound Payment transaction. The derived NBIN is populated in the DE-2 of outbound original request message.

---

**Note**

NBIN does not start with zeroes.

---

### 3.1.4.1 **NBIN - IFSC Mapping Summary**

You can view all the NBIN-IFSC mapping maintenances done in this screen.

You can invoke 'NBIN Maintenance Summary' screen by typing 'PJSNBIFS' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

The screenshot shows the 'NBIN Maintenance Summary' application window. The window title is 'NBIN Maintenance Summary'. It features a search bar with options for 'Search', 'Advanced Search', 'Reset', and 'Clear All'. Below the search bar, there are several input fields: 'Authorization Status' (a dropdown menu), 'Record Status' (a dropdown menu), 'Bank IFSC Code' (a text field with a magnifying glass icon), 'National Bank Identification Number' (a text field with a magnifying glass icon), and 'Bank Name' (a text field with a magnifying glass icon). The 'Case Sensitive' checkbox is checked. Below the search fields, there is a table with columns: 'Authorization Status', 'Record Status', 'Bank IFSC Code', 'National Bank Identification Number', and 'Bank Name'. The table is currently empty. At the bottom right of the window, there is an 'Exit' button.

You can search for the records using one or more of the following parameters:

- Authorization Status
- Record Status
- Bank IFSC Code
- National Bank Identification Number
- Bank Name

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

### 3.1.5 **IMPS Network Code Source Preference**

You can maintain the Network Source code preferences specific to IMPS network in this screen.

You can invoke 'IMPS Network Code Source Preferences' screen by typing 'PJDNWSCD' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

Following are the actions allowed from this screen:

- New
- Save
- Copy
- Print
- Enter Query
- Unlock
- Delete
- Authorize

Specify the following fields:

#### **Host Code**

System defaults the host code of transaction branch on clicking 'New'.

#### **Host Code Description**

System defaults the description of the Host Code displayed.

#### **Source Code**

Specify the Source Code, via which the transaction is to be booked. All valid and open source codes maintained in the PMDSORCE screen are listed here.

#### **Source Code Description**

System defaults the description of the Source Code selected.

#### **Network Code**

Select the network code as IMPS from the list of values.

If only one Network is maintained with payment type as 'IMPS' for the host code, the same gets defaulted in this field. In case multiple networks are found for the same combination, all applicable networks are listed. You can select the required network.

#### **Network Code Description**

System defaults the description of the Network Code selected.

## **Network Type Description**

System defaults the Network Type Description on the Network code selected.

## **Preferences**

### **Merchant Category Code**

System defaults the Merchant Category Code as - 4814. You can select other options from the drop-down values listed. If no values are maintained in this screen, default value '4829' is populated in DE-18.

Options listed in the drop -down are:

- 4814 – Financial institutions providing mobile banking service
- 4829 – Transaction initiated from Internet channel
- 6011 - Transaction initiated through ATM Channel

### **Point of Service Entry Mode**

System defaults the Point of Service Entry Mode as - 012. You can select other options from the drop-down values listed. If no values are maintained in this screen, default value '012' is populated in DE-22.

Options listed in the drop -down are:

- 019 - Transaction initiated through Mobile Phone
- 012 - Transaction initiated through Internet Channel/ Branch
- 901 - Transaction initiated through ATM Channel

### **Point of Service Condition Code**

System defaults the Point of Service Condition Code as - 05. You can select other options from the drop-down values listed. If no values are maintained in this screen, default value '05' is populated in DE-23.

Options listed in the drop -down are:

- 05 - Transaction initiated through Mobile Phone
- 05 - Transaction initiated through Internet Channel/ Branch
- 00 - Transaction initiated through ATM Channel

### **Channel Code**

Select the Channel Code from the list of values. All the valid channel codes are listed here. The options listed are:

- ATM
- INET
- IVR
- MAT
- MOB
- POS
- SMS
- USDB
- USDC
- WAP

## **ATM Preferences**

You can maintain the ATM Preferences in this section.

If values '6011', '901', '00' are maintained in merchant category code, point of service entry code, point of service condition code respectively, system validates if ATM preferences details are maintained. If not maintained, system gives a warning message 'Please maintain ATM preferences'.

### **ATM Terminal ID**

Specify the ATM Terminal ID. Alphanumeric characters of length 8 is allowed. This gets populated in DE-41, DE-42.

### **Terminal Street**

Specify the Terminal Street. Alphanumeric characters of length 23 is allowed.

### **Terminal City**

Specify the Terminal City. Alphanumeric characters of length 13 is allowed.

### **Terminal State**

Specify the Terminal State. Alphanumeric characters of length 2 is allowed.

### **Terminal Country**

Select the Terminal Country from the list of values. For IMPS network, Terminal Country supported is 'IN'.

---

#### **Note**

Terminal Street, City, State, Country, specified here gets populated in DE-43.

---

### **3.1.5.1 IMPS Network Code Source Preferences Summary**

You can view all the network code source preferences maintained for IMPS network through this screen.

You can invoke 'IMPS Network Code Source Preferences Summary' screen by typing 'PJSNWSCD' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You can search for the records using one or more of the following parameters:

- Authorization Status
- Record Status
- Network Code
- Host Code
- Source Code

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

### 3.1.6 **IMPS XML NPCI Connectivity Maintenance**

You can capture IMPS XML connectivity details in this screen.

The request and response messages are posted using https URL in the given format.

The URL shall be used to identify the product, current version of the product, the API and the entity initiating the message.

URL: https://<Source IP Address of bank>/imps/<API name>/<version>/urn:txnid: <txn id> .

Sample IMPS URL - https:// 10.200.0.1:443 /imps/ReqPay/2.0/urn:txnid:

All the required maintenance details for connectivity is configured from this screen.

You can invoke 'IMPS XML NPCI Connectivity Maintenance Detailed' screen by typing 'PJDXMLCN' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

The screenshot shows a web-based application window titled "IMPS XML NPCI Connectivity Maintenance Detailed". At the top left, there are buttons for "New" and "Enter Query". The main content area is organized into several sections:

- Host Code \*** and **Network Code \***: Input fields with red asterisks indicating required fields.
- Host Code Description** and **Network Description**: Text input fields.
- Preferences**: A section containing "Url", "Heartbeat Request Interval (MM:SS)", and "Schema Definition File Path".
- SSL Details**: A section containing "Key Manager Factory", "Key Password", "SSL Context", "Keystore Name", "Keystore Password", "Key Store Path", "Keystore Constant", "Keystore Password Constant", and "Keystore Instruction type".

At the bottom, there is a status bar with fields for "Maker/Checker", "Date Time", "Mod No", "Record Status", and "Authorization Status", along with an "Exit" button.

Specify the following fields:

### Host Code

Select the Host Code from the list of values. All valid and authorized Host codes are listed here.

### Host Code Description

System defaults the description of the Host Code selected.

### Network Code

Select the network code of the India IMPS from the list of values.

If only one Network is maintained with payment type as 'IMPS' for the host code, the same gets defaulted in this field. In case multiple networks are found for the same combination, all applicable networks are listed. You can select the required network.

### Network Description

System defaults the description of the network selected.

### Preferences

#### Url

Specify a valid IMPS request and response url.

#### Heartbeat Request Interval (MM:SS)

Specify a valid interval between two heartbeat request.

---

#### Note

As per specification, the value can be configured in 3 minutes.

---

#### Schema Definition File Path

Specify a valid XSD path.



**API Name**

Select the valid API Name from the following:

- ReqPay
- RespPay
- ReqChkTxn
- RespChkTxn
- ReqHbt
- RespHbt

**Version**

Specify a valid Version.

---

**Note**

By-default, the version is 2.0

---

**SSL Details****Key Manager Factory**

Specify a valid Key Manager Factory.

**Key Password**

Specify a valid key Password.

**SSL Context**

Specify a valid SSL context.

**Keystore Name**

Specify the keystore name.

**Keystore Password**

Specify the keystore password.

**Keystore Path**

Specify the keystore path.

**Keystore Constant**

Specify the keystore constant.

**Keystore Password Constant**

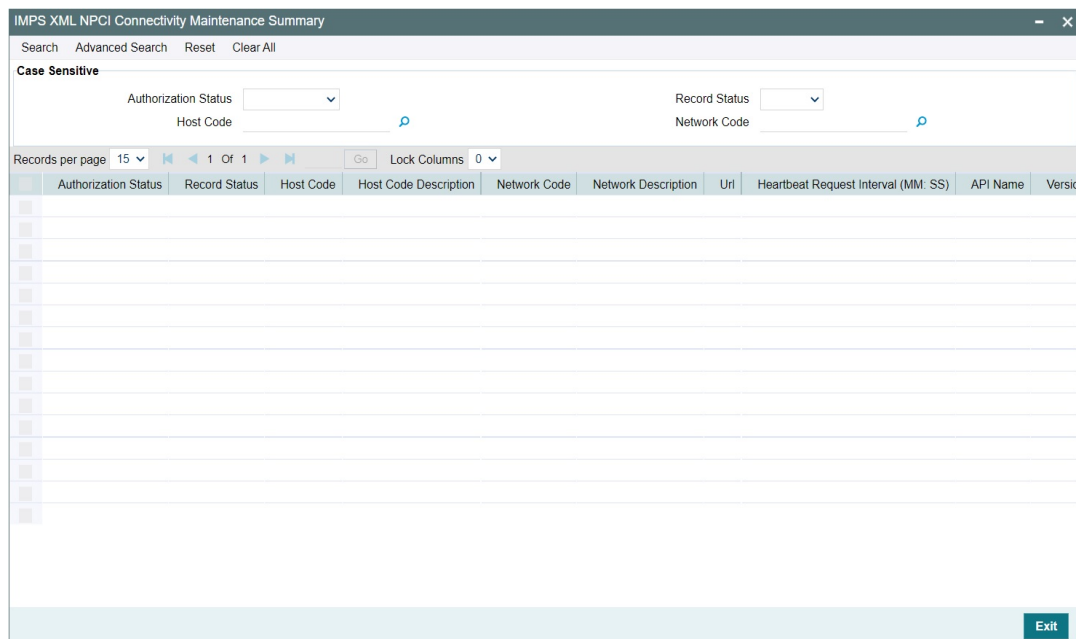
Specify the keystore password constant.

**Keystore Instruction Type**

Specify the keystore instruction type.

### 3.1.6.1 **IMPS XML NPCI Connectivity Maintenance Summary**

You can invoke 'IMPS XML NPCI Connectivity Maintenance Summary' screen by typing 'PJSXMLCN' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.



You can search for the records using one or more of the following parameters:

- Authorization Status
- Record Status
- Host Code
- Network Code

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

## 4. IMPS Outbound Payments

Outbound credit transactions can be booked, viewed through the Outbound IMPS transaction screens.

### 4.1 IMPS Outbound Transaction Input

This chapter contains the following sections:

- [Section 4.1.1, "IMPS Outbound Transaction Input"](#)
- [Section 4.1.2, "IMPS Outbound Transaction View"](#)
- [Section 4.1.3, "ReST Services"](#)

#### 4.1.1 IMPS Outbound Transaction Input

You can book the outbound IMPS transactions through this screen. Outbound IMPS details can be provided here.

You can invoke 'IMPS Outbound Payment Transaction Input Detailed' screen by typing 'PJDOTONL' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button. Click 'New' button on the Application toolbar.

Following are the actions allowed from this screen:

- New
- Save
- Copy
- Print
- Enter Query
- Unlock
- Delete
- Authorize

Specify the following details:

### **Transaction Branch**

The system defaults the transaction branch code with the user's logged in branch code.

### **Branch Name**

System displays the Name of the Transaction Branch.

### **Host Code**

System defaults the host code of transaction branch on clicking 'New'.

### **Host Code Description**

System defaults the description of the Host Code displayed.

### **Source Code**

Select the Source Code from the list of values. All valid Source code are listed here. For manually input transactions, source code can be selected from the list of valid source codes.

For transactions received through Rest services, the source code is populated as received in the request.

### **Source Code Description**

System defaults the description of the Source Code selected.

### **Network code**

The system defaults the Network code as 'IMPS'. If only one Network is maintained with payment type as 'IMPS' for the host code, the same gets defaulted in this field.

And you can also select the Network code from the list of values when multiple networks are available. All valid codes maintained in Network maintenance (PMDNWMNT) screen are listed.

### **Transaction Reference**

This is a 16-digit unique identifier of the IMPS payment transaction and auto-generated by the system based on the common transaction reference generation logic.

For more details on the reference generation logic, refer to Payments Core User manual.

### **Retrieval Reference**

System auto generates the RRN (Retrieval Reference Number) on authorization of the payment transaction. This is a 12-digit number. RRN is generated using the following logic:

The RRN Mask is: 'YDDDHSSSSSS'

- Y – Last digit of year.
- DDD – Julian date of transaction

- HH – Hour of transaction (
- derived from DE-12 as in IST).
- SSSSSS – STAN of transaction (Same as in DE -11 for system generated unique 6-digit number within a business day).

**Source Reference**

System defaults the Source Reference Number as Transaction Reference. The maximum length of this field accepts up to 35 characters. and it is modifiable.

**Message ID**

This field displays the unique Message ID generated by system.

**Transaction ID**

This field displays the unique Transaction ID generated by system.

**Network Code**

Select the Network code as 'IMPS' from the list of values. In case multiple networks are found for the same combination, all applicable networks are listed for the field. You can select the required network.

**Network Code Description**

System defaults the description of the Network Code selected.

**IMPS Transaction Type**

Select the IMPS Transaction Type from the drop-down values. The options are:

- **P2A:** You can specify the details of A/C + IFSC in the Beneficiary Details section. System validates and does not allow to enter details in the MMID+Mobile Number / Aadhaar Number section for P2A Transaction type.
- **P2P:** You can specify the details of MMID + Mobile Number in the Beneficiary Details section. System validates and does not allow to enter details in the A/C + IFSC / Aadhaar Number section for P2P Transaction type.

**Prefunded Payments**

Select this check box to indicate that Pre funded payments are allowed for the source.

## 4.1.1.1 Main Tab

**Debtor Details**

Debtor Account Number  
Debtor Account Type  
Debtor Account Branch  
Debtor Name  
Customer No  
Debtor Mobile Number  
Debtor MMID  
Debtor Bank Name  
Debtor Bank IFSC Code

**Payment Details**

Booking Date  
Instruction Date  
Activation Date  
Transaction currency: INR  
Transaction Amount  
Remarks

**Beneficiary ID**

Beneficiary ID

**Beneficiary Details**

**A/C + IFSC**

Beneficiary Name  
Beneficiary Account Number  
Beneficiary Account Type  
Beneficiary IFSC Code  
Bank Name  
Branch Name  
Mobile Number  
Email ID

**MMID + Mobile Number**

Beneficiary Name  
Beneficiary MMID  
Mobile Number

UDF | MIS

Maker ID  
Maker Date Stamp

Checker ID  
Checker Date Stamp

Authorization Status

Exit

### Debtor Details

#### **Debtor Account Number**

Select the Debit Account Number from the list of values. All open and authorized accounts maintained in the India Payment Account Preferences (PMDEXACP) are listed for this field. System displays only the 'Savings/Current type accounts in the LOV.

System defaults the following details on selecting the Debit Account Number and the details cannot be modified:

- Debtor Account Type
- Debtor Account Branch
- Debtor Name
- Customer No
- Debtor Mobile Number
- Debtor MMID
- Debtor Bank Name
- Debtor Bank IFSC Code

### Payment Details

#### **Booking Date**

System defaults the current date as Booking Date. This is disabled for user modification.

#### **Instruction Date**

System defaults the current application server date. This date can be modified by the user. This is the requested execution date by the customer. Back dates are not allowed as instruction date.

### **Activation Date**

Activation Date is derived from Instruction date and is disabled for modification.

Since Network / Branch holidays are applicable for IMPS payments, activation date is same as instruction date. Payment is submitted to NPCI on Activation date and processed by NPCI on the same date.

### **Transaction Currency**

System defaults the Transfer currency as 'INR'. This field is disabled for modification.

### **Transaction Amount**

Specify the Transaction Amount.

### **Remarks**

Any internal remarks can be input in this field. This is a free text field of allowed character length '50'

### **Beneficiary ID**

#### **Beneficiary ID**

Select the Beneficiary ID from the list of values. This field fetches the Beneficiary IDs maintained for the debtor account number and beneficiary type combination.

---

#### **Note**

- For the selected debtor account number, if IMPS transaction type selected is 'P2A', the LOV displays only beneficiary IDs of type 'P2A' with beneficiary details maintained in A/C+IFSC section of beneficiary registration (PMDBENRN) for the network 'IMPS'.
  - Similarly, for P2P IMPS transaction types, Beneficiary ID LOV, fetches only the P2P beneficiary type records maintained for the debtor account number.
- 

### **Beneficiary Details**

#### **A/C + IFSC**

System defaults the following A/C + IFSC details on selecting the valid Beneficiary ID:

- Beneficiary Name
- Beneficiary Account Number
- Beneficiary Account Type
- IFSC Code
- Bank Name
- Branch Name
- Mobile Number and Email ID (if available)

On saving the transaction, following validations are done by the system:

- System validates if IMPS transaction type applicable is maintained in IMPS Outbound Payment Preferences (PJDNWOPF). If not input for IMPS transaction type, system throws a warning message 'This Particular IMPS Transaction type <IMPS\_TXN\_TYPE> is not enabled. Unable to process'.
- System validates if the values for the above fields (Beneficiary Name, Ben Account Number and IFSC Code) are present for the IMPS transaction type 'P2A (A/C + IFSC)'. If not input, system throws a warning message 'Please enter Beneficiary Name, Account Number, IFSC Code to proceed'.

- System shows 'Transfer to Overdraft, Cash Credit, Loan Account, Account is not allowed through IMPS.' as per the beneficiary account type input.
- System validates if the debtor account type is allowed for the Outbound Payment and Network Code as maintained in Account Type Restrictions screen (PJDACSTR). If the account type is not allowed for the network, system shows error message 'This Account Type is not allowed for IMPS transfer.' The transaction is moved to Process Exception queue.
  - If the validation is successful, it is moved to the next step of outbound processor.
  - In cases where beneficiary account type is not input, system still processes the transaction as validation successful.
- System validates for 'On-US Transfer' (for P2P transfer within same bank) for Outbound IMPS as below:
  - System derives the NBIN based on the first four-digits of beneficiary MMID input at the transaction level.
  - Compare this derived NBIN with the NBIN maintained at the IMPS outbound payment preferences screen PJDNWOPF.
  - If found to be same, the outbound transaction is blocked and rejected. System shows the warning message 'IMPS Transfer within the same bank is not allowed. Unable to Save'.

---

#### Note

- All the fields in the grid, except Bank and Branch Name can be edited, only if the Beneficiary ID is 'NULL' (without beneficiary registration)
  - System does not allow the user to select same bank as that of remitter bank's IFSC Codes as per the LOV restriction.
  - LOV Restriction condition: NBIN maintained in (PJDNWOPF) is equal to Bank IFSC Code (first four characters) as maintained in the screen NBIN Details (PJDNBIFS).
- 

#### MMID + Mobile Number

System defaults the following MMID + Mobile Number details on selecting the valid Beneficiary ID:

- Beneficiary Name
- MMID
- Mobile Number

On saving the transaction, following validations are done by the system:

- System validates if the values for the above fields (Beneficiary Name, MMID, Mobile Number) are present for the IMPS transaction type 'P2P (MMID + Mobile Number)'. If not input, system throws a warning message 'Please enter Beneficiary Name, MMID, Mobile Number to proceed'
- All the above fields are editable only if Beneficiary ID is 'NULL' (without beneficiary registration) and the debtor account number is not of 'GL' type.

#### Enrich Button

On clicking the Enrich button, system computes the Charges, and Tax on Charges if applicable, based on the maintenance for Transaction Pricing Code specified in IMPS Outbound Payment Preferences screen (PJDNWOPF).



### 4.1.1.2 Pricing Tab

You can view the computed charges and taxes applicable for each charge component, for the transaction booked by clicking the 'Pricing' tab. Pricing details are populated on clicking the 'Enrich' button.

Charges and Tax components are fetched as maintained in the Pricing Value Maintenance screen (PPDVLMNT) as applicable for the Payment Source code & Customer Service model.

The screenshot displays the 'Pricing' tab interface. At the top, there is a navigation bar with 'Main Pricing' and a 'Go' button. Below this is a table header with the following columns: Pricing Component, Pricing Currency, Pricing Amount, Waived, Debit Currency, and Debit Amount. The table body is empty. At the bottom of the interface, there are several fields: Maker ID, Maker Date Stamp, Checker ID, Checker Date Stamp, and Authorization Status. An 'Exit' button is located in the bottom right corner.

The below mentioned attributes is available in the Pricing tab.

#### Pricing Component

Displays the Name of the pricing component, applicable for the transaction, for which charges are computed.

#### Pricing Currency

Displays the Currency in which the charge amount is calculated for the Pricing component. from the Pricing Code maintenance.

#### Pricing Amount

Displays the fixed or calculated charge amount using the Pricing Value maintenance. You can edit the amount in this field to a non-zero value.

#### Waiver

Check this box to indicate that the charge is waived for the pricing component.

- If a particular Charge component is waived by the user then system would automatically also check the waiver the associated Tax component
- If charge/tax component is already waived in the Pricing Value maintenance, this component would still be displayed with the value and the waiver flag checked. This flag would not be allowed to be unchecked by the user.

#### Debit Currency

Displays the currency in which the charge amount is debited for the pricing component. This is the currency of the debit (originator) account

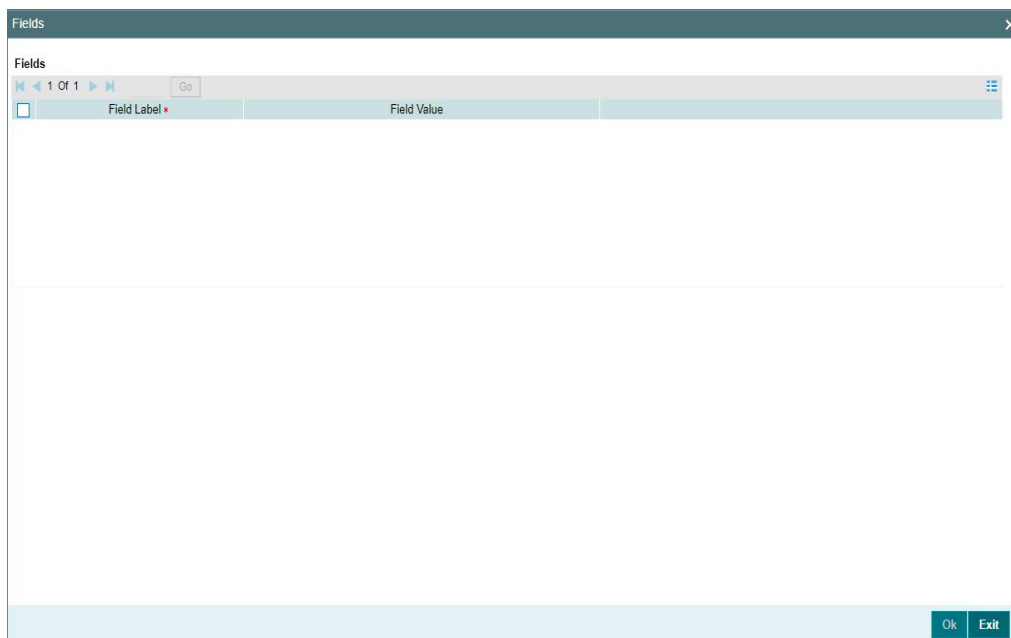
#### Debit amount

Displays the debited amount to the selected debit amount.

### 4.1.1.3 UDF Tab

You can view or capture the UDF fields and its details for the outbound IMPS transaction input screen by clicking the 'UDF' button.

Based on the UDF Group linked\_in the Source Maintenance screen, for source code applicable to Manual initiation, UDF fields are available for input while creating the transaction.



The screenshot shows a window titled 'Fields' with a close button (X) in the top right corner. Below the title bar, there is a navigation bar with a left arrow, '1 Of 1', a right arrow, and a 'Go' button. The main area contains a table with two columns: 'Field Label' and 'Field Value'. The table is currently empty. At the bottom right of the window, there are 'Ok' and 'Exit' buttons.

### 4.1.1.4 MIS Tab

You can view/ edit the MIS details for the outbound IMPS transaction input screen by clicking the 'MIS' button.

Based on the MIS Group linked in the Source Maintenance screen, for source code applicable to Manual initiation, MIS default values are populated for the IMPS payment transaction.

You can change the default MIS values and input values for other MIS fields for which no value is defaulted.

#### 4.1.1.5 **IMPS Outbound Transaction Input Detailed Summary**

You can view all the IMPS outbound transactions booked in this summary screen.

You can invoke 'IMPS Outbound Transaction Input Detailed Summary' screen by typing 'PJSOTONL' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You can search using one or more of the following parameters:

- Transaction Reference Number
- Retrieval Reference
- Network Code
- Source Code
- Maker ID
- Checker ID
- Instruction Date
- Activation Date
- IMPS Transaction Type
- Transaction Currency
- Transaction Branch
- Transaction Amount
- Booking Date
- Debtor Account Number
- Customer No
- Beneficiary Account Number
- Beneficiary IFSC Code
- Beneficiary MMID
- Beneficiary Mobile Number
- Authorization Status
- Beneficiary Account Type
- Debit Account Type

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click 'Details' button to view the detailed maintenance screen.

#### **4.1.2 IMPS Outbound Transaction View**

You can view all the outbound IMPS transactions with all the processed details in this screen.

You can invoke 'Outbound IMPS Transaction View Detailed' screen by typing 'PJDOVIEW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

- From this screen, click Enter Query. The Transaction Reference field gets enabled which opens an LOV screen.
- Click the Fetch button and select the required value.
- Along with the transaction details in the Main and Pricing tabs user can also view the Status details for the following:
  - External System Status
  - Transaction Status
  - Error Details
- Click Execute Query to populate the details of the transaction in the Outbound IMPS Transaction View screen.

For more details on Main, Pricing tabs refer to 'PJDOTONL' screen details above.

### **Transaction Status - Queue Code**

<b>Transaction Status</b>	<b>Applicable Queue Codes for IMPS</b>	<b>Remarks</b>
In Progress	<SC/EC/EP>	Transaction is under progress (or) response is pending from External systems. Queue Code is applicable if response is pending from External systems - Sanction Check - ECA - Pricing
Exception	<SC/EC/EP/BO/PE>	Transaction is in an internal/external queue. Applicable internal/external queues - Sanction Check - ECA - Pricing - Business Override - Processing Exception
Future Dated	<FV>	Transaction is future-value dated
Processed	##	OUT message is generated
Cancelled	##	Cancelled from exception queue
Seized	##	Sanction Seized
Rejected	##	Decline response from NPCI

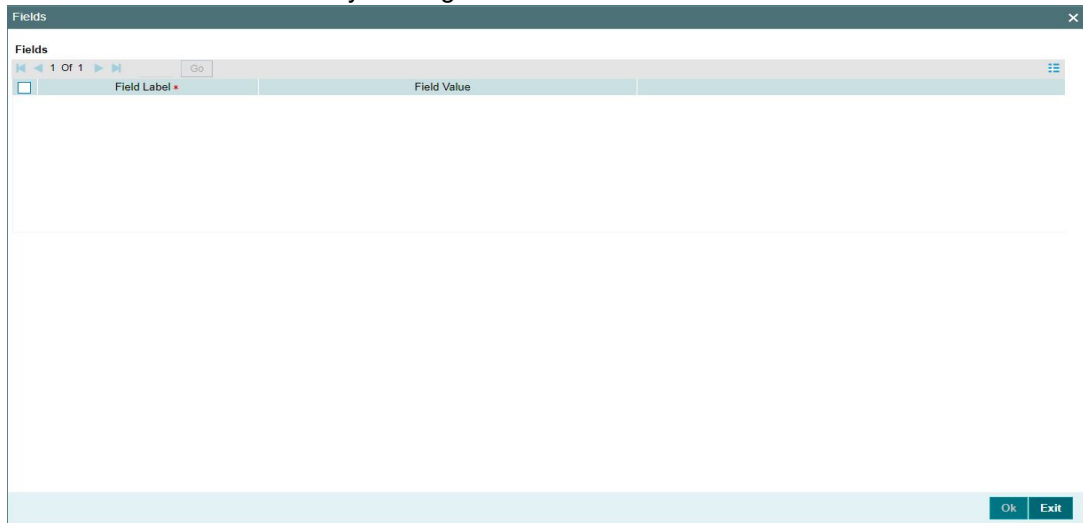
### **Settlement Status**

Settlement Status field in the 'Transaction Status' section displays the following details.

- Settled: On receipt of Response Pay with response code 00
- Deemed Approved: On receipt of Response Pay with response code 91

### 4.1.2.1 UDF Tab

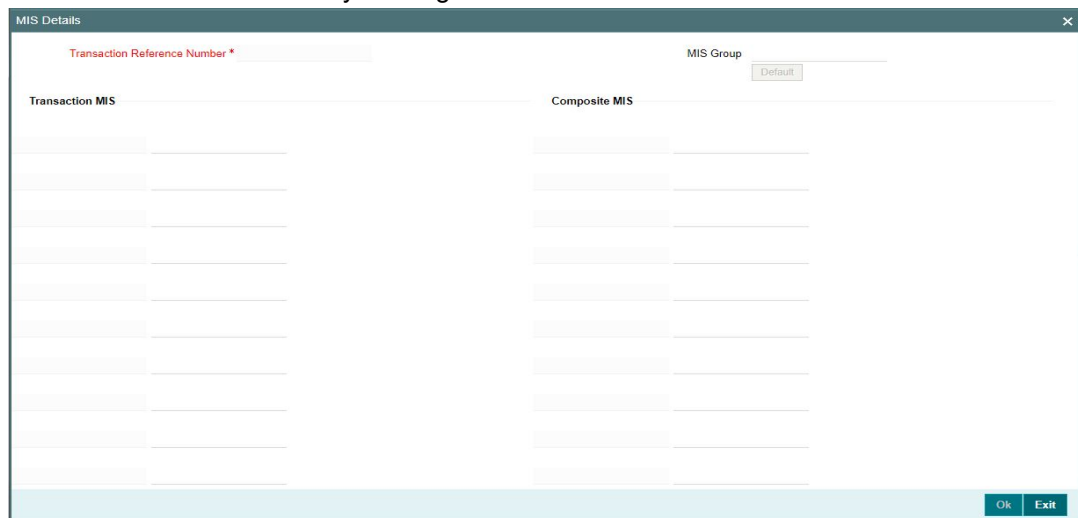
You can invoke this screen by clicking 'UDF' tab in the screen.



The screenshot shows a window titled "Fields" with a close button (X) in the top right corner. Below the title bar is a navigation bar containing a left arrow, "1 of 1", a right arrow, and a "Go" button. The main area is a table with two columns: "Field Label" and "Field Value". The table is currently empty. At the bottom right of the window, there are "Ok" and "Exit" buttons.

### 4.1.2.2 MIS Tab

You can invoke this screen by clicking 'MIS' tab in the screen.



The screenshot shows a window titled "MIS Details" with a close button (X) in the top right corner. At the top, there are two input fields: "Transaction Reference Number" (with a red asterisk) and "MIS Group" (with a "Default" button next to it). Below these are two sections: "Transaction MIS" and "Composite MIS". Each section contains a vertical list of input fields. At the bottom right of the window, there are "Ok" and "Exit" buttons.

### 4.1.2.3 View Queue Action Log

User can view all the queue actions for the respective transaction initiated. You can invoke this screen by clicking the 'View Queue Action' button in View screen, where the Transaction Reference Number is auto populated and related details are displayed.:

The screenshot shows a web application window titled "View Queue Action Log". At the top, there is a search area labeled "Enter Query" with two input fields: "Transaction Reference Number" and "Network Code". Below the search area is a table with the following columns: Transaction Reference Number, Action, Remarks, Queue Code, Authorization Status, Maker Id, and Maker Date Stamp. The table indicates "1 Of 1" records. At the bottom of the window, there are three buttons: "View Request Message", "View Response Message", and "Exit".

Following details are displayed:

- Transaction Reference Number
- Network Code
- Action
- Remarks
- Queue Code
- Authorization Status
- Maker ID
- Maker Date Stamp
- Checker ID
- Checker Date Stamp
- Queue Status
- Queue Reference No
- Primary External Status
- Secondary External Status
- External Reference Number

User can view the request sent and the corresponding response received for each row in Queue Action Log.

Also user can view the request sent to and the response received from external systems for the following:

- Sanction screening
- External credit approval
- External price fetch



- Accounting system

#### 4.1.2.4 **All Messages**

Click the 'All Messages' link in the Outbound IMPS Payments View screen, to invoke this sub-screen.

You can view the generated messages and the response messages for the transaction in this sub screen for the Transaction Reference Number specified. Following details are displayed in the screen:

##### **Request Messages**

- Message Reference Number
- Message Type
- VR Sequence
- Message Date and Time

##### **Response Messages**

- Message Reference
- Message Type
- Response Code
- Response Code Description
- Response Status
- Message Date and Time

### 4.1.2.5 Accounting Entries Tab

You can view the Accounting Entries posted for the Outbound IMPS in Accounting entries Tab.

Accounting Entries

Enter Query

Transaction Reference Number

Accounting Entries

1 Of 1

<input type="checkbox"/> Event Code	Transaction Date	Value Date	Account	Account Branch	TRN Code	Dr/Cr	Amount Tag	Account Currency	Transaction Amount
-------------------------------------	------------------	------------	---------	----------------	----------	-------	------------	------------------	--------------------

Accounting Details

Exit

By default, the following attributes of the Accounting Entries tab are displayed:

- Event Code
- Transaction Date
- Value Date
- Account
- Account Branch
- TRN Code
- Dr/Cr
- Amount Tag
- Account Currency
- Transaction Amount
- Netting
- Offset Account
- Offset Account Branch
- Offset TRN Code
- Offset Amount Tag
- Offset Currency
- Offset Amount
- Offset Netting
- Hand-off Status

#### 4.1.2.6 View Repair Log

User can view all the Repair actions for the respective transaction initiated. You can invoke this screen by clicking the 'View Repair Log' button in View screen, where the Transaction Reference Number is auto populated and related details are displayed.

The screenshot shows a web application window titled "View Repair Log". At the top, there is a search bar labeled "Enter Query". Below it is a text input field for "Transaction Reference Number". A table below the input field displays repair log data. The table has a header row with columns: "Queue Reference No", "Field Name", "Old Value", "Repaired Data", and "Error". The table content shows "1 Of 1" records. Navigation icons (back, forward, search) are visible above the table. A "Go" button is located to the right of the table header. At the bottom right of the window, there is an "Exit" button.

Following details are displayed:

- Queue Reference No
- Field Name
- Old Value
- Repaired Data
- Error

#### 4.1.2.7 **IMPS Outbound Transaction View Summary**

You can invoke 'Outbound IMPS Transaction View Summary' screen by typing 'PJSOVIEW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

IMPS Outbound Transaction View Summary

Search Advanced Search Reset Clear All

Case Sensitive

Transaction Reference Number

Retrieval Reference

Source Reference Number

Network Code

Source Code

Sanction Seizure

Queue Code

Response Status

Booking Date

Instruction Date

Activation Date

IMPS Transaction Type

Transaction currency

Transaction Branch

Transaction Amount

Transaction Status

Debtor Account Number

Debtor Account Type

Customer No

Beneficiary Account Number

Beneficiary Account Type

Beneficiary MMID

Beneficiary Mobile Number

Beneficiary IFSC Code

Records per page 15 1 Of 1

Host Code	Transaction Reference Number	Booking Date	Debtor Account Number	Retrieval Reference	Instruction Date	Debtor Account Type	Source Reference Number	Activation Date	Customer No	Network Code	IMPS Transaction Type	Beneficiary

Exit

You can search for the records using one or more of the following parameters:

- Transaction Reference Number
- Retrieval Reference
- Source Reference Number
- Network Code
- Source Code
- Queue Code
- IMPS Transaction Type
- Transaction Currency
- Transaction Branch
- Transaction Amount
- Transaction Status
- Booking Date
- Instruction Date
- Activation Date
- Debtor Account Number
- Debtor Account Type
- Customer No
- Beneficiary Account Number
- Beneficiary Account Type

- Beneficiary IFSC Code
- Beneficiary MMID
- Beneficiary Mobile Number
- Sanction Seizure
- Response Code
- Response Status

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

### **4.1.3 ReST Services**

ReST services for Outbound IMPS transaction are supported.

## **4.2 IMPS Outbound Payments Processing**

### **4.2.1 Outbound IMPS Payment Processing**

- Following are the processing steps for outbound payments:
  - Initial Validations
  - NRE Account Validation
  - Intra Bank Transfer Check
  - Duplicate Check
  - Daily limit Check
  - Sanctions CheckPricing
  - ECA Check
  - Accounting
  - Messaging
  - Prefunded Payments Allowed
  - Debtor Account Derivation
  - Debtor Account Type Derivation
  - Debtor Name Derivation

#### **4.2.1.1 Initial Validations**

The following processing are covered as part of initial validations:

- Data enrichment - Account / Bank Re-direction, Network character replacement
- Beneficiary ID Validation if registered for the IMPS network with corresponding Beneficiary Type.
- Mandatory fields validations
- Network Limit validations
- Account/Customer Validations based on core maintenance
- Network Character replacement
- If Account re-direction or bank re-direction is maintained, then the account / bank details are replaced by that values. Account re-direction is applicable for debtor account only.

- Network character replacement is done for characters not allowed by the Network if the corresponding maintenance is available in the screen (PMDSPCHR).
- Mandatory Fields / Referential data checks are done based on the details received in the payment request and the values populated by system. Validation is available to verify if the below fields are present in the request:
  - Host Code
  - Network Code
  - Transaction Branch
  - IMPS Transaction Type
  - Debtor Account (Validation is available to check only INR currency accounts allowed for IMPS.)
  - IFSC Code
  - Beneficiary Account Number
  - Beneficiary Name
  - Transaction Currency
  - Transaction Amount
  - Instruction Date
  - Beneficiary bank IFSC Code is allowed for IMPS network (PMDBKMNT)
- Future Value transactions are not allowed for IMPS.
- Transaction amount limit check is done for the minimum and maximum amount limits defined for the Network, as maintained in IMPS Outbound Payment Preferences (PJDNWOPF)
- In case of validation failure for any of the above, transaction is rejected with proper error code. Transaction is moved to Process Exception Queue.
- Account Type Restrictions: System validates if the debtor account type is allowed for the Network Code as maintained in Account Type Restrictions screen (PJDACSTR) for the outbound payment. If the account type is not allowed for the network, system shows error message 'This Account Type is not allowed for IMPS transfer.' Transaction is moved to Process Exception Queue.
  - If the validation is successful, it is moved to the next step of outbound processor.
  - In cases where beneficiary account type is not input, system still processes the transaction as validation successful.
- Customer /Account Status validations:
  - System validates whether account record is open and authorized.
- The system checks the Account Type Value present in the incoming channel requests for Debtor Account Type and Beneficiary Account Type.
- If the user selects any value other than the LOV available for Debtor Account Type and Beneficiary Account Type, the system rejects the transaction.

#### **4.2.1.2 NRE Account Validation**

When the user clicks the 'Enrich/Save' button and Transaction Type is 'P2A', the system checks for the following NRE account type validations:

- If you select Beneficiary Account Type 'NRE' (40), then you must select Debtor Account Type also 'NRE' (40). Else system rejects the transaction with an error message PJ-TXP-048 'If Beneficiary Account Type is NRE, then Debtor Account Type must be NRE.'
- If you select Debtor Account Type 'NRE' (40), then you can select Beneficiary Account Type as any account from drop-down lists, such as Savings Bank (10), Current Account (11), Cash Credit (13), Loan Account (14), Overdraft (12), NRE (40), and Credit Card (52).

#### **4.2.1.3 Intra Bank Transfer Check**

For Intra Bank Transfer Check the system checks the following:

- For Transaction Type 'P2A', system checks if the beneficiary bank IFSC code is of the same bank branch.
- For Transaction Type 'P2P', system checks if the our bank NBIN is same as beneficiary bank NBIN.
- If above validation fails, system displays an error message.

#### **4.2.1.4 Duplicate Check:**

- Duplicate parameters can be maintained for the source (PMDSORCE). Based on the duplicate days and fields set, duplicate check for the transaction is done.
- If the transaction is identified as a duplicate transaction, then the transaction is moved to business override queue.
- The following parameters are validated during duplicate check:
  - Debtor Account - DBTR\_ACC
  - Beneficiary Account - CRDTR\_ACC (Aadhaar number, MMID& Mobile Number is mapped to this element.)
  - Transaction Amount - TFR\_AMT
  - Instruction Date - VALUE\_DATE
  - Retrieval Reference Number - RRN
  - Transaction ID - TXN\_ID
  - Message ID - MSG\_ID
  - Beneficiary Bank IFSC Code -\_CRDTR\_BANK\_CODE (For India Payments IFSC Code is mapped for this element)
  - DBTR\_BANK\_CODE

#### **4.2.1.5 Message Generation**

As part of IMPS XML version, 'OrgID' field is present in the header of the XML. When generating then IMPS outbound message, system performs following:

- Validate if the Sender Bank (Our Bank) Organization ID field is maintained on India Payments Our Bank Identifier Detailed (PMDIOBID) Screen.
  - If Yes, then system derives the 'OrgID' field value and map it to 'OrgID' field in the Header.
  - If No, then system Rejects the payment. No further action can be taken on the payment.

Every payment/message generates Request Pay in XML format. Time stamp put in the message is stored for the transaction. Message is forwarded to NPCI Switch.

#### **4.2.1.6 Daily limit check**

- System tracks the daily aggregate limit and source wise limit allowed for a customer account on a daily basis based on the limit maintained in IMPS Transaction Limits (Function ID:PMDDFLMT).
- If the limit is breached, the transaction is moved to BO queue.

#### **4.2.1.7 Sanction Check**

- Sanction check for IMPS outbound payment transaction is done on payment instruction date for current dated payments. For future dated transactions, sanction check is done on booking date as well.
- System verifies whether sanction check is applicable in Network Preferences (PMDSORNW)/Customer level preferences, and based on that system initiates sanction check validation.
- The external system status can be linked to one of the following system status:
  - Approved
  - Rejected
  - Interim
  - Seizure
  - Timed out
- If sanction is approved, the transaction is resumed with the further processing.
- In case of seizure, customer account is debited, and the Seizure GL is credited, if seizure accounting is opted. If the status is rejected, interim or timed out, the transaction is moved to sanction check queue.
- Sanction Check System maintenance is updated to have specific In/Out queues for real time instant payment in general. The sanction requests originating from IMPS is sent through separate JMS queues.

#### **4.2.1.8 Pricing - Charge /Tax Computation**

- Price code can be linked in Outbound IMPS Payment preferences (PJDNWOPF). Internal /External charge/tax values are applied based on the configuration.

#### **4.2.1.9 Balance Check with DDA System**

- The debit details are sent to the DDA system for account validation and balance check. The external system status can be linked to one of the following system status:
  - Approved
  - Rejected
  - Interim
  - Timed out
- If balance check is approved, the transaction is resumed with the further processing. If the status is rejected, interim or timed out (15 seconds), the transaction is moved to external credit approval queue.
- It is assumed that customer and account status checks are done by the external ECA system along with account balance check.

#### **4.2.1.10 Accounting**

- Accounting preference can be set at Outbound IMPS Payment preferences (PJDNWOPF) for the outbound transactions.
- If the preference maintained is 'Before Messaging' accounting entries are handed off to Accounting system before Messaging and Payment is marked as 'Processed'.
  - On payment reject, the reversal entries are posted and handed-off to Accounting system and the Payment is marked as 'Reversed'.
- If the preference maintained is 'On Confirmation from NPCI', the accounting hand-off is deferred till response is received from NPCI.
  - Based on the response received, payment is marked as 'Processed' or 'Reversed'.



- On payment success/reject, the accounting entries/reversal entries gets posted and handed-off to Accounting system.

**Accounting Entries:**

<b>Details in Accounting hand-off</b>	<b>Debit Liquidation</b>	<b>Credit Liquidation</b>
Accounting Event	DRLQ	CRLQ
Amount Tag	XFER_AMT	XFER_AMT
Transaction Account	Debit Customer Account	IMPS Outward Clearing GL maintained in the Accounting code. If Nostro Account (Network Account) is maintained in (PJDNWOPF) that is considered.
Offset Account	This is picked from the Debit Liquidation Accounting code maintenance.	This is picked from the Credit Liquidation Accounting code maintenance.
Transaction Currency	INR	INR
Transaction Amount	Debit Amount	Transfer Amount
Value Date	Transaction Value Date	Transaction Value Date
Offset Currency	Transaction Currency	Transaction Currency
Offset Amount	Transaction Amount	Transaction Amount

**4.2.1.11 Messaging**

Every payment generates a Request pay message in XML format. Time stamp put in the message gets stored for the transaction. Message is forwarded to NPCI Switch.

**4.2.1.12 Prefunded Payments Processing**

- Customer number/debtor account number is not mandatory.
- If Debtor Account currency is not provided in the outbound request, then it gets defaulted to Transfer Currency (INR) in transaction.
- If the 'Prefunded Payments GL' check box is selected, the system skips the below processing:
  - ECA check
  - Pricing

- FX Limit Check
- The 'Prefunded Payments GL' is always used as Debit account while posting the debit liquidation entries. The 'Prefunded Payments GL' value maintained in the Source Maintenance (PMDSORCE).

**4.2.1.13 Debtor Account Derivation**

- If Debtor Account is not given, then the Prefunded Payments GL maintained at Source maintenance (PMDSORCE) is considered as the Debtor Account.
- If a value is given in the Debtor Account field (for uploaded transactions), the system does not validate the same against the customer account maintenance.

**4.2.1.14 Debtor Account Type Derivation**

- If Debtor Account is a valid account, the system defaults the Debtor Account Type from the India Payments Account Type Preferences Detailed (PMDEXATP) maintained.
- If Debtor Account is a valid GL or not a valid account, the system defaults the Debtor Account Type from the India Payments Default Account Type Preferences (PMDIDAPF).
- For manually inputted transactions, if the "Prefunded Payments" check box is selected, the Debtor Account Type field is editable. You can select or change the Debtor Account type value for Prefunded payments.
- For uploaded transactions (IMPS OUT Service), the system defaults the Debtor Account Type only if the Debtor Account Type is not given in the service request.

**4.2.1.15 Debtor Name Derivation**

- If Debtor Account is a valid account, the system defaults Account Name from Customer Account Maintenance (STDCRACC) as Debtor Name.
- If Debtor Account is a valid GL, the system fetches Debtor Name from GL Description and populates it in the Debtor name field.
- For manually inputted transactions, if the "Prefunded Payments" check box is selected, the Debtor Account Name field is editable. You can input or modify the Debtor Account Name value.
- For uploaded transactions (IMPS OUT Service), the system defaults the Debtor Account Type only if the Debtor Account Type is not given in the service request.

**4.2.1.16 Response Handling**

System receives the Response Pay XML from NPCI for the Request Pay sent. The parsing of the XML is done as per the specification.

System matches the request sent and the response received for the request with the help of 'Message Identifier (msgld)' present in the header of the XML.

Based on the response received the Payment status in system is updated appropriately as below:

Transaction Type (API Name in first tag of Response XML)	Response Code	Transaction Status	Response Status
45 or 48	00	Processed	Approved
	91	Processed	Deemed Approved

Response Pay	Other than '00', '91'	Rejected	Declined
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#### 4.2.1.17 Outbound Check Transaction Status Request Processing

Response Monitor Process will track if the Request Pay XML message sent out has received corresponding Response Pay within the time-out period (Field: Timed Out Period) maintained on Outbound Payment Preferences screen (PJDNWOPF).

If no response received within set time-out period from the NPCI Switch, system would generate a Check Transaction Request as per the specification with required details from the Original Request sent.

System generates Check Transaction Request up to the Max retries and interval (Field: Retry Count for Check Transaction Status and Check Transaction Request Interval) configured in Outbound Payment Preferences screen (PJDNWOPF).

Outbound Request Pay XML/ Message	Outbound Transaction Status	Check Transaction Request Sent by Debtor Bank	Outbound Check Transaction Request Sent	System Action on Outbound Transaction	Check Transaction Status Response Received
Yes	Processed	56 to 65 Sec	Yes (Check Transaction Request Sequence 1)	1. Log Check Transaction request sequence 1	No
Yes	Processed	66-75 secs	Yes (Check Transaction Request Sequence 2)	1. Log Check Transaction request sequence 2.	No
Yes	Processed	76-85 secs	Yes (Check Transaction Request Sequence 3)	1. Log Check Transaction request sequence 3. 2. Based on response code received in response, update the outbound transaction status appropriately.	Yes

#### **4.2.1.18 Check Transaction Status Response Processing**

Based on the response received, the Payment status gets updated appropriately as below:

Transaction Type (API Name in first tag of Response XML)	Response Code	Transaction Status	Response Status
Check Transaction Status Response	00	Processed	Approved
	91	Processed	Deemed Approved
	Other than '00', '91'	Rejected	Declined

#### **4.2.2 Process Monitoring**

- Response Process Monitor will track if the Original Request Pay sent out has received corresponding Response Pay within the time-out period (55 seconds) maintained in Outbound Payment Preferences screen (PJDNWOPF).
- If no response received within '55 seconds' time-out period from the NPCI Switch, system generates a Check Transaction Request with required details from the Original Request sent.
- The maximum number of retry allowed is '3' for IMPS payments.
- System generates Check Transaction Request and forward to NPCI Switch maximum 3 times every 10 seconds, if no response (Original Response Pay/Check Transaction Response) is received from NPCI Switch.
- System will not generate any Check Transaction Request if a corresponding Response Pay/Check Transaction Response is received OR after maximum retry count.

### **4.3 IMPS Outbound Message Browser**

#### **4.3.1 IMPS Outbound Message Browser**

You can view all the outbound messages generated in this screen.

You can invoke 'IMPS Outbound Message Browser' screen by typing 'PJSOUTBR' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You can search for the records using one or more of the following parameters:

- Transaction Reference Number
- IMPS Transaction Type
- Retrieval Reference
- Message Reference
- Transaction Branch
- Transaction Status
- Network Code
- Response Code
- Response Status
- Settlement Status
- Beneficiary Account Number
- Beneficiary Mobile Number
- Instruction Date
- Beneficiary MMID
- Debtor Account Number
- Source Code

Following messages can be viewed from this browser:

- RequestPay – Outbound Original Request and Verification Request
- ResponsePay – Outbound Original Response and Verification Response

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria. Following actions can be done from this screen:

### View Request Message

Select a record and click on 'View Request Message' button to view the request message details. System displays the following details with the respective fields.

- Message Reference Number
- Transaction Reference Number
- Message Type
- Message

### View Response Message

Select a record and click on 'View Response Message' button to view the request message details. System displays the following details with the respective fields.

- Message Reference Number
- Transaction Reference Number
- Message Type
- Message

### View Transaction

Select a record and click on 'View Transaction' to view the complete transaction details.

System launches the IMPS Outbound View Detailed screen (PJDOVIEW) on clicking the 'View Transaction' tab for the selected record.

## 4.4 IMPS TCC Upload

### 4.4.1 IMPS Adjustment View

You can invoke 'IMPS Adjustment View' screen by typing 'PJDAJUPD' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button. Click 'New' button on the Application toolbar.

Record Id	Retrieval Reference	Adjustment Type	Response Code	Transaction Amount	Adjustment Date	Status	Error Code	Error Message
-----------	---------------------	-----------------	---------------	--------------------	-----------------	--------	------------	---------------

Specify the following details:

**Host Code**

System auto populates the Host Code defined for India Payments.

**Network Code**

System auto populates the Network Code defined for India IMPS.

**Transaction Branch**

System displays the transaction branch of logged in user.

**File Name**

You can type in the file name to be uploaded.

**File Path**

You can type in the file path to be uploaded.

**Upload Reference**

System generates unique Upload Reference for new upload every-time and display in this field.

**File Upload Date**

System displays the current date as file upload date.

**Total No of Records**

System displays the total no of records present in the upload file.

**No of Successful Records**

System displays the count of records which are uploaded successfully.

**No of Failed Records**

System displays the count of records which failed during upload.

**Adjustment upload details**

You can view the following display fields:

- Record Id
- Retrieval Reference
- Adjustment Type
- Response Code
- Transaction Amount
- Adjustment Date
- Status
- Error Code
- Error Message

**4.4.2 IMPS Adjustment Upload Summary**

You can view summary of the TCC files uploaded in this screen.

You can invoke 'IMPS Adjustment Upload Summary' screen by typing 'PJSAJUPD' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You can search for the records using one or more of the following parameters:

- File Name
- Upload Reference
- File Upload Date

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Following actions can be done from this screen:

#### **View File**

This action displays the TCC file that is upload from the given path.

## **4.5 IMPS Acknowledgement Message for Outbound Transaction**

If any outbound IMPS XML message is sent to NPCI, system receives the acknowledgement message.

This acknowledgement message is received for:

- Request Pay
- Response Pay
- Check Transaction Request
- Check Transaction Response
- Heartbeat Request and Response.

XSD validation is done for the received Ack response.

System matches the Ack response with original outbound request by using reqMsgId field.



Acknowledgement response format is defined by NPCI.

For Negative Acknowledgement response, system receives the Error Details in Ack response only if any error in the original request message sent. When Ack response is received with error details then system rejects the transaction and reverse the accounting entries.

Ack Message is available to view on screen PJDIVIEW -> All messages -> Response Messages Tab.

## 5. IMPS Inbound Payments

The inbound IMPS payments are received as Request Pay from NPCI. System receives and processes the payments based on predefined processing steps.

### 5.1 IMPS Inbound Transaction Input

This chapter contains the following sections:

- [Section 5.1.1, "Inbound IMPS Transaction View"](#)

#### 5.1.1 Inbound IMPS Transaction View

Inbound payment status can be viewed from this screen. Payments received from all channels are listed in this screen. The related messages are listed in the 'All Messages' sub-screen.

You can invoke 'Inbound IMPS Transaction View' screen by typing the function ID 'PJDIVIEW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

The screenshot shows the 'IMPS Inbound Transaction View Detailed' application window. It features a search bar at the top with the text 'Enter Query'. Below the search bar are several input fields for transaction details, including Transaction Branch, Host Code, Source Code, Network Code, Transaction Reference Number, Retrieval Reference, Source Reference, Message ID, Transaction ID, and IMPS Transaction Type. The main area is divided into several sections: 'Creditor Details' (Beneficiary Name, Account Number, Type, Branch, Bank Name, IFSC Code, MMID, Mobile Number), 'Debtor Details' (Debtor Account Number, Bank Name, IFSC Code, Organization ID, Name, Mobile Number, MMID), 'Payment Details' (Booking Date, Instruction Date, Transaction currency, Amount, Remarks), 'Transaction Status' (Transaction Status, Debit/Liquidation Status, Sanction Seizure, Queue Code), 'External System Status' (Sanctions Check Status, Reference, External Account Check Status, Reference), and 'Error Details' (Error Code, Description). A 'View Queue' button is located below the Transaction Status section. The bottom of the screen has a navigation bar with links for 'UDF | MIS | View Queue Action | Accounting Entries | All Messages | View Repair Log' and a footer with 'Maker ID', 'Checker ID', 'Authorization Status', and an 'Exit' button.

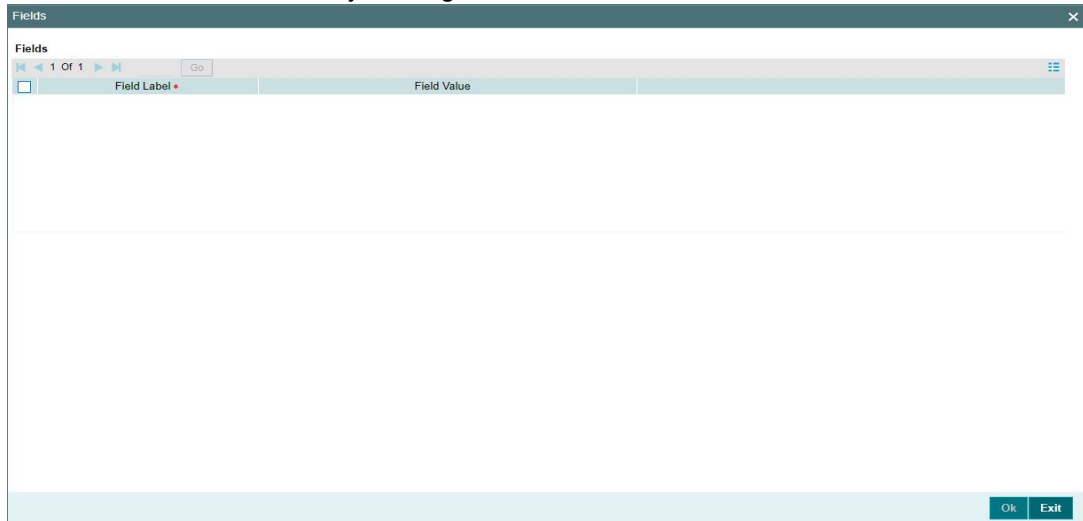
- From this screen, click Enter Query. The Transaction Reference field gets enabled which opens an LOV screen.
- Click the Fetch button and select the required value.
- Along with the transaction details in the Main and Pricing tabs user can also view the Status details for the following:

- External System Status
- Transaction Status
- Error Details
- Click Execute Query to populate the details of the transaction in the Inbound IMPS Transaction View screen.

For more details on Main, Pricing tabs refer to 'PJDITONL' screen.

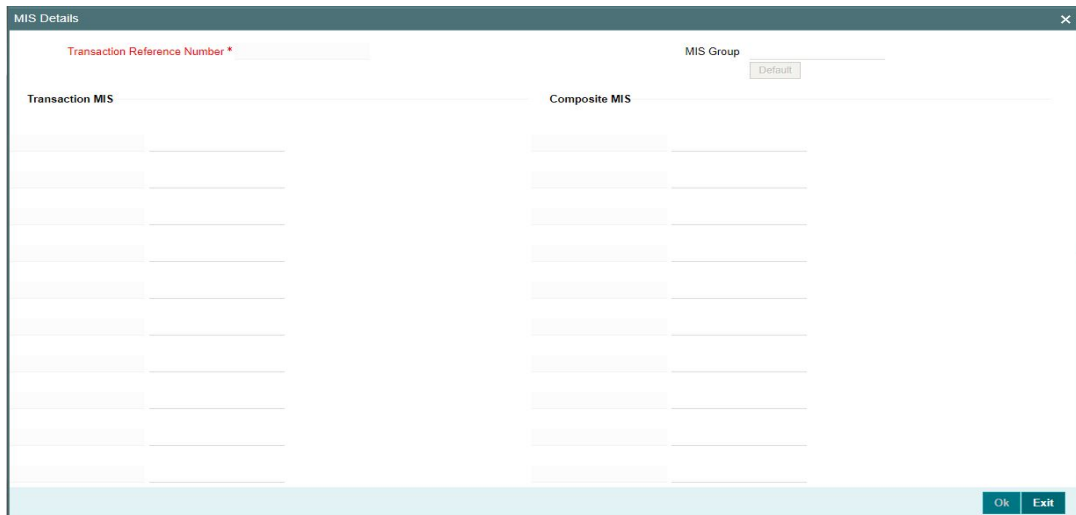
### 5.1.1.1 **UDF Tab**

You can invoke this screen by clicking 'UDF' tab in the screen.



### 5.1.1.2 **MIS Tab**

You can invoke this screen by clicking 'MIS' tab in the screen.



### 5.1.1.3 View Queue Action Log

You can view all the queue actions for the respective transaction initiated. You can invoke this screen by clicking the 'View Queue Action' button in View screen, where the Transaction Reference Number is auto populated and related details are displayed.:

Transaction Reference Number	Action	Remarks	Queue Code	Authorization Status	Maker Id	Maker Date Stamp

For more details on the fields, refer to section 2.2.2.3

### 5.1.1.4 Accounting Entries Tab

You can view the Accounting Entries posted for the Inbound IMPS in Accounting entries Tab.

Event Code	Transaction Date	Value Date	Account	Account Branch	TRN Code	Dr/Cr	Amount Tag	Account Currency	Transaction Amount

For more details on the fields and tabs, refer to section 2.2.2.5

### 5.1.1.5 All Messages

Click the 'All Messages' link in the Inbound IMPS Transaction View screen, to invoke this sub-screen.

Message Reference	Message Type	VR Sequence	Message Date and Time

Message Reference	Message Type	Response Code	Response Code Description	Response Status	Message Date and Time

You can view the generated messages and the response messages for the transaction in this sub screen for the Transaction Reference Number specified. For more details on the fields, refer to section 2.2.2.4

### 5.1.1.6 View Repair Log

You can view all the Repair actions for the respective transaction initiated. You can invoke this screen by clicking the 'View Repair Log' button in View screen, where the Transaction Reference Number is auto populated and related details are displayed.

Queue Reference No	Field Name	Old Value	Repaired Data	Error

For more details on the fields, refer to section 2.2.6.6

### 5.1.1.7 IMPS Inbound Transaction View Summary

You can invoke 'IMPS Inbound Transaction View Summary' screen by typing 'PJSIVIEW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

IMPS Inbound Transaction View Summary

Search Advanced Search Reset Clear All

Case Sensitive

Transaction Reference Number

Retrieval Reference

Source Reference Number

Transaction ID

Message ID

Network Code

Source Code

Sanction Seizure

Response Code

Booking Date

Instruction Date

IMPS Transaction Type

Transaction Currency

Transaction Branch

Transaction Amount

Transaction Status

Queue Code

Debtor Account Number

Debtor Account Type

Beneficiary Account Number

Beneficiary Account Type

Beneficiary MMID

Beneficiary Mobile Number

Beneficiary IFSC Code

Response Status

Records per page 15 1 Of 1 Go Lock Columns 0

Host Code	Transaction Reference Number	Booking Date	Debtor Account Number	Retrieval Reference	Instruction Date	Debtor Account Type	Source Reference Number	IMPS Transaction Type	Beneficiary Account Number	Transaction ID	Transaction C
-----------	------------------------------	--------------	-----------------------	---------------------	------------------	---------------------	-------------------------	-----------------------	----------------------------	----------------	---------------

Exit

You can search for the records using one or more of the following parameters:

- Transaction Reference Number
- Retrieval Reference
- Source Reference Number
- Transaction ID
- Message ID
- Network Code
- Source Code
- Booking Date
- Instruction Date
- IMPS Transaction Type
- Transaction Currency
- Transaction Branch
- Transaction Amount
- Debtor Account Number
- Beneficiary Account Number
- Beneficiary IFSC Code
- Beneficiary MMID
- Beneficiary Mobile Number

- Sanction Seizure
- Response Code
- Response Status
- Transaction Status
- Debtor Account Type
- Queue Code
- Beneficiary Account Type

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria.

Double click a record or select a record and click on 'Details' button to view the detailed maintenance screen.

## **5.2 IMPS Inbound Payments Processing**

### **5.2.1 Inbound IMPS Payment Processing**

The inbound IMPS payments are received as Request pay message from NPCI. System receives and processes the payments based on predefined processing steps.

- Inbound payments follows the below listed processing steps:
  - Message Parsing and Message Type/Transaction Type Derivation
  - Initial Validations
  - Host/Branch Derivation
  - Duplicate Check
  - Sanctions Check
  - External Account Credit Check
  - Response Pay Message Generation and Check Transaction Status Response generation if applicable
  - Internal Pricing, if applicable
  - Accounting

---

#### **Note**

If Inbound IMPS message is having RRN and Sending Bank NBIN matching with existing transaction then it should be returned with "94: Duplicate Transaction Response code".

---

#### **5.2.1.1 Message Type/Transaction Type Derivation**

- System will parse the inbound Request Pay XML and derive the API name from the first tag of the XML.
- Also, Transaction Type as ' CREDIT' from the XML tag <Txn> type.

#### **5.2.1.2 Initial Validations**

The validations are similar to that of Outbound Payments. Mandatory field checks/ Referential data checks are done as below:

### **'OrgID' Validation:**

System performs following steps:

- Derive the 'OrgID' field value from Header (<Head>) tag.
- Validate if the 'OrgID' field value from the XML is same as maintained on India Payments Out bank Identifier screen (PMDIOBID).
  - If above step is successful, then payment is processed ahead.
  - If above step fails, then payment is rejected.

### **Transaction Type (P2P/P2A) derivation -**

System derives the IMPS transaction type from the 'Payee Address type' tag from XML file.

- If the <Payee. AC> -> addrType is 'Account' then the inbound transaction is P2A.
- If the <Payee. AC> -> addrType is 'Mobile' then the inbound transaction is P2P.

### **Beneficiary Details Derivation**

System derives the beneficiary account number, beneficiary Branch IFSC, Beneficiary MMID and Beneficiary Mobile Number from the '<Payee.Ac.Detail>' tag of the inbound XML file.

- For P2P – Based on the MMID and Mobile Number combination in XML file, derive beneficiary account number from the India Payments account preferences screen (PMDEXACP).
- For P2A – Payee IFSC and Account Number is present in XML file.

Beneficiary account type is present in the inbound XML message. System derives the beneficiary account type and populate the same in the Response File.

### **Transaction Account Branch Derivation**

For P2A - Derive Based on IFSC Code present in '<Payee.Ac.Detail>' tag.

For P2P - Based on the MMID and Mobile Number combination in XML file, derive beneficiary account number from the India Payments account preferences screen (PMDEXACP).

#### **5.2.1.3 Customer and Account Status Check**

System checks customer and Credit account are valid i.e. open and authorized. If 'Invalid' it is moved to Process Exception queue.

Beneficiary Account Currency: Validation is available to check only INR accounts are allowed for incoming credits.

System validates if the derived beneficiary account type as explained in the previous step 2.3, is allowed for the Inbound Payment and Network Code as maintained in Account Type Restrictions screen (PJDACSTR) for inbound payments.

If the account type is not allowed for the network, system displays 'This Account Type is not allowed for IMPS transfer'. Transaction gets rejected with appropriate response code.

If the validation is successful, it moves to the next step.

After the above step, If the beneficiary account type is found to be '40' i.e. NRE account type, then system applies Non NRE to NRE payments Check validation as below:



Debtor Account Type	Beneficiary Account Type	Result
<>40*	'40'	Transaction rejected (Response Code 'M4')
Equal to '40'	Equal to '40','10', '11'*	Transaction Processed (Response Code '00')
Equal to '10', '11'*	Equal to '10', '11'*	Transaction Processed (Response Code '00')

---

**Note**

'\*' - As per the allowed account types maintained for Inbound Payment and Network Code in PJDACSTR.

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**5.2.1.4 Duplicate Check**

- Duplicate parameters can be maintained for the source (PMDSORCE). Based on the duplicate days and fields set, duplicate check for the transaction is done. If the transaction is identified as a duplicate transaction, it is rejected. (ISO Response Code: '94').
- The following parameters are available for duplicate check:
  - Debtor Account - DBTR\_ACC
  - Beneficiary Account - CRDTR\_ACC (Aadhaar number, MMID& Mobile Number is used to derive the account as explained earlier.)
  - Transaction Amount - TFR\_AMT
  - Retrieval Reference Number - RRRN
  - Transaction ID - TXN\_ID
  - Message ID - MSG\_ID
  - Instruction Date - VALUE\_DATE
  - CRDTR\_BANK\_CODE
  - Debtor Bank Identification Code - DBTR\_BANK\_CODE (Existing element is used. For IMPS Payments DE – 32 is mapped to this element.)
  - Related Reference Number - END\_TO\_END\_ID (Existing element is used. Related reference number is mapped to this element. This is applicable for India IMPS payments only.)

**5.2.1.5 Sanction Check**

- If 'Approved' response is received from Sanctions, transaction is processed further.
- If 'Seizure' response is received from Sanctions system then Nostro account is debited, and the Seizure GL is credited. Generate 'RespPay' message with ISO Response code: ZI (SUSPECTED FRAUD).
- If the Sanctions response is rejected, interim or timed out, the transaction is rejected. Response to NPCI is generated as below –
  - Rejected – Generate 'RespPay' message with ISO Response code: UB (UNABLE TO PROCESS)

- Interim– Generate 'RespPay' message with ISO Response code: UB (UNABLE TO PROCESS).
- Pending – System waits for response from Sanctions and based on the response received, it processes further as above.

### 5.2.1.6 External Account Check

- Transaction details is sent to DDA system, for the validation of the credit account. If External Account Check is 'Approved', the transaction is marked as 'Processed' and response message is generated.
- If the EAC status is 'Rejected', 'Interim', then the transaction is rejected with ISO Response Code: UB (UNABLE TO PROCESS. System do not consider EAC/DDA Final Response for the 'interim' status.
- If the EAC status is 'Pending', OBPM awaits a response from EAC/DDA system and based on the response received, it processes further as above.

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#### Note

Customer and account status checks are done by the external ECA system along with account balance check.

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### Transaction Status - Queue Code

Transaction Status	Applicable Queue Code for IMPS	Remarks
In Progress	<SC/EA>	Transaction is under progress (or) response is pending from External systems. Queue Code is applicable if response is pending from External systems - Sanction Check - EAC
Processed	##	OUT success response message is generated.
Seized	##	Sanction Seized.
Rejected	##	On any validation failure / Non-positive response from external system.

### 5.2.1.7 Response Message generation and Response Code mapping

System generates 'RespPay' message with response code '00' for successfully 'processed' transaction.

System generates 'RespPay' message with appropriate error code and response code where transaction processing fails.

When response message is sent to NPCI then under <Ref> tag, only 'Type = Payee' details needs to be populated. Further when NPCI will forward the response message to remitter bank then NPCI enriches the <Ref> tag by adding 'Type = Payer' details.

Response Codes (Reject Codes) for auto rejects are maintained in the existing reject code maintenance screen (PMDRJMNT). The error codes received in ECA response can also be configured in the PMDRJMNT.

If IMPS Reject codes are not maintained/closed in PMDRJMNT and if any incoming IMPS transaction gets rejected and could not able to find MATCHING error code, then system rejects the transaction and send the Common Error Code as 'MT - TRANSACTION NOT ALLOWED AS GENERAL ERROR'.

### 5.2.1.8 Inbound Check Transaction Status Request Processing and Response generation

When system receives Check Transaction request, system parses it and match it with the original Inbound message using Message ID (msgId) in the header tag.

Based on the transaction status, system generates the response file with correct Response code and send the message to NPCI switch

Inbound Request Pay XML/ Message	Inbound Transaction Status	Check Transaction Request Sent by Debtor Bank	Inbound Check Transaction Request Received	System Action for Inbound Transaction
Yes	In Progress, Exception	56 to 65 sec	Yes (Check Transaction Request Sequence 1)	1. Log Check Transaction request sequence 1 2. Check Transaction Response (Sequence 1) will not be generated.
Yes	Processed	66-75 secs	Yes (Check Transaction Request Sequence 2)	1. Log Check Transaction request sequence 2. 2. Generate Check Transaction Response and hand off.
Yes	Processed	76-85 secs	Yes (Check Transaction Request Sequence 3)	1. Log Check Transaction request sequence 3. 2. Generate Check Transaction Response and hand off.

Yes	Rejected	66-75 secs/76- 85 secs	Yes (Check Transaction Request Sequence 2, 3)	1. Log Check Transaction request sequence 2, 3.  2. Generate Check Transaction Response with response code 'M0' and hand off.
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### 5.2.1.9 **Pricing**

Internal pricing calculations are performed for the inbound payment, if applicable.

### 5.2.1.10 **Accounting Handoff**

Accounting is handed off to the external system

- Dr. Inward Settlement GL
- Cr. Intermediary GL
- Dr. Intermediary GL
- Cr. Customer Account

### 5.2.1.11 **Notification**

Notification to Beneficiary is generated after the credit accounting is successfully posted (Transaction Status 'Processed', Event 'CRLQ').

## 5.2.2 **Response Codes Mapping**

Supported Response codes that are sent in the response messages are as below:

Response Codes (Reject Codes) for auto rejects for IMPS network are maintained in the Reject Code maintenance screen (PMDRJMNT). For more details on this, refer to Payments Core User Guide.

Processing Monitoring

- System reads the incoming Request Pay messages and populates the data into the staging table.
- System checks the incoming Check Transaction Request messages and send Check Transaction Response based on the conditions as explained above under Check Transaction response handling.

## 5.3 **IMPS Inbound Message Browser**

### 5.3.1 **IMPS Inbound Message Browser**

You can view all the inbound messages generated in this screen.

You can invoke 'IMPS Inbound Message Browser' screen by typing 'PJSINBRW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You can search for the records using one or more of the following parameters:

- Message Reference
- Retrieval Reference
- Transaction Reference Number
- Network Code
- Source Code
- IMPS Transaction Type
- Transaction Branch
- Received Date Time
- Response Code
- Response Status
- Liquidation Status
- Debtor Account Number
- Beneficiary Account Number
- Beneficiary MMID
- Beneficiary Mobile Number

Following messages can be viewed from this browser:

- RequestPay – Inbound Original Request and Verification Request
- ResponsePay – Outbound Original Response and Verification Response

Once you have specified the search parameters, click 'Search' button. The system displays the records that match the search criteria. Following actions can be done from this screen:

### **View Request Message**

Select a record and click on 'View Request Message' button to view the request message details. System displays the following details with the respective fields.

- Message Reference Number
- Transaction Reference Number
- Message Type
- Message

### **View Response Message**

Select a record and click on 'View Response Message' button to view the request message details. System displays the following details with the respective fields.

- Message Reference Number
- Transaction Reference Number
- Message Type
- Message

### **View Transaction**

Select a record and click on 'View Transaction' to view the complete transaction details.

System launches the IMPS Inbound View Detailed screen (PJDIVIEW) on clicking the 'View Transaction' tab for the selected record.

## **5.4 Notifications**

Following are the events for which the notifications are triggered:

- Notification is triggered to Creditor after successful accounting posting on CRLQ event.
- Notification is triggered to Debtor after the receipt of original response message (MTI 0210) with response codes as below:
  - Positive response codes '00' ('Approved' response from Beneficiary bank, '91' (Time-out response from NPCI: 'Deemed Approved')
  - Negative Response Codes: Any response codes other than '00', '91'

<b>Field</b>	<b>XML Tag</b>
Retrieval Reference Number	<Retrieval Reference Number>

## **5.5 IMPS Acknowledgement Message for Inbound Transaction**

If any incoming IMPS XML message is received, system generates acknowledgement response within 5 sec.

This acknowledgement message is generated for:

- Request Pay
- Response Pay
- Check Transaction Request

- Check Transaction Response
- Heartbeat Request and Response.

This Ack response is the only acknowledgement of receipt of the message. No validation is performed on inbound XML message received.

Acknowledgement response format is defined by NPCI.

XSD validation will be done for Outbound Ack message before sending to NPCI.

Ack Message is available to view on screen PJDIVIEW -> All messages -> Response Messages Tab.

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## 6. Function ID Glossary

### P

PJDACSTR .....	3-9
PJDAJUPD .....	4-28
PJDITONL .....	5-2
PJDIVIEW .....	5-1
PJDNBIFS .....	3-12
PJDNWIPF .....	3-6
PJDNWOPF .....	3-2
PJDNWSCD .....	3-14
PJDOTONL .....	4-1, 4-11
PJDXMLCN .....	3-18
PJSACSTR .....	3-11

PJSINBRW .....	5-12
PJSIVIEW .....	5-5
PJSNBIFS .....	3-13
PJSNWIPF .....	3-8
PJSNWOPF .....	3-5
PJSNWSCD .....	3-17
PJSOTONL .....	4-9
PJSOVIEW .....	4-18
PJSXMLCN .....	3-20

### S

STDBKMNT .....	3-12
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