Oracle® Banking Payments India IMPS Payments User Guide





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Preface

- Purpose
- Audience

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

- Documentation Accessibility
- Critical Patches
- · Diversity and Inclusion
- Conventions
- Related Resources
- Screenshot Disclaimer
- Acronyms and Abbreviations
- Basic Actions
- Symbols, Definitions and Abbreviations
 The following are some of the Symbols you are likely to find in the manual:

1.1 Purpose

This guide is designed to help acquaint you with the Oracle Banking Payments application. This guide provides answers to specific features and procedures that the user need to be aware of the module to function successfully.

1.2 Audience

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

Table 1-1 User Roles

Role	Function
Implementation & IT Staff	Implementation & Maintenance of the Software

1.3 <u>Documentation Accessibility</u>

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.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

1.4 Critical Patches

Oracle advises customers to get all their security vulnerability information from the Oracle Critical Patch Update Advisory, which is available at Critical Patches, Security Alerts and Bulletins. All critical patches should be applied in a timely manner to make sure effective security, as strongly recommended by Oracle Software Security Assurance.

1.5 Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1.6 Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1.7 Related Resources

For more information on any related features, refer to the following documents:

- Getting Started User Guide
- · Oracle Banking Security Management System User Guide
- Oracle Banking Microservices Platform Foundation User Guide
- Routing Hub Configuration User Guide
- Oracle Banking Common Core User Guide
- Interest and Charges User Guide
- Oracle Banking Liquidity Management Configuration Guide
- Oracle Banking Liquidity Management File Upload User Guide

1.8 Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes.



1.9 Acronyms and Abbreviations

The list of the acronyms and abbreviations that are used in this guide are as follows:

Table 1-2 Acronyms and Abbreviations

Abbreviation	Description
DDA	Demand Deposit Accounts
ECA	External Credit Approval
EOD	End of Day
IBAN	International Bank Account Number

1.10 Basic Actions

The basic actions performed in the screens are as follows:

Table 1-3 Basic Actions

Actions	Description
New	Click New to add a new record. The system displays a new record to specify the required data. The fields marked with asterisk are mandatory. - This button is displayed only for the records that are already created.
Save	Click Save to save the details entered or selected in the screen.
Unlock	Click Unlock to update the details of an existing record. The system displays an existing record in editable mode. - This button is displayed only for the records that are already created.
Authorize	Click Authorize to authorize the record created. A maker of the screen is not allowed to authorize the same. Only a checker can authorize a record. - This button is displayed only for the already created records. For more information on the process, refer Authorization Process.
Approve	Click Approve to approve the initiated record. - This button is displayed once the user click Authorize .
Audit	Click Audit to view the maker details, checker details of the particular record. - This button is displayed only for the records that are already created.
Close	Click Close to close a record. This action is available only when a record is created.
Confirm	Click Confirm to confirm the action performed.
Cancel	Click Cancel to cancel the action performed.
Compare	Click Compare to view the comparison through the field values of old record and the current record. - This button is displayed in the widget once the user click Authorize .
View	Click View to view the details in a particular modification stage This button is displayed in the widget once the user click Authorize .



Table 1-3 (Cont.) Basic Actions

Actions	Description
View Difference only	Click View Difference only to view a comparison through the field element values of old record and the current record, which has undergone changes. - This button is displayed once the user click Compare.
Expand All	Click Expand All to expand and view all the details in the sections. - This button is displayed once the user click Compare .
Collapse All	Click Collapse All to hide the details in the sections This button is displayed once the user click Compare.
ок	Click OK to confirm the details in the screen.

1.11 Symbols, Definitions and Abbreviations

The following are some of the Symbols you are likely to find in the manual:

Table 1-4 Symbols

Icons	Function
×	Exit
+	Add row
.—.	Delete row
ρ	Option List

Table 1-5 Common Icons and its Definitions

Icon Names	Applicable Stages	Operation
Minimize	Initiation, Approval and Hand-off Retry	Users can minimize the transaction input screen. When the screen is minimized, it appears as to a separate tab within the same web page.
Maximiz e	Initiation, Approval and Hand-off Retry	User can maximize the transaction input screen.
Close	Initiation, Approval and Hand-off Retry	Users can close the transaction input screen. The system displays a warning message to the user that any unsaved data would be lost. User can either choose to ignore the message and close the screen or choose to 'save and close' the transaction.



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 will 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

IMPS Maintenances

IMPS Maintenance

3.1 IMPS Maintenance

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

- Network Maintenance (PMDNWMNT)
- Source Maintenance (PMDSORCE)
- Source Network Preferences (PMDSORNW)
- External System Maintenance 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:

- IMPS Outbound Payment Preferences
- IMPS Inbound Payment Preferences
- Account Type Restrictions
- NBIN IFSC Mapping
- IMPS Network Code Source Preference
- IMPS XML NPCI Connectivity Maintenance
- IMPS Outbound Payment Preferences
- IMPS Inbound Payment Preferences
- Account Type Restrictions
- NBIN IFSC Mapping
- IMPS Network Code Source Preference
- IMPS XML NPCI Connectivity Maintenance



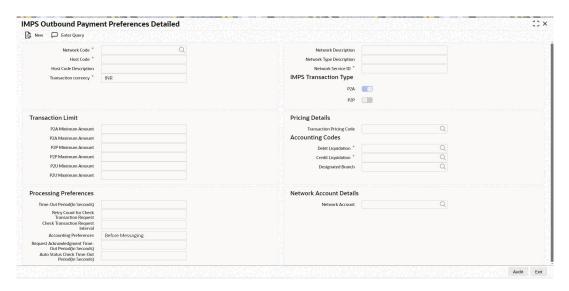
3.1.1 IMPS Outbound Payment Preferences

The IMPS Outbound Payment Preferences screen allows users to maintain the Outbound Preferences for India IMPS.

1. On Homepage, specify **PJDNWOPF** in the text box, and click next arrow.

IMPS Outbound Payment Preferences Detailed screen is displayed.

Figure 3-1 IMPS Outbound Payment Preferences Detailed



- 2. Click New button on the Application toolbar.
- 3. Following are the actions allowed from this screen:
 - New
 - Save
 - Copy
 - Print
 - Enter Query
 - Unlock
 - Delete
 - Authorize
- 4. On IMPS Outbound Payment Preferences Detailed screen, specify the fields.



Table 3-1 IMPS Outbound Payment Preferences Detailed - Field Description

Field	Description	
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.	



Table 3-1 (Cont.) IMPS Outbound Payment Preferences Detailed - Field Description

Field	Description
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.



Table 3-1 (Cont.) IMPS Outbound Payment Preferences Detailed - Field Description

Field	Description
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.

IMPS Outbound Payment Preference Summary

3.1.1.1 IMPS Outbound Payment Preference Summary

On Homepage, specify PJSNWOPF in the text box, and click next arrow.
 IMPS Outbound Payment Preferences Detailed Summary screen is displayed.

Figure 3-2 IMPS Outbound Payment Preferences Detailed Summary



- 2. Search using one or more of the following parameters:
 - Authorization Status
 - Record Status
 - Network Code
 - Host Code
 - Transaction Currency
- After specifying the parameters, click the **Search** button.System displays the records that match the search criteria.



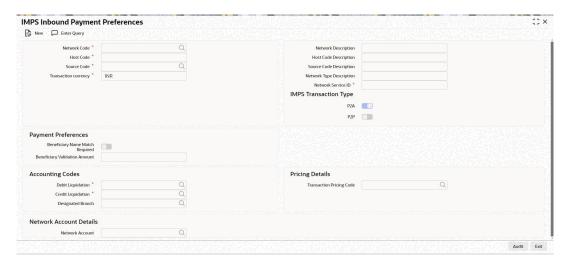
3.1.2 IMPS Inbound Payment Preferences

The IMPS Inbound Payment Preferences screen allows users to maintain the Inbound Preferences for India IMPS.

1. On Homepage, specify **PJDNWIPF** in the text box, and click next arrow.

IMPS Inbound Payment Preferences Detailed screen is displayed.

Figure 3-3 IMPS Inbound Payment Preferences Detailed



- 2. Click New button on the Application toolbar.
- 3. Following are the actions allowed from this screen:
 - New
 - Save
 - Copy
 - Print
 - Enter Query
 - Unlock
 - Delete
 - Authorize
- 4. On IMPS Inbound Payment Preferences Detailed screen, specify the fields.



Table 3-2 IMPS Inbound Payment Preferences Detailed - Field Description

Field	Description
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	The 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	



Table 3-2 (Cont.) IMPS Inbound Payment Preferences Detailed - Field Description

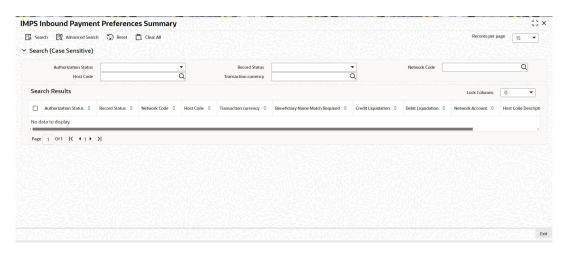
Field	Description
Transaction Pricing Code	Select the pricing code from the list of values. All the valid Pricing codes maintained in 'Pricing Code Detailed' (PPDCDMNT) are listed here. Pricing codes to be applied for India IMPS can be selected. Computation of Charges and Tax are based on the pricing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

Inbound Payment Preferences Summary

3.1.2.1 Inbound Payment Preferences Summary

On Homepage, specify PJSNWIPF in the text box, and click next arrow.
 IMPS Inbound Payment Preferences Summary screen is displayed.

Figure 3-4 IMPS Inbound Payment Preferences Summary



- 2. Search using one or more of the following parameters:
 - Authorization Status
 - Record Status
 - Network Code
 - Host Code
 - Transaction Currency
- After specifying the parameters, click the Search button.System displays the records that match the search criteria.

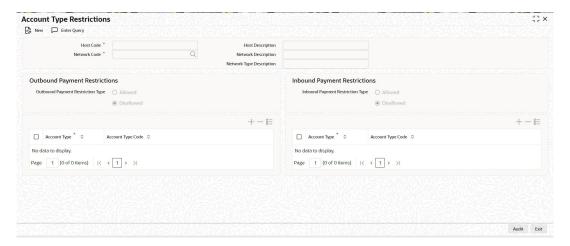
3.1.3 Account Type Restrictions

The Account Type Restrictions screen allows users to maintain the account type restrictions applicable for the IMPS payments.



On Homepage, specify PJDACSTR in the text box, and click next arrow.
 Account Type Restrictions screen is displayed.

Figure 3-5 Account Type Restrictions



- 2. Click **New** button on the Application toolbar.
- 3. On Account Type Restrictions screen, specify the fields.

Table 3-3 Account Type Restrictions - Field Description

Field	Description
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 Description	System defaults the description of the network selected.
Network Type Description	System defaults the Network Type Description on 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.



Table 3-3 (Cont.) Account Type Restrictions - Field Description

Field	Description
Restriction Type	Select the Restriction Type from the following:
	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.
	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 given in following table.
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'.

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

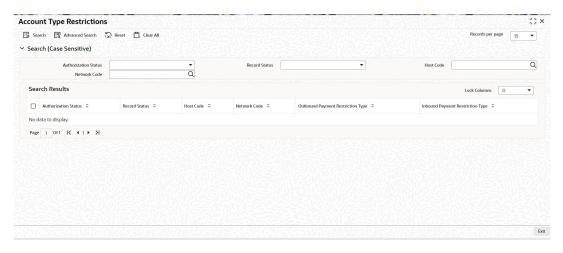
• Account Type Restrictions Summary

3.1.3.1 Account Type Restrictions Summary

1. On Homepage, specify **PJSACSTR** in the text box, and click next arrow.

Account Type Restrictions Summary screen is displayed.

Figure 3-6 Account Type Restrictions Summary



- 2. Search using one or more of the following parameters:
 - Authorization Status
 - Record Status
 - Network Code
 - Host Code
- After specifying the parameters, click the Search button.System displays the records that match the search criteria.

3.1.4 NBIN - IFSC Mapping

The NBIN Maintenance screen allows users to maintain the mapping between NBIN and IFSC.

On Homepage, specify PJDNBIFS in the text box, and click next arrow.
 NBIN Maintenance screen is displayed.

Figure 3-7 NBIN Maintenance





- 2. Click **New** button on the Application toolbar.
- **3.** Following are the actions allowed from this screen:
 - New
 - Save
 - Copy
 - Print
 - Enter Query
 - Unlock
 - Delete
 - Authorize
- 4. On NBIN Maintenance screen, specify the fields.

For more information on fields, refer to the field description below:

Table 3-4 NBIN Maintenance - Field Description

Field	Description
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	Specify the Bank Name.
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.

• NBIN - IFSC Mapping Summary

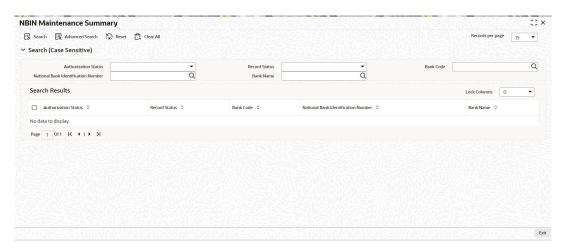
3.1.4.1 NBIN - IFSC Mapping Summary

1. On Homepage, specify **PJSNBIFS** in the text box, and click next arrow.

NBIN Maintenance Summary screen is displayed.



Figure 3-8 NBIN Maintenance Summary



- 2. Search using one or more of the following parameters:
 - Authorization Status
 - Record Status
 - Bank IFSC Code
 - National Bank Identification Number
 - Bank Name
- 3. After specifying the parameters, click the **Search** button.

System displays the records that match the search criteria.

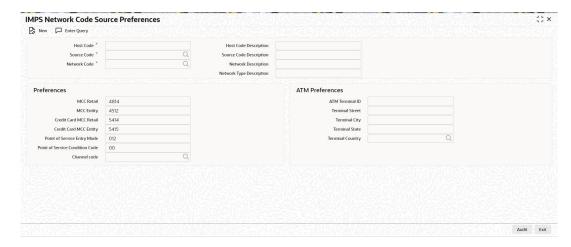
3.1.5 IMPS Network Code Source Preference

The IMPS Network Code Source Preference screen allows users to maintain the Network Source code preferences specific to IMPS network.

1. On Homepage, specify **PJDNWSCD** in the text box, and click next arrow.

IMPS Network Code Source Preferences screen is displayed.

Figure 3-9 IMPS Network Code Source Preferences





- 2. Click **New** button on the Application toolbar.
- **3.** Following are the actions allowed from this screen:
 - New
 - Save
 - Copy
 - Print
 - Enter Query
 - Unlock
 - Delete
 - Authorize
- 4. On IMPS Network Code Source Preferences screen, specify the fields.

Table 3-5 IMPS Network Code Source Preferences - Field Description

Field	Description
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

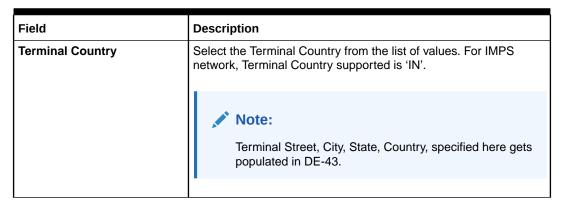


Table 3-5 (Cont.) IMPS Network Code Source Preferences - Field Description

Field	Description
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
Channel Code	 00 - Transaction initiated through ATM Channel 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.



Table 3-5 (Cont.) IMPS Network Code Source Preferences - Field Description

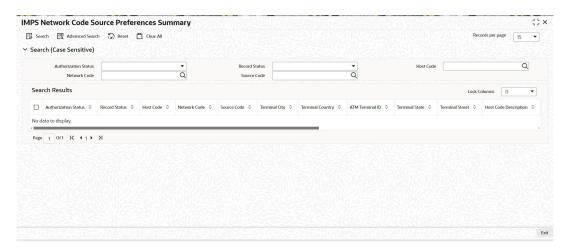


IMPS Network Code Source Preferences Summary

3.1.5.1 IMPS Network Code Source Preferences Summary

On Homepage, specify PJSNWSCD in the text box, and click next arrow.
 IMPS Network Code Source Preferences Summary screen is displayed.

Figure 3-10 IMPS Network Code Source Preferences Summary



- Search using one or more of the following parameters:
 - Authorization Status
 - Record Status
 - Network Code
 - Host Code
 - Source Code
- After specifying the parameters, click the Search button.System displays the records that match the search criteria.

3.1.6 IMPS XML NPCI Connectivity Maintenance

The IMPS XML NPCI Connectivity Maintenance screen allows users to capture IMPS XML connectivity details.

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.

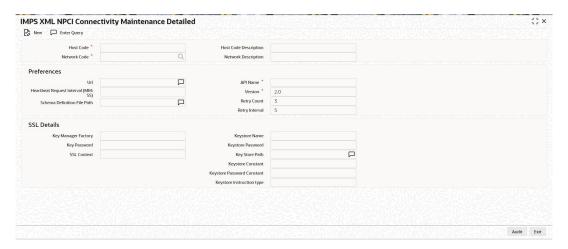
URL: https://<Source IP Address of bank>/imps/<API name>/<version>/urn:txnid: <txn id> .

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.

On Homepage, specify PJDXMLCN in the text box, and click next arrow.
 IMPS XML NPCI Connectivity Maintenance Detailed screen is displayed.

Figure 3-11 IMPS XML NPCI Connectivity Maintenance Detailed



- 2. Click **New** button on the Application toolbar.
- 3. On IMPS XML NPCI Connectivity Maintenance Detailed screen, specify the fields.
 For more information on fields, refer to the field description below:

Table 3-6 IMPS XML NPCI Connectivity Maintenance Detailed - Field Description

Field	Description
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 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 Description	System defaults the description of the Network selected.
Preferences	
Url	Specify a valid IMPS request and response url.



Table 3-6 (Cont.) IMPS XML NPCI Connectivity Maintenance Detailed - Field Description

Field	Description
	-
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 Version	Select a valid API Name from the following: ReqPay RespPay ReqChkTxn RespChkTxn ReqHbt RespHbt 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.

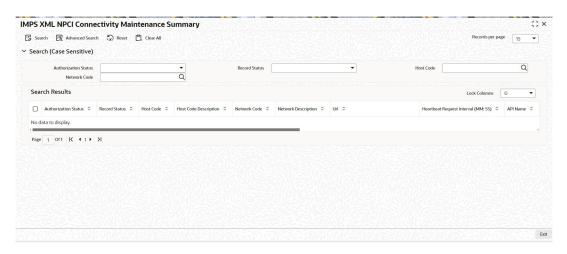
• IMPS XML NPCI Connectivity Maintenance Summary

3.1.6.1 IMPS XML NPCI Connectivity Maintenance Summary

On Homepage, specify PJSXMLCN in the text box, and click next arrow.
 IMPS XML NPCI Connectivity Maintenance Summary screen is displayed.



Figure 3-12 IMPS XML NPCI Connectivity Maintenance Summary



- 2. Search using one or more of the following parameters:
 - Authorization Status
 - Record Status
 - Network Code
 - Host Code
- **3.** After specifying the parameters, click the **Search** button.

System displays the records that match the search criteria.



4

IMPS Outbound Payments

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

- IMPS Outbound Transaction Input
- IMPS Outbound Payments Processing
- IMPS Inbound Message Browser
- IMPS TCC Upload
- IMPS Acknowledgement Message for Outbound Transaction

4.1 IMPS Outbound Transaction Input

This chapter contains the following sections:

- · IMPS Outbound Transaction Input Detailed
- IMPS Outbound Transaction View
- ReST Services
- IMPS Outbound Transaction Input Detailed
- IMPS Outbound Transaction View
- ReST Services

ReST services for Outbound IMPS transaction are supported.

4.1.1 IMPS Outbound Transaction Input Detailed

The IMPS Outbound Transaction Input Detailed screen allows users to maintain the Inbound Preferences for India IMPS.

1. On Homepage, specify **PJDOTONL** in the text box, and click next arrow.

IMPS Outbound Transaction Input Detailed screen is displayed.

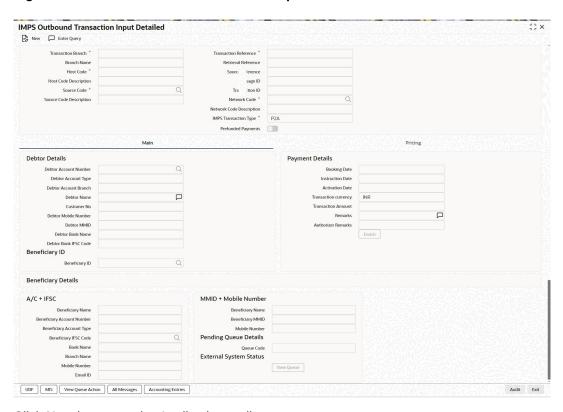


Figure 4-1 IMPS Outbound Transaction Input Detailed

- 2. Click **New** button on the Application toolbar.
- 3. Following are the actions allowed from this screen:
 - New
 - Save
 - Copy
 - Print
 - Enter Query
 - Unlock
 - Delete
 - Authorize
- 4. On IMPS Outbound Transaction Input Detailed screen, specify the fields.

Table 4-1 IMPS Outbound Transaction Input Detailed - Field Description

Field	Description
Transaction Branch	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.



Table 4-1 (Cont.) IMPS Outbound Transaction Input Detailed - Field Description

Field	Description
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, based on the Source Code selected.
Network code	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: 'YDDDHHSSSSSS'
	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 following:
	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. POR You are a sife the details of AMID a Mahila New Localisation.
	 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.



- Main Tab
- Price Tab
- UDF Button
- MIS Button
- IMPS Outbound Transaction Input Detailed Summary

4.1.1.1 Main Tab

1. Click on **Main Tab** on the IMPS Outbound Payment Transaction Input Detailed screen.

Figure 4-2 IMPS Outbound Payment Transaction Input Detailed - Main Tab



2. On Main Tab, specify the fields.

Table 4-2 IMPS Outbound Payment Transaction Input Detailed_Main tab - Field Description

Field	Description
Debtor Details	



Table 4-2 (Cont.) IMPS Outbound Payment Transaction Input Detailed_Main tab - Field Description

Field	Description
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	



Table 4-2 (Cont.) IMPS Outbound Payment Transaction Input Detailed_Main tab - Field Description

Field	Description
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 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 code as maintained in 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 validates for 'On-US Transfer' (for P2P transfer within same bank) for Outbound IMPS as below: 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'.</imps_txn_type>
	 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

Table 4-2 (Cont.) IMPS Outbound Payment Transaction Input Detailed_Main tab - Field Description

Field	Description
	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 Price 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.

1. Click the Pricing tab and view the pricing details.

Figure 4-3 Pricing Tab



- 2. There may be one or more applicable Charge and Tax components as defined in the Pricing Code maintenance. The fixed amount or rate is fetched from Pricing Value Maintenance screen (PPDVLMNT) for each Charge and/or Tax component, as applicable for the Payment Source code & Customer Service model.
- 3. On **Price** tab, the computed charges, and taxes if applicable, are populated for each charge component in the following fields.

Table 4-3 Pricing - Field Description

Field	Description
Pricing Component	System displays the Name of the pricing component, applicable for the transaction, for which charges are computed.
Pricing Currency	System displays the Currency in which the charge amount is calculated for the Pricing component from the Pricing Code maintenance.
Pricing Amount	System 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	System 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	System displays the debited amount to the selected debit amount.

4.1.1.3 UDF Button

- This sub-screen defaults values of UDF fields that are part of the UDF group specified for the 'Manual' source.
- 2. Click the **UDF button** to invoke the 'UDF' sub-screen.
- 3. On **UDF Button**, specify the fields.

Figure 4-4 UDF Button





Table 4-4 UDF Button - Field Description

Field	Description
Field Label	System displays all fields that are part of the associated UDF group.
Field Value	System displays the default value, where exists for the UDF fields. You can change the default value or specify value for other fields (where default value does not exist).

4.1.1.4 MIS Button

- 1. You can maintain the MIS information for the Transaction. If the MIS details are not entered for the Transaction the same is defaulted from the product maintenance.
- 2. Click the MIS button to invoke the 'MIS' sub-screen.
- 3. On MIS Button, specify the fields.

Figure 4-5 MIS Button



Table 4-5 MIS Button - Field Description

Field	Description
Transaction Reference	System displays the transaction reference number of the transaction.
MIS Group	You can select the MIS group code from the option list, or specify the code for the MIS group in the Source maintenance. The system displays all valid MIS groups for different sources in the MIS group list in the Source maintenance. When booking a transaction from this screen, the MIS group linked to the 'Manual' source is populated by default.



Table 4-5 (Cont.) MIS Button - Field Description

Field	Description
Default button	After selecting a MIS group different from the default MIS Group, click this button to populate any default MIS values and link them to the Transaction MIS and Composite MIS classes.
Transaction MIS	You can populate the default MIS values for Transaction MIS classes for the MIS group. Alternatively, you can change one or more default MIS values or specify additional MIS values. Or, you can select MIS values from the option list.
Composite MIS	You can populate the default MIS values for Composite MIS classes for the MIS group. Alternatively, you can change one or more default MIS values or specify additional MIS values. Or, you can select MIS values from the option list.

4.1.1.5 IMPS Outbound Transaction Input Detailed Summary

On Homepage, specify PJSOTONL in the text box, and click next arrow.
 IMPS Outbound Transaction Input Detailed Summary screen is displayed.

Figure 4-6 IMPS Outbound Transaction Input Detailed Summary



- 2. 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
- **3.** After specifying the parameters, click the **Search** button.

System displays the records that match the search criteria.

4.1.2 IMPS Outbound Transaction View

The IMPS Outbound Transaction View screen allows users to view all the outbound IMPS transactions with all the processed details.

1. On Homepage, specify **PJDOVIEW** in the text box, and click next arrow.

IMPS Outbound Transaction View Detailed screen is displayed.



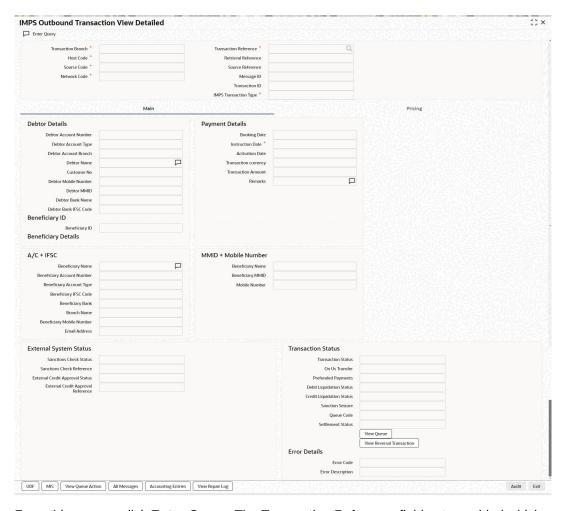


Figure 4-7 IMPS Outbound Transaction View Detailed

- 2. From this screen, click **Enter Query**. The Transaction Reference field gets enabled which opens an LOV screen.
- 3. Click the Fetch button and select the required value.
- 4. 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
- 5. Click **Execute Query** to populate the details of the transaction in the IMPS Outbound Transaction View screen.

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

Transaction Status - Queue Code

Transaction Status	Applicable Queue Codes for IMPS	Remarks	
In Progress	<sc ec="" ep=""></sc>	Transaction is under progress (or) response is pending from External systems. Queue Code is applicable if response is pending from External system • Sanction Check • ECA • Pricing	
Exception	<sc bo="" ec="" ep="" pe=""></sc>	Transaction is in an internal/external queue. Applicable internal/external queues	
Future Dated	<fv></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
- UDF View Button
- MIS View Button
- View Queue Action Log
- All Messages
- Accounting Details
- View Repair Log
- IMPS Outbound Transaction View Summary

4.1.2.1 UDF View Button

- 1. Click the **UDF button** to invoke the 'UDF View' sub-screen.
- 2. On **UDF Button**, specify the fields.



Figure 4-8 UDF View Button

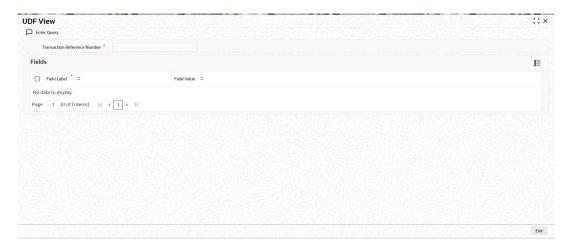


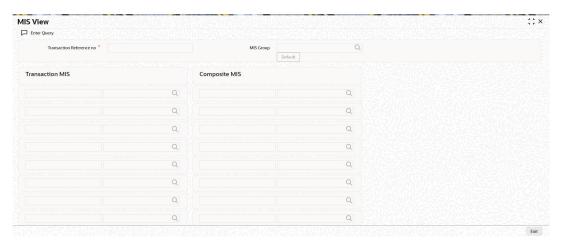
Table 4-6 UDF View Button - Field Description

Field	Description
Transaction Reference Number	Transaction Reference Number is auto populated from the view screen.
Fields	
Field Label	System displays all fields that are part of the associated UDF group.
Field Value	System displays the default value, where exists for the UDF fields. You can change the default value or specify value for other fields (where default value does not exist).

4.1.2.2 MIS View Button

- 1. You can maintain the MIS information for the Transaction. If the MIS details are not entered for the Transaction the same is defaulted from the product maintenance.
- 2. Click the 'MIS' button to invoke the 'MIS View' sub-screen.
- 3. On MIS View sub screen, specify the fields.

Figure 4-9 MIS View Button

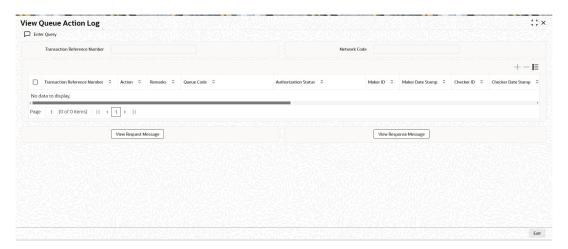




4.1.2.3 View Queue Action Log

- You can view all the queue actions for the respective transaction initiated. You can invoke
 this screen by clicking the View Queue Action tab in main screen, where the Transaction
 Reference Number is auto populated and Queue movement related details are displayed.
- 2. Click the View Queue Action Log button to invoke the sub-screen.

Figure 4-10 View Queue Action Log



- 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

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

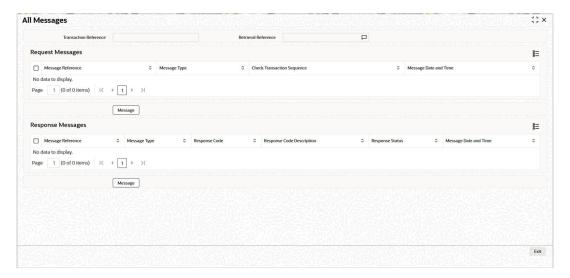
4. Also, you can view the request sent to and the response received from external systems for the following:

- Sanction System
- External Credit Approval
- External Account Check
- External FX fetch
- External Price Fetch
- Accounting System

4.1.2.4 All Messages

1. Click the **All Messages** button in the IMPS Payments View screen, to invoke this subscreen.

Figure 4-11 All Messages



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

Request Messages

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

Response Messages

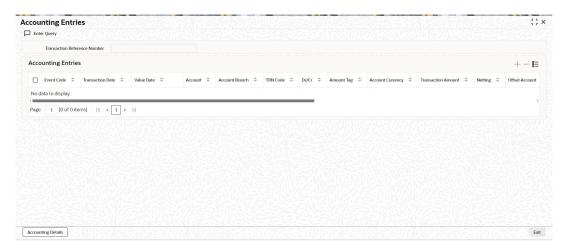
- Message Reference
- Message Type
- Response Code
- Response Code Description
- Response Status
- Message Date and Time



4.1.2.5 Accounting Details

1. Click the **Accounting Details** tab and view the accounting entries for the transaction initiated.

Figure 4-12 Accounting Entries



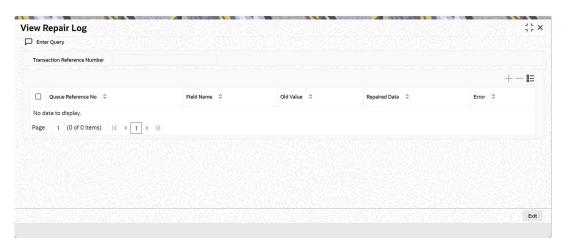
- 2. By default, the following attributes are displayed:
 - Event Code
 - Transaction Date
 - Value Date
 - Account
 - Account Branch
 - TRN Code
 - Dr/Cr
 - Amount Tag
 - Account Currency
 - Transaction Amount
 - Netting
 - Offset Account
 - Offset Account Branch
 - · Offset TRN Code
 - Offset Amount Tag
 - Offset Currency
 - Offset Amount
 - Offset Netting
 - Handoff Status



4.1.2.6 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.
- 2. Click the View Repair Log button to invoke the sub-screen.

Figure 4-13 View Repair Log



- 3. Following details are displayed:
 - Queue Reference No
 - Field Name
 - Old Value
 - Repaired Data
 - Error

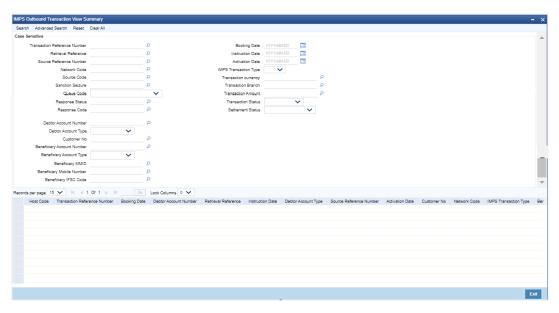
4.1.2.7 IMPS Outbound Transaction View Summary

1. On Homepage, specify **PJSOVIEW** in the text box, and click next arrow.

IMPS Outbound Transaction View Summary screen is displayed.



Figure 4-14 IMPS Outbound Transaction View Summary



- 2. Search 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
- Settlement Status
- 3. After specifying the parameters, click the **Search** button.

System displays the records that match the search criteria.

4.1.3 ReST Services

ReST services for Outbound IMPS transaction are supported.

4.2 IMPS Outbound Payments Processing

Outbound IMPS Payment Processing

4.2.1 Outbound IMPS Payment Processing

Following are the processing steps for outbound payments:

- Initial Validations
- Duplicate Check
- Daily limit Check
- Sanctions Check
- Pricing
- ECA Check
- Accounting
- Messaging
- Initial Validations
- NRE Account Validation
- Duplicate Check
- Message Generation
- Daily Limit Check
- Sanction Check
- Future Valued Check
- Pricing Charge /Tax Computation
- Balance Check with DDA System
- Accounting
- Messaging
- Prefunded Payments Processing
- Debtor Account Derivation
- Debtor Account Type Derivation
- Debtor Name Derivation



- Response Handling
- Outbound Check Transaction Status Request Processing
- Check Transaction Status Response Processing
- Process Monitoring

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.
- 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
 PJTXP-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 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



4.2.1.4 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.

4.2.1.5 Daily Limit Check

- System tracks the daily aggregate limit and source wise limit allowed for a customer account on a daily basis. The limits can be maintained in the Account Level Daily Limits screen (PMDACCPF). If no record is available for account –wise limits, system applies the default limits maintained in (PMDDFLMT).
- If the limit is breached, the transaction is moved to BO queue.

4.2.1.6 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.



4.2.1.7 Future Valued Check

- System checks if the instruction date is future dated. If yes, transaction is moved to Warehouse queue.
- Future dated IMPS transactions are processed by separate jobs.
- Processing of transactions would be completed till sanction check on booking date itself and is stored in future dated transaction tables.
- During beginning of day, future dated transaction job picks up transactions with value date as current date and does complete steps for processing from initial validations.

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:



Details in Accounting hand-off	Debit Liquidation	Credit Liquidation
Accounting Event	DRLQ	DRLQ
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
Response Pay	M0 & Result is 'Deemed'	Processes	Deemed Approved
Response Pay	M0 and Result is 'Failure'	Rejected	Declined

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 reties 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 Transactio n 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	Yes
				2. Based on response code received in response, update the outbound transaction status appropriately.	

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

4.2.1.19 Process Monitoring

- Response Process Monitor tracks 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 do not generate any Check Transaction Request if a corresponding Response Pay/Check Transaction Response is received OR after maximum retry count.

4.3 IMPS Inbound Message Browser

- IMPS Inbound Message Browser
- IMPS Inbound Message Browser

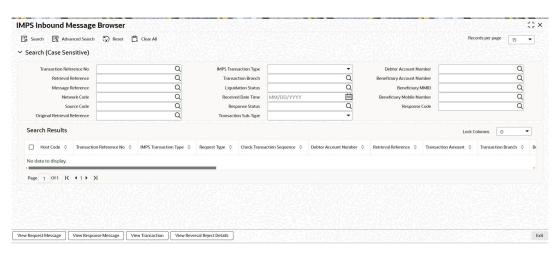
4.3.1 IMPS Inbound Message Browser

The IMPS Inbound Message Browser screen allows users to view all the inbound messages generated.

1. On Homepage, specify **PJSINBRW** in the text box, and click next arrow.

IMPS Inbound Message Browser screen is displayed.

Figure 4-15 IMPS Inbound Message Browser



- Search using one or more of the following parameters:
 - Message Reference
 - Retrieval Reference
 - Transaction Reference Number
 - Network Code
 - Source Code
 - IMPS Transaction Typ
 - Transaction Branch
 - Received Date Time
 - Response Code
 - Response Status
 - Liquidation Status
 - Debtor Account Number
 - Beneficiary Account Numbe
 - Beneficiary MMID



- · Beneficiary Mobile Number
- 3. Following messages can be viewed from this browser:
 - RequestPay Inbound Original Request and Verification Request
 - ResponsePay Outbound Original Response and Verification Response
- **4.** After specifying the parameters, click the **Search** button.

The system displays the records that match the search criteria.

- 5. Double click a record after selecting it to view the detailed screen.
- 6. Following actions can be done from this screen:

Table 4-7 Action

Action	Description
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.

4.4 IMPS TCC Upload

- IMPS Adjustment View
- IMPS Adjustment Upload Summary

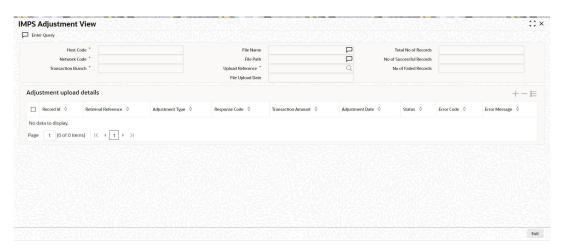
4.4.1 IMPS Adjustment View

1. On Homepage, specify **PJDAJUPD** in the text box, and click next arrow.

IMPS Adjustment View screen is displayed.



Figure 4-16 IMPS Adjustment View



- 2. Click **New** button on the Application toolbar.
- 3. On IMPS Adjustment View screen, specify the fields.

For more information on fields, refer to the field description below:

Table 4-8 IMPS Adjustment View - Field Description

Field	Description	
Host Code	System defaults the Host Code of transaction branch on clicking 'New'.	
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

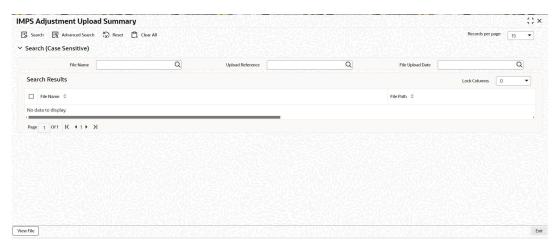
The IMPS Adjustment Upload Summary screen allows users to view summary of the TCC files uploaded.



1. On Homepage, specify **PJSAJUPD** in the text box, and click next arrow.

IMPS Adjustment Upload Summary screen is displayed.

Figure 4-17 IMPS Adjustment Upload Summary



- 2. Search using one or more of the following parameters:
 - File Name
 - Upload Reference
 - File Upload Date
- After specifying the parameters, click the Search button.

System displays the records that match the search criteria.

- 4. Double click a record after selecting a record to view the detailed screen.
- 5. 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 regMsgld 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.

- IMPS Inbound Transaction Input
- IMPS Inbound Payments Processing
- · IMPS Inbound Message Browser
- Notification
- IMPS Acknowledgement Message for Inbound Transaction

5.1 IMPS Inbound Transaction Input

This chapter contains the following sections:

- Inbound IMPS Transaction View
- Inbound IMPS Transaction View

5.1.1 Inbound IMPS Transaction View

The Inbound IMPS Transaction View screen allows users to view Inbound payment status. Payments received from all channels are listed in this screen. The related messages are listed in the 'All Messages' sub-screen.

1. On Homepage, specify **PJDIVIEW** in the text box, and click next arrow.

Inbound IMPS Transaction View screen is displayed.



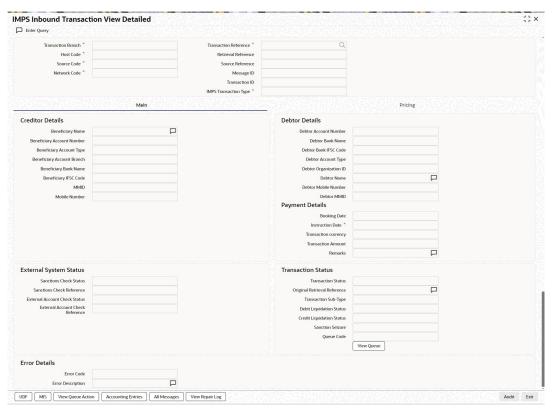


Figure 5-1 Inbound IMPS Transaction View

- 2. From this screen, click **Enter Query**. The Transaction Reference field gets enabled which opens an LOV screen..
- 3. Click the Fetch button and select the required value.
- 4. 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
- 5. Click **Execute Query** to populate the details of the transaction in the Inbound IMPS Transaction View screen.

For more details on Main and Pricing tabs refer to 'PJDITONL' screen details above

- UDF View Button
- MIS View Button
- View Queue Action Log
- Accounting Details
- All Messages
- View Repair Log
- IMPS Inbound Transaction View Summary



5.1.1.1 UDF View Button

- 1. Click the **UDF button** to invoke the 'UDF View' sub-screen.
- 2. On **UDF Button**, specify the fields.

Figure 5-2 UDF View Button



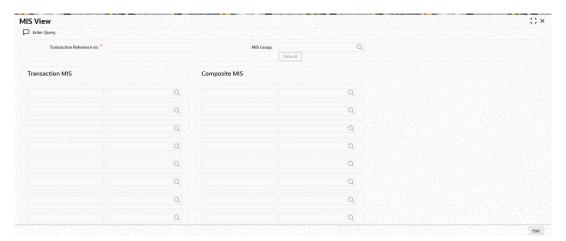
Table 5-1 UDF View Button - Field Description

Field	Description
Transaction Reference Number	Transaction Reference Number is auto populated from the view screen.
Fields	
Field Label	System displays all fields that are part of the associated UDF group.
Field Value	System displays the default value, where exists for the UDF fields. You can change the default value or specify value for other fields (where default value does not exist).

5.1.1.2 MIS View Button

- 1. You can maintain the MIS information for the Transaction. If the MIS details are not entered for the Transaction the same is defaulted from the product maintenance.
- 2. Click the 'MIS' button to invoke the 'MIS View' sub-screen.
- 3. On MIS View sub screen, specify the fields.

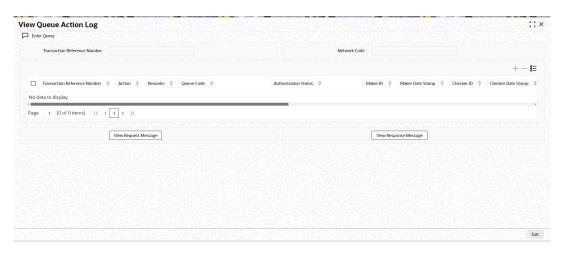
Figure 5-3 MIS View Button



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 tab in main screen, where the Transaction
 Reference Number is auto populated and Queue movement related details are displayed.
- 2. Click the View Queue Action Log button to invoke the sub-screen.

Figure 5-4 View Queue Action Log



- 3. 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

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

- **4.** Also, you can view the request sent to and the response received from external systems for the following:
 - Sanction System
 - External Credit Approval
 - External Account Check
 - External FX fetch
 - External Price Fetch
 - Accounting System

5.1.1.4 Accounting Details

 Click the Accounting Details tab and view the accounting entries for the transaction initiated.

Figure 5-5 Accounting Entries



- By default, the following attributes are displayed:
 - Event Code
 - Transaction Date
 - Value Date
 - Account

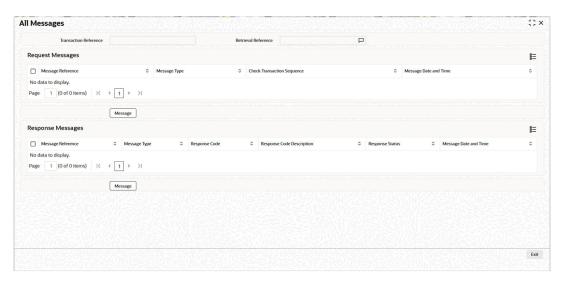


- Account Branch
- TRN Code
- Dr/Cr
- Amount Tag
- Account Currency
- Transaction Amount
- Netting
- Offset Account
- Offset Account Branch
- Offset TRN Code
- Offset Amount Tag
- Offset Currency
- Offset Amount
- Offset Netting
- Handoff Status

5.1.1.5 All Messages

 Click the All Messages button in the IMPS Payments View screen, to invoke this subscreen.

Figure 5-6 All Messages



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

Request Messages

- Message Reference Number
- Message Type



- VR Sequence
- Message Date and Time

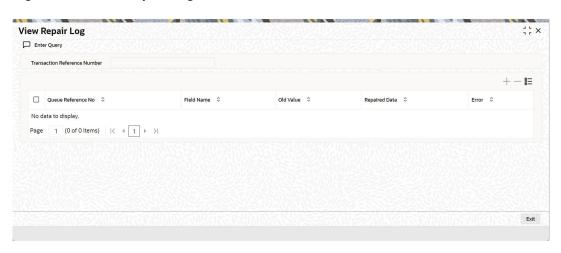
Response Messages

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

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.
- 2. Click the View Repair Log button to invoke the sub-screen.

Figure 5-7 View Repair Log



- 3. Following details are displayed:
 - Queue Reference No
 - Field Name
 - Old Value
 - Repaired Data
 - Error

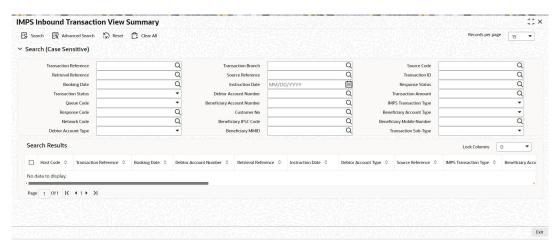
5.1.1.7 IMPS Inbound Transaction View Summary

1. On Homepage, specify **PJSIVIEW** in the text box, and click next arrow.

IMPS Inbound Transaction View Summary screen is displayed.



Figure 5-8 IMPS Inbound Transaction View Summary



- 2. Search 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



After specifying the parameters, click the Search button.System displays the records that match the search criteria.

5.2 IMPS Inbound Payments Processing

Inbound IMPS Payment 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".

- Message Type/Transaction Type Derivation
- Initial Validations
- Customer and Account Status Check
- Duplicate Check
- Sanction Check
- External Account Check
- Response Message generation and Response Code mapping
- Inbound Check Transaction Status Request Processing and Response generation
- Pricing
- Accounting Handoff
- Notification
- Response Codes Mapping



5.2.1.1 Message Type/Transaction Type Derivation

- System 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')



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

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:
- The following parameters are validated during 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 RRN
 - 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.



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

Transaction Status - Queue Code

Transaction Status	Applicable Queue Code for IMPS	Remarks
In Progress	<sc ea=""></sc>	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).

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 (msgld) 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 Transacti on Status	Check Transacti on 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)	Log Check Transaction request sequence 1 Check Transaction Response (Sequence 1) will not be generated.
Yes	Processed	66-75 secs	Yes (Check Transaction Request Sequence 2)	Log Check Transaction request sequence 2. Generate Check Transaction Response and hand off.
Yes	Processed	76-85 secs	Yes (Check Transaction Request Sequence 3)	Log Check Transaction request sequence 3. Generate Check Transaction Response and hand off.
Yes	Rejected	66-75 secs/76- 85 secs	Yes (Check Transaction Request Sequence 2, 3)	Log Check Transaction request sequence 2, 3. Generate Check Transaction Response with response code 'M0' and hand off.



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').

5.2.1.12 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

- IMPS Inbound Message Browser
- IMPS Inbound Message Browser

5.3.1 IMPS Inbound Message Browser

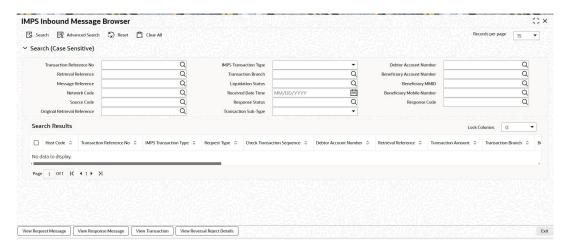
The IMPS Inbound Message Browser screen allows users to view all the inbound messages generated.

1. On Homepage, specify **PJSINBRW** in the text box, and click next arrow.

IMPS Inbound Message Browser screen is displayed.



Figure 5-9 IMPS Inbound Message Browser



- Search using one or more of the following parameters:
 - Message Reference
 - Retrieval Reference
 - Transaction Reference Number
 - Network Code
 - Source Code
 - IMPS Transaction Typ
 - · Transaction Branch
 - Received Date Time
 - Response Code
 - Response Status
 - Liquidation Status
 - · Debtor Account Number
 - · Beneficiary Account Numbe
 - Beneficiary MMID
 - Beneficiary Mobile Number
- 3. Following messages can be viewed from this browser:
 - RequestPay Inbound Original Request and Verification Request
 - ResponsePay Outbound Original Response and Verification Response
- **4.** After specifying the parameters, click the **Search** button.

The system displays the records that match the search criteria.

- Double click a record after selecting it to view the detailed screen.
- **6.** Following actions can be done from this screen:



Table 5-2 Action

Action	Description	
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 Notification

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' (Timeout response from NPCI: 'Deemed Approved')
 - Negative Response Codes: Any response codes other than '00', '91'

Field	XML Tag
Retrieval Reference Number	<retrieval number="" reference=""></retrieval>

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 received 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 is done for Inbound Ack message before sending to NPCI.

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



Glossary

PJDACSTR

Account Type Restrictions

PJDAJUPD

IMPS Adjustment View

PJDIVIEW

Inbound IMPS Transaction View

PJDNBIFS

NBIN - IFSC Mapping

PJDNWIPF

IMPS Inbound Payment Preferences

PJDNWOPF

IMPS Outbound Payment Preferences

PJDNWSCD

IMPS Network Code Source Preference

PJDOTONL

IMPS Outbound Transaction Input Detailed

PJDXMLCN

IMPS XML NPCI Connectivity Maintenance



PJSACSTR

Account Type Restrictions Summary

PJSINBRW

IMPS Inbound Message Browser

PJSIVIEW

IMPS Inbound Transaction View Summary

PJSNBIFS

NBIN - IFSC Mapping Summary

PJSNWIPF

Inbound Payment Preferences Summary

PJSNWOPF

IMPS Outbound Payment Preference Summary

PJSNWSCD

IMPS Network Code Source Preferences Summary

PJSOTONL

IMPS Outbound Transaction Input Detailed Summary

PJSOVIEW

IMPS Outbound Transaction View Summary

PJSXMLCN

IMPS XML NPCI Connectivity Maintenance Summary