

India Unified Payment Interface (UPI) User Guide

# Oracle Banking Payments

Release 14.5.2.0.0

Part No. **F48047-01**

September 2021

India Unified Payments Interface (UPI) User Guide  
Oracle Financial Services Software Limited

Oracle Park

Off Western Express Highway  
Goregaon (East)

Mumbai, Maharashtra 400 063

India

Worldwide Inquiries:

Phone: +91 22 6718 3000

Fax: +91 22 6718 3001

[www.oracle.com/financialservices/](http://www.oracle.com/financialservices/)

Copyright © 2017, 2021, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

---

# Contents

<b>1. About this Manual .....</b>	<b>1-1</b>
1.1 Introduction.....	1-1
1.2 Audience.....	1-1
1.3 Documentation Accessibility.....	1-1
1.4 Organization .....	1-1
1.5 Glossary of Icons.....	1-1
1.6 Abbreviations Glossary.....	1-2
<b>2. India Unified Payments Interface - UPI .....</b>	<b>2-1</b>
2.1 Overview of UPI.....	2-1
2.1.1 <i>Financial API</i> .....	2-1
2.1.2 <i>Non- Financial API</i> .....	2-1
2.1.3 <i>NPCI Connectivity</i> .....	2-1
2.2 UPI Maintenances .....	2-1
2.2.1 <i>UPI Pay Request Bank Preferences</i> .....	2-2
2.2.2 <i>Account Type Restrictions</i> .....	2-3
2.2.3 <i>India Payment Account Preferences</i> .....	2-3
2.2.4 <i>UPI Reject Response Code Maintenance</i> .....	2-4
2.3 UPI Pay Request - Remitter Bank - Request for Debit Processing .....	2-5
2.3.1 <i>ReqPay Debit - API Processing</i> .....	2-5
2.3.2 <i>ReqPay Debit Outbound Payments Transaction Processing</i> .....	2-6
2.3.3 <i>ReqPay Debit Outbound Payment View</i> .....	2-8
2.4 UPI Pay Request - Beneficiary Bank - Request for Credit Processing.....	2-12
2.4.1 <i>ReqPay Credit - API Processing</i> .....	2-12
2.4.2 <i>ReqPay Credit Inbound Payments Transaction Processing</i> .....	2-15
2.4.3 <i>ReqPay Credit Inbound Payment View</i> .....	2-17
2.5 UPI Non-Financial API - List of Accounts linked to Mobile Number .....	2-18
2.5.1 <i>Request for Account list - API Processing</i> .....	2-18
2.5.2 <i>UPI Non-FIN API Request - Inbound Message Browser</i> .....	2-18
2.5.3 <i>UPI Non-FIN API Request - Outbound Message Browser</i> .....	2-19
2.6 UPI Payments Message Browser.....	2-20
2.6.1 <i>UPI Pay Request for Debit/Credit: Outbound Message Browser</i> .....	2-21
2.6.2 <i>UPI Pay Request for Debit/Credit: Inbound Message Browser</i> .....	2-22
<b>3. Function ID Glossary .....</b>	<b>3-1</b>

---

# 1. About this Manual

## 1.1 Introduction

This manual is designed to help you to quickly get familiar with the India Unified Payments Interface (UPI) functionality of Oracle Banking Payments. It takes you through the various stages in processing a UPI payment transaction.

## 1.2 Audience

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

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

## 1.3 Documentation Accessibility

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


## 1.4 Organization




This manual is organized into the following chapters.:

Chapter	Description
Chapter 1	<i>About this Manual</i> gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	<i>Unified Payments Interface</i> provides a snapshot of the local payments or payments limited to a specific region.
Chapter 3	<i>Function ID Glossary</i> has alphabetical listing of Function/Screen ID's used in the module with page references for quick navigation.

## 1.5 Glossary of Icons

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

Icons	Function
	Exit

Icons	Function
	Add row
	Delete row
	Option List

## 1.6 Abbreviations Glossary

Abbreviation	Detailed Description
UPI	<u>Unified Payments Interface</u>
<u>VPA</u>	<u>Virtual Payments Address</u>
UI	User Interface
ReST	Representational State Transfer
SOAP	Simple Object Access Protocol

---

## 2. India Unified Payments Interface-UPI

This chapter contains the following sections

- [Section 2.1, "Overview of UPI – Pay Request"](#)
- [Section 2.2, "UPI Maintenances"](#)
- [Section 2.3, "UPI Pay Request – Remitter Bank – Request for Debit Processing"](#)
- [Section 2.4, "UPI Pay Request – Beneficiary Bank – Request for Credit Processing"](#)
- [Section 2.5, "UPI Non-Financial API – List of accounts linked to Mobile Number"](#)
- [Section 2.6, "UPI Payments Message Browser"](#)

### 2.1 Overview of UPI – Pay Request

#### 2.1.1 Financial API:

- OBPM on receiving 'Pay Request to Debit (ReqPay\_Debit API)' on behalf of Remitter Bank in an xml format over HTTPS, it is able to process the debit request by debiting the Payer Account and send back response xml along with success/failure response codes to NPCI UPI.
- OBPM upon receiving 'Pay Request to Credit (ReqPay\_Credit API)' on behalf of Beneficiary Bank in an xml format over HTTPS, it is able to process the credit request by crediting the Payee Account and send back response xml along with success/failure response codes to NPCI UPI.
- OBPM generates Debit/Credit Notifications to Payer/Payee upon completion of accounting.

#### 2.1.2 Non-Financial API:

- OBPM upon receiving 'List Accounts API' request in an xml format on behalf of Remitter bank, it is able to identify account numbers and account branch IFSC Codes that are linked for the given customer mobile number and send back response xml to NPCI UPI.

#### 2.1.3 UPI System Connectivity:

- NPCI UPI system connectivity. For all request messages received from NPCI UPI, OBPM generates an acknowledgment message

### 2.2 UPI Maintenances

This section lists the key common maintenances that are required for processing of India UPI Payments.

- Source Maintenance (PMDSORCE)
- Account level Daily Limits (PMDACCPF)
- External System Maintenances for - Sanctions, External Credit Approval and Accounting

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

The other key maintenances are as follows:

## 2.2.1 UPI Pay Request Bank Preferences

You can maintain the UPI Pay Request Bank Preferences in this screen maintaining preferences such as transaction limit, pricing code, accounting codes, network account details. This is referred when processing:

- Debit request API coming in from NPCI UPI when the bank is a 'Remitter Bank'
- Credit request API coming in from NPCI UPI when bank is a 'Beneficiary Bank'

You can invoke the 'UPI Pay Request Bank Preferences' screen by typing 'PVDBKPRF' in the field at the top right corner of the application toolbar and clicking the adjoining arrow button. Click 'New' button on the Application toolbar.

The screenshot shows a software window titled "UPI Pay Request Bank Preferences Details". At the top, there is a toolbar with "New" and "Enter Query" buttons. The main content area is divided into several sections with input fields:

- Network Code \*** (required field)
- Host Code \*** (required field)
- Transaction currency \* INR** (required field, pre-filled with "INR")
- Network Service ID \*** (required field)
- Network Description** (text field)
- Network Type Description** (text field)
- Transaction Limit** section with sub-fields for **Minimum Amount** and **Maximum Amount**.
- Pricing Details** section with **Transaction Pricing Code**.
- Accounting Codes** section with **Accounting Code \*** (required field).
- Network Account Details** section with **Network Account**.

Below these sections, there is a radio button group for **ReqPay Debit** and **ReqPay Credit**. At the bottom of the window, there are fields for **Maker**, **Checker**, **Date Time**, **Mod No**, **Record Status**, and **Authorization Status**, along with an **Exit** button.

You can specify the following fields:

### **Network Code**

Select the Network code from the list of values. If only one Network is maintained with payment type as 'UPI' for the host code, the same is 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 on the Network Code selected.

### **Network Type Description**

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

### **Host Code**

System defaults the Host code of transaction branch.

### **Transaction Currency**

Allowed Currency for UPI payment is 'INR' only. This is defaulted here.

### **Network Service ID**

Specify the Network Service ID.

### **Transaction Limit**

You can specify the Minimum and Maximum Transaction Limit. Transaction Min, Max limit is maintained per UPI Payment (only for Req Pay Debit Request) as required by the bank. Modifiable

Pricing Details, Accounting Codes and Network Account Details are maintained for Request Pay Debit & Request Pay Credit as below:

### **Transaction Pricing Code**

You can select the Pricing Code from the list of values available. Pricing Code maintained in screen Pricing Code maintenance (PPDCDMNT) is linked here. Computation of Charges and Tax are based on the pricing code linked here.

### **Accounting Code**

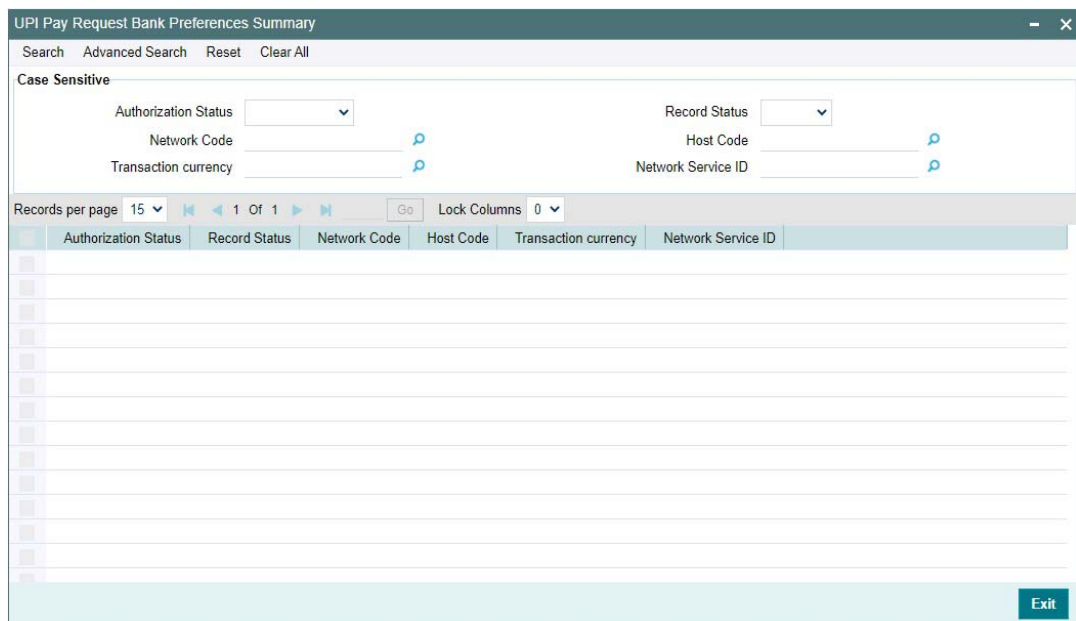
You can select the Accounting Code from the list of values available. It's a mandatory field.

### **Network Account Details**

You can select the Network Account from the list of values available. While posting the debit / credit accounting, Clearing GL is replaced with Network account if maintained.

## **2.2.1.1 UPI Pay Request Bank Preferences Summary**

You can view a summary of network using 'UPI Pay Request Bank Preferences Summary' screen. To invoke this screen, type 'PVSBKPRF' in the field at the top right corner of the application toolbar and click the adjoining arrow button.



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

- Authorization Status
- Record Status
- Network Code
- Host Code
- Transaction currency
- Network Service ID

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



## 2.2.2 Account Type Restrictions

You can maintain the Account type restrictions in this existing screen for UPI Payments. For UPI Payments allowed account types are Savings and Current.

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

The screenshot shows the 'Account Type Restrictions' application window. At the top, there is a 'Save' button. Below it, there are two input fields: 'Host Code \* INDIA' and 'Network Code \* UPI'. The main area is divided into two sections: 'Outbound Payment Restrictions' and 'Inbound Payment Restrictions'. Each section has a 'Restriction Type' dropdown menu set to 'Allowed'. Below each section is a table with columns for 'Account Type \*' and 'Account Type Code'. In both tables, 'Savings Bank' is checked and has a code of '10'. At the bottom of the window, there is a toolbar with fields for 'Maker', 'Date Time', 'Checker', 'Date Time', 'Mod No', 'Record Status', and 'Authorization', along with a 'Cancel' button.

## 2.2.3 India Payment Account Preferences

The existing screen India Payment Account Preferences screen is modified and below new fields are added:

- Customer Number
- Account Name
- Customer Name

These fields are defaulted based on the customer account number selected.

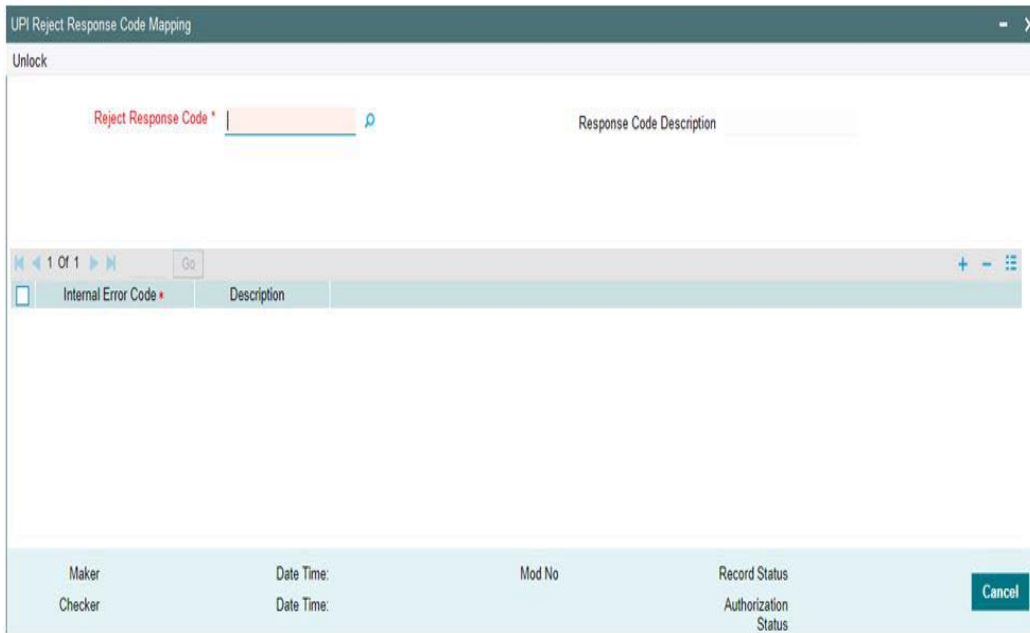
Branch IFSC field is added as an LOV. This lists open and valid IFSC Codes maintained. You can select the appropriate branch IFSC code for the customer account.

## 2.2.4 UPI Reject Response Code Maintenance

This screen has factory shipped values for reject response codes mapped to internal error code.

You can invoke the 'UPI Reject Response Code' screen by typing 'PVDRJMNT' in the field at the top right corner of the application toolbar and clicking the adjoining arrow button. Click 'Unlock' button on the Application toolbar.

- You are allowed to update the reject response code and internal error code mapping from here.
- Same error code cannot be linked to more than one valid reject response code.
- Auto reject of a payment request (ReqPay Debit, ReqPayCredit), if applicable,
- is initiated on encountering internal system error codes while processing incoming pay request APIs. Auto rejects are processed with the Reject response code linked to the error code.



## 2.3 UPI Pay Request – Remitter Bank – Request for Debit Processing

This section contains the following topics:

- Section 2.3.1, "ReqPay Debit – API Processing"
- Section 2.3.2, "ReqPay Debit Outbound Payments Transaction Input"
- Section 2.3.3, "ReqPay Debit Outbound Payment View"

### 2.3.1 ReqPay Debit – API Processing

• OBPM processes the incoming request for debit API 'ReqPay Debit'. This API has the Payer VPA, Payer Account, Payer Bank IFSC Code, Transaction Amount, Instruction Date, Payee VPA, Payee Account, Payee Bank IFSC code as input. OBPM generates an acknowledgement message as : `<upi:Ack xmlns:upi="" api="" reqMsgId="" err="" ts=""/>`

- The response API returns transaction status confirmation.
- API Name: ReqPay
- Transaction Type: Debit

API Name	Request Input to OBPM	Request from OBPM
----------	-----------------------	-------------------

ReqPay RespPay	Timestamp Request Message ID Remarks (Note) Type Payer VPA Payer Name Payer Mobile Number Payer Account Number Account Type Payer Branch IFSC Transfer Amount Transfer Currency 'INR' Remarks MPIN Payee VPA Payee Name Payee Account Number Account Type Payee Branch IFSC	Timestamp Response Message ID Remarks (Note) Type (Outbound Transaction) Original Request Message ID Result Error Code Payer VPA Transfer Amount Transfer Currency 'INR' ApprovalRef (last 6-digit of UPI reference number) Payer Account Number Response Code Payee VPA Transfer Amount Transfer Currency 'INR' Payee Account Number
-------------------	---	---

### 2.3.2 ReqPay Debit Outbound Payments Transaction Processing

Request for Debit - Outbound payments transaction processor follows the below listed processing steps:

- Message Parsing
- Acknowledgement Message Generation
- Transaction Account Branch Derivation
- Initial Validations
- Duplicate Check
- Account Level Daily limit Check
- Pricing
- ECA Check (for Customer/Account Status, MPIN Validation, Balance Check)
- Accounting
- Messaging
- Notification

#### 2.3.2.1 Transaction Type Derivation:

- System parses the incoming message and derive the Transaction Type as 'DEBIT' from the XML tag <Txn> type.
- System generates an acknowledgement message.

#### 2.3.2.2 Transaction Account Branch Derivation:

- System derives the transaction account branch as below:

Payer Branch IFSC	XML Tag
Derive Based on IFSC Code present in XML tag of ReqPay API	<Payer.Ac.Detail>Name 'IFSC'

- Once the above validations and derivations are done, the below mandatory fields checks are done:
  - Network Code: Validated against the static maintenance (PMDNWCOD) available.
  - Host Code: The Host Code linked to the transaction branch is derived from branch parameters (STDCRBRN)
  - Transaction Branch Code: This is a valid branch in core maintenance.

### **2.3.2.3 Initial Validations:**

- The following processing are covered as part of initial validations:
- Data enrichment - Account / Bank Re-direction, Network character replacement
- Network Limit validations
- Account/Customer Validations based on core maintenance
- If Account re-direction or bank re-direction is maintained, then the account / bank details are replaced with those values.
- 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. Validations are available to verify if the below fields are present in the request
  - Host Code
  - Network Code
  - Transaction Branch
  - Payer Account Number (Validation is available to check only INR currency accounts allowed for UPI.)
  - Payer Branch IFSC
  - Payee Account Number
  - Payee Name
  - Transaction Currency
  - Transaction Amount
  - Instruction Date
  - Payee Bank IFSC is allowed for UPI network (PMDBKMNT – IFSC Directory).
- Transaction amount limit check is done for the minimum and maximum amount limits defined for the Network, as maintained in 'UPI Pay Request Bank Preferences (Function ID: PVDBKPRF)'
- In case of any validation failure, then the transaction is rejected with proper error code.
- Account Type Restrictions: System validates if the debtor (Payer) 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 displays error message, else moves to further processing steps.
- Customer / Account Status validations:
- Customer/Account Status checks are not in OBPM. ECA / DDA system performs these checks.

#### **2.3.2.4 Duplicate Check:**

- Duplicate parameters are maintained at the source (PMDSORCE). Based on the duplicate days and fields set, duplicate check for the transaction are done. If the transaction is identified as a duplicate transaction, the transaction is moved to business override queue. The following parameters are available for duplicate check:
  - Payer Account DBTR\_ACC
  - Payee Account CRDTR\_ACC
  - Transaction Amount TFR\_AMT
  - Instruction Date VALUE\_DATE
  - Payee Bank IFSC Code CRDTR\_BANK\_CODE

#### **2.3.2.5 Daily limit check:**

- System tracks the daily aggregate limit and source wise limit allowed for a customer account on a daily basis. If limit is breached, the transaction is rejected with a valid error code.

#### **2.3.2.6 Pricing - Charge / Tax Computation:**

- Only Internal Pricing is applicable. India GST tax values are applied based on the configuration.

#### **2.3.2.7 ECA Check with DDA System:**

- The debit details along with MPIN (as received) are sent to the DDA system for customer / account / MPIN validation and balance check.

#### **2.3.2.8 Messaging:**

- Every request message (ReqPay) received for 'Pay Request – Debit' is responded (RespPay) with a response message and Time stamp.
- Response Message is generated and viewed in the Outbound Message browser and forwarded to NPCI UPI system.

#### **2.3.2.9 Accounting:**

- Accounting entries posted are handed off to Accounting system. Payment Transaction status is marked as 'Processed'.

#### **2.3.2.10 Notification**

- Notification is generated to Payer after debit accounting is successfully posted (Transaction Status 'Processed', Event 'DRLQ').

### **2.3.3 ReqPay Debits Outbound Payment View**

You can view the ReqPay Debit Outbound transactions in this screen.

You can invoke 'ReqPay Debits Outbound Payment View' screen by typing 'PVDOVIEW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

From this screen, click Enter Query. The Transaction Reference field gets enabled which opens an LOV screen.

Along with the transaction details, you can also view the details for the following:

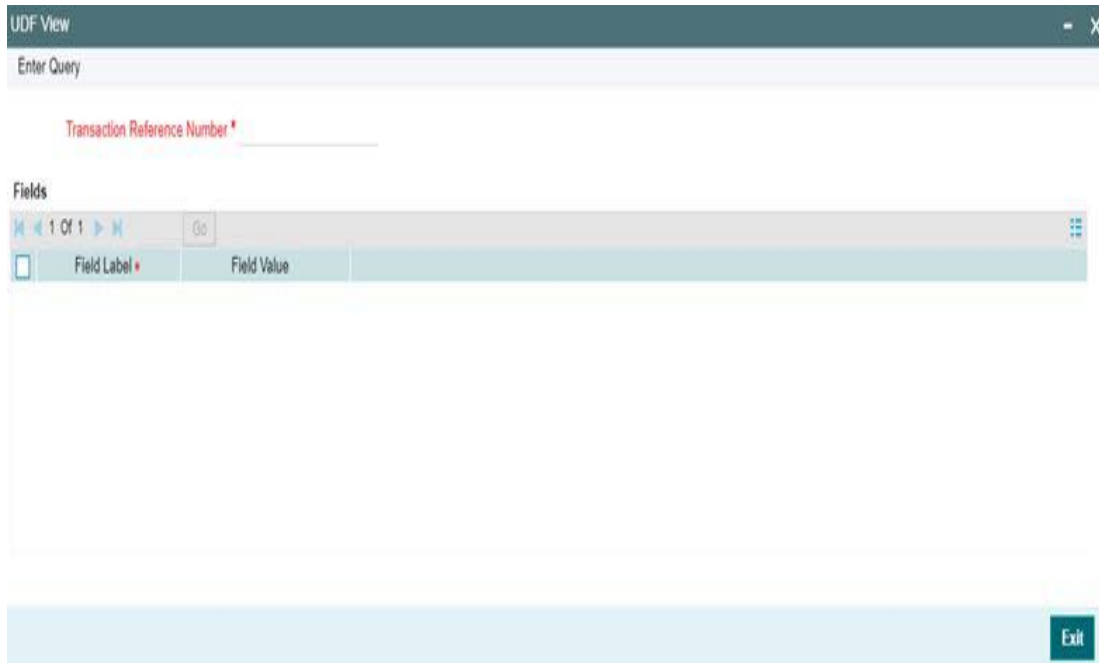
- Source code - For transactions received through Rest API services, the source code is populated as received in the request.
- External System Status
- Transaction Status

Click Execute Query to populate the details of the transaction in the Outbound UPI Payments View screen. The system displays all the fields in the below mentioned tabs based on the transaction reference number selected.

For more details on Main, Payment Details and Pricing tabs refer to 'PVDOTONL' details above.

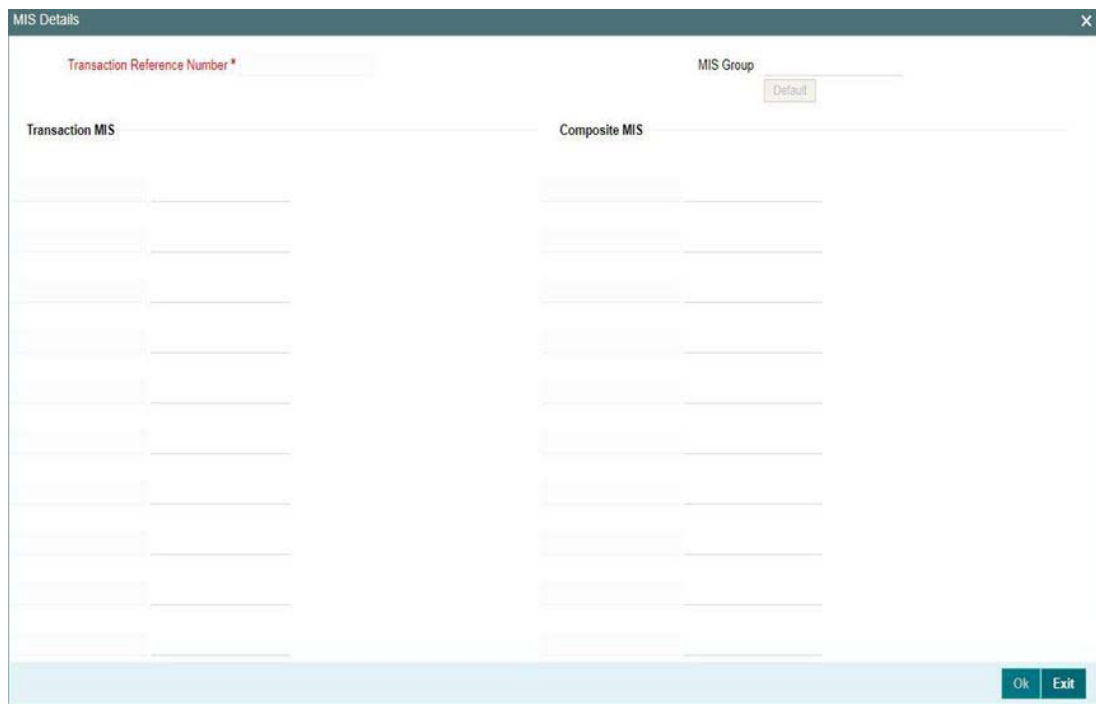
### 2.3.3.1 **UDF Tab**

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



### 2.3.3.2 MIS Tab

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





### 2.3.3.3 All Messages

On click of this button, the below screen is launched to view 'ReqPay Debit' message received from NPCI UPI and RespPay Debit' message sent to NPCI UPI.

Transaction Reference Number 190431752725000 UPI Reference Number 904314053131

Request Messages

Message Reference	Original Request Message ID	Message Date and Time	Acknowledgement Status
-------------------	-----------------------------	-----------------------	------------------------

Message

Response Messages

Message Reference	Response Message ID	Message Date and Time	Acknowledgement Status
-------------------	---------------------	-----------------------	------------------------

Message

Exit

### 2.3.3.4 ReqPay Debit Outbound Payments View Summary

You can view the summary in 'ReqPay Debit Outbound Transaction View Summary' screen. You can invoke the UPI Outbound Payments Summary screen by typing 'PVSOVIEW' in the field at the top right corner of the Application toolbar and clicking on the adjoining arrow button.

UPI Pay Request for Debit: Outbound Transaction View Summary

Search Advanced Search Reset Clear All

Case Sensitive

Original Request Message ID UPI Reference Number

Transaction Reference Number Instruction Date YYYYMM-DD

Payer VPA Payer Mobile Number

Payee VPA Response Status

Transaction Status

Records per page 15 Go Lock Columns 0

Original Request Message ID	UPI Reference Number	Transaction Reference Number	Instruction Date	Transaction Amount	Payer VPA	Payer Mobile Number	Payee VPA	Transaction Status	Response Status
-----------------------------	----------------------	------------------------------	------------------	--------------------	-----------	---------------------	-----------	--------------------	-----------------

View Transaction

Exit

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

- Transaction Reference
- Original Request Message ID
- Payer VPA
- Payee VPA
- UPI Reference Number
- Instruction Date
- Payer Mobile Number
- Response Status
- Transaction Status

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

Double click a record or click 'View Transaction' button to view the detailed screen.

## 2.4 UPI Pay Request – Beneficiary Bank – Request for Credit Processing

This section contains the following topics:

- | [Section 2.4.1, "ReqPay Credit – API Processing"](#)
- | [Section 2.4.2, "ReqPay Credit Inbound Payments Processing"](#)
- [Section 2.4.3, "ReqPay Credit Inbound Payment View"](#)

### 2.4.1 | ReqPay Credit – API Processing

- System processes the incoming request for credit API 'ReqPay Credit'. This API has the Payer VPA, Payer Account, Payer Bank IFSC Code, Transaction Amount, Instruction Date, Payee VPA, Payee Account, Payee Bank IFSC code as input.
- System generates an acknowledgement message as below:
- `<upi:Ack xmlns:upi="" api="" reqMsgId="" err="" ts=""/>`
- The response API returns the transaction status confirmation (success / fail).
  - API Name: ReqPay
  - Transaction Type:Credit

API Name	Request Input to OBPM	Request from OBPM
----------	-----------------------	-------------------

ReqPay RespPay	Timestamp Request Message ID Remarks (Note) Type Payer VPA Payer Name Payer Mobile Number Payer Account Number Account Type Payer Branch IFSC Transfer Amount Transfer Currency 'INR' Remarks Payee VPA Payee Name Payee Account Number Account Type Payee Branch IFSC	Timestamp Response Message ID Remarks (Note) Type (Inbound Transaction) Original Request Message ID Result Error Code Payer VPA Transfer Amount Transfer Currency 'INR' ApprovalRef (echo) Payer Account Number Response Code (echo) Payee VPA Transfer Amount Transfer Currency 'INR' ApprovalRef (last 6-digit of UPI reference number, as received) Payee Account Number Response Code
-------------------	---	---

ReqPay Credit Inbound Payments Transaction Processing

#### 2.4.1.1 Transaction Type Derivation:

- System parses the incoming message and derive the Transaction Type as 'CREDIT' from the XML tag <Txn> type.

System generates an acknowledgement message

#### 2.4.1.2 Transaction Account Branch Derivation:

- System derives the transaction account branch as below:

Payer Branch IFSC	XML Tag
Derive Based on IFSC Code present in XML tag of ReqPay API	<Payee.Ac.Detail> Name 'IFSC'

- Once the above validations and derivations are done, the below mandatory fields checks are done:
  - Network Code: Validated against the static maintenance (PMDNWCOD) available.
  - Host Code: The Host Code linked to the transaction branch is derived from branch parameters (STDCRBRN)
  - Transaction Branch Code: This is a valid branch in core maintenance.

#### 2.4.1.3 Initial Validations:

- The following processing are covered as part of initial validations:
  - Data enrichment - Account / Bank Re-direction, Network character replacement
  - Account/Customer Validations based on core maintenance

- If Account re-direction or bank re-direction is maintained, then the account / bank details are replaced by that values.
- Network character replacement is done for characters not allowed by the network.
- Mandatory Fields / Referential data checks are done based on the details received in the payment request and the values populated by system
  - In case of validation failure for any of the above, transaction is rejected with proper error code.
  - Account Type Restrictions:
    - System validates if the creditor (Payee) account type is allowed for the Network Code as maintained in Account Type Restrictions screen (PJDACSTR) for the outbound payment. After the above step, If the creditor (Payee) account type is found to be '40' i.e. NRE account type, then system will apply Non NRE to NRE payments Check validation.
- Customer / Account Status validations:
  - Customer / Account Status checks is not performed in OBPM. EAC / DDA system performs these checks.

#### **2.4.1.4 Duplicate Check:**

- Based on the duplicate days and fields set, duplicate check for the transaction are done. If the transaction is identified as a duplicate transaction, the transaction is moved to the business override queue.
- The following parameters are available for duplicate check
  - :Payer Account DBTR\_ACC
  - Payee Account CRDTR\_ACC
  - Transaction Amount TFR\_AMT
  - Instruction Date VALUE\_DATE
  - Payer Bank IFSC Code DBTR\_BANK\_CODE
  - UPI Reference Number END\_TO\_END\_ID

#### **2.4.1.5 External Account Check**

- Transaction details are 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 (Response Code '00' is generated).
  - If the EAC status is 'Rejected', 'Interim', 'Pending' then the transaction is rejected and response message generated (Response Code: '<>00')

#### **2.4.1.6 Pricing / Tax**

- Internal pricing / GST tax calculations are performed for the inbound payment, if applicable.

#### **2.4.1.7 Messaging:**

- Every request message (ReqPay) received for 'Pay Request – Credit' is responded (RespPay) with a response message and Time stamp. Message is forwarded to NPCI UPI system. System generates Response Message and it is forwarded to NPCI UPI system.

#### **2.4.1.8 Accounting Handoff**

- Accounting is handed off to the external system.

## 2.4.1.9 Notification

- Notification is generated to the Payee after the credit accounting is successfully posted (Transaction Status 'Processed', Event 'CRLQ'). ReqPay Credit Inbound Payment View

You can view the ReqPay Credit Inbound transactions in this screen.

You can invoke 'ReqPay Credit Inbound Payment View' screen by typing 'PVDIVIEW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

- From this screen, click Enter Query. The Transaction Reference field gets enabled which opens an LOV screen.

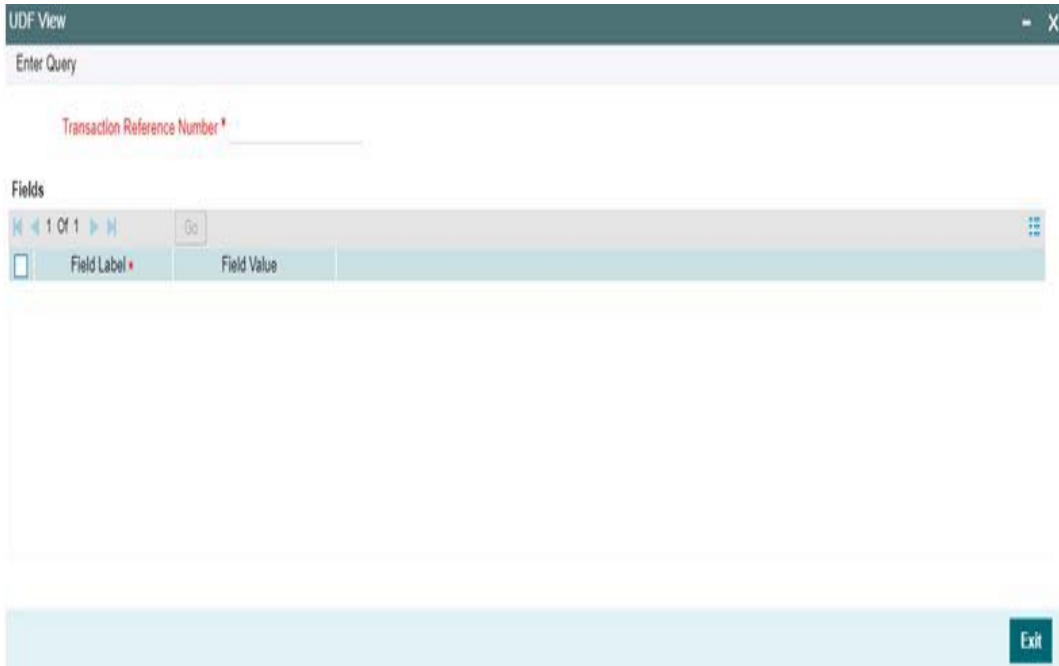
Along with the transaction details, you can also view the details for the following:

- Source code : For transactions received through Rest API services, the source code is populated as received in the request.
- External System Status
- Transaction Status : Click Execute Query to populate the details of the transaction in the Inbound Payments View screen. The system displays all the fields in the below mentioned tabs based on the transaction reference number selected.

For more details on Main, Payment Details and Pricing tabs refer to details above.

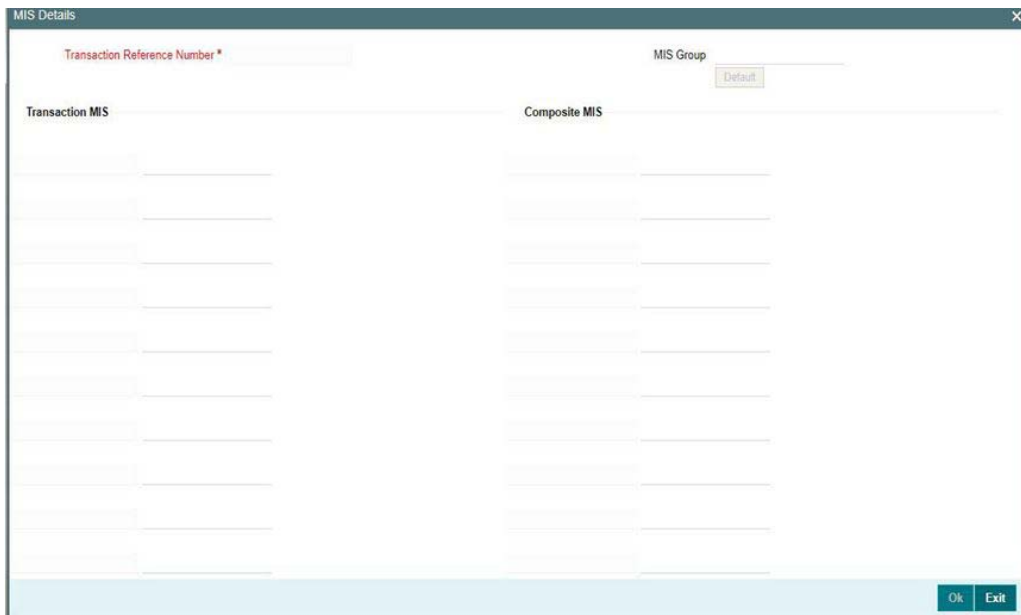
## 2.4.1.10 UDF Tab

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



#### 2.4.1.11 MIS Tab

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



#### 2.4.1.12 All Messages

On click of this button, the below screen is launched to view 'ReqPay Credit' message received from NPCI UPI and RespPay Credit' message sent to NPCI UPI.

### 2.4.1.13 ReqPay Credit Inbound Payments View Summary

The screenshot shows a window titled "All Messages". At the top, it displays "Transaction Reference Number 1904317527250000" and "UPI Reference Number 904314053131". Below this, there are two sections: "Request Messages" and "Response Messages". Each section has a table header with columns: "Message Reference", "Original Request Message ID", "Message Date and Time", and "Acknowledgement Status". Both tables are currently empty. There are "Message" buttons below each table and an "Exit" button at the bottom right of the window.

You can view the summary in 'ReqPay Credit Inbound Transaction View Summary' screen. You can invoke the Inbound Payments Summary screen by typing 'PVSIVIEW' in the field at the top right corner of the Application toolbar and clicking on the adjoining arrow button.

The screenshot shows a window titled "UPI Pay Request for Credit: Inbound Transaction View Summary". It features a search bar with options for "Search", "Advanced Search", "Reset", and "Clear All". Below the search bar, there are several search filters: "Original Request Message ID", "Transaction Reference Number", "Payer VPA", "Transaction Status", "UPI Reference Number", "Instruction Date", "Payee VPA", and "Response Status". Each filter has a search icon. Below the filters, there is a table with columns: "Original Request Message ID", "UPI Reference Number", "Transaction Reference Number", "Instruction Date", "Transaction Amount", "Payer VPA", "Payer Mobile Number", "Payee VPA", "Transaction Status", and "Response Status". The table is currently empty. At the bottom, there is a "View Transaction" button and an "Exit" button.

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

- Transaction Reference
- Original Request Message ID
- Payer VPA
- Payee VPA
- UPI Reference Number
- Instruction Date
- Payer Mobile Number
- Response Status Transaction Status

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

Double click a record or click 'View Transaction' button to view the detailed screen.

## **2.5 UPI Non-Financial API – List of accounts linked to Mobile Number**

This section contains the following topics:

- | [Section 2.5.1, "Request for Account List – API Processing"](#)
- | [Section 2.5.2, "UPI Non-FIN API Request- Inbound Message Browser"](#)
- | [Section 2.5.3, "UPI Non-FIN API Response- Outbound Message Browser"](#)

### **2.5.1 Request for Account List – API Processing**

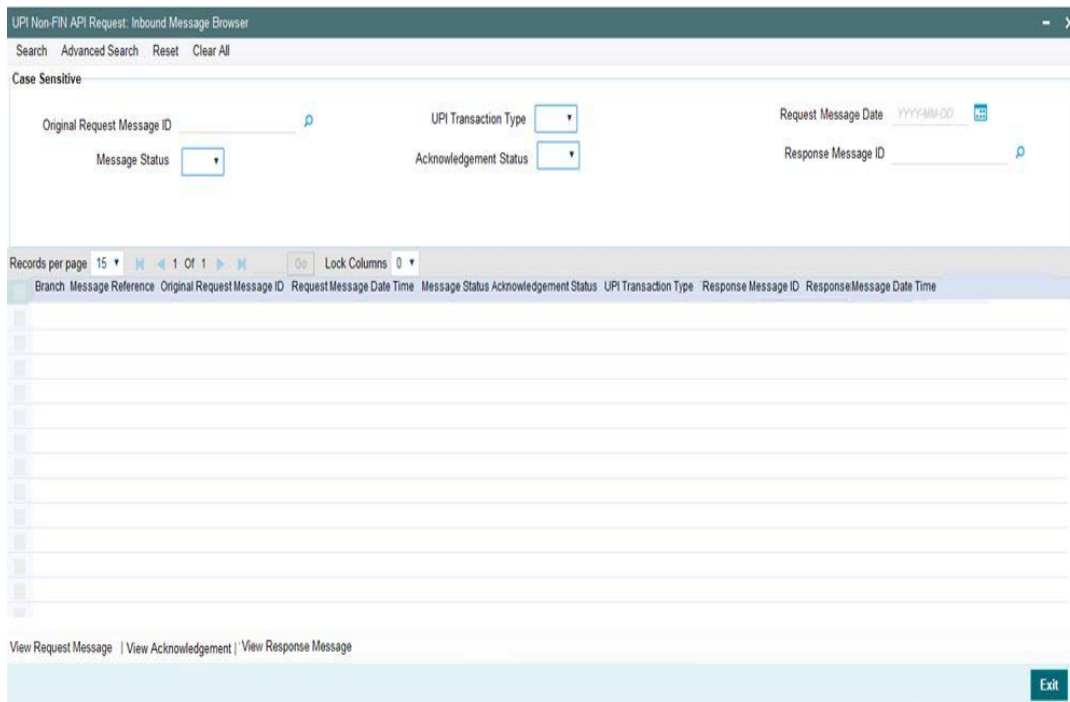
- Incoming request API 'ReqListAccount'. This API has the Bank Name, Customer Mobile Number as input. System generates an acknowledgement message on successful request.
- The response API returns customer account numbers linked to the mobile number along with account type and respective account branch IFSC codes. The account number is masked, except for the last four digits, in the response API 'RespListAccount'

### **2.5.2 UPI Non-FIN API Request- Inbound Message Browser**

A new message browser screen 'UPI Non-FIN API Request - Inbound Message Browser' is available to view the list of accounts request messages and the linked acknowledgment / response messages.

You can invoke the "Non-FIN API Request Inbound Message Browser" screen by typing 'PVSNFBRW' in the field at the top right corner of the application tool bar and clicking on the adjoining arrow button.





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

- Original Request Message ID
- Message Status
- UPI Transaction Type
- Acknowledgement Status
- Request Message Date
- Response Message ID

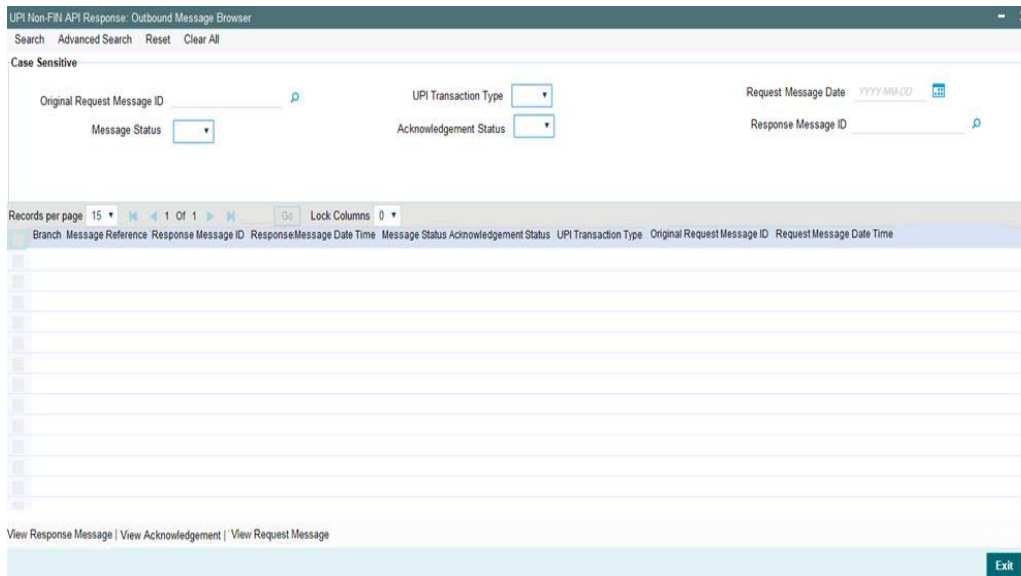
You can view the Request, Acknowledgment and Response Messages as below:

- View Request Message: On click of this button, depending on the UPI transaction type, 'ReqListAccount' message received from NPCI UPI is displayed.
- View Acknowledgement: On click of this button, system the 'ACK / NAK' message sent to NPCI UPI is displayed.
- View Response Message: On click of this button, depending on the UPI transaction type, "RespListAccount" message sent to NPCI UPI is displayed.

### 2.5.3 **UPI Non-FIN API Request- Outbound Message Browser**

A new message browser screen 'UPI Non-FIN API Request - Outbound Message Browser' is available to view the list of accounts response messages sent and the linked request messages/acknowledgment.

You can invoke the "Non-FIN API Request Outbound Message Browser" screen by typing 'PVSNFOUT' in the field at the top right corner of the application tool bar and clicking on the adjoining arrow button.



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

- Original Request Message ID
- Message Status
- UPI Transaction Type
- Acknowledgement Status
- Request Message Date
- Response Message ID

You can view the Response, Acknowledgment and Request Messages as below:

- View Response Message: On click of this button, depending on the UPI transaction type, “RespListAccount” message sent to NPCI UPI is displayed.
- View Acknowledgement: On click of this button, system the ‘ACK / NAK’ message sent to NPCI UPI is displayed.

View Request Message: On click of this button, depending on the UPI transaction type, ‘ReqListAccount’ message received from NPCI UPI is displayed.

## 2.6 UPI Payments Message Browser

- All Incoming Requests – XML received over HTTPS are available in the UPI Payments browser along with the received message with OBPM generated reference, received date, processing status. An ACK / NACK message is generated and sent out immediately.
- After processing the transaction (Outbound Payment, Inbound Payment), response message is generated and populated into a JMS queue. From there, the response XML is sent over HTTPS

This section contains the following topics:

- | [Section 2.6.1, "UPI Pay Request for Debit / Credit: Outbound Message Browser"](#)
- | [Section 2.6.2, "UPI Pay Request for Debit / Credit: Inbound Message Browser"](#)

## 2.6.1 UPI Pay Request for Debit / Credit: Outbound Message Browser

A new message browser screen 'UPI Pay Request for Debit / Credit- Outbound Message Browser' is available to view all the outbound response messages and the linked debit / credit request messages /acknowledgment messages

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

The screenshot shows the 'UPI Pay Request for Debit/Credit: Outbound Message Browser' application window. The window title is 'UPI Pay Request for Debit/Credit: Outbound Message Browser'. It features a search bar with options for 'Search', 'Advanced Search', 'Reset', and 'Clear All'. Below the search bar, there are several search filters: 'Original Request Message ID', 'Message Status', 'Response Message ID', 'UPI Transaction Type', 'Acknowledgement Status', 'Request Message Date' (with a date picker), and 'Transaction Reference Number'. A table below the filters shows search results with columns: 'Branch', 'Message Reference', 'Response Message ID', 'ResponseMessage DateTime', 'Message Status', 'Acknowledgement Status', 'UPI Transaction Type', 'Transaction Reference Number', 'Transaction Amount', 'Original Request Message ID', and 'Request Message DateTime'. The table currently displays one record. At the bottom of the window, there are navigation buttons: 'View Response Message', 'View Request Message', 'View Transaction', and 'View Acknowledgement', along with an 'Exit' button.

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

- Original Request Message ID
- Message Status
- Response Message ID
- UPI Transaction Type
- Acknowledgement Status
- Request Message Date
- Transaction Reference Number

You can view the Response, Request, and Transaction & Acknowledgment Messages as below:

- View Response Message: On click of this button, depending on the UPI transaction type, 'RespPay Debit' or 'RespPay Credit' message sent to NPCI UPI is displayed.
- View Request Message: On click of this button, depending on the UPI transaction type, 'ReqPay Debit' or 'ReqPay Credit' messages received from NPCI UPI is displayed
- View Acknowledgement: On click of this button, system the 'ACK/NAK' message sent to NPCI UPI is displayed.

## **View Transaction:**

On click of this button, depending on the UPI transaction type, the 'UPI Pay Request for Debit Outbound Payment Transaction View' or 'UPI Pay Request for Credit Inbound Payment Transaction View' screens are launched.

### **2.6.2 UPI Pay Request for Debit / Credit: Inbound Message Browser**

A new message browser screen 'UPI Pay Request for Debit / Credit- Inbound Message Browser' is available to view all the inbound Debit request / Credit request messages and the linked acknowledgment / response messages.

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

The screenshot displays the 'UPI Pay Request for Debit/Credit: Inbound Message Browser' application window. The window title is 'UPI Pay Request for Debit/Credit: Inbound Message Browser'. The interface includes a search bar with 'Search', 'Advanced Search', 'Reset', and 'Clear All' options. Below the search bar, there are several search filters: 'Case Sensitive', 'Original Request Message ID', 'Message Status', 'Response Message ID', 'UPI Transaction Type', 'Acknowledgement Status', 'Request Message Date' (with a date picker), and 'Transaction Reference Number'. A table below the filters shows a single record with columns: Branch, Message Reference, Original Request Message ID, Request Message Date Time, Message Status, Acknowledgement Status, UPI Transaction Type, Transaction Reference Number, Transaction Amount, Response Message ID, and Response Message Date Time. At the bottom, there are navigation links: 'View Request Message', 'View Acknowledgement', 'View Transaction', and 'View Response Message', along with an 'Exit' button.

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

- Original Request Message ID
- Message Status
- Response Message ID
- UPI Transaction Type
- Acknowledgement Status
- Request Message Date
- Transaction Reference Number

You can view the Request, Transaction, Acknowledgment and Response Messages as below:

- View Request Message: On click of this button, depending on the UPI transaction type, 'ReqPay Debit' or 'ReqPay Credit' messages received from NPCI UPI is displayed.

- View Acknowledgement: On click of this button, system the 'ACK / NAK' message sent to NPCI UPI is displayed.
- View Transaction: On click of this button, depending on the UPI transaction type, the 'UPI Pay Request for Debit Outbound Payment Transaction View' or 'UPI Pay Request for Credit Inbound Payment Transaction View' screens are launched.
- View Response Message: On click of this button, depending on the UPI transaction type, 'RespPay Debit' or 'RespPay Credit' message received from NPCI UPI is displayed.

---

## 3. Function ID Glossary

### P

PVDBKPRF.....2-7  
PJDACSTR.....2-8  
PMDEXACP.....2-9  
PVDRJMNT.....2-9  
PVDOVIEW.....2-15

PVSOVIEW.....2-18  
PVDIVIEW.....2-23  
PVSIVIEW.....2-26  
PVSINFBRW.....2-27  
PVSINFOUT.....2-28  
PVSOUTBR.....2-30  
PVSINBRW.....2-31