

NPCI/2023-24/BBPS/009

31st August 2023

To,
All BBPOUs
Bharat Bill Payment System

Dear Sir/Madam,

Subject: Introduction of Unified Presentment Management System (UPMS) feature

Bharat Bill Payment System (hereinafter referred to as "BBPS") is pleased to inform the participants about the introduction of a new feature – Unified Presentment Management System (hereinafter referred to as "UPMS").

This feature will enable customers to manage mandates for payments of all recurring bill payments.

Key details below:

- UPMS is a part of the existing BBPS system and is available across all billers & biller categories supported on BBPS.
- UPMS feature is live & APIs are available in sandbox and production environments and partner OUs are expected to integrate the feature into their respective systems with immediate effect.
- Along with UPMS APIs, existing BBPS APIs have been modified to support UPMS feature and these changes need to be implemented by Biller Operating Units (BOUs) and Customer Operating Units (COUs). Details of the API changes are attached in Annexure to this circular.
- The changes need to be implemented by all ecosystem partners as per below timelines:

Entity	Changes required	Target date
Biller Operating Units	Modification to existing APIs	30th September, 2023
	UPMS integration	30th November, 2023
Customer Operating Units	Modification to existing APIs	15th December, 2023
	UPMS integration	

- There is no change to existing category wise commercials with the launch of this feature.
- Key benefits of this feature are included in the Annexure to this circular. You can refer other product details on our website: <https://www.bharatbillpay.com/upms>
- UPMS API specifications available here: <https://www.bharatbillpay.com/library#notified-documents>

We request members to take note of the same and bring the contents of the circular to the notice of the relevant personnel down the line.

Warm Regards,

(Noopur Chaturvedi)
Chief Executive Officer
NPCI Bharat BillPay Ltd.

Enclosure:
Annexure: Key Benefits and details of API specification

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Annexure

Introduction

In our constant endeavour to simplify bill payments in the country, we intend to introduce bill presentment registration & proactive bill fetch/push facility under BBPS, called Unified Presentment Management System (UPMS). Bharat BillPay System (BBPS) through UPMS will enable the customers to setup standing instructions on their recurring bill payments and such bills will be automatically fetched (or pushed) from the biller system and presented to the customers for autopay or view-and-pay.

Key Benefits

1. A centralized mandate management system makes the recurring bill payment ecosystem efficient by handling the auto fetches across all billers & real time presentments across all COUs centrally.
2. UPMS system is payment mode agnostic & thus gives flexibility to customer to set payment mandate of his choice.
3. Ensures customer does not miss any payment by smart handling of auto pay & view-and-pay mode of presentment that removes any amount limit on the mandates.
4. Highly configurable system to support all types of billers and their requirements
5. This system provides uniform mandate management experience across all Customer Operating Units & Agent Institution Platforms

Modification to Existing APIs

With the launch of UPMS, we have added new tags to existing BBPS APIs. The purpose of this annexure is to share the details and API Specifications with the changes made to existing BBPS APIs to support UPMS.

Modifications are made to the following APIs:

1. Bill Fetch
2. Bill Payment
3. Transaction Status 402
4. Biller MDM API

API Specifications

Bill Fetch, Bill Payment, Transaction status 402 API Specifications

API Parameters				
Parent	Property/ Element Name	Mandatory (M/O/C)	Data Type	Description
	refid	M	Alphanumeric Fixed Length – 35 digit	Unique identification assigned by the initiating BBPOU to identify the transaction. BOUs to note: In payment API, a new refid will be passed and not the refid passed in fetch request.
	origRefid (For Bill Payment API only)	M*	Alphanumeric Fixed Length – 35 digit	COU will pass the refid value of bill presentment. UPMS will pass the refid value passed in fetch request to BOU. *Mandatory for UPMS transactions
	siTxn	M*	Boolean	Mandatory for UPMS transactions, the value should be "Yes". (For Bill Payment API only)
upms (optional tag for BBPS txns, mandatory for UPMS txns)	txnType	M	Enumerated String	Depending on API, values will be: Fetch API during registration / bill presentment: "PRESENTMENT_REGISTRATION" "BILL_PRESENTMENT" Payment / 402 APIs: "BILL_PAYMENT"
	cprn / bprn	M	Date	Fixed Length – 25 e.g: RYDDDDHHMM00000000XXXXXXXX

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				a.1 fixed Character-R b. Txn date 4 chars -YDDD d. Txn time 4 chars -HHMM e. 8 zeros for future use -00000000 f. Random number - 8 COU will pass cprn to BBPS in payment request BBPS will pass bprn to BOU in fetch / payment request
--	--	--	--	--

XML Sample for BBPS Payment API & Transaction status check 402 API

Changes for UPMS are highlighted in blue.

XML Formatted Request Example – Payment API

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:BillPaymentRequest xmlns:ns2="http://bbps.org/schema">
  <Head ver="1.0" ts="2022-08-01T14:33:14+05:30" origInst="BBCU"
  refid="NAD1LEMEASXCUTHGLGPAWOTP1DG22131433" origRefid="UPMSD861N6THBMQMIRFFLMFS9GY22131424"
  siTxn="Yes"/>
  <Analytics>
    <Tag name="PAYREQUESTSTART" value="2022-08-01T14:33:13+05:30"/>
    <Tag name="PAYREQUESTEND" value="2022-08-01T14:33:13+05:30"/>
  </Analytics>
  <Txn ts="2022-08-01T14:33:13+05:30" type="FORWARD TYPE REQUEST"
  msgId="EMCPBT1HQLIWEZTIVHPPEICOTCJ22131433" txnReferenceId="BK01U5PGA1KF">
    <RiskScores>
      <Score provider="BK01" type="TXNRISK" value="010"/>
      <Score provider="BBPS" type="TXNRISK" value="012"/>
    </RiskScores>
  </Txn>
  <Customer mobile="70XXXXX100">
    <Tag name="EMAIL" value="test@rssoftware.co.in"/>
  </Customer>
  <Agent id="BK01XXXXMBS10793586">
    <Device>
      <Tag name="INITIATING_CHANNEL" value="MOBB"/>
      <Tag name="IP" value="124.170.23.28"/>
      <Tag name="IMEI" value="XXXXXXXX"/>
      <Tag name="OS" value="android"/>
      <Tag name="APP" value="NPCIAPP"/>
    </Device>
  </Agent>
  <BillDetails>
    <Biller id="BPK00000NATKJ"/>
    <CustomerParams>
      <Tag name="Customer_Id" value="01AUG2022SL100100"/>
    </CustomerParams>
  </BillDetails>

```

```

<BillerResponse customerName="Brajesh Kumar" amount="2500" dueDate="2022-07-06" billDate="2022-06-17"
billNumber="Gas17062022" billPeriod="HALFYEARLY"/>
<PaymentMethod quickPay="No" splitPay="No" paymentMode="Debit Card"/>
<Amount>
  <Amt amount="2500" custConvFee="0" currency="356"/>
</Amount>
<Upms txnType="BILL_PAYMENT" bprn="R2213141700000000EFVNSZWB"/>
</ns2:BillPaymentRequest>

```

XML Formatted Response Example – Payment API

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:BillPaymentResponse xmlns:ns2="http://bbps.org/schema">
  <Head ver="1.0" ts="2022-08-01T14:33:14+05:30" origInst="BBCU"
refId="NAD1LEMEASXCUTHGLGPAWOTP1DG22131433" origRefId="UPMSD861N6THBMQMIRFFLMFS9GY22131424"
siTxn="Yes"/>
  <Reason approvalRefNum="A8183231" responseCode="000" responseReason="Successful"></Reason>
  <Txn ts="2022-08-01T14:33:13+05:30" type="FORWARD TYPE RESPONSE"
msgId="EMCPBT1HQLIWEZTIVHPPEICOTCJ22131433" txnReferencId="BK01U5PGA1KF"/>
  <BillDetails>
    <CustomerParams>
      <Tag name="Customer_Id" value="01AUG2022SL100100"/>
    </CustomerParams>
  </BillDetails>
  <BillerResponse customerName="Brajesh Kumar" amount="2500" dueDate="2022-07-06" custConvFee="0"
billDate="2022-06-17" billNumber="Gas17062022" billPeriod="HALFYEARLY"/>
  <Upms txnType="BILL_PAYMENT" cprn="P221314178R01BK01JTUGRSHR"/>
</ns2:BillPaymentResponse>

```

XML Formatted Request Example – Transaction status 402 API

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:TxnStatusRequest xmlns:ns2="http://bbps.org/schema">
  <Head ts="2022-01-04T15:53:00+05:30" origInst="BBCU" refId="UPMSB535NCIY1LY83XIURI0EDNV20041504"/>
  <Txn ts="2022-01-04T15:46:36+05:30" xchangeld="402"/>
  <TxnStatusReq msgId="TSMCJNJRQBPOGUZXNDNIJGUPO120041546"
txnReferencId="OP012004XXXXXXXXX0001"/>
  <Upms txnType="BILL_PAYMENT" bprn="M13581240OP11OP01YVMOUKD"/>
</ns2:TxnStatusRequest>

```

XML Formatted Response Example – Transaction status 402 API

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:TxnStatusResponse xmlns:ns2="http://bbps.org/schema">
  <Head ver="1.0" ts="2022-01-04T15:53:01+05:30" origInst="OP22"

```

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```

refId="UPMSB535NCIY1LY83XIURIQEDNV20041504"/>
<Reason approvalRefNum="AB12345001" responseCode="000" responseReason="Successful"/>
<Txn ts="2022-01-04T15:46:36+05:30" type="FORWARD TYPE RESPONSE"
msgId="TSMCJNJRQBPOGUZXNDNIJGUPO120041546" txnReferencId="OP012004XXXXXXXXX0001"/>
<BillDetails>
<CustomerParams>
<Tag name="Customer Reference Field1" value="20211217C001"/>
</CustomerParams>
</BillDetails>
<BillerResponse customerName="ManojChekuri" amount="20000" dueDate="2021-11-30" custConvFee="0"
billDate="2021-10-01" billNumber="12345001" billPeriod="MONTHLY"/>
<Upms txnType="BILL_PAYMENT" bprn="M13581240OP11OP01YYVMOUKD"/>
</ns2:TxnStatusResponse>

```

Biller MDM API

There are new optional tags added to the Biller MDM Request and Response APIs, which would help identify the billers that enabled on UPMS. These changes are implemented for both version 1.0 and version 2.0 of Biller MDM APIs (OUs can implement the same in the version used by them currently)

URL: POST /BillerFetchRequest/1.0/urn:referenceId:{referenceId}
URL: POST /BillerFetchRequest/2.0/urn:referenceId:{referenceId}

Request Parameters			
Parent	Mandatory (M/O/C)	Data Type	Description
SearchByFeature	O	Enumerated String	Filter and return data for only those billers that support the features listed. The field accepts multiple commas separated values. List of Values: Upms Clickpay

Response Parameters			
Parent	Mandatory (M/O/C)	Data Type	Description
upmsEnabled	O	Boolean	This flag indicates whether the biller is enabled for UPMS. All records for UPMS enabled billers will mandatorily have this flag, for other biller records, it is an Optional Tag.
upmsBillerType	O	Enumerated String	This flag indicates the registration override rule for billers, which determines how many registrations are allowed for a unique customer param List of Values: SINGLE – Only one registration across all COUs MULTIPLE – Multiple registrations allowed, but only one for each COU SPECIAL – Multiple registrations allowed across and from each COU
upmsbillerParams	O	Name-Value Pair	This is an optional tag to pass biller specific parameters required at time of registration

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XML Sample for Biller MDM API
Biller MDM Fetch Request Sample (v2.0 with Pagination)

```
<?xml version="1.0" encoding="UTF-8" ?>
<ns2:BillerFetchRequest xmlns:ns2="http://bbps.org/schema">
  <Head ver="1.0" ts="2022-07-18T15:13:50+05:30" origInst="AK01" refId="UNLZFBELKABPUKR1DZHRF1ZUVGM21991513"/>
  <SearchByFeature> Upms </SearchByFeature>
  <Paging>
    <limit> 12 </limit>
  </Paging>
</ns2:BillerFetchRequest>
```

Biller MDM Fetch Response Sample (v1.0 w/o Pagination)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:BillerFetchResponse xmlns:ns2="http://bbps.org/schema">
  <Head ver="1.0" ts="2022-11-03T19:09:03+05:30" origInst="BBCU"
  refId="KURFOUVIGF0RGEF3HTHU4OHXTJVZBA7ENOW"/>
  <biller>
    <billerId>DUMM00000NATTY</billerId>
    <billerName>dummy</billerName>
    <billerAliasName>dummy</billerAliasName>
    <billerCategoryName>Broadband Postpaid</billerCategoryName>
    <billerMode>OFFLINEA</billerMode>
    <billerResponseType>SINGLE</billerResponseType>
    <billerAcceptsAdhoc>>false</billerAcceptsAdhoc>
    <parentBiller>>false</parentBiller>
    <billerOwnerShp>PSU</billerOwnerShp>
    <billerCoverage>IND</billerCoverage>
    <fetchRequirement>MANDATORY</fetchRequirement>
    <paymentAmountExactness>Exact</paymentAmountExactness>
    <supportBillValidation>NOT_SUPPORTED</supportBillValidation>
    <billerEffctvFrom>2019-11-08</billerEffctvFrom>
    <billerEffctvTo>2019-11-27</billerEffctvTo>
    <billerTempDeactivationStart></billerTempDeactivationStart>
    <billerTempDeactivationEnd></billerTempDeactivationEnd>
    <billerPaymentModes>
      <paymentMode>Internet Banking</paymentMode>
      <minLimit>1</minLimit>
    </billerPaymentModes>
    <billerPaymentModes>
      <paymentMode>Debit Card</paymentMode>
      <minLimit>1</minLimit>
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      <paymentMode>Credit Card</paymentMode>
      <minLimit>1</minLimit>
    </billerPaymentModes>
    <billerPaymentModes>
      <paymentMode>IMPS</paymentMode>
      <minLimit>1</minLimit>
    </billerPaymentModes>
```

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```
<billerPaymentModes>
  <paymentMode>Cash</paymentMode>
  <minLimit>1</minLimit>
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  <minLimit>1</minLimit>
```

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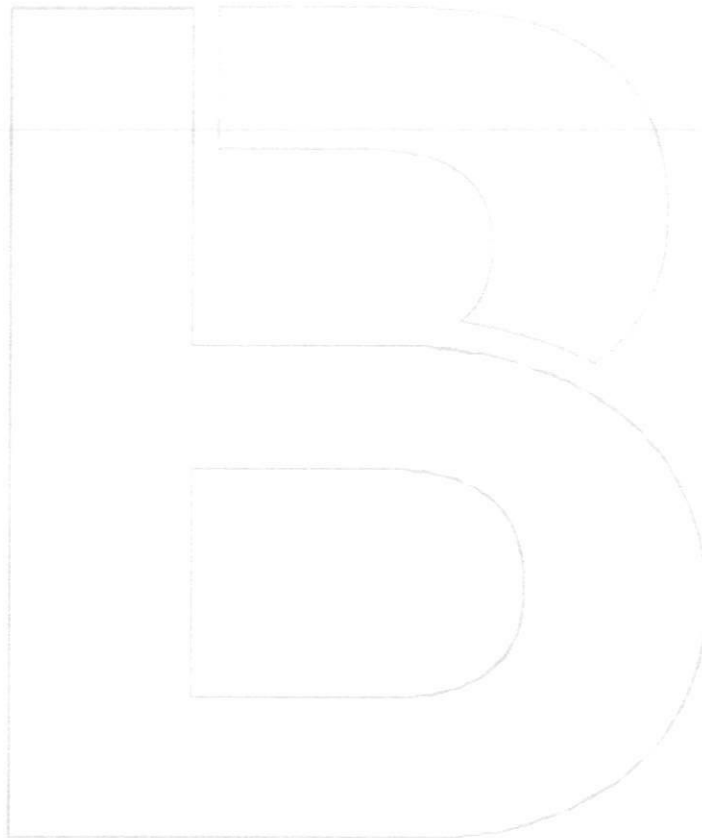
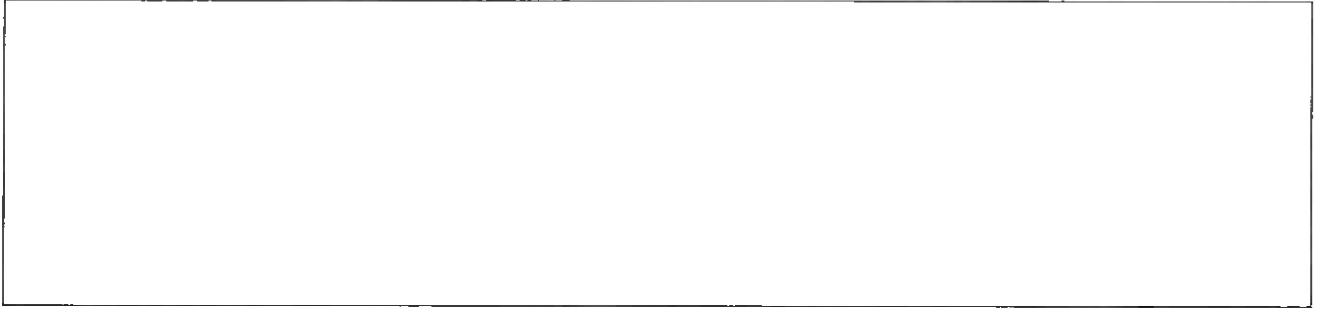
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```
</billerPaymentChannels>
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</billerPaymentChannels>
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  <minLimit>1</minLimit>
</billerPaymentChannels>
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</billerPaymentChannels>
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  <dataType>NUMERIC</dataType>
  <optional>>false</optional>
  <visibility>>true</visibility>
</billerCustomerParams>
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  <paramName>BBB</paramName>
  <dataType>NUMERIC</dataType>
  <optional>>true</optional>
  <visibility>>true</visibility>
</billerCustomerParams>
<customerParamGroups/>
<billerResponseParams>
  <amountOptions>
    <amountBreakupSet>BASE_BILL_AMOUNT</amountBreakupSet>
  </amountOptions>
</billerResponseParams>
<billerPlanResponseParams/>
<Status>ACTIVE</Status>
<supportDeemed>No</supportDeemed>
<supportPendingStatus>No</supportPendingStatus>
<planMdmRequirement>NOT_SUPPORTED</planMdmRequirement>
<upmsEnabled>true</upmsEnabled>
<upmsBillerType>MULTIPLE</upmsBillerType>
<upmsbillerParams>
  <paramName>Vehicle Registration Number (VRN)</paramName>
  <dataType>ALPHANUMERIC</dataType>
  <optional>>false</optional>
  <minLength>5</minLength>
  <maxLength>30</maxLength>
  <visibility>true</visibility>
</upmsbillerParams>
<clickpayEnabled>true</clickpayEnabled>
<clickpayValue>L3PL</clickpayValue>
</biller>
</ns2:BillerFetchResponse>
```

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