

Circular: NPCI/2021-22/BBPS/006

22nd June 2021

To,
All BBPOUs
Bharat Bill Payment System

Dear Sir/Madam,

Bharat BillPay PayLink Implementation Guidelines

Introduction: Currently in BBPS, customers enter bill details in the COU (Customer Operating Unit)/AI (Agent Institution) platform to fetch the bill details and complete the bill payment.

In order to make bill payments more convenient for the customers, we are glad to launch a new feature in BBPS called Bharat BillPay PayLink. Instead of entering the details in a COU/AI App, customers in the proposed PayLink flow can be guided to click on a link (URL) sent to them by the billers and complete the bill payment.

Such a feature will make the bill payment journey more intuitive and seamless for the customers by reducing the number of clicks required and by eliminating the need to type in any detail. Also, different use cases have been envisaged which will help BBPS ecosystem to grow into many new categories of merchants/billers.

Expected user experience: The expected user journey is as follows:

- i. Biller sends the Bharat BillPay PayLink to the customers through SMS/email/WhatsApp/others
- ii. Customers click on the link and a list of all the Bharat BillPay enabled COU/AI Apps installed (and enabled for PayLinks) on their mobile device is prompted
- iii. Customers select one of the COU/AI Apps and the App pre-populates all the bill details, due amount etc. as fetched from the PayLink. Please note that the COU/AI systems do not need to invoke the fetch API as all the details, required to complete the bill payment, are present in the PayLink URL only.
- iv. Customers verify the details as shown on the App and initiate the payment
- v. COU/AI systems debit the customers' payment instrument after customers' authentication and authorization
- vi. COU/AI systems do the payment posting through the BBPS system using the existing APIs
- vii. Bill payment posting result is shown to the customers.

Bharat BillPay PayLink structure: The Bharat BillPay PayLink URL, to be generated by the billers, shall have the following structure:

<https://bharatbillpay.com/pay?<paylink param key>=<paylink param value>>

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The applicable PayLink parameter details are as follows:

Parameter name	Mandatory	Description
bid	Y	Biller id
cpm	Y	Customer parameters in the format of name: value and separated by pipe (' ') in case of multiple. The primary customer parameter value needs to be masked.
cnm	Conditional	Customer name
bnm	Conditional	Bill number
bpr	Conditional	Bill period
bdt	Conditional	Bill date. Format has to be YYYY-MM-DD.
ddt	Conditional	Due date. Late amount (if available) applicable after this date. Format has to be YYYY-MM-DD. If late amount not present, then present the bill amount.
bmt	Y	Bill amount
lmt	N	Bill amount after due date. If due date is not present, then ignore this amount.
rdt	N	Rebate date. Rebated amount applicable till this date (if available). Format has to be YYYY-MM-DD. If rebate amount not present, then present the bill amount.
rmt	N	Bill amount till rebate date. If rebate date is not present, then ignore this amount.
edt	N	Expiry date time. PayLink not valid after this expiry date (if present). Format has to be YYYY-MM-DD.
bai	N	Bill additional info in the format of name: value and separated by pipe (' ') in case of multiple
enc_<masked customer parameter name>	N	The customer parameter which has been provided as masked value, the complete plain value of the same needs to be encrypted using the encryption key provided by BBPS CU and passed on this field.
cid	Y	A unique id for PayLink. Format: YYDDD<unique no>, where YYDDD represents the Julian date followed by minimum 7 to maximum 20 random alphanumeric characters. The unique id should not repeat within 6 months of period.

Example of a sample Bharat BillPay PayLink is:

https://bharatbillpay.com/pay?bid=DUMMYBID&cpm=CUSTOMERID:XX3382636|CUSTPARAM2:RTYE4562009&cnm=Robin%20Hood&bnm=3743P6631&bpr=NOVEMBER&bmt=5000.50&bdt=2020-01-22&ddt=2020-02-22&lmt=5050.50&rmt=4750.50&rdt=2020-01-15&bai=bf1:12345678901234567890|bf2:12345678901234567890&edt=2020-03-22%2015.30.00&enc_CUSTOMERID=04185BEF668F2333C072480B5B746387AA8FC67526B112A9AC75C66A7B78A87F8EDA6CDD4B6FB7BA12F7764C9336192B1F007C4E1F5A2DA52B7F50CC044BA1BEA6C61EC45109D636E163FEE09B07A39496FC70029E8D746A8A25BA1E9575EFBD8953B0445B&cid=202259765409

Please note: The parameters in the PayLink URL need to adhere to the existing configuration (Biller MDM) of the biller in the BBPS system. If the above PayLink needs to be shortened into a short URL then the BBPS provided API should be used. BBPS provided API will shorten the long PayLink URLs into standardized short URLs which will look like `bbps.io/<random string>` (eg. `bbps.io/gH56Tdck`).

Implementation plan: In order to offer Bharat BillPay PayLink to all the customers, we advise the following:

1. To COUs/AIs:
 - a. Implement the expected customer journey in their Android/iOS mobile Apps
 - b. Configure their mobile apps to respond to the above mentioned PayLink URL pattern
 - c. Implement the required BBPS API changes
2. To BOUs
 - a. Guide the billers to generate the PayLink URL in the above mentioned structure and to share the PayLinks with the customers along with their pending bill or other appropriate communications
 - b. Implement the required BBPS API changes

The required API changes from BBPCU end are already available in the Sandbox and live environments. The encryption key to be used by the billers, for encrypting the primary customer parameter, will be provided on request. The Bharat BillPay PayLink Specification document which provides further details regarding the PayLink implementation has been provided as attachment accompanying this circular.

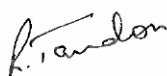
In order to take the PayLink feature to the customers, we advise the ecosystem to adhere to following timelines:

Timelines	Action
31 st August, 2021	COUs/AIs to complete the implementation in their mobile apps
30 th September, 2021	Billers to start sharing the Bharat BillPay PayLinks with the customers

In case if you are having any further queries in this regard, request you to please reach out to below designated representatives:

Level 1	Your relationship manager	
Level 2	Vivek Khairnar	vivek.khairnar@npci.org.in
Level 3	Subhradeep Bhattacharya	subhradeep.b@npci.org.in

Yours sincerely,

A handwritten signature in black ink, appearing to read 'R. Tandon'.

(Rahul Tandon)
Head Product & Market Development
Bharat Bill Payment System,
NPCI Bharat BillPay Ltd.