Make instant small value payments at lightning speed
Contents

Background .............................................................................................................3

Introduction to UPI LITE.......................................................................................4

Using the UPI LITE service - Customer journey..................................................5

Business uses.........................................................................................................7

Business benefits..................................................................................................8

Participants in the UPI LITE ecosystem...............................................................9

Roles and Responsibilities....................................................................................9

Use cases...............................................................................................................10
1. Background

UPI has been successful in leveraging smartphones to support financial inclusion. Its interoperable platform has gained wide acceptance across Third Party Apps (TPAPs), Bank Apps, merchants and aggregators through the PSP banks.

Based on current data analysis and projections, it is estimated that about 60% of future digital payment transactions will be below INR 200. This dovetails into UPI objective of migrating low value cash transactions on to the digital ecosystem.

To accommodate this scaling-up in low value transactions and reduce the load on bank infrastructure, UPI LITE solution is created to process low value transactions having limit of INR 200 without UPI Pin.

The solution would be required to efficiently support the future goal of a billion-a-day transactions in the UPI environment while reducing critical load on Core Banking System (CBS), and enabling a better customer experience.
2. Introduction

**UPI LITE- On Device Wallet for small value transactions**

UPI LITE is a payment solution that leverages the trusted NPCI Common Library (CL) application to process low value transactions that have been set at below Rs. 200. The solution runs off existing UPI ecosystem protocols for mobile phones to ensure commonality, compliance and system acceptance. The UPI LITE experience is intended to be a customer-friendly approach to enabling low value transactions without utilizing a bank’s core banking systems in real-time, while providing adequate risk mitigation.

UPI LITE is intended to be customer-friendly and enable low value transactions without utilizing a bank’s core banking systems in real-time, while providing adequate security.

With the consent of its UPI registered customer, an Issuing bank can create an escrow on the customer’s account up to a set limit. This refillable, ‘stored value’ resides in the common library (CL) of the customer’s UPI app, and can only be utilised for low value payments without leaning into core banking infrastructure.

UPI LITE permits a ‘stored value’ balance limit of Rs. 2,000, which the registered customer can use for single transactions below Rs. 200 each and refill the stored value as necessary from the linked bank account. Replenishment of funds is only permitted in an online mode with additional factor authentication (AFA) or using the UPI AutoPay feature.
UPI LITE offline transactions

UPI LITE enables offline debit for payments but credits have to be made when online. Most UPI merchant transactions use static or dynamic QR codes, which requires the online message to reach the acquirer to complete a payment. UPI LITE will support offline transactions as recommended by RBI for person to person, person to merchant and small merchant (P2P, P2M and P2PM) for Pay, Scan QR, Share QR and Intent based transactions.

Here are key transaction and usage parameters to remember.

![Transaction Limits](image)

Using the UPI LITE service

Creating a UPI LITE account on a mobile

You can download the UPI LITE app from the play /app store.

1. Once you have downloaded the UPI LITE app, you will need to set it up and accept the required terms and conditions for registration.
2. Create an account by selecting your UPI linked bank account and making a first time store value of INR 2000 (maximum limit permitted).
3. Authenticate your transaction by entering your UPI PIN.
4. Once your UPI PIN is verified, your account will be linked and is ready to use.

![Account Setup](image)

Note: The UPI LITE service will not operate on 'jail broken' devices.
Loading money on to your virtual wallet
1. You can load or top up your UPI LITE wallet by accessing the Add Balance function
2. Load the amount of money you want to use. The minimum you can load is Rs. 100 and total stored value should not exceed INR 2,000
3. Enter your UPI PIN to authenticate your transaction.
4. You will receive a Money Added notification on successful verification of your transaction. You will also be able to see the total updated balance you have available.

Disable UPI LITE Account
1. You can delete UPI LITE account by disabling LITE account in the UPI App itself
2. Money will be refunded back to user bank account from the LITE account
3. Option of disabling option will be must there in the App

Scenarios of change of mobile device of user
1. UPI LITE account balance should be treated as cash and can be spent from the App itself
2. LITE account balance will not be transferred in other mobile device if user changes the phone and creates LITE account in new mobile device.
3. Use must disable LITE account from the UPI App in case user is changing the mobile device and does not want to use it for payment
4. If user forgets to disable LITE account and wants his LITE balance back in bank account, user should user the same old mobile phone to disable LITE account from the UPI App
Paying a merchant by scanning a QR code
You can make an instant small payment for goods or services under Rs. 200 by scanning the QR code the merchant provides. You will not need to validate this transaction with a UPI PIN.
1. Open your UPI LITE app and scan the QR code.
2. Put the required amount to be paid to the merchant. Click ‘Pay Now’ to complete the transaction.
3. On successful completion of the transaction, you will get a ‘Payment done’ screen with details of the payment made and the linked bank account it was made from.

![QR code scanning and payment process]

3. Business Uses

What are the business uses of UPI LITE?
Instant low value daily payments
UPI LITE is designed to enable instant, low-value offline payments below INR 200 which form the bulk of retail payments made across India. Customers can use the replenishable balance to make cashless payments for any low value item they need from Kirana stores, pharmacies, restaurants, shops, fuel retail outlets, and more. Moreover, customers will have uncluttered passbook as LITE transactions will not be captured in the passbook.
4. Business Benefits

What are the business benefits of UPI LITE?

For Banks
- Scalable through enhanced transaction capacity
- No real-time load on core banking systems
- Better small payments management
- Functionality in low or intermittent internet availability locations
- Zero delays as it eliminates hops to remitter bank
- Zero business declines due to pre-approved model
- Better customer experiences

For merchants
- Seamless instant payments from customers
- High success rate

For customers
- Round-the-clock availability
- Better small value payment management
- Convenient to track
- Single-click payments
- Spends management with daily limit
- No worry of hiding UPI Pin in crowded place for small value payments
5. Participants

Who are the participants in the UPI LITE ecosystem?

**NPCI**
NPCI is the owner, network operator, service provider, and coordinator of the UPI network and the UPI LITE solution.

**Banks**
Banks approved with mobile banking license and eligible for UPI.

**Bank Account holders / Customers**
Any customer who is on-boarded by a bank with a UPI enabled account and a UPI ID can consent to utilise the UPI LITE services.

**Merchants**
Participating merchants who are on-boarded by their banks to accept UPI enabled payments from customers can also be approved for UPI LITE transactions.

Roles and Responsibilities

**NPCI**
NPCI will provide the Payer App with a CL to host the UPI LITE store value balance and support balance reclaim for any scenario pertaining to life cycle management. NPCI will also enable settlement, dispute management, and transaction batch management with issuers.

**Bank**
It is the bank’s responsibility to create the escrow account and provision for real time fund management, changes to settlement and reconciliation.

**PSP**
It will be the responsibility of the PSP to manage certification test cases as well as follow all the guidelines as specified for the UPI ecosystem.
TPAPs
The authorised TPAP will need to integrate the Common Library protocols CL V 1.8 for LITE enablement and certification test cases. The TPAP will also need to manage transaction orchestration and provide rules to initiate the UPI LITE customer experience.

6. Use Cases

How is the UPI LITE service used?

Grocery shopping
Radha needs to buy a few grocery items. She realizes she doesn’t have enough cash on her, but she remembers that she has a UPI LITE balance of INR 1,000 stored on her mobile. She uses this to pay for the INR 180 worth of purchases she makes at the grocery merchant without worrying for hiding UPI Pin.

Small item purchases
Gagan loves to pick up small toys and treats for his nephew on his way back from work. He often stops at several merchant shops and scans the QR code to pay for small purchases worth under INR 200 each, using the UPI LITE app.