



Procedural Guidelines
RuPay QR code
Version 1.0

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1.1 Introduction

A QR based payment solution represents a new channel of initiating and accepting payments between buyers and sellers (or consumers and merchants) using the mobile phone. This is one technology which may hold the key to expanding electronic payment in millions of small retail merchants who, today, do not have the options to undertake a traditional POS with card swipe EDC terminals. This solution, set up by NPCI, would be capable of digitizing a payment transaction between consumers and merchants by setting up an ecosystem where a Quick Response (QR) code is used as the form factor to represent the payee (merchant) accepting payments.

Such a service typically has two important components:

- a. Payer-side component (consumer / transaction originator)
- b. Payee-side component (merchant / transaction recipient)

1.2 QR code Payment System Model

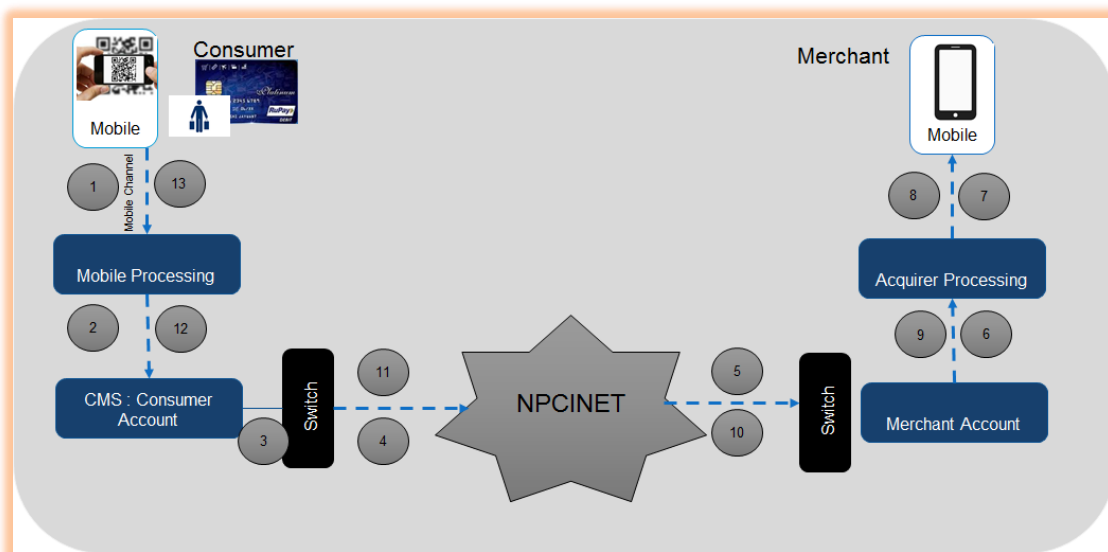
The QR code Payment System consists of the following parties:

- a. **Acquirer** – merchant on-boarding, merchant management and merchant mobile app solutions
- b. **Issuer** – consumer on-boarding and consumer mobile app solutions
- c. **Transaction processing Engine (NPCI)** - end transaction routing engine

1.3 Transaction flow for ONUS

In cases, where issuer member banks have their own switch to process transactions directly to NPCINET, the issuer selects to manage all processing in-house. The following changes may need to be made by the issuer, as reflected in.

- Modify (or create) the mobile user interface to include NPCI QR code solution.
- Connect the mobile banking platform to the existing switch (if not already be in place)
- Make changes in the switch to support NPCI QR code based transaction.
- Put new processes in place to continue using the back office functions of the card system - including the reconciliation and settlement functionality.

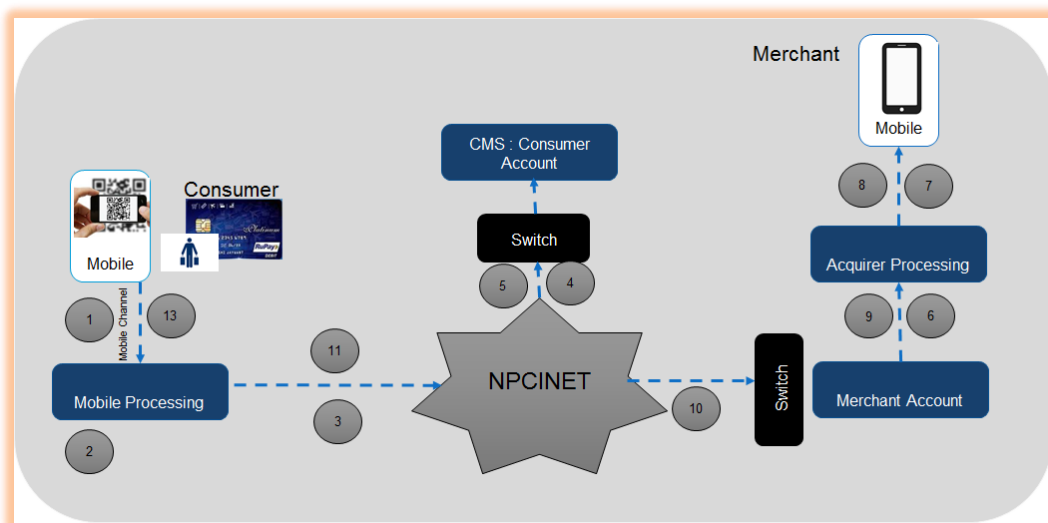


Transactions Steps

- 1) In the merchant payment transaction as shown in figure above, an SMS OCT (0200) is initiated by the issuer when a consumer connects to their account through the mobile device, provides payment instructions and authenticates themselves.
- 2) When providing the payment instruction the consumer captures the NPCI merchant ID from the “Merchant's QR Code”.
- 3) NPCINET then routes the message to the merchant acquirer. The acquirer processes the message, and if successful provides a “Merchant Notification” to the merchant mobile device through either SMS or through In-app notification.
- 4) The acquirer creates a record of merchant payment (and may provide immediate access to funds by the merchant) and the acquirer reverts back with a response message to the issuer over NPCINET.
- 5) The issuer processes the response message and triggers a notification to the consumer mobile.
- 6) Both the consumer and merchant receive confirmation or denial notifications about the transaction.

1.4 Transaction flow for OFFUS

In many cases, issuer member Banks may not have in-house switch to process NPCI transactions and instead there may be a third party gateway processor with NPCINET connectivity to handles the transaction processing. In such cases, the issuer has to modify (or create) the user interface for the mobile device to include NPCI QR Code based solution. The existing in-house mobile banking application handles the other processing requirements as per NPCI specification.



Transactions Steps

- 1) In the merchant payment transaction as shown in figure above, an SMS OCT (0200) is initiated by the third part processor to NPCINET.
- 2) NPCINET then routes the transactions first to issuing Banks switch for consumer account authentication.
- 3) Upon receiving successful validation from the issuing Banks switch, NPCINET then routes the message to the merchant acquirer. The acquirer processes the message, and if successful provides a “Merchant Notification” to the merchant mobile device through either SMS or through In-app notification.
- 4) The acquirer creates a record of merchant payment (and may provide immediate access to funds by the merchant) and the acquirer reverts back with a response message to the issuer over NPCINET.
- 5) The issuer processes the response message and triggers a notification to the consumer mobile.
- 6) Both the consumer and merchant receive confirmation or denial notifications about the transaction.

1.5 RuPay Cards

QR code transaction can be done using RuPay Debit, Credit and Prepaid cards. All the rules and regulation of RuPay with respect to ‘RuPay Bylaws’ will be apply to QR code transaction also.

As per RBI guideline, the member bank should send transactions to RuPay card network based on 'preferred' (RuPay Cards) card selection by consumer.

1.6 Clearing and Settlement

QR code transaction will be treated as SMS transaction in the RGCS system. All QR code successful transactions that have been authorised until the SMS central switch cutover are said to have occurred on the transaction date (T). The clearing and settlement of all such transaction will be effected on the next working day (T+1) at the settlement fund transfer cutover. Members will receive all the Clearing and Settlement reports. Additional, report will be provided detailing the QR code transactions.

Members must comply with the "RuPay Global Clearing and Settlement (RGCS) Manual" for detailed descriptions of clearing and settlement regulations set by RuPay.

1.7 Chargeback and Dispute Management

Dispute resolution process

The issuing & acquiring institution must refer to the chargeback & re-presentment message with the applicable message reason as described in section 14 'Chargeback Message Reason Codes' of the RuPay Dispute Management Rules and Regulations.

Applicable dispute reason codes for QR Code

The issuing institution may raise a chargeback for various reasons. RuPay has categorized the applicable chargeback reason codes for QR Code transactions into 2 different groups as stated below.

a. Goods and Services Related Issues

1. Credit not processed for cancelled or returned goods and services
2. Goods and services not as described or cardholder received defective goods or services
3. Paid by alternate means and card account was also billed for the same transaction
4. Goods or services not provided / not received - Services were not provided or goods not received by cardholder

b. Processing Error Related Issues

1. Transaction Details incorrect -The account number or transaction amount utilized in the transaction was incorrectly entered

2. Duplicate processing

Other dispute reason codes are not applicable to QR Code transactions since transactions are Cardholder initiated. Each transaction is authenticated by user. No Authorization process is involved. Transactions are online accepted by recipients.

1.8 Pricing

Interchange & Fees will be applicable to Issuing & Acquiring Institutions for various services under its membership program for RuPay card scheme. The issuers and acquirers will be charged the assessment fees, transaction processing fees, testing and audit fees and arbitration fees whenever disputes are raised for arbitration. The details regarding the pricing can be obtained from the RuPay Tariff Circular issued from time to time.

1.9 Member On-boarding

All member banks can participate in QR code transactions as Issuer or Acquirer. Participating banks need to submit following document to initiate the certification process.

For Acquiring Bank:

1. Consent letter (Refer Annexure 1)
2. Acquirer on boarding form (Refer Annexure 2)

For Issuing Bank:

1. Consent Letter (Refer Annexure 1)

Following are the steps will be undertaken for Certification process.

1. Upon receipt of documents, NPCI will share Acquirer ID / originator ID, IP and port to Banks for onwards white listing.
2. NPCI team will also share the online and clearing and settlement specifications, test cases, transaction dump for development of systems at Banks/Service provider
3. NPCI team will also engage Bank and service provider with weekly conference con-call to update the project status and to discuss issue if any.
4. Post completion of certification process, signoff document will be sent bank for sign and stamp.
5. On-boarding documents with other documents will be sent to RuPay operation team for on-boarding of Bank in RGCS system.
6. Post completion of on-boarding bank in RGCS module, RuPay Operation team will send mail to technology team for production movement.

7. Post production movement, RuPay Acceptance team will do the test transaction to make sure that transaction is going through.

1.10 RuPay Program Manuals

Members are required to adhere to All the RuPay Program Manuals to ensure no misuse and damage to RuPay brand so as to comply with all the guidelines, instructions, procedures etc. contained therein.

1.11 References and publications

The list of manuals which have been referenced in this document are given as under:

- RuPay Online Switching Interface Specification
- RuPay Global Clearing and Settlement Technical Message Specification
- RuPay Global Clearing and Settlement (RGCS) Manual
- RuPay Product Manual
- RuPay Acquirer Manual
- RuPay Dispute Management Rules and Regulations

1.12 Annexures

Annexure 1 - Acquirer Consent Letter Format

Annexure 2 – Acquirer On- boarding form