



NPCI/IMPS/OC No.16 /2013-14/

June 6, 2013

To,

All Member Banks/Prepaid Payment Instrument Issuers (PPIs) of IMPS

Dear Sir / Madam,

**Immediate Payment Service (IMPS) Merchant Payments – Alternative Flow**

In the current IMPS merchant payments model, the customer is able to do funds transfer to merchant by providing his mobile number, MMID, and OTP through an merchant user interface comprising of web, or IVR, or handheld device. Customer generates **One Time Password (OTP)** using the Bank's Mobile Banking application or SMS / IVR facility. The details of the above solution are provided in the Annexure I.

2. As per the feedback received from various players in the eco-system, a need was felt to simplify the payment process as the OTP generation step is found cumbersome by the user and hence becoming stumbling block in proliferation of pull based merchant payment.

Accordingly, an alternative transaction flow was suggested for low value transactions of ticket size of Rs.5000/ and below wherein the Acquiring Bank will be required capture customer M-PIN instead of OTP, via the IVR call. The detail of the above solution is as provided in Annexure II and has been approved by RBI.

From customer education point of view, this solution is very simple, as there will be standard process irrespective of the customer Bank. Currently, for OTP generation, customer needs to follow the process as defined by the Bank, and that is different for different Banks. Instead of OTP and MMID, we are asking the customer to enter his M-PIN only, this eliminates the requirement for the customer to know his MMID and to generate OTP beforehand, hence making the transaction process easier for the customer.

**Following guidelines shall be applicable for security of M-PIN captured by Acquiring Bank:**

- a. M-PIN shall be captured over IVR call



- b. Two-factor authentication – IVR call shall be made to customer mobile number registered with the Bank. Customer needs to enter M-PIN during IVR call. If the mobile number of the customer is not registered with the Issuing Bank, then the transaction will be declined;
- c. Transaction limit shall be Rs 5,000/- using M-PIN,
- d. For higher transaction limit, customer needs to enter OTP generated through encrypted means,
- e. M-PIN or OTP shall be captured by Acquiring Bank only,
- f. From Acquiring Bank, M-PIN or OTP shall be encrypted with Triple-DES using HSM, based on the same logic as followed by NFS. This shall be decrypted at NPCI HSM, encrypted again at NPCI HSM with Issuing bank key, and decrypted at Issuing bank ( Usage of HSM is preferable but it is not mandatory )
- g. This transaction flow is similar to card-not-present transaction over IVR, hence all relevant security protocols should be employed as they are employed for protection of card data traveling on IVR
- h. Acquiring Bank shall not store M-PIN or OTP captured during IVR call.

We request you to take steps towards implementation of the alternative flow. This solution can be used very effectively for over-the-counter payments between customer and merchant and can help bring many merchants use electronic payments for receiving funds from their customers.

Yours sincerely,

Dilip Asbe  
Chief Technology Officer

Encl: As above.