

# Use eSign to Enable Paperless NACH Mandates

eMudhra is enabling Corporate, Sponsor and Destination Banks to facilitates its customers to conveniently eSign NACH mandates on the go.

**Industry**  
Banking

## Business Matters

The National Payment Corporation of India (NPCI) offers to bank, financial institutions and corporate a web based solution (NACH) to facilitate high volume electronic transactions which are repetitive and periodic in nature. This system facilitates bulk transactions towards collection of payments pertaining to Loans, Investments, Telephone, Electricity, Water, Insurance Premium etc.

## Business Need

Though payment collections and disbursement is electronic but the mandate forms issued by the customers to their corporate or bank is manual. This activity is voluminous in nature, time consuming and high cost involved. And most importantly there is a high rejection rate. There is a need for simplifying the entire process by making it completely paperless and replace ink signatures with Aadhaar eSign and also make processing and verification of emandate completely automated.

## Approach

Deploy a secure and legally valid system which is end-to-end connected. Using this system, the customer should be able to issue emandate that is digitally signed and passed on to destination bank through corporate's bank through an online channel and the same gets validated automatically at the destination bank level.



## Background

NPCI's NACH is a central system aimed to consolidate multiple ECS systems adopted by various banks and provide a central platform that can be used by all banks. Currently, the customer presents mandate with ink signature to corporate and the corporate presents the same to sponsor bank and from sponsor goes to customer's bank i.e destination bank for approval. At the destination bank level, manual verification of the mandate takes place which also includes verification of ink signature vis-à-vis bank records. This is a time consuming process and cost intensive. As per the statistics, approx. 2 million mandates get processed on a monthly basis and there is a high rejection rate of mandates. This is more than 10% mostly due to ink signature mismatches.

## Business Requirement

Requirement of an add-on to NACH system that improves the mandate registration process and the turnaround time. And more importantly it is secure and cost effective.

This paves way to Aadhaar eSign based electronic mandates. Enabling Aadhaar eSign based eMandates through which customer/customer's bank initiates the Aadhaar esigned emandates to the sponsor bank to which the amount needs to be paid or the customer and the corporate move the emandate through the sponsor bank to the destination bank completely online. The destination bank on receipt of emandate should be able to automatically verify and validate eSignature of the customer and other parameters available on emandate. Based on the validation, the destination bank should be able to automatically take the process next stage.

## Technology

Aadhaar based Digital Signature Technology works on the Public Key Infrastructure framework which uses a Cryptographic Key Pair – Private and Public Key along with fool proof user authentication using Aadhaar validation.

Digital signature makes a transaction immutable and legally valid as per IT Act 2000/2008

## Benefits

- **Easy and secure way to digitally sign information anywhere, anytime**
- **Facilitates legally valid signatures** in accordance with the provisions of the Information Technology (IT) Act, 2000.
- **Shorter acceptance cycle or auto acceptance cycle**
- **Cost effective**
- **Making end-to-end process 100% paperless**
- **Respecting privacy** - eSign ensures privacy of the signer by requiring that only the thumbprint (hash) of the document be submitted for signature function instead of the whole document.
- **Secure online service** - The eSign Service is governed by e-authentication guidelines published by Government of India.



## Solution

eMudhra provides one stop shop solution that covers the entire spectrum of Aadhaar eSign based emandates. This includes

- **NACH emandate signing gateway**
- **eMandate Validation engine**

### NACH emandate signing gateway:

eMudhra provides emandate form signing gateway. Any corporate or sponsor bank can route emandate data to this gateway. And the customer uses his/her aadhaar number to eSign the mandate form. The gateway creates digitally signed XML file that adheres to NPCI standards and the same will come has response to the corporate or sponsor bank application.

eMudhra solutions provides a robust, secure and scalable gateway that can be used by both corporate as well as sponsor bank directly.

It provides best in class performance, security and cost effective solution coupled with multi-level data validation facility.

## eMandate verification and validation engine:

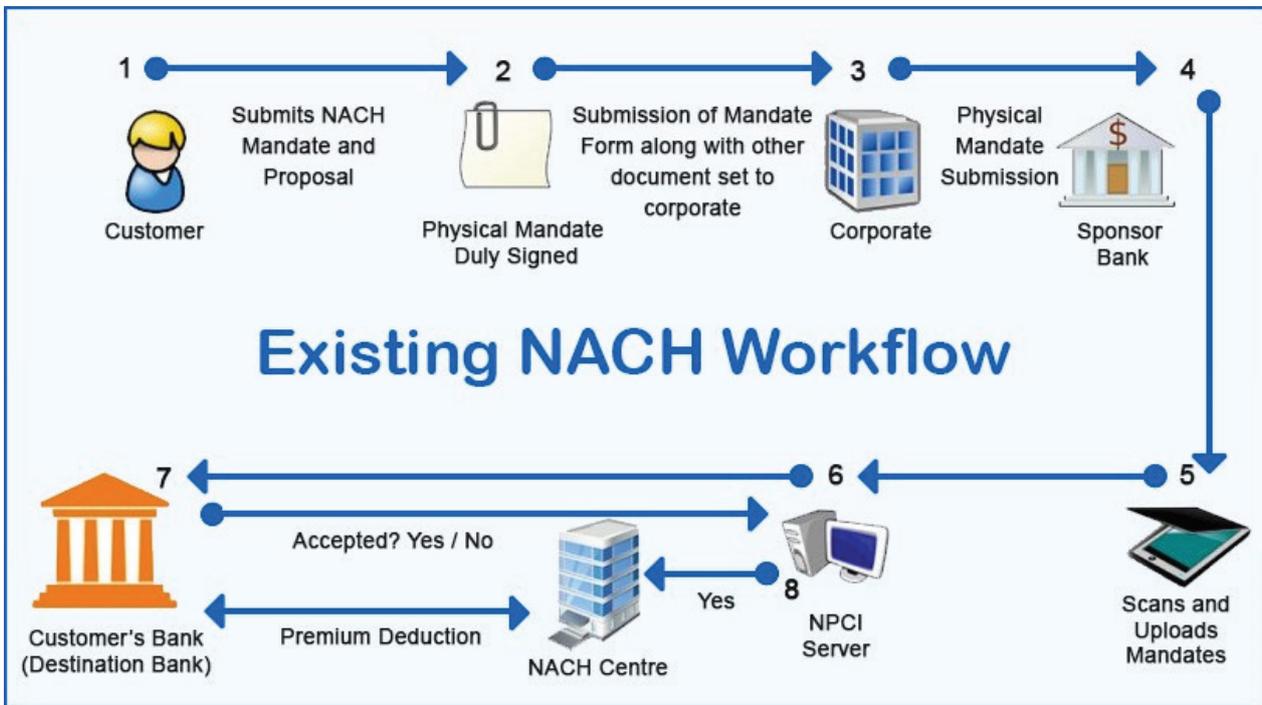
In addition to above, eMudhra also provides emandate validation solution that can be used by destination bank to validate Aadhaar esigned mandates. The solution has the capability of verifying digital signature and digital signature certificate along with verification of Aadhaar no. of the customer vis-à-vis Aadhaar no. seeded at the destination bank level.

The validation and verification of digital signature applied on XML is carried out as per the PKI Standards which include:

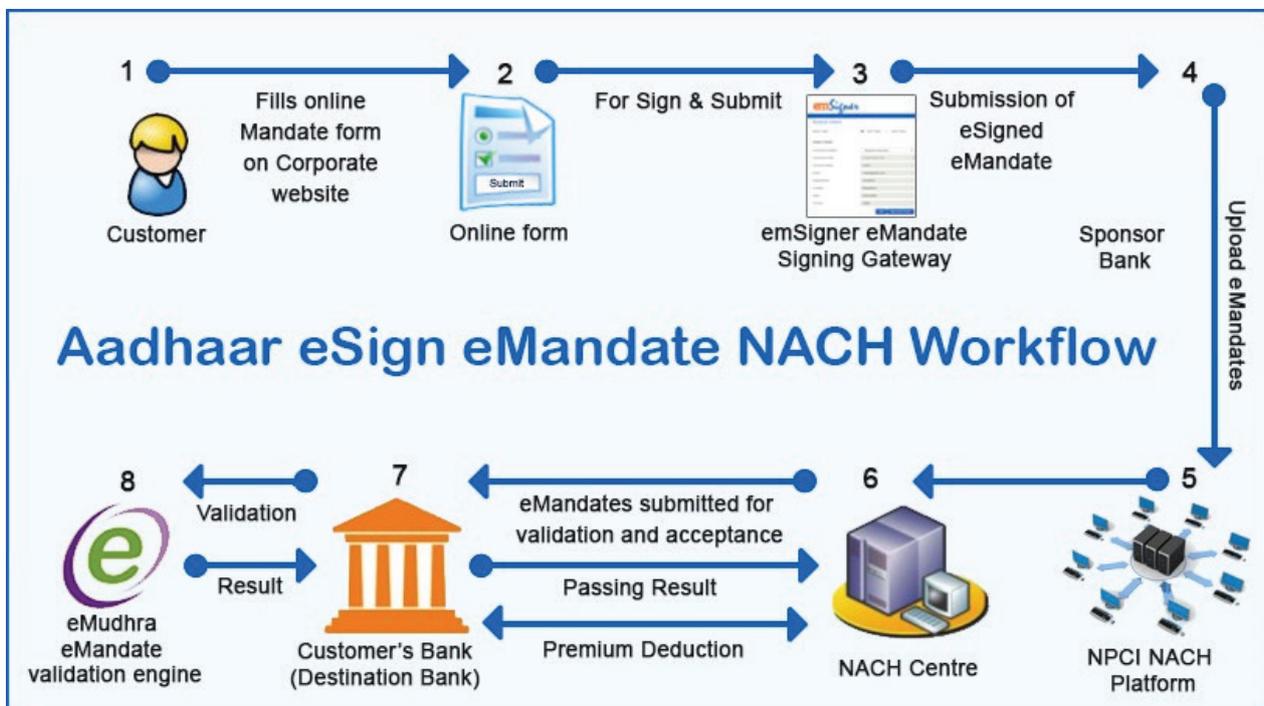
- Digital signature verification for Data tampering
- Signature standard verification
- Digital certificate verification
- Trust store verification

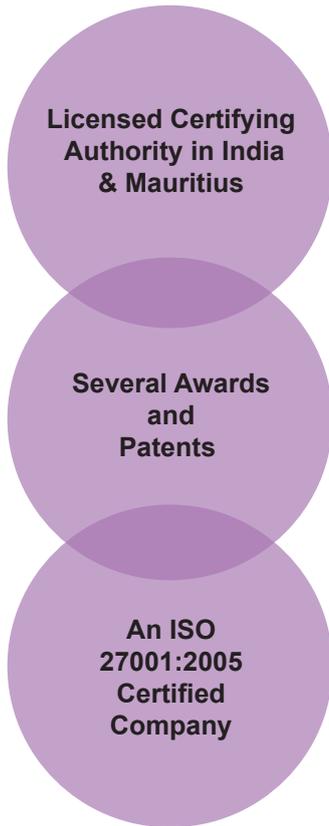
The verification and validation engine also generates acknowledge file as per format recommended by NPCI. The acknowledgement is generated based on the acceptance or rejection of the emandate. In case of rejection, the bank has to select the rejection codes. These rejection codes are defined and published by NPCI.

Existing Flow



Aadhaar eSigned based eMandate Workflow





### About eMudhra

eMudhra is a technology and digital identity and transaction management company providing solutions which ease financial and statutory needs of consumers. eMudhra was established in 2008 and is a Certifying Authority in India and Mauritius to issue Digital Signature Certificates.

eMudhra's current enterprise and consumer solutions include Digital Signature Certificates, emSigner – Paperless Office Solution, emAS – secure multifactor authentication for banks, emCA for Digital Signature issuance and management and Prism – Voice of Customer Analytics using Semantics.

eMudhra is a market leader in India and has worked with large Banks, Financial Services companies and several Government agencies in India to implement Digital Signature based solutions which include secure access and paperless workflows.

eMudhra won the e-Asia award, an award given by AFACT (A United Nations body) for implementing Digital Signatures based on India's National ID – AADHAAR to bridge Digital Divide.