



CASE STUDY

Using eSign to Enable Paperless
NACH Mandates

Using eSign to Enable Paperless NACH Mandates

Facilitates Corporate, sponsor and destination banks' customers to conveniently esign NACH mandates on the go

Industry
Banking

Business Matters

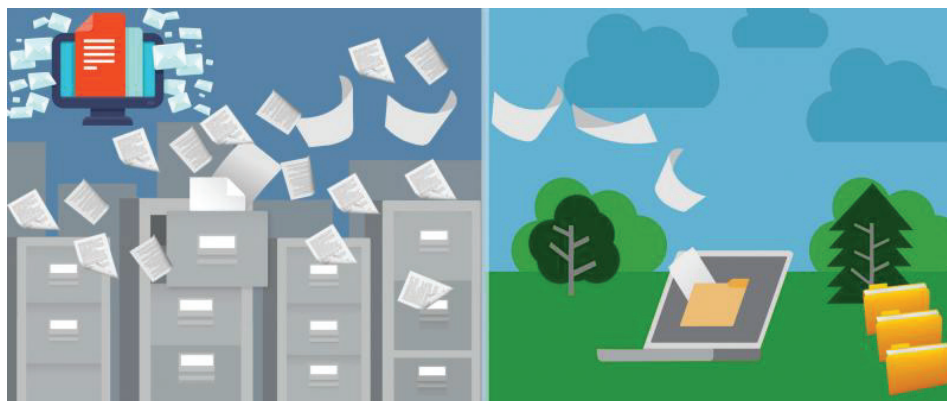
The National Payment Corporation of India (NPCI) offers banks, financial institutions and corporates a web-based solution (NACH) that facilitates high volume electronic transactions that are repetitive and periodic in nature. This system facilitates bulk transactions towards the collection of payments pertaining to loans, investments, telephone, electricity, water, insurance premium among other things.

Business Needs

Though payment collections and disbursements were electronic in nature, the mandate forms issued by the customers to their corporate or bank were largely manual. This activity was voluminous in nature, time-consuming and cost intensive. Most importantly there was a significant rejection rate. Thus, there was a need to simplify the process by making it completely paperless and replace wet signatures with Aadhaar eSign and also make processing and verification of e-Mandate completely automated.

Approach

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



Background

NPCI's NACH is a central system aimed at consolidating multiple ECS systems adopted by various banks and provides a central platform that could be used by all banks. Currently, the customer presents the mandate with an ink signature to corporate and the same is forwarded to the sponsor bank. From there it is diverted to the customer's bank i.e. the 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 and cost-intensive process. As per statistics, approximately 2 million mandates get processed on a monthly basis and there is a high rejection rate (approximately 10%), mostly due to mismatches in ink signatures. Thus a solution was required that would automate the entire process and bring down the mandate rejection rate.

Digital Signature Technology

The Digital Signature Technology works on the Public Key Infrastructure framework which uses a Cryptographic Key Pair – Private and Public Key for secure access and transmission of Information. Digital Signatures are generated by the issuer for the client in a secure device.

Digital Signatures provide the following benefits:

- a) Non- Repudiation
- b) Integrity
- c) Authentication
- d) Privacy & Confidentiality



Solution

eMudhra solution covers the entire spectrum of Aadhaar eSign based e-Mandates.

This includes:

- *NACH e-Mandate Signing Gateway*
- *e-Mandate Validation engine*

NACH e-Mandate Signing Gateway:

eMudhra provides e-Mandate form signing gateway. Any corporate or sponsor bank can route e-Mandate data through this gateway. The customer then 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 as a response to the corporate or sponsor bank application. eMudhra solution provides a robust, secure and scalable gateway that can be used by both corporates as well as sponsor banks directly.

eMandate Verification and Validation Engine:

The solution has the capability of verifying Digital Signatures and Digital Signature Certificates along with verification of the Aadhaar no. of customers vis-à-vis the Aadhaar no. seeded at the destination bank level.

The validation and verification of digital signatures applied on XML are carried out as per 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 an acknowledge file as per the format recommended by NPCI. The acknowledgment is generated based on the acceptance or rejection of the e-Mandate. In case of rejection, the bank has to select the rejection codes. These rejection codes are defined and published by NPCI.

Benefits

The Automobile Company reaped significant benefits by implementing digital signature based workflow signing.

This includes:

- The eSign Service is a secured online service governed by e-authentication guidelines published by The Government of India
- Significant reduction in mandate rejection rates
- Shorter acceptance cycle and auto-acceptance cycle
- Easy and secure way to digitally sign information anywhere, anytime

Existing Flow



Aadhaar eSigned based eMandate Workflow





**10 YEARS
IN DIGITAL IDENTITY
AND TRANSACTION
MANAGEMENT**

**40 MILLION
RETAIL CUSTOMERS**

**400+
ENTERPRISE
CUSTOMERS**

About eMudhra

eMudhra is a global digital identity and leading trust service provider with a focus on Digital Transformation and Cybersecurity initiatives. Through its headquarters in Bangalore, India and offices in Singapore, Dubai and USA, eMudhra works with over 400 large Enterprises including 45 Banks to deploy proprietary solutions for eSignatures, Public Key infrastructure, Predictive Analytics and Blockchain across the globe.

eMudhra is a licensed Certifying Authority under Ministry of Information Technology, India and has issued digital signatures to over 40mn customers in India. eMudhra is a key partner in several Digital India initiatives and is the first eSign service provider. eMudhra also holds the Vice chairmanship of Asia PKI Consortium, Chairmanship of the India PKI Consortium, and is a member of the UN council on Blockchain. At eMudhra, innovation is one of our core principles and our product development efforts are towards building cutting edge IP that can accelerate the world's transition to a secure integrated digital society.