



CASE STUDY

Using eSign to Enable Paperless NACH Mandates

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

Overview

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.

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.

The 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.

Digital Signature Certificates

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

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.

Digital signature verification for data tampering

Benefits to Customers

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

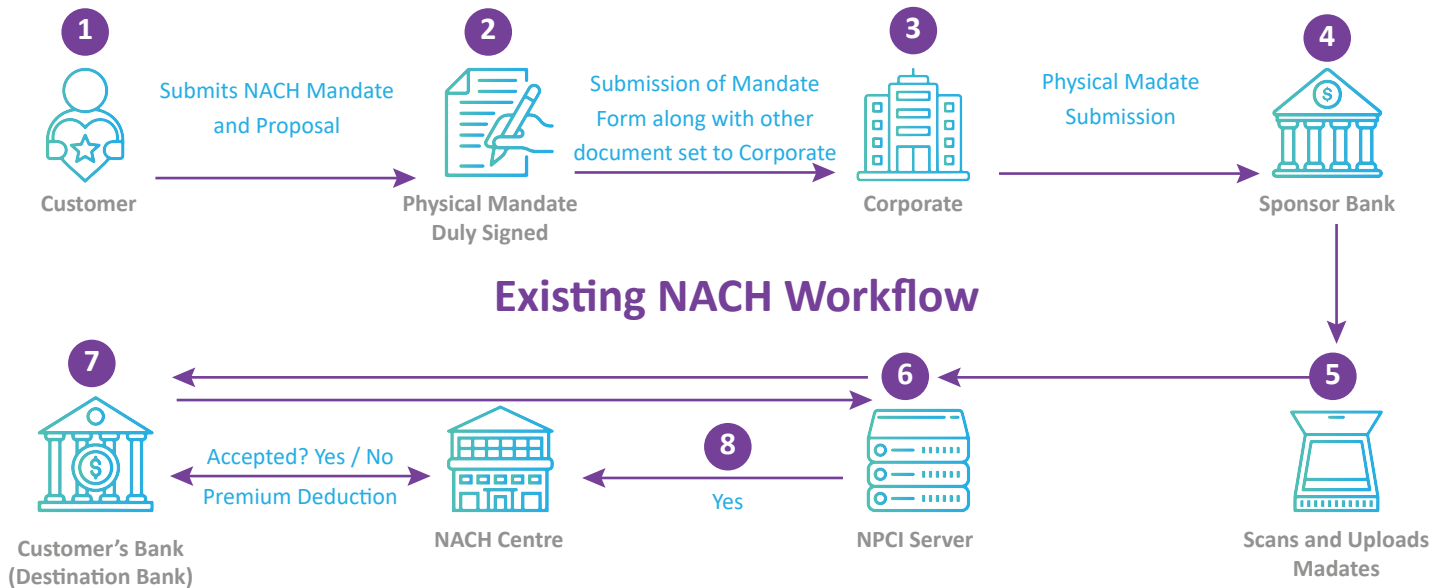
Signature standard verification

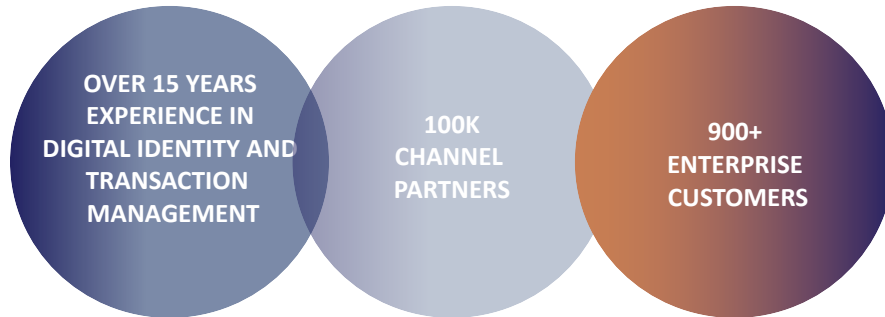
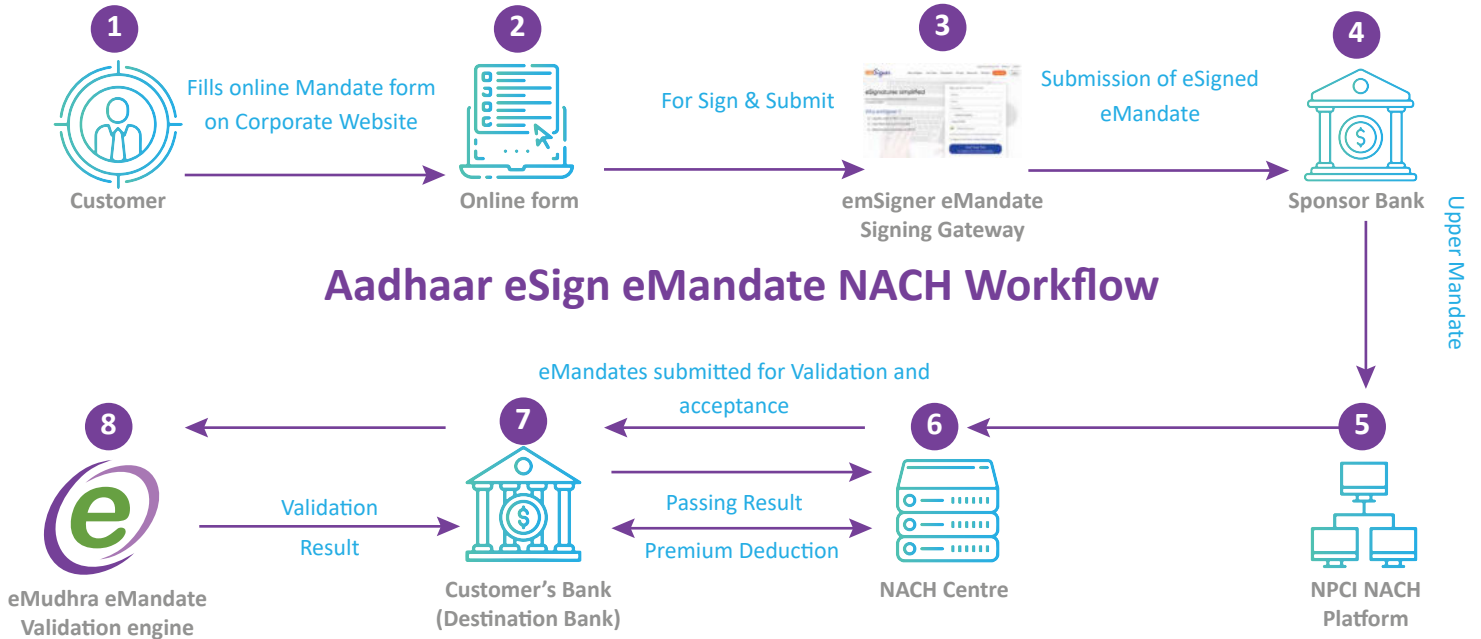
Digital Certificate verification

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.

Solution Architecture





About eMudhra

eMudhra, a global provider of digital identity and cybersecurity solutions, specializes in digital signature certificates, Public Key Infrastructure (PKI) services, and robust authentication protocols. Our impactful presence in India and international presence have allowed us to support governments and enterprises in safeguarding their digital transactions and vital information.

eMudhra offers digital certificates, PKI-based solutions, authentication and identity governance services. With a strong presence in India and a global footprint, eMudhra helps organizations securely manage their digital transactions and protect sensitive information. Being a leading digital identity and cybersecurity solutions provider, eMudhra is now focused on futureproofing cybersecurity using Post Quantum Ready Cryptography and Zero-Trust Identity Governance model.