CASE STUDY

Digital Transformation of Government using e-Signatures

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Using Digital Signatures linked to National ID to transform Government and Business to Citizen Services and go completely Paperless in a cost effective manner

Industry
Government and Business to Citizen Services

e-Governance initiative
The Government of India under the Digital India programme recognized the need to transform India using technology initiatives to ease citizen lives and improve the way of doing business. As part of the Digital India initiative, the Government of India under the Ministry of IT created e-Sign (Digital Signatures linked to Citizen ID - AADHAR) to facilitate ease of signing paper documents to enable large scale digital transformation.

Business Need
The Government of India wanted to bring in quick, effective and transparent process of enabling large scale financial inclusion (Banking, Welfare Schemes, and Insurance) through the use of e-Sign to eliminate the use of paper by linking Digital Signatures to National ID. The aim is to use technology linked innovation to promote ease of doing business in India.

Approach
To have an integrated solution that addresses the following:

- Ensures transparency by linking citizen actions to the KYC data in the National ID
- Should be convenient and easy to use by citizens
- Should be cost effective
- Brings in accountability, quality and authenticity of all the activities carried out.
- Brings a wet signature equivalent on the digital document

Background
Laws and regulations in India much like other developed markets have evolved over more than a hundred years resulting in a lot of paperwork for the common man for several critical and frequent activities like Bank Account Opening, Driving License Application, Application for Welfare Schemes, Passport Application, Telecom Connections, Application to Schools and Colleges). To simplify this, the first step was to create a central Citizen KYC data repository which can be accessed with the citizen's consent.

For this purpose, the UIDAI (Unique Identification Authority of India) was formed and tasked with the rollout of AADHAR (Citizen ID) for the Indian population. Currently, the AADHAR has been rolled out to 1bn Indians.

As part of the AADHAR enrolment, citizens personal data including Name, Address, Phone Number, Email ID and Biometrics/Iris data were collected.

To eliminate paperwork and facilitate ease of doing business both for companies and citizens, amendments to the Information Technology Act were introduced to enable licensed e-Sign Service Providers to issue e-Sign (Digital Signatures linked to AADHAR) which is legally valid.

Under the administration of the Controller of Certifying Authorities, Ministry of IT, Government of India, eMudhra as a licensed Certification Authority became the first e-Sign Service Provider to issue Digital Signatures based on the National ID.

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.

The Public Key Infrastructure framework is prescribed in a model law provided by UNCITRAL (A United Nations body) for International Trade and Commerce

Benefits

Digital Transformation of India resulting in significant benefits* such as:

- Estimated savings of paper for 260mn citizens per year
- Saves cost and time and improves user convenience
- Verifiable signatories and signatures
- Legally recognized and managed by Licensed CAs
- Privacy concerns addressed
- Simple signature verification and short validity certificates
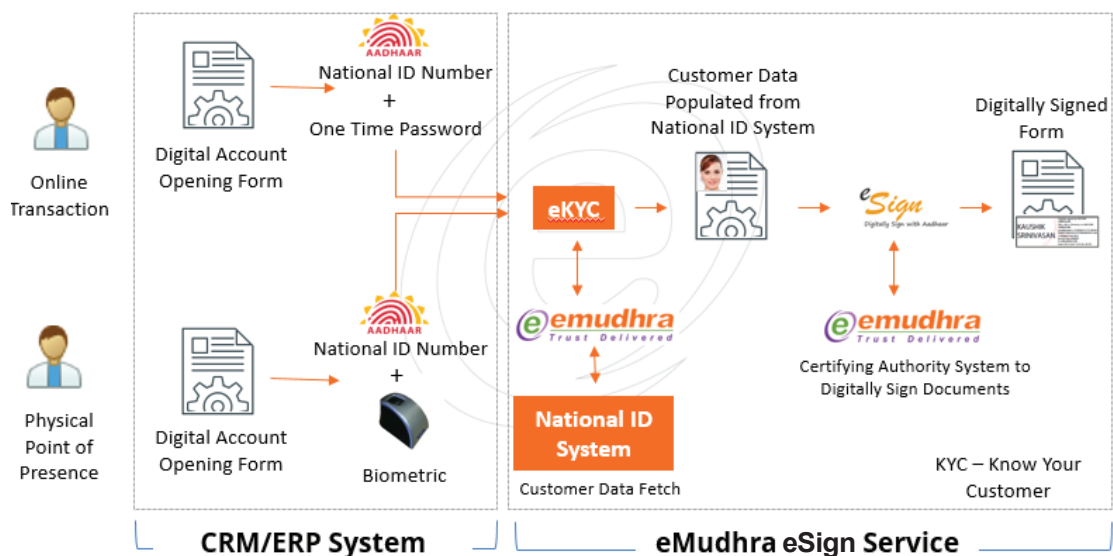- Flexible and easy to implement

Solution

eMudhra as an e-Sign Service Provider allows any Citizen to sign any document using the National ID and a One Time Password or Biometrics . The e-Sign model allows for multiple Application Service Providers (Banks, Insurance Companies, Government Departments) to connect to eMudhra's e-Sign Service to allow their customers to sign documents digitally for Account Opening and other use cases. As part of the process, KYC data is directly retrieved from the National ID thereby eliminating the need for customers to submit physical ID and Address Proof documents.

The pricing for e-Sign is typically transaction based, low cost and does not require expensive infrastructure either for the Application Service Provider or the Customer to get started. It uses the existing infrastructure to enable the Digital Signature ecosystem.

Several Banks, Insurance Companies, Non-Banking Financial Companies, Mutual Funds, Departments providing G2C Services have adopted e-Sign and are already seeing the benefits of lower cost of operations and improved customer experience

e-Sign Workflow

* Source – CCA, India Website - http://www.cca.gov.in/cca/sites/default/files/files/esignbrochure1.5.pdf

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.