

# Paperless Transformation of Telecom Company using emSigner

eMudhra helps Telecom Company go paperless and manage and streamline critical processes with ease

## Industry

Telecom Industry

## Business Matters

A state-owned telecommunication company with a customer base of over 90 million goes completely paperless by using emSigner's workflow and digital signature capabilities to sign nearly 40 lakh bills a month

## Business Need

Manual processing of bills was not only cumbersome but also less secure. A lot of man-hours were wasted in manually mailing monthly bills and verifying payments. Therefore the company wanted to automate its billing process and switch to a more secure, robust and legally valid solution.

## Approach

Deploy an integrated solution to digitally sign and encrypt documents that are legally binding and guarantee the authenticity, integrity, and confidentiality of data.

The company should be able to use emSigner with the capability of having multi-party and real-time signing of documents such as new connection authorization, invoices, service request, monthly bills etc. In a phased manner the organization would integrate all its internal as well as external applications with emSigner to facilitate the signing of documents.



## Background

Paper-based billing was a tedious process for the company. Bills were auto-generated using existing ERP software but had to be printed, signed and mailed individually to customers. Many times there were issues such as bills getting delivered to the wrong address, reaching customers post due date etc. Moreover, a lot of customers were in a habit of paying bill near the due date which led to a huge queue at the payment counter.

The company, therefore, wanted to shift from paper-based billing to digital billing. eMudhra outlined the following key areas where emSigner combined with Digital Signature would significantly improve and streamline the document process of the company

- Telecom Company would be able to sign bills using bulk signing feature. Same would be pushed through existing ERP software
- emSigner would be integrated with the company's existing system such as ERP, CRM, SCM using Web services API's
- The company would be able to encrypt and decrypt customers personal information using eVault service which was not possible in paper-based processes wherein there was a high chance of identity theft
- The company would be able to send payment reminders to customers using ready-to-use templates.

## 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 is generated by the issuer for the client in a secure



### Benefits

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

This includes

- Better visibility and accessibility of documents for customers
- Legal non-repudiation thereby reducing frauds
- Signing and approving documents anywhere, anytime
- Faster turnaround time, increased employees efficiency, productivity and transparency
- Meeting compliance & regulatory requirements
- Online and Offline signing capabilities
- Importing files from multiple clouds and file storage services like Dropbox, Google drive into emSigner
- Tracking real-time status of signature progress happening on documents initiated for signing

### Solution

eMudhra implemented emSigner – Secure Paperless Office solution to enable Digital Signature based approvals for the following workflows

- External flows for Vendor Onboarding and Vendor Payments
- Internal flows between finance and billing department
- Bulk signing of documents for sending monthly bills and payment reminders

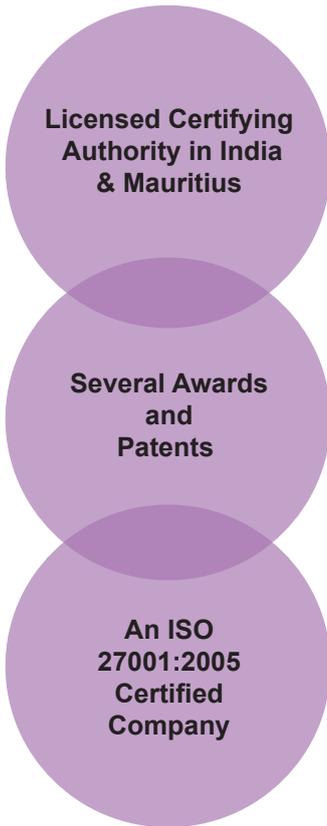
emSigner was integrated with the ERP application over Webservices API for digital signing of documents

Deployment was done on premise which allowed company greater degree of control and customization and allowed the company to retain data on premise for confidentiality purposes

- For individual signing, individual digital signature certificates were issued to Authorized Signatories
- For Bulk Signing, Class 3 Document Signer Certificate was used which gives a higher risk assurance to relying parties for a critical use case such as Invoice Signing
- From a security and risk standpoint, a Hardware Security Module was used to store the Class 3 Document Signer certificate

The paperless office solution uses following broad modules:

- **emSigner**  
On-premise Digital Signature enabled workflow management solution used for defining paperless workflows
- **Hardware Security Module:**  
Protect the cryptographic infrastructure of some of the most security-conscious organizations in the world by securely managing, processing, and storing cryptographic keys inside a hardened, tamper-resistant device
- **Class 3 Document Signer Certificate**  
To sign critical documents such as invoices
- **emAS**  
emMudhra authentication server which was used to automatically validate the signed documents that was received by the organization



### 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 emStream – 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 – AAD-HAAR to bridge Digital Divide.