

CASE STUDY

Paperless Transformation of an
Energy company using emSigner

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eMudhra helps an Energy company go paperless and manage and streamline critical processes with ease

Industry

Energy Industry

Business Matters

An Indian multinational company that caters to almost 30% of India's crude oil demand goes entirely paperless by using emSigner's Digital Signature and Workflow capabilities, for digitally signing invoices, accounts payable, operational purchasing documents, and integrate it with company's existing ERP system.

Business Needs

The company wanted to set up digitally signed documents on operational purchasing, accounts payable, and invoices within their existing ERP system while ensuring data integrity, signer authenticity, and regulatory compliance.

Approach

The company should be able to use emSigner with the capability of having the multi-party and real-time signing of the invoices. In a phased manner, the organization would integrate all its internal as well as external applications with emSigner to facilitate the signing of all other documents.



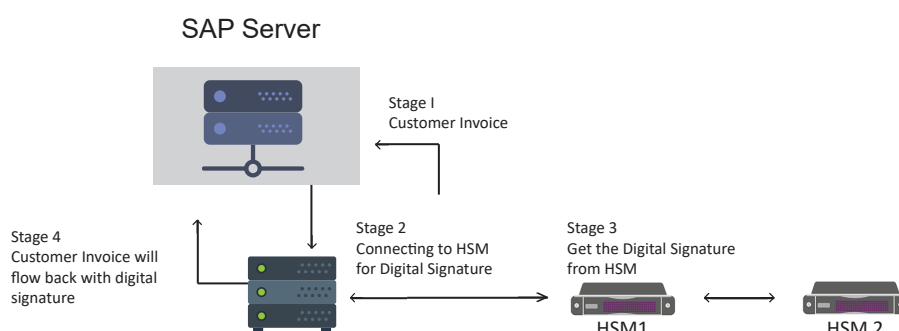
Background

Invoice Details generated during the dispatch of products from various facilities across the supply chain required multiple authorities' signature. Each party across the network had to maintain a physical copy of the same. This was not only time consuming but also error-prone. Moreover, retrieval of physical documents for a company working on such a large scale was an uphill task.

eMudhra outlined the following key areas where emSigner combined with Digital Signature would significantly improve and streamline the documentation process of the company

- emSigner would be integrated with the company's existing ERP system using Web services API's
- Digitally signed documents would be instantly archived and retrieved as and when required. This would prevent manual intervention and misplacement of documents
- Departments/Location Managers would be able to approve requests digitally and track the real-time status of signature progress, that are classified into Signed/Pending/Completed/ Declined. This will lead to accurate compliance reporting

Flow Chart Depicting Proposed Solution



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 device.

Digital Signature provides the following benefits:

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

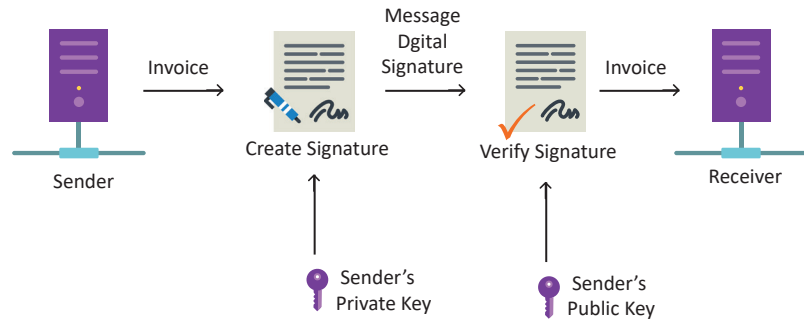
Benefits

The company reaped significant benefits by implementing digital signature-based workflow signing, including:

This includes

- Legal non-repudiation, thereby reducing frauds
- Signing and approving documents anywhere and anytime
- Faster turnaround time, increased employee 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

Digital Signatures are generated by the issuer for the client in a secure device



Solution

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

- External flows between dealers and company
- Internal flows between finance and legal department

emSigner was integrated with the company's existing ERP software over Webservices API for digital signing of documents

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

- 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 depending 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 the 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**
eMudhra authentication server which was used to automatically validate the signed documents that were received by the organization

About eMudhra:

eMudhra is a global entity and leading trust service provider focusing on Digital Transformation and Cybersecurity initiatives. Headquartered in Bengaluru, India, eMudhra has global offices across 5 continents catering to thousands of customers across the globe. 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.

