CASE STUDY

## Global Firm Providing IT Services becomes Truly Paperless

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Paperless office solution helps a major IT firm to streamline internal document flow and reduce turnaround time

Industry
ITES

Business Matters
An Indian multinational company that provides business consulting, information technology and outsourcing services goes completely paperless by using paperless workflows and Digital Signature capabilities for generating, digitally signing, encrypting and delivering documents pertaining to various departments such as HR, finance and legal.
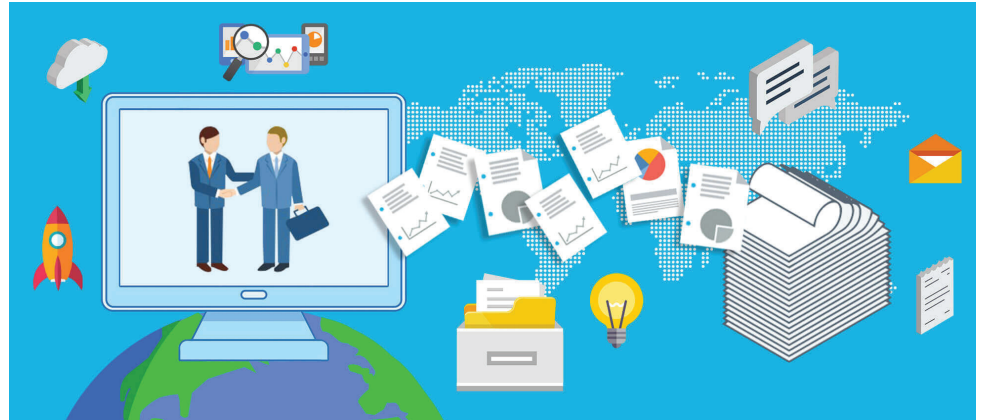
Business Needs
The company employs over one lakh employees in India. Day to day activities such as approvals, service request, claims, contracts etc. created large stacks of paper. Document retrieval required herculean manual effort, time and cost. Thus, the company required a workflow based document signing solution which is automated, efficient and will save the organization's cost and time.

Approach
Integrate paperless solution with the organization's existing ERP solution to digitally sign and encrypt documents that are legally binding and guarantee authenticity, integrity, and confidentiality of data. The company should be able to use the solution with online and offline capabilities to digitally and legally sign multiple documents.

Background
Given the scale at which the company was operating, it was a mammoth task to print, physically sign, scan, mail and retrieve documents. Not only the existing process was time-consuming but it was also error-prone and cost intensive.

A typical workflow involved filling the documents using an existing ERP solution followed by printing multiple copies of the documents for approval and lastly, the documents were scanned and pushed to the concerned department/user.

Few of the challenges faced by the company included:

•Auditing and compliance issue, if physical copies are not secured and maintained properly

•Documents getting misplaced

•Difficulty in monitoring workflow progress

•Ensuring the validity of documents

•High Turnaround time

Following key areas where the paperless solution combined with Digital Signature capabilities would streamline the internal operations of the company:

•The company would be able to improve recruiting workflow by allowing candidates to electronically sign NDAs.

•Internal Departments could easily upload multiple documents without any manual intervention using API/Web Services.

•Departments would be able to approve requests digitally and track the real-time status of the signature process. This would reduce the turnaround time and lead to accurate compliance reporting.

•Documents could be converted into web forms and by assigning web controls to the documents; the internal departments could easily sign and push the documents for subsequent signing.

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.

Benefits

The IT Company reaped significant benefits by implementing Digital Signature based workflow signing.

• Ensure document integrity, confidentiality, and authorship

• Curb the risk of signature forgery

• Eliminate the use of papers and printers

• Centralize storage and management of Digital Signature Certificate in a highly secure environment using HSM appliance

• Fast turnaround time, reduce cost, increase productivity

• Meet compliance & regulatory requirements

Solution

The Secure Paperless Office solution was implemented to enable Digital Signature based approvals for the following workflows:

• External flows between clients and company

• Internal flows between company's departments

• Bulk signing of documents for sending NDAs and offer letters to employees

The solution was integrated with the ERP application over Webservice APIs for digital signing of documents

Deployment was done on premise which allowed the company greater degree of control and customization and also 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 which gave 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 the following broad modules:

• **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

• **Authentication server** to automatically validate the signed documents that was received by the organization

Signer Architecture