

# CASE STUDY

## Protecting Identity Driven Workflows

# Secure Low-risk Identity Driven Process Flows

eMudhra helps leading BPM organizations protect sensitive personal data while easing workflow processes

## Industry

Business Process Management

## Security is Compliance

As society progresses towards a digital age, protection of sensitive data communicated across an organization, from inception of the data point to the point of completion in a workflow, (and even subsequent storage) has become very important!

**NIST SP800-171 regulations** around protecting Controlled Unclassified Information is an important compliance criteria that many organizations processing KYC data are often measured against.

Though there are many elements to ensure compliance with the regulation, security that utilizes cryptographic elements in the authentication of users & ensures integrity of communication and storage of such data which are critical elements to compliance.

## Business Need

Given the tremendous financial and convenience value that stands to be gained from digitizing such processes, BPM companies have an imminent need to secure such digitization initiatives while addressing business elements pertaining to workflows, approvals, signatures, storage, and retrieval in a pocket-friendly fashion to put their customers' mind to rest.



## Business Context

A critical part of digitization lies in addressing people dependencies in otherwise paper-driven processes to efficiently structured paperless workflows that can eventually be automated wherever possible to achieve the greatest levels of efficiency and convenience possible. Conceptually, it sounds great, and sure, to a good extent, this objective has been achieved.

However, history and statistics have identified many flaws in the methodologies used in achieving the end result. **13.4 billion records have been stolen since 2013, of which 9.8 billion records have been breached in the US. Yet, only 4% of breaches were "secure breaches" and the stolen data was rendered useless.** Of these, approximately 64% of breaches were focused at personal identity. (Breach Level Index)

BPM organizations often process tons of personal identity ranging from KYC documents itself (such as driver's license, etc.) to sensitive details across other types of documents, whether it pertains to credit card processing, account opening processing, or any other such process. Needless to say, the risk is exorbitant with liabilities that are not just financial in nature. So it's certainly important to protect the data.

However, we at eMudhra believe that technology should be used to enable greater levels of efficiency while maintaining the highest standards of data security every step of the way.

Our solution stack enables BPM organizations to effectively manage the following:

- Strong authentication of users who access our workflow system
- A robust workflow system with encrypted storage that enables confidential communication using cryptographic keys
- A legally compliant eSignature module falling within the boundaries of the eSign Act, HIPAA compliance criteria, and more
- A smart OCR module that can extract data in bulk and store the same in multiple formats.

Now, you can be one step closer to achieving NIST SP800-171 compliance (The latest NIST standard around protection of CUI)

## Cryptography at its core

The technology stack 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 the NIST regulator standards as the acceptable form of compliance



### Solution

The solution utilizes eMudhra’s emSigner extended framework to capture KYC and other documents in PDF format. The data in these documents can be extracted using emSigner OCR technology which allows for extraction, easy categorization, and storage of data in multiple formats.

Once the PDF file(s) is in the system, the workflow engine can be used to configure robust internal/external workflows where users can approve, invisibly sign or legally sign documents in a sequential or parallel order.

Documents from completed workflows are stored in encrypted form and workflow completion can be configured to trigger auto-events. The entire process is secured in terms of access and encryption using cryptographic keys.

### Components

**emSigner** - Secure eSignature & workflow management application that can sign, encrypt, and decrypt PDF files in addition to workflow features

**emSigner OCR** - Smart OCR technology capable of extracting, indexing, and storing data values in multiple formats

**Hardware Security Module** - FIPS 140-2 level 3 certified physical computing device that safe-guards and manages digital keys for strong authentication and provides crypto processing

**emAS – Multifactor Authentication Engine**

**15 Factors** – emAS supports 15 factors of authentication from OTP to Adaptive ensuring adequate access control and accountability

**LDAP/AD** – Integration with LDAP/AD for easy enrollment and provisioning of users

**PKI Authentication** – emAS supports PKI authentication which comes in handy in ensuring cryptographic security

The solution offers tremendous benefits in a single package:

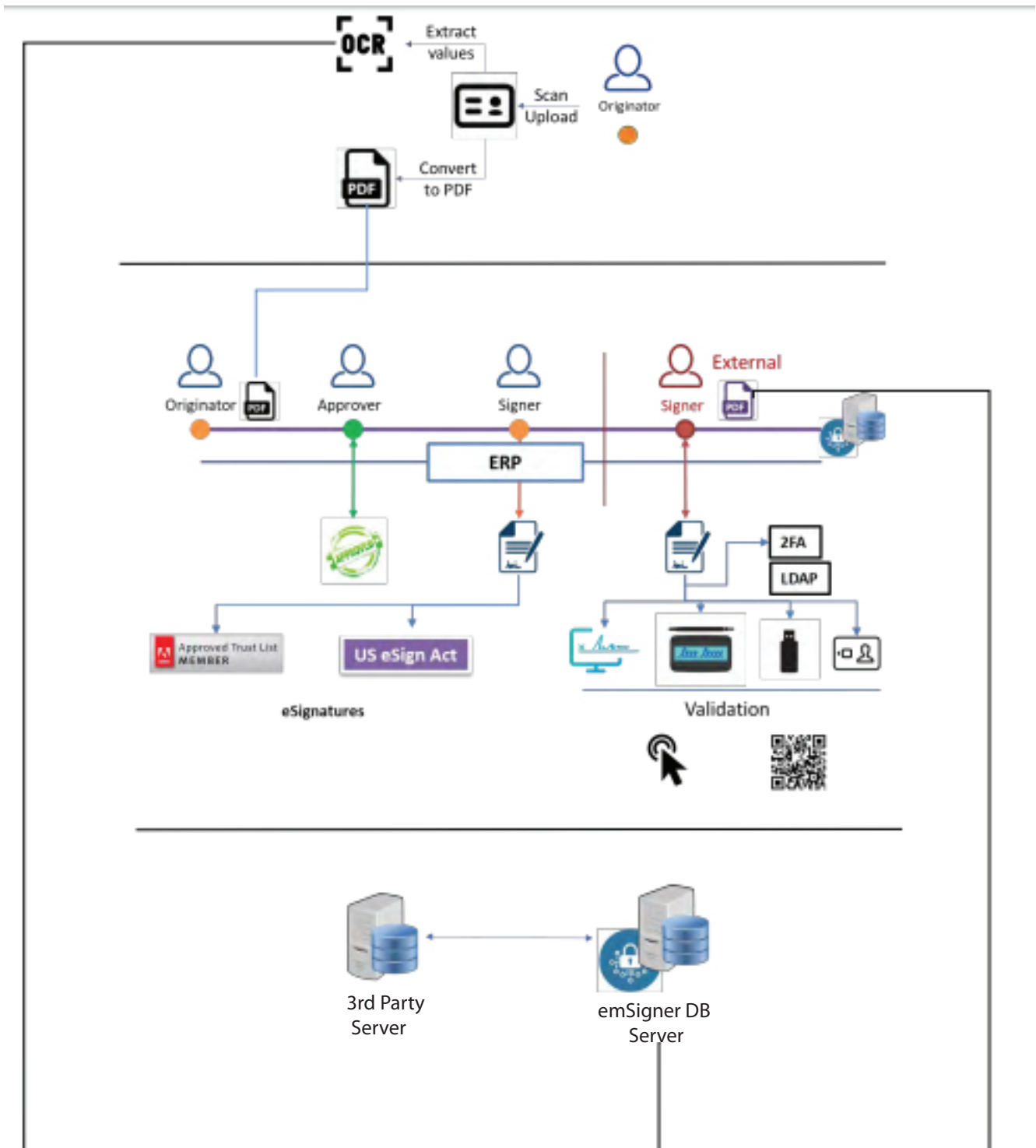
- Cost savings from paperless transformation
- Compliance with specific NIST standards around CUI data protection
- Operational efficiency and quicker TAT
- Some components can empower Robotic Process Automation efficiency
- Highest standards of security around processing 3rd party sensitive data
- All-in-one package can reduce technology maintenance costs

There’s only so much justice a document can do. Call us for more!

eMudhra is a global organization focused on Secure Digital Transformation through effective identity and digital transaction management of documents and identity dependent records of any nature. As an executive member of the Cloud Signature Consortium, a webtrust compliant organization, and chairperson of the Asia PKI Consortium, eMudhra strives to be at the forefront of progress around secure identity management and paperless transformation.

eMudhra focuses its innovation around solutions that help organizations transform digitally in an effective manner, without compromising on security and compliance criteria that are critical in today’s data-driven world. Broadly, the solution stack focuses on Identity management, Cryptography, eSignatures, and Big Data Analytics, which we believe are the four pillars to a successful digital transformation journey.

### HIGH LEVEL SOLUTION DIAGRAM



## 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.



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