emCA | Powered by emudhra Trust Delivered

CASE STUDY

Certifying Authority for Banking and Financial Institutions in India (established by Reserve Bank of India) deploys emCA Certificate Management Suite to manage Digital Trust Certificate Life Cycle

About our Client

This use-case refers to an organisation which is spearheading technology absorption in the banking and financial sector in India. Established by the central bank of the country, Reserve Bank of India (RBI), it works at the intersection of banking and technology. The four major areas of focused research in the institute are financial network and application architecture, payment system and security technology, multimedia and Internet technologies, data mining, data warehousing and banking risk management. Our client is a certifying authority (CA) for the Indian banking and financial sector and its role entails registration, issuance, renewal, suspension and revocation of digital certificates to bank officers, servers and devices.

Quick Facts

200K+

Certificates generated

24x7x365

Service uptime achieved

99.5%

System viability & 7 Second response rates

OVERVIEW

Our client wanted to migrate into a new CA platform to incorporate the latest Identity Verification guidelines issued by the Controller of Certifying Authorities, Ministry of Electronics and IT in India. One of the key requirements included a browser based intuitive dashboard to allow users to remotely generate one-time keys and certificates and deploy them for transactions.

In this endeavour, eMudhra's Certificate Management Solution - emCA was deployed to address the requirements and help achieve certificate generation at scale and in real-time.

CHALLENGE

- Real-time certificate issuance was unavailable
- There was dependency on multiple applications
- Auditing issues due to lack of Integration

There were unexpected delays in expediting certificate issuance to clients due to complexity of manual processes involved in their existing software application. The system was so complex that system admin had to manually run a batch of codes to sign all CSR requests of the last 24 hours and go back after the end of process to download the certificates.

This complexity made approval and creation of urgent certificate requests an uphill task. This was followed up by auditing issues wherein the admin had to traverse through various application modules to fulfill audit requirements based on CCI guidelines.

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APPROACH

eMudhra's emCA team evaluated and started setting up the application to match the needs of our client's customer-base across the country. They required the emCA suite to match the UI of their existing application in use. Our team was able to swiftly address the requirements and migrate without disturbing any critical systems. To negate the possibility of any downtime, emCA was deployed in a phased manner within a record time span of 6 months. Implementation, customization, testing and migration were completed within this span of time and all critical banking applications were able to seamlessly connect with CA led services of our client.

SOLUTION

Using emCA, seamless compliance with the latest identity verification guidelines including video recording and accounting module was achieved to cater for the Audit requirements. emCA proved to be an all in one application with an intuitive user dashboard, which provided the users a brand new experience of a certificate management application, and allowed them to generate certificates and reports in real-time.

THE SOLUTION INCLUDED:

- emCA provided a combination of digital signature certificates, trust service, certificate service and cryptographic time-stamping service.
- A browser-based interface to allow bank-users to securely generate keys and certificates, and remotely deploy digital signatures for online transactions.
- Time-stamped tokens to tag date and time of transactions
- emCA ensured 99.5% viability in the system with response rate of 7 seconds for more than 90% of requests

Value Added to Client

Seamless migration from existing CA system including data and keys without any disturbance to critical systems

Compliance with latest identity verification guidelines to issue certificates and state-of-the-art security specifications in CA operations

Users were provided with a brand new CA application which they could access from multiple environments

CASE STUDY

OUR SERVICES

Leveraging PKI for Secure Digital Transformation

With a vast experience in deploying PKI for a diverse set of business use cases, our consultants help find an agile solution that scales with your evolving requirements. Our suite of products for certificate lifecycle management and discovery is helping enterprises and governments' to setup trust services and certifying authorities and achieve end-to-end IT security while enabling ease of operations.

Solution for Individuals, Organizations both Large & Small

Armed with technical knowledge of our platform, our consultants can help you set-up account access privileges, facilitate platform integration with existing software, and customize as per user adoption and use cases across the spectrum.

We are a Global Trust Service Provider

eMudhra is a pioneer in developing the foundational layer of PKI to fully realize its applications across the industry use-cases. Public certificates issued by eMudhra are trusted by all the major browsers and applications globally. With the latest impetus on securing largescale IoT clusters in energy sector, eMudhra is enabling device manufacturers to seamlessly generate, manage, revoke and renew device encryption certificates using our certificate lifecycle management solution.

KEY MODULES

- Certificate Lifecycle Management
- Timestamping Authority
- Validation Server
- API Gateway
- emBridge
- DSC Enrollment system
- Accounting module

ABOUT EMCA

emCA has been built keeping in mind the specific needs of our customers as public CA. It is a highly scalable CA platform and works seamlessly in high traffic deployment scenarios. Our CA system is robust, agile, and works best for all network security ecosystems and supports a multitude of use-cases.

For more Information:

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