CASE STUDY

State Bank of India Deploys CERTInext for Certificate Lifecycle Management

About State Bank of India

State Bank of India (SBI) is one of the largest and oldest commercial banks operating in India. It provides a wide range of banking and financial services, including savings accounts, loans, and investment products.

SBI has been actively adopting alternate channels and technology to provide its customers with convenient and secure banking services. These include:

- **65,000+ ATMs/ADWMs:** The largest network in India.

- **Internet and Mobile Banking:** Online transactions and account access.

- **Video Banking & Self-service Kiosks:** Real-time representative interaction from homes or kiosks

SBI also uses emerging technologies like AI, big data, and blockchain to enhance its digital services, increasing customer convenience and security.

Business Scenario

SBI manages high volumes of certificates across internal and external endpoints. Managing digital certificates became complex and challenging due to the scale, with deployments across:

- Routers
- HSM
- Switches
- Load balancers
- VPN devices
- QA/UAT/Deployment environments
- External Portals

Improper certificate management posed risks including system downtime, security vulnerabilities, and compliance issues. SBI required an enterprise-wide cryptographic key management solution encompassing supply, installation, configuration, integration, maintenance, and monitoring.

eMudhra Solution

eMudhra's primary objective was integrating all existing certificates with a Certificate Lifecycle Management (CLM) system to enable end-to-end lifecycle automation. Simultaneously, SBI deployed **emCA**, eMudhra's Certificate Authority solution, to establish a **Private Trust Root.**
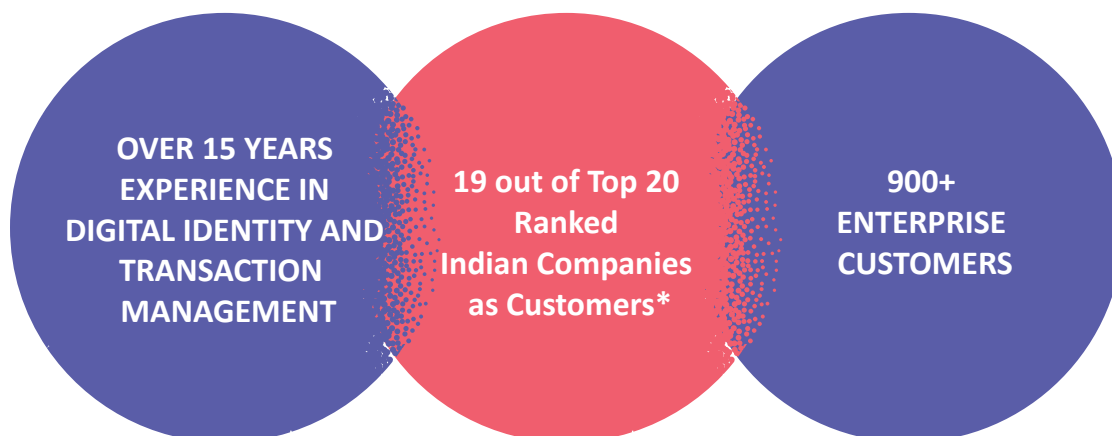
Key Highlights

- Integrated all existing certificates with CLM
- Enabled end-to-end lifecycle management
- Automated reissuance workflows
- Deployed emCA for private trust root
- Organization-wide certificate issuance tailored to SBI's internal needs

This integration and deployment ensured security, scalability, and reliability in managing SBI's certificates across the enterprise.

Next Phase

SBI's next phase of implementation includes deploying certificates using eMudhra's global root emSign, enhancing system reach and leveraging public root infrastructure.

OVER 15 YEARS EXPERIENCE IN DIGITAL IDENTITY AND TRANSACTION MANAGEMENT

19 out of Top 20 Ranked Indian Companies as Customers*

900+ ENTERPRISE CUSTOMERS

*As per ET500 Company List

Solution Architecture

CERTIFICATE SCANNING

REQUEST

PROVISIONING

AUTOMATION

Certificate Lifecycle Management Solution (CLM)

EMCA PRIVATE PKI DEPLOYMENT EMSIGN PUBLIC CA – IN THE PIPELINE

**INFRASTRUCTURE SETUP**

CA CONFIGURATION

KEY MANAGEMENT

TRAINING & SUPPORT

SBI is now able to scan both internal and external certificates using CERTInext, which provided very high availability engine and redundancy to cater for any exigencies in the production environment. CERTInext, hardware security module and our overall expertise in deploying large scale PKI management solution in the industry has helped our client to safeguard its operations from cyberattacks and manage organization-wide certificates using a Certificate Life Cycle (CLM) solution that is built for scale.

Value Added to State Bank of India

The implementation of eMudhra's Certificate Lifecycle Management Solution for one of India's largest commercial banks provided a multifaceted value to the client. It encompassed new found connection with a WebTrust accredited CA, streamlined operations, scalability, compliance, high availability, cost-effectiveness, innovation, trust enhancement, strategic partnership, and a future-ready infrastructure. Together, these aspects fortified State Bank of India's certificate and key management, aligning with their unique needs and industry standards. **Now Connected to WebTrust Accredited CA** Assurance of adherence to global security standards.
Elevated trust and credibility among stakeholders through recognized certification.
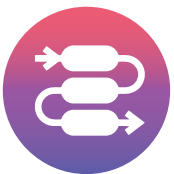
Streamlined Operations
- Integration with the CLM system allowed for seamless management of certificates, from discovery to expiry.
- Automation of reissuance processes increased efficiency.

High Availability and Redundancy
- The use of CERTInext and a high availability engine ensured that the system could handle any exigencies in the production environment.
- Redundancy measures further ensured uninterrupted service.

Cost-Effectiveness
- By automating and streamlining certificate management, State Bank of India likely saved on labor and operational costs.
- The unified approach reduced the complexity of managing multiple systems, potentially lowering total cost of ownership.

Scalability
- The solution was designed to cater to the specific needs of a large organization, allowing for the issuance of certificates on an organization-wide scale.
- The system's scalability ensures that it can grow with the organization's needs.

Compliance and Risk Mitigation
- Proper certificate management helped in adhering to regulatory requirements, reducing the risk of non-compliance.
- The system's ability to scan both internal and external certificates ensured that all certificates were managed according to best practices.

Strategic Partnership
- The collaboration with eMudhra provided access to specialized skills and expertise in cryptographic key management, enhancing State Bank of India's internal capabilities.

Future-Ready Infrastructure
- The solution's architecture is built for scale, ensuring that State Bank of India is well-positioned to adapt to future challenges and opportunities in the rapidly evolving cybersecurity landscape.

Innovation and Customization
- The solution was tailored to the specific internal needs of the organization, reflecting a commitment to innovation and customer-centric design.

Trust and Reputation Enhancement
- By bolstering security and ensuring compliance, State Bank of India reinforced its reputation as a trusted name in the banking industry.

About eMudhra

eMudhra, a global provider of digital identity and cybersecurity solutions, specializes in digital signature certificates, Public Key Infrastructure (PKI)services and robust authentication protocols. Our impactful presence in India and international presence have allowed us to support governments and enterprises in safeguarding their digital transactions and vital information.

eMudhra offers digital certificates, PKI-based solutions, authentication and identity governance services. With a strong presence in India and a global footprint, eMudhra helps organizations securely manage their digital transactions and protect sensitive information. Being a leading digital identity and cybersecurity solutions provider, eMudhra is now focused on futureproofing cybersecurity using Post Quantum Ready Cryptography and Zero-Trust Identity Governance model.