CERTInext

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CASE STUDY

Large Multinational Public Sector Bank Deploys CERTInext for Certificate Lifecycle Management

eMudhra deploys Certificate Lifecycle Management Suite to efficiently manage certificates deployed across the bank's extensive IT infrastructure.

About The Customer

Our customer 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.

The bank has been actively adopting alternate channels and technology to provide its customers with convenient and secure banking services. Some of the alternate channels and technologies used by the bank include:

- **ATMs**: The bank has the largest network of ATMs in India, with over 65,000 ATMs/ADWMs.
- **Internet and mobile banking**: Allows customers to access their accounts and perform banking transactions online and through mobile devices.
- **Video banking and Self-service Kiosks**: Bank provides for video banking services to enable their customers to interact with bank representatives in real time from the comfort of their homes or from the bank kiosks.

The bank is also using emerging technologies such as artificial intelligence, big data, and blockchain to enhance its digital banking services. The use of alternate channels and technology has helped the bank to improve customer convenience and security over the years.

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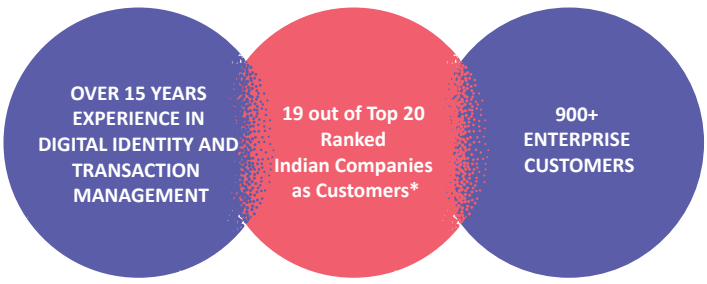
Business Scenario

Our customer has high volumes of certificates deployed in endpoints both internal and external in nature. Managing digital certificates in these workloads became a complex and challenging task for them, particularly being a large organization using a large number of certificates across multiple systems and applications. For Example:

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

The lack of proper certificate management could lead to security vulnerabilities, system downtime, and compliance issues. As certificate management at scale is a complex and time-consuming process that requires specialized skills and expertise, and lack of proper certificate management may have led to compliance issues and security vulnerabilities for our client. They sought for the Supply, Installation, Configuration, Integration, Maintenance and Monitoring of an Enterprise-wide Cryptographic Key Management Solution.



eMudhra Solution

As part of the project implementation, the primary objective was to integrate all existing certificates with the Certificate Lifecycle Management (CLM) system. This integration facilitated the seamless management of the entire certificate lifecycle. Automation was introduced to efficiently handle the reissuance processes. Alongside this integration, there was a simultaneous focus on deploying emCA (Certificate Authority Solution) to establish a Private Trust root setup.

Key Highlights

- Integration of all existing certificates with the CLM system.
- Seamless management from discovery to expiry of certificates.
- Automation for efficient reissuance processes.
- Deployment of emCA for the establishment of a Private Trust root setup.
- Enabled organization-wide certificate issuance tailored to internal needs.

By merging both the integration and deployment phases, eMudhra aimed to foster a robust and secure environment for certificate issuance and management for our client. This integrated strategy amplified both the system's scalability and reliability. It ensured precision in upholding the integrity and validity of the certificates. The project's comprehensive design and approach facilitated a streamlined process, perfectly aligning with our client's distinct needs in a unified phase.

Next Phase

The second phase of implementation will focus on the deployment of certificates using eMudhra's Global root emSign. This phase will further enhance the security and reach of the certificate system, leveraging eMudhra's established public root infrastructure.

As per ET500 Company List

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Solution Architecture

Our client 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 the Customer

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 the client'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.

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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.

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, the client likely saved on labor and operational costs.
- The unified approach reduced the complexity of managing multiple systems, potentially lowering total cost of ownership.

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, the client reinforced its reputation as a trusted name in the banking industry.

Strategic Partnership

- The collaboration with eMudhra provided access to specialized skills and expertise in cryptographic key management, enhancing the client's internal capabilities.

Future-Ready Infrastructure

- The solution's architecture is built for scale, ensuring that the client is well-positioned to adapt to future challenges and opportunities in the rapidly evolving cybersecurity landscape.

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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.