CERTINEXT · BANKING & FINANCIAL SERVICES · INDIA

One of India's Largest Banks Deploys CertiNext for Enterprise Certificate Lifecycle Management with eMudhra

SECTOR	REGION	SOLUTION
Banking & financial services	India	CertiNext

CLIENT OVERVIEW

One of India's Largest Commercial Banks is one of the oldest and most widely distributed financial institutions in the country, providing a comprehensive range of banking and financial services to hundreds of millions of customers through an extensive network of branches, ATMs, and digital channels. The bank has been a consistent leader in technology adoption, deploying internet banking, mobile banking, video banking, and self-service kiosks alongside emerging technologies including AI, big data, and blockchain to enhance digital service delivery and security. As one of the country's largest technology operators, the bank manages a vast, complex digital infrastructure spanning tens of thousands of endpoints — making enterprise-grade certificate lifecycle management a critical operational and security requirement.

THE CHALLENGE

Across the bank's extensive digital infrastructure — spanning routers, HSMs, switches, load balancers, VPN devices, QA/UAT/deployment environments, and external portals — digital certificates were deployed and managed without a unified governance framework. The scale of certificate deployment across the enterprise meant that tracking, renewing, and auditing certificates manually was operationally impractical, creating persistent risks of certificate expiry, unplanned service disruptions, and compliance gaps.

Improper certificate management posed material risks across three dimensions: operational, in the form of system downtime caused by undetected certificate expiry; security, through the exposure of unmonitored or misconfigured certificates to exploitation; and compliance, as the absence of centralised audit trails made it difficult to demonstrate adherence to regulatory expectations around cryptographic governance. The bank required an enterprise-wide solution encompassing certificate discovery, lifecycle automation, key management, and private CA capability — deployed at a scale and availability level commensurate with one of the country's most systemically important financial institutions.

> *"Managing certificates at the scale of our infrastructure — across thousands of internal and external endpoints — was no longer something we could do manually. We needed a solution built for our scale, with the availability and redundancy to match the criticality of our operations."*
>
> **Head of Cybersecurity Infrastructure**

THE SOLUTION

eMudhra deployed CertiNext, its enterprise Certificate Lifecycle Management platform, as the centralised system for discovering, inventorying, monitoring, and automating the lifecycle of all digital certificates across the bank's infrastructure. Simultaneously, the bank deployed emCA, eMudhra's Certificate Authority solution, to establish a Private Trust Root — enabling organisation-wide certificate issuance tailored precisely to the bank's internal governance requirements.

The CertiNext deployment integrated all existing certificates — across internal and external endpoints — into a unified CLM system, enabling end-to-end lifecycle visibility from discovery to expiry. Automated reissuance workflows eliminated the manual effort and error risk associated with certificate renewal, while a high-availability engine with full redundancy ensured uninterrupted certificate management operations even during production exigencies.

The solution was underpinned by HSM-backed key management, ensuring hardware-grade security for all cryptographic operations. A planned next phase will extend the bank's certificate infrastructure to include certificates issued under eMudhra's globally trusted public root, broadening the bank's PKI reach to external-facing services and public-trust use cases.

RESULTS

The deployment of CertiNext and emCA delivered a step-change in the bank's certificate governance — providing complete visibility, automated lifecycle control, and a WebTrust-accredited CA connection across the enterprise, while establishing a future-ready PKI foundation for ongoing digital expansion.

METRIC	BEFORE	AFTER
Certificate Visibility	Fragmented; no centralised inventory	Complete discovery across all internal & external endpoints
Lifecycle Automation	Manual renewal; expiry risk	Automated reissuance workflows end-to-end
Private CA Capability	Dependent on third-party CAs	emCA Private Trust Root — fully internally governed
Key Management	Unstructured; no HSM controls	HSM-backed key management with full audit trail
Availability	Single point of failure risk	High-availability engine with full redundancy
Compliance	Manual audit; gap risk	WebTrust-accredited CA; on-demand compliance reporting

About eMudhra. eMudhra is a globally trusted provider of digital trust services, offering eSignatures, PKI, Certificate Lifecycle Management, Multi-Factor Authentication and Identity & Access Management solutions. Licensed by the Controller of Certifying Authorities (CCA), India, eMudhra serves 1,000+ enterprises across 40+ countries, helping organisations build secure, compliant and paperless digital ecosystems.

Customer name withheld for confidentiality.