



emCA

emCA Certificate Lifecycle Management Suite

It's not just about the solution. It's about the experience of running one of the largest public Certifying Authorities

When it comes to figuring out how to deploy PKI in your country, setting up a Root PKI, or adopting Digital ID to enhance citizen services, or even setting up a public CA, its not as easy as deploying an appliance on your premise. There's a lot of work that goes behind the scenes from documentation, audit, compliance, certifications, deployment, and finally go-live.

In such cases, it's not just important to have a robust solution. Rather, it's more important to ensure that you have someone who can understand the nuances of the requirement and can bring forth a plethora of domain experience to ensure the best results.

10 years as a Public Certifying Authority

eMudhra just completed its 10th year as a Public Certifying Authority under the Indian Root. eMudhra is also a CA under the Mauritian root and is currently gearing up to become a global trust provider. That's a lot of audits, documentation, and compliance which we manage on a regular basis.

A pioneer, not a follower

We take pride in being a thought leader in our space. From National ID based one-time-use eSign, to Cloud PKI for mobility, we are constantly thinking what's next. We ensure that we focus equally on convenience of PKI as we do on security to ensure quick adoption and effective Digital Transformation.

Benefits

- Strong experience in PKI Domain
- Proven expertise in driving Digital Transformation in India through Aadhar eSign
- Webtrust Certified, EAL 4+ Certified Solution and Process
- Bespoke offering catered to specific customer requirements
- Platform agnostic – deployed across Solaris/Window server/Red Hat Enterprise/Linux/AI

40 million trusted public signatures issued, webtrust certified, EAL 4+ certified, ISO/CMMI certified. Experience you can trust.

A Comprehensive Solution

emCA has been built keeping in mind our needs as a public CA, and our learning from venturing out into the Enterprise, IoT, and Blockchain world. As a result, our CA system is robust, scalable, and works in IoT, blockchain, and network security ecosystems quite effectively in addition to conventional use cases.

An end-to-end offering

In large scale deployments, we don't just offer our solution and walk away. Our experts get involved from drafting to CP/CPS, enabling successful webtrust audits, planning Data Centers, determining levels of Assurance and sometimes, even working closely with our customers to create bespoke scenarios and custom built solutions.

Process guidance that drives value

PKI is our bread and butter. Having done it every day for 10 years at a retail level and a B2B level, we're quite aware of how it works, what are the typical issues, and how best the processes can be streamlined. We ourselves issue certificates (end user) in less than 10 minutes despite heavy regulation on KYC norms. We can help you use technology to achieve the same in your country.

Key Projects

- Aadhar eSign - eMudhra developed and deployed at scale national ID based signing
- emCA is used extensively in the defence sector
- Mauritius Root PKI - eMudhra set up the Root PKI and issuing CA for Mauritius
- Nepal Public CA - emCA Suite powers some components of Nepal's public CA
- eMudhra Public CA - eMudhra's Public CA runs on emCA Suite and supports a 13,000 large re-seller network

Technical Details

Recommended hardware

Processor: 2 * Quad core Processors
RAM: 32 GB
HDD: 1 TB SAS HDD
(Integrated App & DB Server)

Minimum Hardware Required

Processor: 2 * Quad core Processors
RAM: 16 GB
HDD: 1 TB SAS HDD

OS Compatibility

Windows Server 2008+ Enterprise,
RHEL 5+, AIX 7+, Suse 12+ and Solaris 10+

Application Server

Apache Tomcat 7+, JBoss 7+,
Web Sphere 8+, Web Logic 12+

DB Compatibility

Oracle 10g+, SQL Server 2008+, MySQL 5+,
DB2 9+, Postgre 9+

Algorithms & Standards

MAC, HMAC, Triple DES, AES 256
X.509 v3, PKIX, XAdES, PAdES, CRL v2

Java

Oracle JDK 1.7+

Protocols

SCEP, CMP, CMC, MSCAPI, OWASP, HTTP,
HTTPS, SFTP, SMTP, SMPP, FTP, WSS, LDAP

RFC's

RFC 6960, RFC 6962, RFC 5273, RFC 4210,
RFC 3161, RFC 4998 ERS, RFC 4810

Web Services

SOAP, REST

Signature Algorithms

SHA1WithRSA
SHA256WithRSA
SHA384WithRSA
SHA512WithRSA
SHA1WithECDSA
SHA256WithECDSA
SHA384WithECDSA
SHA512WithECDSA

Key Algorithms

RSA- 1024
RSA- 2048
RSA- 4096
RSA- 8182
ECDSA- 256
ECDSA- 384
ECDSA- 521

Key Modules

■ Certificate Lifecycle Management

■ Online Certificate Status Protocol Responder

■ Timestamping Authority

■ Validation Server

■ API Gateway

■ Web Sockets

■ CRL Manager

■ Key Archival

■ Tamper Proof Logging

■ emClick Certificate Download App

■ Auto Enrollment

■ Subscriber Portal

■ Inventory Management Portal

■ Registration Management Portal

■ Certifying Authority Portal

■ OSCP and Timestamping Client

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.



USA | India | Singapore | UAE | Mauritius | Colombia