



**emAS**

# emAS Multi-Factor Authentication

## The most comprehensive Multi-Factor Authentication Engine with over 15 factors supported

With malware, ransomware and other cyber threats constantly thrown at Enterprises, a holistic security platform is required to securely enable digital identity and transaction management. eMudhra's flagship product eMudhra Authentication Server has been empowering millions of users securely manage their online identity and authentication needs by offering a single holistic security perspective!

Trusted by several large Banks, emAS offers a host of strong authentication options that help Enterprises secure physical, mobile, logical access to applications.

### 15 factors of Authentication

emAS supports 15 factors of authentication including all types of OTP, Biometric, and the easy ones all the way to adaptive analytics driven by behavioral insights into how users login.

### Risk based parameter definition

emAS gives you the flexibility to define the type and layers of authentication based on an individual user risk profile. Risk parameter definition is flexible and can be dependent on a single or a cumulative measure of multiple parameters. emAS can also work with any existing system to pull the risk score and invoke relevant authentication layer(s).

#### Product Benefits

- Cost effective deployment of strong authentication across Enterprise
- emAS is running in over 40 banks globally and processes over 10 million authentications EVERY DAY
- Mobility enabled for leveraging mobile authentication options
- Acceptance of global CA certificates for Digital Signature Certificate & Public Key Infrastructure based authentication
- Platform agnostic – deployed across Solaris/Windows Server/Red Hat Linux/ IBM AIX
- Built for the future with FIDO Compliance measures

## emAS addresses the need of the hour – mitigating risk for enterprise and its end users while keeping it simple

### Threats are multi-channel

With customers, employees, suppliers accessing applications across web, desktop, mobile and cloud; Enterprises have to constantly worry about newer threat dimensions. emAS's behavioral analytics module runs machine learning algorithms to detect anomalies and put in place risk mitigation measures.

### Cloud applications add a new dimension

With the explosion of cloud offerings and hosting providers and sensitive data on cloud, security officers have to constantly think about how to protect authentication on the cloud. emAS's plug and play architecture allows quick addition of newer platforms and factors of authentication.

### Ensure legal non-repudiation using PKI

Plain username/passwords & OTPs are today most vulnerable for cyber attack. emAS offers the ability to attach users to a risk profile to allow creation of trusted networks using Public Key Infrastructure offering strongest form of protection to Enterprises and its customers.

### Behavioral risk parameter detection

emAS MFA can be paired with emAS Adaptive to build a behavioral model around user-login to provoke authentication layers in line with real-time adjusted risk profile.

#### Key Features

- Single/Simple Platform
- Ultra-fast processing of Authentication requests
- Risk Mitigation through Analytics
- Multiple Credentials under one single Platform
- Plug-n-Play
- Integrations with emCA
- Integrations with leading Banking Suites
- Authentication backbone of emSigner

## Technical Specifications

### Recommended hardware

Processor: 2 \* Quad core Processors  
 RAM: 16 GB  
 HDD: 500 GB SAS HDD

### Minimum hardware required

Processor: Quad core Processors  
 RAM: 8GB  
 HDD: 500 GB SAS HDD

### OS compatibility

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

### DB Compatibility

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

### App Server

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

### Algorithms and standards

- MD5, SHA-1, SHA-2 Family, MAC, HMAC, RSA Signing, ECDSA, RC2, RC4, RC5, riple DES, AES,
- PKIX, X.509 v3, XAdES, PAdES

### Web services

SOAP, REST

### Protocols

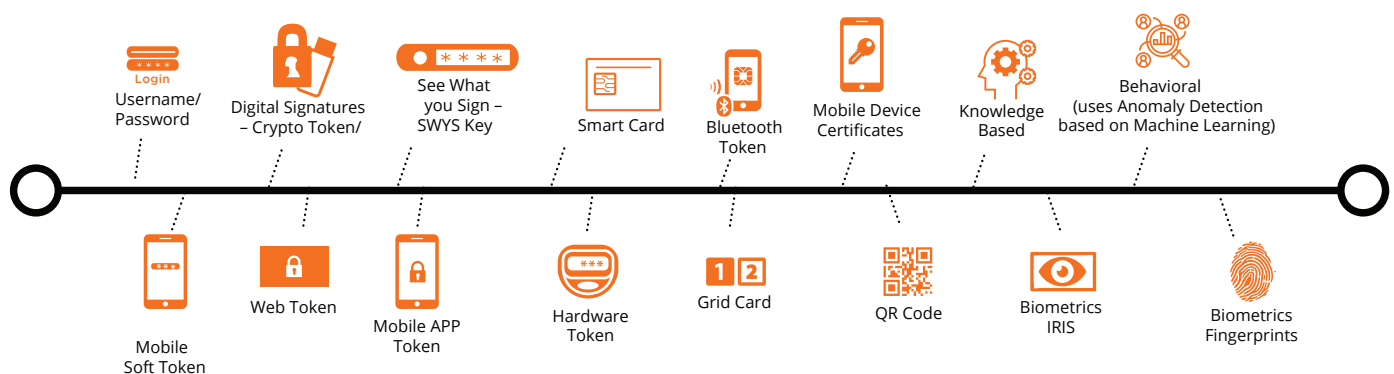
LDAP, SMPP, HTTP, HTTPS, SFTP, FTP, WSS,  
 OAuth 2.0, JWT, U2F

### Java

Oracle JDK 1.7+

### Key Modules

What you see is what you sign  
 Online/Offline CRL Verification  
 User Management  
 Signer Component  
 Self-registration portal  
 Configuration Module  
 Tamper proof logging  
 Advanced Reporting  
 Back office admin module with dashboard  
 15 strong modes of authentication



## 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.



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