

What makes Codegic the best ePassport (PKI) software?



Standards Industry Compliant

Compliant with industry standards is essential in today's business environment. Khatim ePassport Server adheres to all the recommended guidelines from ICAO and IETF standards, meeting the regulatory and market requirements.



Simplified PKI Management

Khatim ePassport Server stands out with its PKI admin friendly graphical user interface (GUI). This simplifies core PKI understanding, faster deployment / integration & PKI testing compared to other PKI solutions available on the market.



Secured Processing & Auditing

Khatim ePassport Server accomplishes security this by employing military-grade security measures across all its functions, including key management, CA management, certificate issuance and transaction management.

Purpose of a CA / PKI




Khatim E-Passport Server helps national passport authorities and identity management systems securely issue, manage, and validate electronic Machine-Readable Travel Documents (eMRTDs). It simplifies the setup and lifecycle management of Country Signing Certificate Authorities (CSCA), Document Signer Certificates (DSCs), CVCA, DVCA and SPOC communication for cross-border interoperability.

Built on top of PKI principles, it ensures full compliance with **BSI TR-03129**, **BSI_TR-03110**, **CSN 36 9791** & **ICAO Doc 9303** standards, delivering trust, integrity, and authentication for passport and border control systems.



Key Features

	<p>ICAO-Compliant PKI for Passports</p> <p>Issue and manage CSCA, Document Signer, Master List, CVCA & DVCA (domestic and foreign) certificates. Also support for SPOC CA and SPOC Client Certificates for cross-border exchange.</p>		<p>Support all HSMs</p> <p>Integrate with your existing HSMs using PKCS#11 from all major HSM vendors such as:</p> <ul style="list-style-type: none"> • Entrust nShield • Thales • Utimaco
	<p>Cross Platform Deployments</p> <p>The Khatim ePassport Server is platform-independent, making it compatible with both Windows and Linux. It can be deployed in various environments such as:</p> <ul style="list-style-type: none"> • On-premise private or public cloud • VMs • Physical machines 		<p>Cryptographic Agility</p> <p>Khatim ePassport Server supports diverse cryptographic requirements such as:</p> <ul style="list-style-type: none"> • RSA (2048, 4096, 8192) • ECDSA (192, 224, 256, 320, 384, 512) • SHA-256 and 512
	<p>Military Grade Access Control</p> <p>Trusted personnel can only access CA functions via powerful, password less authentication using military-grade TLS Client authentication.</p>		<p>Master List Generation</p> <p>One-click Master List creation signed by a Master List Signer (MLS). Simplifies international certificate trust exchange and ICAO PKD submission.</p>
	<p>Unlimited Scalability</p> <p>Khatim ePassport Server can be clustered, minimizing latency enabling high throughput. It allows for new servers to be added seamlessly without the need to stop running instances, ensuring uninterrupted service for your business. Khatim ePassport Server can meet the growing needs of your enterprise and ensure that your digital security infrastructure can keep pace with your business growth.</p>		<p>Live Reporting & Statistics</p> <p>Admins can monitor their PKI servers in real-time and filter data based on CA policies, templates, success/failure, signing algorithm, and more. Khatim ePassport Server also creates daily summary reports along similar data points providing administrator a snapshot of what types of certificates were generated during the day, any failures and alerts.</p>
	<p>Logging & Auditing</p> <p>Khatim ePassport Server saves all incoming transactions and configurations for thorough analysis. Administrators can easily download and review request/responses in real-time for investigation. All updates made to the system by operators is also recorded providing a reliable audit trail.</p>		<p>Serve Multiple CAs & PKIs</p> <p>Have multiple CAs or PKIs? A single deployment of Khatim ePassport Server can handle multiple Certification Authorities online/offline CAs making it easy to handle from a single portal.</p>
	<p>Proactive Alerts</p> <p>Khatim ePassport Server sends proactive notifications to administrators in case of server malfunction. All issues are recorded for traceability and can also be securely pushed to your central logging systems such as:</p> <ul style="list-style-type: none"> • Splunk, Grafana • Greylog, LogRhythm etc. 		<p>Issue Certificates of All Types</p> <p>Khatim ePassport Server lets you issue digital certificate for all the purposes required to ensure a trusted infrastructure. Some of the certificate types are:</p> <ul style="list-style-type: none"> • Email / Document Signing • SSL Client / Server / VPN Authentication • Code Signing, Timestamping, OCSP
	<p>Simplified Migration</p> <p>Upgrade to Khatim ePassport Server for your existing Root CA or Sub CA keys/certificates. Say goodbye to legacy CA servers effortlessly and adopt the new way of managing keys and certificates with more control and insights.</p>		<p>Developer friendly APIs</p> <p>Comes with intuitive GUI for easy monitoring of key metrics and data analysis. Management portal is also accessible using API over TLS client authentication.</p>

 Algorithms / Protocols	 Performance	 Supported OS / Languages / H/W
<ul style="list-style-type: none"> RSA (2048/3072/4096/8192) ECDSA (NIST_P, SECP (K1,R1), BRAINPOOL (R1,T1) – 160, 192, 224, 256, 384, 521) PKCS#11 PKCS#1 - PKCS#15, PSS AD/LDAP, SCEP, CMP SMTP, HTTP, HTTP/s, REST RFC 5280, 2986, 8666, X.500, SMTP X.509 Certificate & CRLs SNMP, Syslog 	<ul style="list-style-type: none"> RSA 2048 bits – 115 TPS RSA 4096 bits – 34 TPS RSA 8192 bits – 7 TPS ECDSA secp256r1 – 200 TPS ECDSA secp256r1 – 134 TPS ECDSA secp521r1 – 83 TPS ECDSA secp521r1 – 80 TPS <p>* Tested with Entrust HSM XC Solo Base (single instance)</p>	<ul style="list-style-type: none"> All flavors of Windows Server & Linux (Centos Stream, Ubuntu, RedHat, Fedora) 50 Languages including English, French, Spanish, Arabic, Chinese, Japanese, Italian, Polish, Swedish, Russian & more. 8 GB RAM, 2 vCPU (2.3 GHz), 10 GB Hard disk

Codegic is a security provider specializing in innovative PKI and Digital signatures products and services. Codegic delivers easy to use PKI products for areas like PKI, Document Signing, Timestamping, PKI Monitoring, Digital Certificates issuance and more. We utilise all the latest technologies to help companies and enterprises solve complex security issues that always emerge during their digital evolution journey.

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Facilitating Digital Trust by providing World-Class PKI & Digital Signature Solutions

Email: info@codegic.com

Phone (Global): **+1 (406) 278 6098**

Learn more at <https://www.codegic.com/>