

# Khatim Timestamp Server

High assurance cryptographic timestamp server with market-leading performance

- Enterprise ready, secure and quick to deploy timestamp server
- Compatible with ETSI & IETF advanced digital signature standards
- Flexible, scalable timestamp server securing high valued transactions
- Generate timestamps from multiple trusted time sources (NTP servers)
- Supports ETSI EN 319 421, ETSI EN 319 422 and RFC 3161, 5816, 5280 standards
- **Built in Live Monitoring**

## Purpose of Timestamp Server

Proving time is important in high valued transactions and critical for businesses creating digital signatures for long-term perseverance. Without cryptographic timestamps, digital signatures can't be trusted as they cannot be accepted in long term.

Timestamp servers provides proof of data existence at a particular point in time using cryptography. A Timestamp Authority acts as a pivotal role ensuring all of the cryptographic objects identified during digital signature creation remains valid be it digital certificates, CRL or OCSP. This is done by embedding RFC 3161 based cryptographic timestamps inside business documents or transactions. With the emergence of eIDAS regulation, allowing cross border digital signature acceptability, TSAs have now become a corner stone in the evolving digital trust landscape.



**Reliable**



**Secure**



**Resilient**

## What makes Codegic the best Timestamp Server vendor?

### Built for Speed

Khatim Timestamp Server is designed to provide market leading performance suited for high volume processing giving you top speeds what others don't provide. With good set of configurations, you can achieve up to 500 TPS or more.

### Secured processing & auditing

High trust and assurance is important in any business. In Khatim Timestamp Server, all functions from timestamp creation, administration to transaction management are accomplished with military grade security.

### Simplicity is the Key

Complexity creates confusion and bound to create operator mistakes. With developer and admin friendly interfaces, Khatim Timestamp Server can be deployed, integrated & tested in far less time what others offer. Further more it provides HTTP Basic and CMS based authentications, account management and service plans.

# Key Features

## Cross Platform Deployments

Khatim Timestamp Server is build from ground up with platform independence hence supports Windows and Linux alike. You can deploy in different environments be it on-premise, private or public cloud, VMs or physical machines.

## Military Grade Access Control

Ensures military grade security to your timestamp instance for all its key functions be it administration, timestamp creation, transaction logging using AES-256 encryption.

## Serve Multiple Clients

Khatim Timestamp Server can process multiple request in parallel. Setup multiple policies to cater different configurations like signing certificates, cryptographic algorithms, time source etc.

## Cryptographic Agility

Keeping in view businesses having different cryptographic needs, Khatim signing server supports supports diverse cryptographic requirements such as:

- RSA (2048, 4096, 8192)
- ECDSA (192, 224, 256, 320, 384, 512)
- SHA-256, 384 and 512
- Dilithium (PQC)

## Proactive Alerts & Traceability

In situations where timestamp server is not working as it should, Khatim Timestamp Server proactively notifies administrators to take immediate action. For traceability, all issues are recorded which can be pushed securely to your central logging systems e.g. Splunk, Grafana, Greylog, LogRhythm etc.

## Admin Friendly GUI

Control your signing server administration with GUI based interfaces. From key generation, policy handling to transaction viewing all can be done from a single place.

## Logging & Auditing

Khatim Timestamp Server records all incoming transactions for detailed analysis with unique identifiers (marked by CPU serial no + unique no). Administrator can also download and investigate request/responses on the fly.

## Integrates with HSMs

Quickly integrates with your existing HSMs over PKCS#11 e.g. Entrust nShield, Thales Luna & Protect Server, Utimaco Cryptoserver, Microsoft Azure Key Vault, AWS HSM etc. Timestamp certificates can be certified with your existing CAs for quick import and usage.

## Unlimited Scalability

Khatim Timestamp Server can be installed as a cluster of multiple individual timestamp servers to reduce latency. Add timestamp servers at will, without stopping already running instances giving you blazing fast throughput you expect.

## NTP Aware

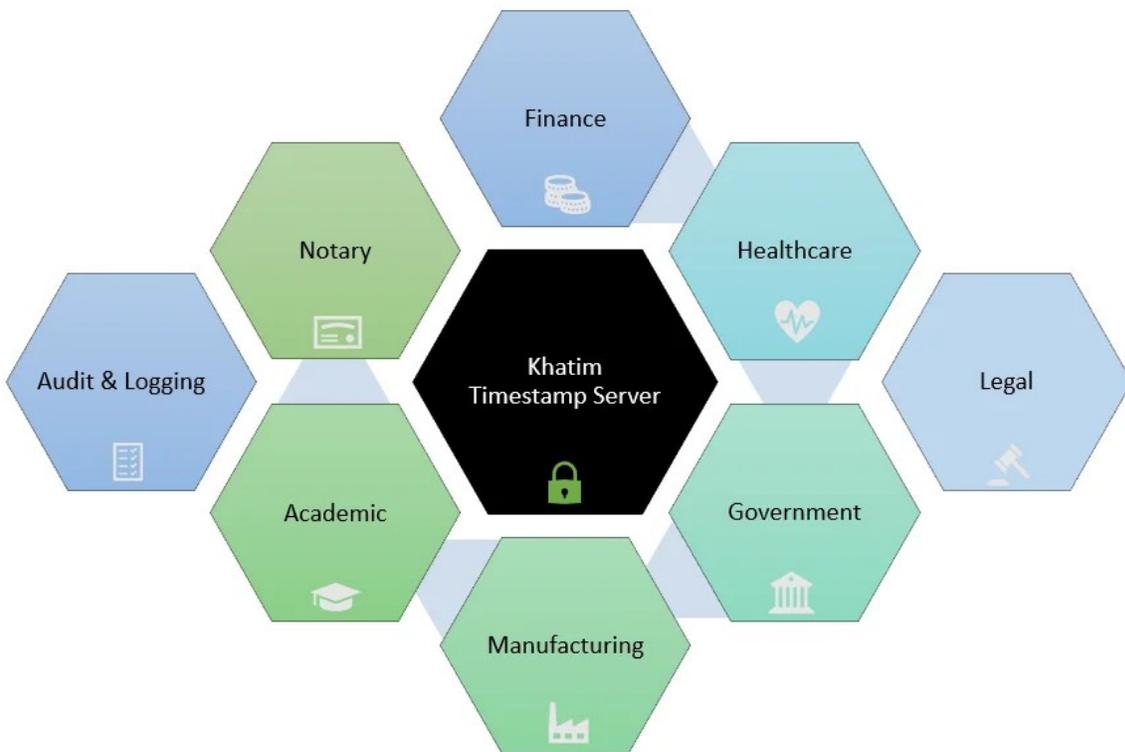
Timestamp server can be configured to use system time either already synched with a trusted time source or NTP. Administrator can directly configure multiple NTP sources based on stratum to avoid single point of failure.

## Standard & Compliant

Supports creation of advanced digital signatures based on IETF and ETSI standards including XAdES-T, CAdES-T, PAdES-T supporting ETSI EN 319 421; ETSI EN 319 422 and RFC 3161. Works seamlessly with wide range of business apps to integrate timestamping i.e. Adobe Acrobat, Microsoft Office, SignTool etc.

## Management portal

Comes with intuitive GUI for easy **live monitoring** of key metrics and data analysis. Management portal is also accessible using API over TLS client authentication.



## Algorithms / Protocols

- RSA, ECDSA
- PKCS#11, SNMP, NTP, SMTP for alerts
- RFC 5280, 5816, 3161
- SMTP, HTTP, HTTP/s, REST
- Compatible with WebTrust and eIDAS requirements
- Dilithium (Post Quantum Cryptography)

## Performance

- RSA 2048 – 394.38 TPS
- RSA 4096 – 98.67 TPS
- ECDSA secp256r1 – 380+ TPS
- ECDSA secp384r1 – 381.5 TPS
- ECDSA secp521r1 – 390.1 TPS

\* Tested with Entrust HSM XC Solo Base (single instance)

## Supported OS / Languages / H/W

- 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

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#### Certifications

- ISO 9001:2015
- ISO 14001:2015
- ISO 27001:2022



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.

Learn more at [www.codegic.com](http://www.codegic.com)