

eTimeStamp Module

contains certified signature appliance component SLMBC 3.0.20

Usage & field of application

The eTimeStamp Module forms the automated interface to an RFC3161-compliant time stamp service. In this way, for example, the accredited time stamp service of AuthentiDate International AG can be integrated easily into corporate processes.

The legally binding time of recording and contents of electronic documents can be verified by qualified electronic time stamps according to German Signature Law. This verification of time and contents of electronic data is business-critical for many fields of application. The application cases are:

- Protection of electronic documents, e.g. development documentation in the pharmaceutical and aviation sectors
- Archiving of data relevant to tax law on a low-cost storage medium (e.g. substitute for expensive WORM medium)
- Proof for the completion of time-critical transactions, e.g. in the sector of commerce, finance and lotteries
- Proof for the time of recording - and thus for the validity - of personal, electronic signatures in closed "Public Key Infrastructures"
- Implementation of incoming and outgoing mail stamps in electronic communication
- Preservation of the "intellectual capital" of a company
- Protection of information relevant to patent law
- Archiving of data relevant to tax law in compliance with the German Basic Regulations for Accessing Data and Auditing Digital Documents (GDPdU)
- Implementation of electronic receipt stamps in automated contract award and tendering procedures
- Re-signing of personal electronic signatures when cryptographic algorithms are changed

The time stamps issued by the central time stamp service of the AuthentiDate International AG are archived over a period of at least 30 years. Furthermore, a copy of the time stamp is stored in a central database of the time stamp service.

Functional description

The eTimeStamp Module makes it possible to integrate qualified electronic time stamps according to German Signature Law into any applications and process solutions thereby protecting electronic data in a legally binding manner in the most varied application cases.

At the same time, the eTimeStamp Module requests qualified electronic time stamps from the central time stamp service of AuthentiDate International AG via the Internet and transfers them to the application. While doing so, the eTimeStamp Module focuses on automatic, large-scale issuing and verification of qualified electronic time

stamps in electronic processes.

The amount of integration required is minimal due to a standardized interface specification. Standard development environments are supported for the process of integration.

Qualified electronic time stamps can be verified to different test depths. The integrity of the timestamp can be verified, the corresponding certificate path validated and an additional status check can be made of all certificates contained in the certificate chain.

The concept of the eTimeStamp Module allows qualified electronic time stamps to be integrated into existing software components with very little effort. The



Since the actual document is not transferred to the time stamp service in the time stamp process but a fingerprint ("Hash") of the document, which creates the unique connection between the time stamped document and the time stamp, the confidentiality

integration is possible at code level due to the provision of an API in the C/C++ and Java programming languages.

**Range of functions and services**

- ▶ Large-scale generation and verification of qualified time stamps according to German Signature Law for any electronic documents via accredited AuthentiDate time stamp service
- ▶ Optional ASN.1 coding of hash value lists for simultaneous protection of several electronic documents/data records by means of a qualified time stamp
- ▶ Archiving of the issued qualified time stamps over a period of 30 years by the accredited time stamp service of AuthentiDate International AG

Standards und interfaces

- Certificate format X.509v3 (qualified)
- Signature format Cryptographic Message Syntax (CMS), RFC3161
- Interface AuthentiDate time stamp service via XML RPC
- Programming interfaces in C/C++ and Java programming languages
- Support of RSA 2048 und SHA-256

System requirements

- Minimum hardware requirements: Intel Pentium processor 1.5GHz; min. 256MB RAM; 20GB HD
- Operating systems supported:
 - Microsoft Windows XP,
 - Linux with kernel release 2.4.18 and higher
- Transparent communication to the AuthentiDate time stamp service via the HTTP/HTTPS protocol
- Valid access to the AuthentiDate time stamp service
- Software: Microsoft Visual Studio C++ ab Version 6.0 and JDK 1.3

Delivery content

- The software and documentation are delivered on CD or electronically by email/FTP.
- The license key is delivered electronically by email.

Related products

- TimeStamp Proxy
- TimeStamp Server
- TimeStamp & Seal Server
- Accredited time stamp service of the AuthentiDate International AG