



Utimaco's solution for mass generation of qualified electronic signatures

Every year millions of invoices are created electronically, printed out on paper and then sent by post to their recipients. The recipient then transfers the relevant data into their ERP system either manually or via OCR software (text recognition) so they can check the invoice and authorize the payment. This entire process involves a great deal of time, resources and effort because invoice data must be entered and checked more than once.

In contrast, electronic handling of all invoicing management procedures offers multiple benefits and significant cost reduction potential. However, according to legal requirements, pre-tax (sales tax) calculations are only valid if the invoices have been assigned a qualified electronic signature.

SafeGuard SignatureServer from Utimaco is the central, easy-to-use solution for the simple and automatic mass generation of qualified electronic signatures for issuing electronic invoices. At the receiver's site, all common signature formats can be verified and a detailed verification documentation can be generated.

By using **SafeGuard SignatureServer** to sign electronic invoices, companies can completely automate and optimize their business processes, as well as make their pre-tax (sales tax) calculations valid immediately. In addition, the multitenancy of **SafeGuard SignatureServer** enables organizations to outsource the entire invoicing and signature process to Application Service Providers. **SafeGuard SignatureServer** offers anyone who creates and receives electronic invoices a wide range of options for improving business processes and saving time and money.

Utimaco's **SafeGuard SignatureServer**: Legally-compliant qualified electronic signatures with highest-possible levels of security for issuing your electronic invoices.

About Utimaco – The Data Security Company.

Utimaco is a leading global provider of data security solutions, enabling mid-to large-size organizations to safeguard their data assets against intentional or accidental data loss, and to comply with privacy laws. Utimaco's complete range of data security solutions provide full 360 degree data protection for data at rest, data in motion and data in use. Utimaco offers its customers comprehensive on-site support via a world-wide network of certified partners and subsidiaries. Utimaco Safeware AG, with headquarters in Oberursel, near Frankfurt, Germany, is listed on the Frankfurt Stock Exchange (ISIN DE0007572406). For more information please visit www.utumaco.com

Benefits

Lean Processes

- Optimizes the invoicing process
- Significantly reduces the burden on resources, thereby saving time and leading to a considerable reduction in process costs
- Avoids media discontinuities to business partners and customers

Increased Security

- Creates qualified electronic signatures at a central location
- Complies with legal requirements for qualified electronic signatures
- Supports smartcards with qualified certificates of leading Trust Centers
- Seamlessly integrates with Utimaco's hardware security module SafeGuard CryptoServer for the creation of advanced electronic signatures

Easy Administration

- Provides ease of use along with central management
- Integrates easily with existing business processes, e.g. using directory access, email or programming API
- Supports all common document and signature formats for signature creation and verification
- Can be deployed in-house or as ASP (Application Service Provider) solution
- Scales easily with growing number of signatures
- Supports cluster configurations for load balancing and high availability



Hardware

- 19" rackmount components
 - SignatureServer (1U)
 - Rack with 7 or 13 smartcard reader (3U)
- Ethernet
- Monitor, keyboard, mouse

Signature algorithms

- RSA with key length up to 2048 bit

Hash algorithms

- SHA1, SHA-224, SHA-256, SHA-384, SHA-512
- RIPEMD160
- MD2, MD5 (verification only)

Encryption algorithms

- Asymmetric
 - 3-Key Triple-DES in CBC mode
 - RSA for encryption of Triple-DES key
- Symmetric
 - 3-Key Triple-DES
 - PKCS#5 for key generation

Signature formats

- PKCS#7 embedded (*.pk7)
- PKCS#7 detached (*.p7s)
- PKCS#7 S/MIME multipart-signed (*.p7m)
- PDF signature (*.pdf - Adobe PDF Reference 1.6)
- XML signature (*.xml in acc. with XML-DSig)
- Expanded XML signature (in acc. with XAdES)
- 2D barcode signature (*.pdf, *.tif, Fax Group 3, Fax Group 4 for signed fax delivery)
- EDI signature

Certificate formats

- X.509 v3, DER encoded

Time stamping

- IETF RFC 3161 time stamp protocol
- D-TRUST time stamps with SSL authentication
- T-Telesec time stamps with http authentication

Supported signature cards

- D-TRUST
- T-Telesec
- Deutsche Post Signtrust
- S-TRUST SparkassenCard
- TC TrustCenter GmbH
- GS1 Switzerland StarCert
- Further signature cards with 1024 bit and 2048 Bit RSA key length

Key Features/Functionality

Functionality

- Signs and verifies large document volumes
- Creates and verifies all common signature formats
- Supports multiple signatures
- PDF/A conformance of a document is preserved after signing
- Supports smartcards with qualified certificates of all German Trust Centers as well as Trust Centers of other EU member states and Switzerland
- Supports hardware security modules and software certificates for creation of advanced signatures
- Provides extensive logging of processing steps
- Creates verification documentation as PDF/A or XML documents
- Integrates time stamps from dedicated time stamp server
- Offers optional encryption to secure documents for transmission and archiving
- Automatically transmits documents with email
- Combines signing, time stamping, encryption and transmission functionality in one process
- Offers clustering for high-availability or load-balancing configurations
- Operates with up to 13 smartcards per smartcard reader rack
- Secure PIN entry at smartcard reader
- Configurable generation of email alerts

Interfaces

- Directory / File based interface
- Programming interface (C, Java)
- Email connector

Administration

- Easy-to-use graphical user interface
- Local or remote administration (remote desktop)
- Email alerts
- Smartcard management
- Display of certificate details
- Limitation of smartcard usage in time or by number of signatures
- Process management
- Input/output management and archiving
- Verification documentation
- Multitenancy through dedicated assignment between process and signature units

Further information

- For more information about SafeGuard SignatureServer, visit: www.utimaco.com

Utimaco Safeware Partner:

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