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Digital Signing of Health Reports:
General University Hospital in Prague

Background

Czech law on digital signatures is at the forefront of national e-signature legislation in the European Union. In addition to e-signatures, Czech law also covers electronic marks and time stamping for digital health records submitted to electronic health systems by doctors and nurses.

Established in 1791, Všeobecná fakultní nemocnice v Praze (General University Hospital in Prague) is one of the Czech Republic's leading and most respected teaching hospitals. General University Hospital invests efforts and resources in improving the quality of healthcare provided to patients, and has implemented a quality management system to ensure the highest standards are met.

Customer Need

In order to streamline processes, reduce bureaucracy, and speed up communications between departments, the hospital wanted to implement a digital signing system that would enable its medical staff to submit and file patient reports electronically. The hospital was required to comply with Czech health laws, and ensure that digital patient records are legally valid and cannot be tampered in any way. It therefore decided to implement digital signatures and time-stamping for all electronic health reports submitted by medical personnel.

General University Hospital in Prague's primary need was to provide its medical staff with the ability to digitally sign patient reports with ease. Additional requirements included:

- **Expedite business processes:** Replace handwritten signatures and paperwork, and reduce the approval process time for multiple authorizing signatures.
- **Paperless office:** Reduce costs associated with traditional paper-based processes (i.e., paper, printing, ink, faxing, postage, and processing time).
- **Legal compliance:** Digitally sign and time-stamp patient records so that they are legally valid under Czech law.

Solution

General University Hospital in Prague decided to use Thales's PKI certificate-based SafeNet eToken USB authenticator, and has distributed it to thousands of medical staff. The SafeNet eToken USB authenticator offers maximum security for certificates by storing them inside the protected environment of the token's smartcard. It also creates a secure environment for the certificates by ensuring that the keys are never exposed to the PC environment.

The USB form factor eliminates the need for a dedicated smartcard reader, and offers optimal ease-of-use and flexibility to medical personnel. It is easy and convenient to carry around and can be used on any computer with a USB port, meaning that doctors and nurses can move from one workstation to another without issue.

To sign documents, all a doctor or nurse needs to do is make sure their token is connected to the computer. The hospital's healthcare information system automatically recognizes the certificate on the token and allows the user to sign directly from the application.

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Features

- **On-board PKI generation:** Certificates and private keys are never exposed outside the hardware token or module for secure storage of user credentials, keys, and sensitive information.
- **USB form factor** eliminates the need for a dedicated smartcard reader on users' computers.
- **FIPS 140-2-validated and Common Criteria-certified cards and smartcard chips.**
- **Native support** for long key encryption, including RSA 2048-bit.

Benefits

- Enable medical staff to securely submit and file patient records from a **secure USB device**, which can be used on any computer.
- **Streamline business processes** - Replace handwritten signatures and paperwork, and reduce bureaucratic processes.
- **Paperless office** - Reduce costs associated with traditional paper-based processes (i.e., paper, printing, ink, faxing, postage, and processing time).
- **Non-Repudiation and Time-Stamping** – Digitally signed documents and transactions are sealed electronically, providing evidence of signer and document authenticity, and guaranteeing document integrity, and thus are resistant to fraud and tampering. The SafeNet eToken provides optimal security by ensuring that the private keys are never exposed outside the hardware token or module.
- **Comply with Czech Republic digital signing laws.**
- Based on industry-standard interfaces for **out-the-box integration with digital signing applications** such as Microsoft Word and Adobe Acrobat.

About Thales's SafeNet Access Management and Authentication Solutions

Thales's industry-leading Access Management and Authentication solutions let enterprises centrally manage and secure access to enterprise IT, web and cloud-based applications. Utilizing policy-based SSO and universal authentication methods, enterprises can effectively prevent breaches, migrate to the cloud securely and simplify regulatory compliance.

About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

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