Information technology has already permeated large parts of our everyday life: whether it be a car, telephone or heating. Without the use of IT, the majority of devices and systems is almost inconceivable. Businesses in particular use IT systems to effectively design their working processes. The Fraunhofer Institute for Secure Information Technology focuses on protecting these systems against failures, attacks and manipulations.

The Institute works for companies in various industries. Many successful projects with international partners are impressive evidence of the faithful and reliable cooperation. Our customers include HP, Software AG, SAP, Lufthansa and the Federal Office for Information Security.

CC-PKI
Fraunhofer SIT has been active in the area of identity management and data protection for many years now. The institute runs the Competence Center PKI (CC PKI) of the Fraunhofer-Gesellschaft which is responsible for providing more than 18,000 employees with signature cards.

New ID cards
The institute is a founding member of the Competence Center for the new ID cards, which deals with the active promotion of the new cards as well as the associated privacy-friendly technology. In the medical area, Fraunhofer SIT has carried out studies in relation to the anonymity and pseudonymity of insured persons.

MobileSitter/iMobileSitter
Fraunhofer SIT has developed MobileSitter and iMobileSitter for the secure management of passwords on mobile phones and iPhones. This software ensures passwords to remain protected, even if the mobile is stolen or lost. Fraunhofer SIT has developed a special cryptographic procedure for this product, which has also been patented.

Fraunhofer smartcard workshop
Fraunhofer SIT organises the longest running developer workshops in Germany that deal with the subject of smartcards.

REFERENCES

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MOTIVATION
In order to be able to offer more efficient services, companies and public authorities are processing an ever-increasing amount of digital data and exchanging more and more information. The number of data mishaps is, however, also growing continually. The media reports about cases of unintentional data loss pretty much every week. And such mishaps are not restricted to smaller players – larger companies such as banks and telecommunication service providers are also affected. A »Data GAU« (GAU = an event that is equal to the absolute worst case scenario) can have dramatic results for the affected company, such as an immense loss of image, a loss of trust of business partners and also a significant drop in revenue. But that’s not all, as there may also be legal consequences due to the violation of compliance requirements and even claims for damages from the affected parties. In addition to this, there is a growing risk of industrial espionage and cyber attacks against State bodies.

CHALLENGES
The amount of data and documents stored electronically is growing on a continual basis. At the same time, complexity is rising: in this age of the Internet, people generally have numerous electronic identities and take on various roles, which need to be interpreted differently within different contexts. No matter whether a person is using a social network or e-commerce platform, they often hand over valuable private data to the operator, which must be handled in a secure but also flexible manner. The same applies to personal and business data in companies.

One weakness of many IT-based implementations is that identity management and data protection are often not designed as an integral part of the overall system. Instead, they are taken into consideration subsequently and then applied to a core function. This provides potential areas of attack for both internal and external perpetrators. Therefore solutions are required that are privacy-friendly »by design«. Solutions, which support users and the administrators of identities to handle the wide variety of identities, must also be available.
OUR OFFERINGS
Fraunhofer SIT supports companies by analysing existing identity and access management solutions. If deficits are identified, Fraunhofer SIT creates new individual concepts and implements these together with the company. Companies that wish to set up their own PKI, with or without smartcard support, or who wish to integrate an external PKI, can also obtain valuable support from the institute.

Further service offers include data protection audits and advice in the area of eHealth, above all in relation to electronic patient files. Fraunhofer SIT can also provide support during the formulation of data protection guidelines, as the institute also has employees with legal qualifications.

Companies that wish to utilize the new ID cards can obtain comprehensive support from SIT employees. Fraunhofer SIT is fully aware of all of the technical specifications related to the new ID cards and knows how they can be integrated quickly and securely into existing infrastructures.

Fraunhofer SIT can also assist companies with the implementation of smartcards and smart tokens as well as the protection of associated systems.

CUSTOMER BENEFIT
- Investment protection
- Protection of corporate values
- Compliance
- Improvement of risk management
- Image improvement