Electronic Identity Cards and Citizens' Portals
Contributions to a Culture of Cybersecurity

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Over 40 million Germans are now online and the number of IT users and Internet users is constantly growing. Information and communications technology (ICT) is making inroads into ever more areas of our lives. The process is being accelerated by miniaturization: As mini-computers are incorporated into everyday objects, the pace of technical integration is rapidly increasing. However, the associated advantages such as availability and mobility are also accompanied by certain disadvantages. Given the huge numbers of processes and tasks that are nowadays IT-supported, both public-sector authorities as well as commercial enterprises and private individuals are extensively dependent on fully functional information technology and secure information infrastructures.

Inspired by the potential opportunities to abuse this development, cyber crime is itself becoming increasingly professional and international. Already there is a flourishing underground economy based on the principles of the division of labor and organized along global lines. This shadow economy allows criminals to use the Internet as an instrument of crime, without necessarily having any IT skills of their own.

Against this background it is likely that IT-based threats will continue to multiply in both quantity and quality. In view of the global scale of integration via the Internet and other networks, IT security is an international issue. Therefore in future we must continue to make national efforts and pursue intensive international cooperation in the areas of prevention and prosecution, and not least exploit technical developments and platforms, in order to ensure that business, the public sector and private citizens are able to use the Internet and IT in safety. Since those responsible find themselves confronted with similar problems across the world, the origins of which frequently lie beyond their own national borders, international cooperation in this field is of outstanding importance.

The Federal Office for Information Security (Bundesamt für Sicherheit in der Informationstechnik, BSI) is the national authority responsible for IT security in Germany. One of the great challenges facing an authority such as the BSI which is tasked with prevention is to provide security for the complex information infrastructures employed by the Federal government authorities.

Other critical infrastructures, too, must be protected, including energy supplies, traffic and transport, banking and insurance, as well as the information and communication technology used in these fields as well as in the ICT sector itself. Supply shortages, impairments or failures in these fields resulting from IT security events have the capacity to inflict serious damage on German industry and society.

Another field which exploits the possibilities offered by ICT is that of espionage. Companies are increasingly becoming the focus of IT-supported commercial espionage. Studies reveal that businesses of all sizes are affected, particularly in what are termed innovation industries.

Looking at the tools employed by cyber criminals to mount their attacks, nowadays the greatest risk involved in using the Internet lies in manipulated web sites and the malware secretly distributed via them. These trojans, as they are called, fund their way unnoticed onto the user's PC where they operate in the background, spying out passwords, etc. without the user even being aware. Internet criminals are now distributing these programs with increased intensity by exploiting the programming weakness to be found in web sites. To load such malicious code unnoticed onto your computer, all it takes is to "surf" a web site. Frequently the process takes place via the use of active content in the browser window. Online criminals are also using reverse engineering to discover security loopholes in software programs that can be exploited in order to mount attacks.

Anyone wishing to navigate safely through the virtual world, now and in the future, must actively and continually take steps to protect both IT systems and infrastructure. This applies to private citizens, businesses and public sector authorities. A key element in the efficiency as well as the trust inspired by e-business and e-government is the concept of a secure electronic identity. Protection against identity theft is one of the great challenges of the Internet age. Protection against identity theft and profiling, as well as assuring data minimization and data security are among the top priorities.

Which steps is Germany taking in order to protect Digital Identities?

We see the necessity for action on two fronts. The technical function of IT products and systems is not transparent for a large number of users. Providers are therefore called upon to assign the topic of IT security a high priority, and, for example, ensure transparency of the security features of IT products by means of standardised tests and certification. The integration of security mechanisms from the outset shall improve the security level and lower the risk potential. For better acceptance the mechanisms should be as automated as possible to restrict necessary user interaction to a minimum. However, the necessity for becoming active is not only a concern for manufacturers and the respective state institutions focusing on the situation of IT security in Germany. They cannot offer 100 percent protection. The more perfidious and faster the attackers become, the greater the necessity for users to become active themselves.

The best protection for users in society, business and administration can be achieved by improving their IT security competence. This is an essential factor in improving the framework conditions for safe use of information technology. Interest must be awakened in regular and up-to-date information on new risks, and users must be motivated to follow the recommendations for effective security measures. The behavior of users must be marked by alertness and caution, and they must be made more aware of their own personal responsibility. In the future the installation of security updates and patches should be as equally a matter of course as wearing a safety belt in the car.

Let me point out the German Government's efforts to achieve secure electronic identities by means of two current projects: the Electronic Identity Card and the Citizens' Portals Initiative. Both projects are developed under the supervision of the Federal Ministry of the Interior and substantially supported by the Federal Office for Information Security.

The Electronic Identity Card will make it possible to reliably prove one's identity online and at the same time offers new solutions for data protection and the right of informational self-determination (e.g. selective data transmission, pseudonym function). The card is to be equipped with a contactless chip and new technical functionalities, including biometrics for official use by public authorities. By the end of July a cabinet decision on a new ID card Bill has been made. Introduction of the electronic identity card is envisaged for 2010.

Parallely, the Citizens' Portals Project aims at making Internet communication easier and more secure by establishing a new form of trusted e-mail infrastructure. Through this new kind of infrastructure, electronic communication via the Internet is to become at least as secure, authentic, confidential and binding as today's paper mail.
To this end, a network of Government certified and, as a rule, privately run citizens' portals is to be established which is to provide the following services:
- Secure e-Mail with authenticated addresses (free of spam)
- Easy-to-use and uniform identification on the Internet
- Long-term deposit of documents in document safes

In the past weeks, the German Government and its partners have been finalising the preparations for pilot projects, which are officially launched at the 3rd National IT summit in Darmstadt/Germany on 20 November 2008.

Let me now turn to the underlying idea on which both the eID and the Citizens' Portals projects rely: it is a close cooperation between the Government and the private sector. While the Government will confine itself to providing the legal infrastructure and central technical specifications, it will be the enterprises themselves which develop business models and implementation processes around the new technologies.

In this way, the new technologies create the preconditions for innovative services, which in turn will help Germany to continue making forward strides as a location for information technology. At the same time, an attractive new field for producers of security technologies is emerging. Germany has since long been a global leader in the development of forward-looking security technologies. German manufacturers will help us to build upon this longstanding expertise in order to make most of the opportunities opened up by these new technologies.

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