

Success story

Official digital ID card for the Bremen Police



Security-certified, multi-functional ID card enhances police security and recognition

In Germany, personalized police documents verify that the holder is an official police officer authorized to carry out law enforcement tasks. In some states, police department employees and administrative staff also carried documentation verifying their identity and scope of responsibility.

Germany is organized as 16 partly

sovereign states where police administration is carried out on a local level. The result was that police documentation and ID badges were not uniformly managed across all states; they were often printed either on paper or plastic cards. Only in some states did cards contain a chip for electronic storage of identity data.

Introducing a new, high-tech ID card concept

During security upgrades to enable access to police buildings and for logging into their computer systems, the Bremen Police decided to also introduce a new official police ID card which took into account the latest smartcard technology. It was also

decided to make the technology usable throughout Germany for the police as well as other branches of government.

The goal was to create a visual ID card which could be easily recognizable by citizens, while containing a security-certified, multi-application chip to enable a variety of digital access functionalities. The pre-manufactured smartcard was designed in blue (for police officers) and green (for administrative employees), while hosting a variety of anti-counterfeiting features.

The Bremen Police, in particular, did not have an official, unified ID card, but rather had two cards for daily use: an official ID card with a photograph for visual identification, and a second card containing an RFID transponder chip. The latter card gave police staff access to their buildings and computers, thereby allowing secure access to police infrastructure and IT systems.

In addition to the high procurement, administration and maintenance costs associated with having a two-card system, separate security processes for



each card created a problem for data protection and IT administrators. Motivation was therefore high for introducing a forward-looking, strategic solution for integrated security.

Stumbling blocks cleared away

From the beginning of the project, all parties of Bremen Police cooperated. External expert advice was sought so that implementation could be carried out within a reasonable timeframe and budget.

Thanks to the shared motivation of the project team, goals were quickly defined. The working group prioritized essential cornerstones such as security, stability and flexibility according to requirements and compromises which all participants could support. In addition, the card design had to have a high level of protection against counterfeiting and provide excellent visual recognition for citizens. To this end, Bremen Police consulted with colleagues of Hessen Police who were pursuing the same objectives for their own project.

BSI certificate in accordance with Common Criteria EAL 4+

Following the definition of goals for the multi-application chip, the Bremen Police selected the LEGIC advant AFS4096 Java Applet running on a JCOP multi-processor platform which was recently certified by the German Federal Office for Information Security (BSI) according to Common Criteria EAL 4+ specifications. They also decided for a 100% contactless RFID environment.

Security under your own control

Another crucial aspect of the project was data protection based on strong, recognized encryption algorithms conforming to international standards, as well as **system sovereignty** for Bremen Police over card applications

and reader infrastructure. It was thus out of the question that Bremen Police would leave key management for cards and applications to the system provider or other 3rd party. To fulfill this requirement, they opted for possession of a **dedicated, private LEGIC Master-Token** in order to ensure that management of security remained solely within the Bremen Police.

Functional upgrades

The modern RFID system paid off: as soon as the system was fully configured, installed and integrated into day-to-day operations, Bremen Police benefited from a highly secure access system which, in combination with a modern card management system, not only sped up the card issuing process, but also simplified the management of ID cards while protecting access to the police's IT resources.

In particular, the integration of visual ID cards with smartcard functionality made the card a constant companion for all employees. Further benefits are anticipated in the future through functional upgrades to the cards.

LEGIC products & Services:

- Transponder: advant AFS4096 Java Applet
- Security Module: 4000 series

Services:

- LEGIC ID Consulting & Services

LEGIC partners in this project:

- except Card Group AG (Transponder manufacturer)
- ID-ware Deutschland GmbH (System integrator / Consultant)