Germany’s new Electronic Health Card

The Key to the country’s new healthcare infrastructure

FINANCIAL SERVICES & RETAIL
ENTERPRISE
INTERNET CONTENT PROVIDERS
PUBLIC SECTOR > CASE STUDY
TELECOMMUNICATIONS
TRANSPORT
Germany’s new Electronic Health Card

The Key to the country’s new healthcare infrastructure

A comprehensive social security system

Germany, with over 80m citizens, is the biggest economy in Europe. It has one of the world’s oldest universal healthcare systems, created at the end of the 19th century with the aim of providing a comprehensive social security for the nation’s working forces. This system is funded through social contributions by employers and employees and today covers 92% of the population. Highly decentralized – with private doctors providing ambulatory care and independent hospitals providing in-patient care – it is administered by around 150 different health insurance companies.

Growing expenditures

Germany has seen healthcare costs exploding in the past few years, putting severe strain on its healthcare systems. Advances in medical technology, population ageing, changes in lifestyles, increases in chronic diseases and rising patient expectations are the main factors. Overall healthcare expenditures reached 12% of GDP in 2010.

A new networked infrastructure

Germany had already modernized its largely paper-driven healthcare administration in the early 90’s with a health insurance card. The card carried information such as name, address, status and insurance details and eased many administrative processes with the automatic reading of data.

Germany is now embarking on an ambitious project to modernize its healthcare system with the introduction of a secure and cross-institutional networked infrastructure. The goals are to further reduce administrative costs, slash fraud, optimize the use of medical data and increase quality of services through new on-line apps.

At the heart of the solution is a new generation of electronic health cards that securely stores and processes patient information.

Launch in 2011

From spring 2011, Germany began to put in place its new centralized infrastructure – to create a dedicated secure interface between local and national providers and insurers. It will connect thousands of private doctors, hospitals, pharmacies and the insurance companies who administer healthcare treatment, enabling medical data to be securely and easily shared between parties in full respect of patient privacy.

In October 2011, health insurances began to roll-out the new cards. Over 70 million people should be in possession of it by 2013.

Security and privacy: key concerns for all parties

Technical implementation was developed in close coordination with the German Federal Commissioner for Data Protection and Freedom of Information and the Federal Office for Information Security (BSI).

Data security, privacy and protecting sensitive health data have been a top priority in the design of the new system where cardholders give their consent to store and share personal data. The new electronic health card now includes a photo of the card holder, as well as essential personal

Scope of the new healthcare system

- Networked IT infrastructure dedicated to eHealthcare
- Over 70m of second-generation smart cards with holder’s portrait and security code (PIN)
- 150 separate health insurers
- 370,000 healthcare professionals
- 2,000 hospitals
- 20,000 pharmacies

With patient’s consent, medical information will be accessed by healthcare professionals using their professional smart card. These electronic records will contribute to cut errors, ensure that care provided is consistent and improves the quality of services provided.
data such as name, address and insurance entitlement. For future use, the card is able to store key health related data such as emergency contacts, medication, allergies or drug intolerance.

This modern telematics infrastructure delivers significant benefits in terms of improved administration, better patient care and reduced abuses and frauds:

- Linking doctors, hospitals, pharmacies and insurers allows all parties to work more smoothly together – streamlining administrative tasks, and controlling costs.
- Access to patient data, including medical history, previous examinations, enables medical professionals to carry out diagnoses and consequent treatments faster and with more accuracy.
- The card’s photo identification and secure PIN access are keys to preventing risk of fraudulent misuse.
- To take into account the right of self-determination of the patient, they can decide which kind of medical data he/she will show to the doctor.

Large-scale deployment in action: Gemalto’s key strengths

Gemalto is supporting AOK—Germany’s largest health insurance organization—in its deployment of highly secure, second-generation electronic health cards.

Operating in 11 regions throughout Germany, AOK insures 25 million out of the 72 million citizens currently covered by universal healthcare. AOK has entrusted Gemalto to locally deliver the entire eHealthcare card cycle, from production and personalization to packaging and fulfillment of each card.

Following a successful pilot program, 2.5m Gemalto Sealys Health Cards have been delivered to AOK members in 2011. In 2012, Gemalto will provide another 15m cards.

The card developed in Gemalto’s R&D center in Munich, are manufactured and personalized in secure premises in Filderstadt (picture), near Stuttgart in the south of Germany.

Gemalto has also provided secure readers to medical professionals to ensure authorized login and access to patients’ health details.

This new Sealys card is a central component in securely identifying and connecting patients, doctors, hospitals and health insurers for a more efficient and effective healthcare experience today and into the future.

Expertise at your service

Gemalto is the world leader in digital security with 2011 annual revenues of €2 billion and 10,000 employees.

In the public sector, Gemalto provides secure documents, robust identity solutions and services for governments, national printers and integrators in the service of citizens. Its products and solutions are deployed in more than 60 government programs worldwide.

Gemalto provided technical services and products during the implementation of 11 national eHealthcare systems currently in operation globally. Contribution to these projects provides the company with an excellent overview of the technology involved, its applications and the quality of information systems, as well as the social context of its use. Furthermore, Gemalto’s experts have provided support for national debates on how to improve systems, in particular to fight fraud and cut the number of errors. Finally, Gemalto is an active collaborator in European and global standardization organizations.

Key success factors for AOK’s massive roll-out are both global and local:

- Expertise of Gemalto in nationwide identity and healthcare programs
- Highly secure products and solutions with proven German certifications
- Ability to manufacture and personalize in Germany with highly skilled work forces
- Strong team commitment and cooperation since the inception of the project
The world leader in digital security