



# Slovene eHealthcare initiative

Latest generation eHealth cards  
for the benefit of all

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### Identity & Biometric Solutions

#### First generation of Health Insurance cards

Since gaining independence in 1991, Slovenia has wasted no time in establishing itself as a pioneer in terms of modernizing its public healthcare system. Indeed Slovenia, along with France, led the way with the introduction of micro-processor-based health insurance cards as far back as 2000, when the country rolled out two million smart cards to the Slovenian population.

This first foray into a nationwide health card system by the Health Insurance Institute of Slovenia (the Institute), was a significant breakthrough in European healthcare management, with the Slovenian Health Insurance Card (HIC) winning the "Sesame 2000" award.

This first generation of cards offered secure patient ID, accurate and up-to-date data in the cards and a significant reduction in fraud and administration. Thanks to their extraordinary durability, many of these cards supplied by Thales are still in use till today. Only now are they replaced by the newer and more advanced versions that come with a limited validity of 10 years.

#### New challenges

In the spring of 2006, the Institute prepared, with all key actors in the Slovenian healthcare environment, a renovation concept for the renewal of the existing system while ensuring the continuity of all supported business processes. The Institute pursued several goals with this project:

- to introduce a new version of the HIC to enable the use of digital certificates in addition to previous functionalities
- to develop and introduce a new health professional card with digital certificates as a fundamental security element of for the entire system, which allow also for electronic signing
- to establish the necessary infrastructure required for on-line access
- to roll-out the application equipment for healthcare providers and insurance companies
- to prototype the introduction of electronic prescriptions

The key challenges of the renovation at that time included active participation of all actors, swift execution of changes without disruption of service and the introduction of acceptable, manageable and up-to-date ICT solutions.

#### The solution

In February 2008, the Institute chose Thales to supply a comprehensive solution for its latest generation of health cards (comprising health insurance and professional cards, software components and readers), and Cetus, the Slovenian leader in security document printing, providing card personalization and the PKI infrastructure.

The electronic Health Cards from Thales were the first of their kind in Europe to feature its Java-based Thales Gemalto MultiApp to further

#### Facts about the Slovenian health cards as of 2019

- **Slovene population:** 2.1 million
- **Smart cards in circulation:** 2.2 million
- **Professional smart cards:** 54 thousand
- **Card readers:** 12 thousand

secure a fully online system with digital certificates and qualified signatures for healthcare professionals.

Thales supported Cetus with adapting the issuance solution to the new Slovenian cards, and supplied card applets, readers, middleware and software applications. The Institute acts as system integrator and as operator of the national healthcare system that issues cards to citizens.

Key to the successful migration and operation of the new system was the fact that it is fully backward compatible with existing infrastructure.

#### The results

Thales health insurance cards significantly enhance on-line services for health providers, enabling simpler and harmonized administrative procedures, and more importantly, allow electronic transactions to be carried out in compliance with regulations governing the protection of personal data.

For patients, updating data on the card via the network of self-service terminals is no longer necessary and new services, such as viewing one's own insurance and health data, have been gradually introduced. For health insurance companies, the risk of misuse due to the concurrent review of data on insured persons is reduced.

#### The road ahead

The next big renewal project will take place in 2020. Thales is again charged with the development and delivery of the next generation of cards complying to latest security standards and providing users even more convenience and versatility.

The new cards will meet all requirements for Assurance Level HIGH according EU regulation 910/2014 for electronic IDentification, Authentication and trust Services (eIDAS). For easier usage, the new cards will have both a contact and contactless interface. The latter opens the way to read the cards digitally with any NFC-enabled device, as in many smartphones and tablets.

To relieve users from the burden to memorize and enter a PIN for authentication and digital signatures, the new cards will have the option to use fingerprints instead. As with the PIN, the fingerprint data is securely stored locally in the microprocessor of the smartcard to assure privacy and avoid any risk for hacking.

Pilots for this new cards and solution components will begin soon and rollout is expected to start in later 2020.