

Case Study

multos
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Banka Koper

A MULTOS Solution for Value-added EMV



One of Slovenia's most dynamic banks, Banka Koper has over 50 years experience with a history of innovation. Emphasizing a desire for a strong regional presence, Banka Koper introduced the country's first domestic payment card, the Activa Card, in 1992.

As a relatively early adopter of EMV technology, the bank initiated its EMV migration in 1999. Banka Koper required a single technology platform that could meet its needs in all banking channels in all business areas. As a dual-issuer for both MasterCard® and Visa®, it was necessary to provide a secure, reliable and consistent interface to their customers across all communication channels and product lines.

Who We Are

Multos International is a leading implementer of MULTOS technology. We offer a complete range of contact, contactless and dual interface products, on many of EEPROM sizes. Applications spanning the Banking, Govt/ID and Transit market sectors have been introduced on our products. Furthermore, any application, be it existing or proposed, can be developed for the MULTOS or MULTOS step/one platforms.

Our products have been used in numerous security sensitive projects, in a broad mix of issuing environments and supply chain configurations. With Operations personnel and Technical Support staff located around the world, we are fully capable of providing MULTOS products and ancillary services that form the basis of a successful smartcard-based solution. Contact us at info@multosinternational.com to see how MULTOS or MULTOS step/one fits your needs.

The Solution

After extensive investigation, MULTOS was chosen by Banka Koper as the underlying technology for all of its card products. Reasons include:

- MULTOS is a true multi-application smartcard platform with compact applications maximising the space available for multiple applications.
- Highest levels of security. Our MULTOS platform has security evaluation, covering application and data firewalls and the loading and deleting of applications.
- Issuer-centric model for controlling the card enablement and applications on the card.
- Full smartcard lifecycle management. The MULTOS specification covers a complete smartcard platform, defining the OS, the Application Programming Interfaces as well as both card and application management processes. This standardization provides issuers freedom of choice between competing suppliers, thereby assuring greater cost effectiveness and surety of supply.
- Open and interoperable platform. The MULTOS specification is open to any party and is controlled by a consortium of the industry's leading players. Importantly, each MULTOS implementation undergoes an independent Type Approval to ensure inter-operability between implementations and compatibility to specifications.
- A proven solution with low risks. The MULTOS platform is well-suited to applications requiring high levels of security (such as EMV banking and Identity).



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Combining EMV and Internet Security

Banka Koper's Maestro Card programme is based around four functional pillars: payments, authentication, data, and digital signing. The programme provides everything necessary for conducting secure transactions via their i-Net Banka e-banking service, phone banking and electronic commerce for MasterCard SecureCode and Verified by Visa brands. Using the new Activa-Maestro EMV payment card and a portable (not connected) smart card reader the cardholder is able to generate a One-Time Password to authenticate themselves to the i-Net Banka service, giving true 2-factor authentication. MasterCard's CAP (Chip Authentication Program—see inset) technology provides the mechanism for this authentication.

As well as being used for authentication with i-Net Banka the Activa-Maestro card can be used with other web services using the same technology, such as: e-tax, e-administration, e-register and other e-services.

Highlighting its dedication to innovation, Banka Koper's "Chip-to-Speech" technology on its Maestral Card, providing access to One-Time Password technology for the visually impaired through the use of an audible password. The Burja card programme combines Banka Koper's new Activa-Maestro multi-application EMV payment card, with a PCSC reader to enable secure internet communications using PKI technology.

MULTOS is a proven solution for those projects seeking to bring additional value to EMV programmes.

Implementation

Banka Koper's EMV solutions have been a collaborative effort based upon MULTOS smartcard technology. Components include:

- Multos International's M/Chip4 payment application for MULTOS
- MULTOS 36K using Infineon crypto-controller
- Banka Koper's PKI solution
- MasterCard's on-card applications: MODS MasterCard Open Data Storage) and CAP (Chip Authentication Program)
- TranSend's PocketServer
- Personalisation & card supply from multiple card manufacturers.
- Thales' Data Preparation hardware & software security systems
- One-Time Password readers from Vasco, Xiring and Todos.
- nCipher's PayShield secure hardware security platform for CAP authentication

The success of the Activa Card, in addition to the introduction of the Maestral and Burja card programmes, highlights the ability of MULTOS to support a wide range of products hosting several value-added applications aimed at internet security and personal data storage.

Banka Koper has introduced OneSMART Web functionality, increasing the portability of personal information by enabling customers to easily and securely store it on their cards. This capability provides cardholders additional tools to enhance web-browsing and e-commerce, such as: URL and password storage, automatic form filling of address and account details, and storage of general personal information.

As a dual-issuer, Banka Koper required a solution that could be applied equally across all products. Gojmir Nabergoj, senior consultant at Banka Koper, said "Banka Koper is a firm believer in MULTOS technology. We have now completed our deployment of chip cards across both payment brands, meaning we no longer need to support two different hardware platforms and associated personalisation systems."

Banka Koper was the world's first Visa card issuer to deploy credit, debit and prepaid smartcards using MULTOS smartcard technology. Currently, the bank offers Visa products on the 36K MULTOS platform. The Visa MULTOS card now contains both VSDC and the Visa Dynamic Passcode Authentication. The new Visa Electron Prepaid card also contains the bank's proprietary PKI application, developed for MULTOS, allowing users to benefit from the utilization of digital certificates.

Continuing its emphasis on innovation, Banka Koper has commenced initiatives focussing on post issuance, NFC and Contactless cards. MULTOS, with its powerful and flexible architecture, is up to the challenge.

About MasterCard's Chip Authentication Program

Chip Authentication Program (CAP) is a packaged smart card solution from MasterCard® that enables secure payments in both the physical and virtual worlds using MasterCard and Maestro® cards. A simple card reader forms an integral part of the package. CAP can be used with the card reader to generate one-time passwords for highly secure shopping over the Internet. The same approach can be used to secure MO/TO (Mail Order/Telephone Order) payments and remote banking transactions. CAP provides a single, common, cost effective method for securing the delivery of all payment and banking services.

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