



The Smartest Card in Brazil

Banrisul Combines Payment and Internet Authentication on MULTOS smart card

As a leading regional financial and banking institution in Brazil, transaction security and customer satisfaction is high priority for Banrisul. To fulfill that priority, Banrisul wanted to increase the channels through which customers could access and manage their finances, whilst maintaining integrity and security of customer assets.

Solution Objectives

- 1. Extend access to payment products, whilst increasing Payment Network (ATM and POS) security.**

“We wanted to exploit the off line risk management properties of EMV (Europay, MasterCard, Visa) smart cards and terminals to enable us to offer payment cards to a much wider proportion of our account holders. To do this securely, we needed a smart card platform that could support enhanced features such as Dynamic Data Authentication (DDA), Combined Dynamic Data Authentication (CDA), enciphered off-line PIN authentication, and full-grade authorizations. By developing our own EMV application on MULTOS, we were able to achieve this” said Jorge F. Krug, senior IT security executive of Banrisul.



- 2. Increase Internet Channels security.**

“We also wanted to offer secure access to accounts over the internet. By developing our own PKI application on MULTOS, we have been able to introduce a solution that employs enciphered off-line password authentication and on-line transaction signature validation.



The signatures are generated and validated according to a PKI framework known as 'ICP-Brasil' (Brazilian National PKI Standard) that grants legal non-repudiation and authentication of every transaction signed with ICP-Brasil certificates. Since the card generates a signature for every transaction and this signature is validated at the authorizers, there is a high level of security associated.”

- 3. Empower customers with a single, secure and flexible card that can be used both at the current payment networks and at Internet channels**

“Giving each customer a smart card capable of executing banking and PKI applications, while also capable of receiving new applications in the future without having to issue new cards is a tremendous convenience for our customers and offers a cost saving for Banrisul. A single MULTOS card combining EMV & PKI, is less expensive than issuing separate proprietary OS EMV and PKI cards.”

Superior Turnkey Flexibility:

Banrisul was careful to ensure that it was not tied to a single vendor for all of its smart card needs. One of the key needs was a technology that gave the bank flexibility in chip suppliers, personalization bureaux, and the ability to add their own applications in the future. After exploring JavaCard, FlashCOS, and proprietary EMV and PKI solutions, Banrisul determined that the StepNexus MULTOS platform was the most secure and flexible system available on the market.

MULTOS Case Study



Having decided for MULTOS, Banrisul worked with SmartCon, a local Smart Card Consultancy to develop its own MULTOS EMV & PKI applications, and its own data preparation and smart card management systems which run on IBM z/OS and use IBM ICSF (Integrated Cryptoserver Service Facility) as an HSM (hardware security module). The bank generates personalization data in house and then uses Gemplus BankNote as an external bureau for personalizing its StepNexus MULTOS cards.

KEYCORP LIMITED

Having selected Keycorp/Infineon 32kb MULTOS version 4.2 smart cards, Banrisul is able to source embedding of the MULTOS modules from any smart card manufacturer in Brazil.



The new smart cards have been used with several PC/SC Desktop smart card readers, ATMs, EFTPOS and PIN Pads with great success.

“The StepNexus MULTOS platform is now the standard smart card platform for all chip card programs for Banrisul. Its architecture offers all the security we need, together with excellent multi-application support.”

Smart and Successful

Banrisul is well on its way to smartcard success in Brazil. The roll out is starting for Corporate Internet bank clients and clients that complete higher value transactions on-line. Banrisul has issued 35,000 MULTOS cards as of April, 2005. More importantly, customers are noticing the change.

When asked about how StepNexus MULTOS helps Banrisul meet its business objective, Krug is quite clear.



“StepNexus MULTOS solutions reduce fraud and increase the volume of transactions conducted online, eliminating the substantial costs of processing paper. That impacts our bottom line.

Whenever you can do that for a bank, you make a positive, measurable impact that gets noticed.”

STEP NEXUS

About StepNexus:

StepNexus is a joint venture between Oak Hill Venture Partners, Keycorp, Hitachi and MasterCard International. StepNexus is the provider of “Secure Trusted Environment Provisioning” (**STEP**) technology, a patented mechanism for issuance and updates of software or content to devices in the field. StepNexus owns the intellectual property for **MULTOS** – the world’s highest security, open standard smart card platform and provides global services for MULTOS through StepNexus Services. The company also owns **Nectar™**, the first implementation of Microsoft .NET on smartcards.

For more information visit www.stepnexus.com or <http://services.stepnexus.com>

About MULTOS:

MULTOS is an open standard multi-application Operating System for smart cards, whose development is overseen by a consortium of smartcard and silicon manufacturers, payment schemes, card management system providers, and integrators. A range of applications from payment, authentication, digital identity, biometrics, loyalty, and contactless ticketing may securely co-reside on a MULTOS powered chip.

STEP is implemented on more than 60 million MULTOS smart cards that have been issued in over 30 countries, in projects ranging from banking, national identity, ePassport, campus security, secure ID and transit.

For more information, visit www.multos.com