



Banamex Single Platform Migration Project



A MULTOS step/one Solution for Multi-Scheme Issuers

Introduction

The Banamex Financial Group

The Banamex Financial Group is a member of Citigroup, Inc., and is the leading financial group in Mexico. Through its subsidiaries, Banamex provides a wide range of financial services, including deposits, consumer financing, mutual fund and retirement fund management, insurance, banking, pensions and stock brokerage. The Banamex Financial Group is the owner of Mexico's second largest Bank, Banco Nacional de Mexico (Banamex).



Banamex was founded in 1884, from the merger of Banco Nacional Mexicano Bank and Banco Mercantil Mexicano, and had branches in Mérida, Veracruz, Puebla, Guanajuato and San Luis Potosí. The newly formed bank added to these by opening a branch in Guadalajara.

Today, the group has over 1,400 branches and 5,500 ATMS across the country.

Single Platform

Banamex, as an issuer of both MasterCard and Visa branded cards, were looking to increase their supply chain options and streamline personalization. Luis Cirerol, New Technologies Manager, Cards, at Banamex, identified the need for a platform that would support their current business requirements and provide the flexibility for the

future. In particular, Banamex were looking for:

- The ability to have multiple sources of card supply, including local suppliers.
- The availability of M/Chip 4: utilizing additional value-added services that M/Chip 4 can bring
- A wide variety of available applications—especially VSDC.
- Seamless migration path to contactless and Dynamic Data Authentication (DDA) capability.
- Existing support by current personalization equipment. Banamex runs a personalization facility with Datacard and Thales equipment. It was important that the selected platform could be supported by these products.
- Easy and fast personalization throughput: Banamex personalize around 300K chip cards through their bureau each month and needed to have fast personalization for the migration to the new platform to be successful.

Why MULTOS?

As a truly open platform, MULTOS step/one was able to provide the benefits of working with multiple vendors across the entire supply chain—including card manufacturers.

Our MULTOS step/one solution comes with both M/Chip 4 (an EMV application for MasterCard issuers), and VSDC (an EMV application for Visa issuers), pre-loaded in ROM. By pre-loading applications, the amount of EEPROM consumed is reduced, freeing it for other applications and data storage, and reducing the time required for card personalization.

The level of compatibility between MULTOS step/one and MULTOS

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(our DDA-capable smartcard operating system) is such that any applications not requiring RSA functionality will run on either platform. This means that when an issuer decides to migrate from an SDA EMV solution to a DDA EMV solution, the same applications may be used.

As well as application compatibility, MULTOS and MULTOS step/one use a common set of personalization commands, minimizing the

impact on the personalization process when migrating from an SDA solution.

Testing at Banamex's own personalization facility showed that MULTOS step/one cards were able to be personalized in about 3 seconds (previously, the same process had taken about 10 seconds on cards operating a native platform).

In addition to MULTOS step/one products (available on 4K and 8K), Multos International also provide full DDA MULTOS products on 8K, 16K, 32K and 36K for contact and 36K and 80K for contactless. The variety of available products allows the tailoring of a solution to best fit the customer's requirements— there is no need to pay for unused EEPROM.

Implementation

Banamex decided to adopt MULTOS step/one as the single platform for all their MasterCard and Visa cards. The migration process started with an upgrade to their personalization center to support MULTOS products.

Essential to the success of this undertaking was the close working relationship between Banamex, Multos International and Datacard, the suppliers of the personalization equipment.

According to Bob Beer, Director of Software at Datacard, one of the biggest challenges facing EMV issuers is supporting a multiple native card environment with its ever-changing chip personalities. Said Bob, "When Datacard was given the opportunity to work with a progressive customer like Banamex to consolidate its native card environment to a single platform, we welcomed the opportunity to combine our standards-based GlobalPlatform Profiles and Scripting technology with [the] MULTOS step/one platform and provide an operationally elegant, fast, extensible and cost effective issuing solution."

Drawing on the experience gained from numerous MULTOS projects around the globe, Multos International and Datacard were able to provide close support to the bank's personalization bureau teams. This support also included training and coaching in the use of the supplied EMV parameter management tools for M/Chip 4 and VSDC.

Luis Cirerol, New Technologies Manager at Banamex, said, "We have implemented MULTOS in our personalization centre to issue both Visa and MasterCard using the same smart card platform. The flexibility of the MULTOS system also means an open card supply chain, improved issuance times, cost reduction and opportunities to increase our value-add with additional applications. Already, we have launched a pilot project for contactless payments using a MULTOS dual interface card bringing increased value to our cardholders."

Banamex will shortly begin mass volume roll out of MasterCard-branded EMV cards on MULTOS step/one; the rollout of Visa-branded cards is scheduled for the second half of 2007.

MULTOS step/one Features

- **Entry-level EMV card.** MULTOS step/one provides an open platform, multi-application SDA card at a price in line with native solutions.
- **Family compatible with MULTOS Version 4.** MULTOS step/one provides compatibility with MULTOS applications (without RSA cryptographic functions) and MULTOS personalization commands, allowing for a straight forward migration to full DDA.
- **True multi-application smartcard platform.** Low OS overheads and compact applications maximise space available for multiple applications
- **Issuer-centric model** for controlling the card enablement and applications on the card.
- **Full smartcard lifecycle management.** The MULTOS step/one specification covers a complete smartcard platform, not just the OS or the APIs, but extending to card and application management.
- **Open and interoperable platform.** The MULTOS step/one specification is controlled by a consortium of the industry's leaders, and that consortium is open to anyone. Independent Type Approval ensures inter-operability and compatibility to specifications.

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