



# EMV

## MIGRATION METHODOLOGY

From Awareness to Implementation

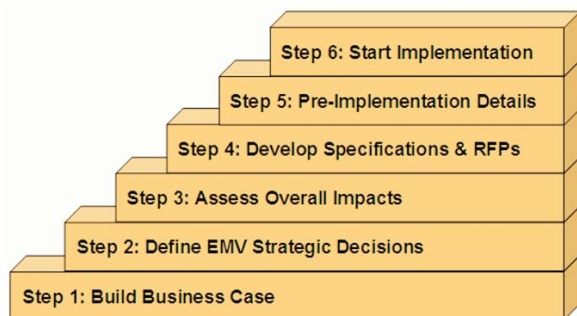
**Sector: Banks & Financial Institutions**

### The Business Challenge

After taking the decision to comply with the EMV standard, many banks are currently standing on their first step of the EMV migration track or have just moved one or two steps forward. Without deviation from their main goal, to migrate from issuing and/or acquiring of magnetic stripe cards to chip-based cards, migrating banks want to profit from investment allocated to EMV compliancy and ensure additional revenues can be generated. As a result, selecting the next step on the migration track is a key factor towards achieving their goal without missing EMV opportunities to benefits for the EMV added values.

### EMV Migration Steps

Based on our experience and engagement with a number of banks that have already migrated to EMV standards, CIT has developed a stepped EMV migration methodology. This methodology is composed of six consecutive steps.



### Step 1: Build Business Case

This step is concerned with evaluating the drivers to migration for EMV. It includes calculating the amount of savings resulted from chip benefits and estimating additional revenues expected from add-on applications. In addition, the cost of migration to EMV is predicated by setting estimates for the infrastructure upgrades or replacements to be EMV compliant and the impacts and changes on operational procedures, processes and training.

### Step 2: Define EMV Strategic Decisions

This step is concerned with deciding on the strategy of the EMV migration. It starts with the analysis of the different migration options and its impacts on cost, meeting business objectives, additional revenues and other related issues and ends by taking decisions or directions based on the analyzed issues. Some examples of the strategic decisions that a bank has to take when deciding on how to migrate to EMV standards are as follows:

- Issuing and/or acquiring migration
- Credit and/or debit migration
- Card replacement strategy
- Personalization strategy
- Choice of card platform
- Applications supported
- EMV parameters
- Migration schedule

requirements with recommendations on how to achieve these enhancements with minimum efforts and cost. Some examples of the areas that have to be investigated are:

- **Infrastructure analysis**
  - Terminals
  - ATM & Payment networks interfaces
  - Security devices
  - Card management system
  - Card production infrastructure
  - Financial switch
- **Operational enhancements**
  - Security & key management procedures
  - Testing & certification procedures
  - Customer services
  - Training
  - Fraud & risk management strategy
  - Sales & marketing strategy

#### **Step 4: Develop Specifications & RFPs**

This step is concerned with working on the outcomes from the assessment step. It includes deep analysis of the requirements reported and evaluation of different options to achieve these requirements. The result is writing RFPs for systems that are decided to be purchased or services that are decided to be outsourced. In addition, it includes writing of business and technical specifications for systems that are decided to be enhanced internally or procedures and processes that are decided to be impacted and need enhancements.

#### **Step 5: Pre-Implementation Details**

This step is concerned with working on prepared documents from the development step such as proposals from vendors, estimates for manpower requirements, and also sales forecast and expected revenues. All information prepared previously is used to allocate accurate budget and decide on volume of investment that is needed. In addition, it is used to calculate running costs and estimate expected generated revenues.

#### **Step 6: Start Implementation**

This step is concerned with the actual implementing the migration. It includes setting the appropriate program organization with clear roles and responsibilities that ensures a clear and smooth implementation with minimum interruption and easy monitoring. It also includes definition of the implementation overall roadmap that focuses on main mandates and critical milestones to facilitate cooperation between different working groups and set the correct expectation for sponsors of the migration.

## **Where CIT can help**

### **Awareness & Training**

CIT provides needed EMV awareness for financial institutions. CIT has structured two professional in-depth workshops to cover the following areas:

- EMV Business Workshops
- EMV Technical Workshops

For more information refer to business and technical training workshops brochures

### **EMV Consultation**

CIT Global provides EMV consultation in the following areas:

#### ■ **EMV vision development**

To assist our customers in their successful EMV migration, CIT offers consulting services that ensure the proper vision statement is formulated for the organization. The main areas covered during this exercise are:

- EMV migration vision development
- EMV requirements definition
- Possible migration options definition
- Agreement on the high level migration approach
- Fraud management strategy

#### ■ **Differentiation strategy**

To receive higher returns on their investments, financial institutions need to formulate the appropriate market differentiation strategy for implementing EMV along with its value added services. CIT Global has developed a specialized consultation package to guide and assist the financial institution in developing this key component of the EMV migration project. Some of the areas covered are:

- Card applications definition (card present and not-present)
- Card selection
- Risk parameters definition and management
- Chip deployment

This consulting assignment addresses both the issuer and acquirer aspects of the organization, analyzing the following critical areas, and providing the related recommendations:

- Card platform selection
- Card personalization options and definition
- Card issuance and management
- EMV scripting engine
- Multi-applications impact

#### ■ **Operational impacts analysis**

This consulting assignment ensures that the bank has analyzed all the related areas and has defined how these areas will be addressed as part of the overall

implementation plan. The main areas covered during such assignment are:

- Debit and credit cards operation
- Dispute resolution operation
  - Customer service
  - Marketing and promotions
  - Branches role
  - Merchants
  - Training
  - Legal agreements
  - Coordination of card schemes

#### ■ Issuer gap analysis

Each of the issuer affected areas should be properly analyzed and addressed, to ensure that they meet the EMV specifications, and that they are in compliance with the organization EMV vision and strategy. CIT Global provides a structured consulting package that analyzes in details each of these areas and provides the related recommendations. The following are the addressed components:

- Authorization systems
- Card personalization
- Card issuance and management
- Clearing and settlement
- Security
- EMV scripting engine

#### ■ Acquirer gap analysis

The impact on each of the acquiring affected areas needs to be properly analyzed, determining how best to take advantage of the EMV functionality options and mandates, while at the same time managing the level of investment and increase the ROI value to the organization. CIT Global offers consulting services to analyze in details the following areas and provide the related recommendations:

- Transaction switching systems
- Clearing and settlement systems
- POS devices
- ATM devices
- International schemas interfaces

#### ■ Security consultation

CIT Global considers this area is a very critical one that affects several strategic decisions, such as card size and platform selection, personalization options. The main objective of such a consulting is to decide upon security policy guidelines and implementation options. This consulting package will cover the following points:

- EMV Security concepts
- VSDC and M-Chip EMV security requirements
- MULTOS and GlobalPlatform security requirements
- Security implementation options
- Security implementation impact

#### ■ Implementation plan development

This consulting exercise aims to deliver the EMV migration plan after a detailed infrastructure and processes analysis for the bank environment has been established. These components will help the bank in assessing the current situation, the activities prioritization required to migrate smoothly to EMV, along with the required staffing without impacting its current ongoing business. This consulting package will cover the following points:

- Implementation team organization structure
- Implementation road map
- Manpower estimates

#### Testing Tools & Services

CIT Global provides needed EMV testing tools and testing services for financial institutions. CIT Global has structured a group of testing services that cover the following areas:

- Cards personalization validation testing tools
- Cards testing strategy for quality control/quality assurance
- Pre-certification testing for Visa & MasterCard credit & debit products

#### Implementation Services

CIT Global provides on case by case bases actual implementation of EMV migration projects. This kind of services is targeting financial institutions that need to be EMV compliant in a very short period of time and lack the enough required resources to achieve this task.

CIT Global can support financial institutions in the following implementation areas:

- Project management resources
- Consulting & Implementation resources for front-end & back-office systems upgrade



# Why **CIT GLOBAL?**

With a clear focus on providing technology solutions to complex business problems, using proven architectural frameworks, we deliver powerful business value and technology execution advantages to our customers, through our combination of on-site strategy and off-site/off-shore delivery capabilities.

- CIT Global has over 10 successful years of experience providing niche focused epayment solutions and services to clients around the world.
- CIT Global EMV practice offers a comprehensive set of consulting , workshops and implementation services to assist organizations in smooth implementations and integrations.
- CIT Global is an end-to-end solutions vendor, providing its clients with full value chain delivery model leading to cost-effective solutions.
- CIT Global provides market tested product technology, bringing together best of breed transactional, payment, card and security technologies to meet customer requirements.
- By using open system solutions, CIT Global clients are assured that the platform supports innovation while providing a secure, scalable, cost-effective way to handle an exponential increase in transactions over time.
- CIT Global has partnered with the best technology leaders to provide its clients with the latest niche technologies, among which are key leaders in the ePayment, smart cards and eSecurity arenas.
- CIT Global ensures providing high availability and prompt regional customer support and after sales services through CIT Global Egypt based e-Payment Centre of Excellence, in addition to Dubai and Riyadh offices, ensuring continuous services availability.
- The CIT Global Center of Excellence provides its clients the benefits of virtual 24x7 Global Delivery Model, powered by our offshore development centers, helps ensure fast ramp up and down of project teams, accelerated execution of projects, with high value and high quality.
- CIT Global is a provider of quality CMM and ISO standards software and services. CIT Global has established a centric processes in design, development and quality assurance and a unified methodology that guides all its delivery process.
- CIT Global is a member of MasterCard OneSmart Club & member of Visa Smart Vendor Program



## CIT CONTACT

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