



Migrating from magstripe to EMV chip:

Why your testing strategy is critical

What this brief will tell you

- ➔ Why EMV represents a step change from magstripe
- ➔ Why testing is critical to EMV migration and business-as-usual compliance
- ➔ Global Lessons from EMV migrations
- ➔ What to prepare for in your migration



With Acquirer Systems you can...

- Ensure EMV compliance and end-to-end interoperability
- Configure your EMV deployment for optimal performance and least risk
- Identify system problems earlier, saving time and cost
- Save on test scripting costs using our unique transaction-based testing design
- Test new products in a complete end-to-end simulated environment

The challenge of migrating from magstripe to chip

EMV, the global chip card standard, is set to transform the business of payments in the United States. EMV brings significant opportunities for reduced fraud and competitive differentiation through card product innovation, but migrating to EMV can be a complex change.

EMV offers unprecedented configurability and control and this increases the diversity of interactions between cards, PoS terminals, acquiring hosts, payment scheme networks, and issuing hosts. In moving to EMV, cardholders and merchants expect a smooth transition and a reliable and efficient service. You need to be able to emulate and test all of these variations to ensure optimal deployment and a successful migration. And you need to be able to validate ongoing compliance and new product releases in a business-as-usual setting.

EMV places end-to-end testing at the heart of any migration project. Taking a strategic approach to the testing process will determine the success of your EMV deployment and can be leveraged as a core competitive advantage.

Key EMV strategy objectives:

1. Maximize your return on investment in EMV
2. Ensure your customer experience is reliable and efficient to eliminate reputational risk
3. Eliminate interoperability issues and assure network acceptance levels
4. Optimize the performance of your card and the speed of your EMV transactions
5. Assure on-going compliance
6. Keep the quality of new product updates high

EMV migration: A Global Perspective

Globally, the transition to EMV has been a gradual learning process. More than 42% of cards and about 76% of PoS worldwide now support EMV¹. **In the US, the change to EMV will be faster and won't afford you the same time to prepare for change.**

However, US firms can tap into valuable lessons learnt by the international payments industry in successfully migrating to the EMV standard.

- ➔ EMV is more complex than magstripe and comprehensive migration planning is key to success.
- ➔ Migration will take longer than you might expect so begin your transition project well in advance of the deadline
- ➔ A full test and validation process is the best solution to reducing the risk of in-field failure and reputational damage
- ➔ Cost and time over-runs can be eliminated through early detection
- ➔ An ongoing testing capability is essential to meet the demands of ongoing compliance and new product releases
- ➔ Optimal testing gives you a competitive advantage, leading to stronger ROI performance, greater internal efficiencies, and a faster time to market

¹ EMVCo Q3 2011

The new role of testing in an EMV environment

EMV will change many parts of your payments business including multiple departments and many systems. **You need to be able to emulate an end-to-end payments environment to validate, optimize and test the variety of interactions that EMV brings to the payments chain.**



★★★★★ In a magstripe environment, test and validation is usually considered as a step at the end of the product development cycle. However, the complexity of EMV means that testing needs to be a cornerstone of your migration strategy. Because EMV demands ongoing compliance, testing should be viewed as a strategic function rather than a utility function. With an end-to-end testing platform in place you can manage your EMV migration seamlessly taking the complexity out of the step change from magstripe.

Checklist: Are you ready for EMV migration?

1. Understand the implications of transitioning from magstripe to EMV	<input checked="" type="checkbox"/>
2. Define the features and parameters you want to get the most out of EMV	<input checked="" type="checkbox"/>
3. Examine your product portfolio to determine what to migrate	<input checked="" type="checkbox"/>
4. Assess the impact of EMV on your host technology and how it relates to planned upgrades and replacement programs	<input checked="" type="checkbox"/>
5. Prepare a comprehensive EMV migration plan	<input checked="" type="checkbox"/>
6. Ensure you have the capability to emulate a real-time network environment to test transactions end-to-end	<input checked="" type="checkbox"/>
7. Communicate your strategy internally and with your end customers	<input checked="" type="checkbox"/>
8. Plan to retain your testing capability as part of your business-as-usual payments infrastructure for EMV updates and compliance	<input checked="" type="checkbox"/>

Five reasons why EMV is different to magstripe

1. EMV allows authentication of the card in both offline and online modes
2. EMV changes the role of the card in a transaction because the chip helps to authenticate, verify and digitally sign the transaction
3. Cards can be personalized with selected Cardholder Verification Methods (online, offline, chip and signature, no CVM) for different transaction conditions
4. EMV supports multiple applications including the dual interface for contactless Near-Field Communications (NFC)
5. EMV requires more interoperability testing than magstripe to assure the quality of the cardholder experience

“**ASTREX** allowed the team to increase our general understanding of the EMV process flow and thus enhanced overall performance and resulting testing strategies.”

Head of Operations, Global Bank

How we can help you

Acquirer Systems is a global leader in testing and validation software and services. We help our customers to rapidly deploy EMV, as well as seamlessly building test and validation into the complete product development life-cycle.

Our EMV solution helps you manage the complexities of migration and on-going compliance with the EMV standard:

- ➔ **ASTREX** for complete end-to-end payments simulator and transaction-based testing platform
- ➔ **PIVOT** for EMV and NFC card personalization and validation
- ➔ **Consulting services** drawing on in-depth worldwide EMV and switch migration experience with leading banks and payments processors

Call us today to find out how we can help you successfully migrate to EMV

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TOTAL PRODUCT TESTING FOR THE
GLOBAL PAYMENTS INDUSTRY

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