

# Your EMV Transition: It Gets Better

Philosophers have said that to struggle is to learn. In that case, the U.S. EMV (Europay, MasterCard and Visa) transition has been a powerful teacher indeed. Every player in the long, complex card processing chain has struggled to come to grips with a mind-boggling set of exacting requirements.

But there's good news: the rest of the journey can go much, much better – easier, faster, safer and cheaper

## A Quick Recap

Five years ago, when the EMV transition turned serious in the United States, it was a free-for-all. Every participant – manufacturer, software developer, merchant, gateway, switch, processor, card company, issuing bank, paying bank – found itself daunted by the urgent need to identify every device, process and connection that must conform to the EMV protocol. They have had to tease out each noncompliant piece-part, conform it, put it all back together again seamlessly, submit it all for EMV testing and certification, and then go live with confidence.

It hasn't matched Y2K in terms of apocalyptic scenarios envisioned, but technically it is even more complex. That complexity and the myriad independent approaches to solving the challenges have virtually guaranteed delays, rework and cost overruns. By the liability shift deadline (October 1, 2015), only 40 percent of American cardholders had the new chip-enabled cards, and only a quarter of American merchants were EMV-compliant, according to USA Today ([www.usatoday.com/story/money/personalfinance/2015/09/30/chip-credit-card-deadline/73043464](http://www.usatoday.com/story/money/personalfinance/2015/09/30/chip-credit-card-deadline/73043464)) and other sources.

But those numbers belie a powerful advance, which is the formulation of elegant frameworks for some of

the knottiest EMV transition challenges. At the start of the transition, every step of every solution had to be solved one step at a time, by every player.

None of those solutions was easy or fast. For each challenge, detailed requirements had to be scoped and deliverables defined, followed by painstaking development and testing that could easily take weeks and even months. But during that process, it became obvious that these components frequently used common denominators, and that by building these common denominators into a single "block" or framework for future use, developers' efforts could be reduced by 40 to 60 percent and their EMV transition accelerated.



As one payments executive put it, "It's not just a cost play – it's revenue, too. Every day we spend writing new code is a day we go without the revenue we're building for."



## Mobile POS framework

Consider, for example, a company seeking to conform its mobile POS solution to EMV standards. It needs to accommodate both Android and iOS devices. It needs to interface with the EMV card readers in a secure way. And it needs to route transactions to a back-end processing switch. Solving for each of those challenges, one by one, takes extensive research, exploring hardware, encryption, development and testing options. Instead, those needs can be built into a single block that a user can install in almost plug-and-play fashion.

## Basic acquiring framework

Or take the next phase of the EMV transaction lifecycle: routing the transaction to a gateway or routing mechanism. No matter how the transaction comes in – EMV, card swipe, ecommerce or other means, it needs to be recognized as such, converted to the right format and pushed out again to the right processing format on the back end. It also needs to perform basic validation tasks (for example, whether the card is valid, expired or stolen). Thus this framework, designed for small volumes, while basically a conduit, also provides intelligence about the transaction routing and validity. Consolidating all these capabilities into a single framework can cut in half the original development effort and time.

## High-volume acquiring framework

Similar but more robust frameworks exist for high-volume environments (hundreds of transactions per second), loads and where extensive user information must be captured and reported, including signature, location, asynchronous processing, real-time authorization, store-and-forward environments, and direct integration with card brands.

## Loyalty framework

Merchants treasure their loyalty programs and can brook no added delays or processing complications with their EMV transition. No matter what kind of program is involved – whether a cross-band "coalition" loyalty card like Plenti or a single-merchant but multilocation card, processing post-EMV must be seamless. A single loyalty framework exists as a block on which customized business layers can be added.

If your company's EMV transition is still consuming resources and time, consider seeking out existing frameworks. They can speed up your transition, save you money and give you confidence that your resulting development conforms to EMV standards.

For EMV, as in other intensive development, frameworks prove the philosophers' point: others have struggled and learned so that you don't have to.

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