



EMV AND BEYOND

The migration to chip-based technology, or EMV (Europay, MasterCard, Visa), in the U.S. is fully upon us. New figures predicting both the penetration of EMV terminals and the issuance of EMV credit and debit cards are continuing to project faster, bigger, sooner implementation of chip technology. The market shift is already happening, so it begs the question – What's next?



Looking beyond card security

At this stage, you have probably already made many of your strategic decisions regarding the implementation of EMV. Your card profiles are likely defined, whether chip-and-PIN or chip-and-signature. Your operating system and appropriate applications have already been mapped out. You know which card portfolios will migrate first and how you plan to reissue cards. But what other considerations are there, that extend beyond the security of having a chip on your cards?

1.6M

EMV chip cards are issued every day

575M

EMV cards will be issued in 2015, on top of the 185 million cards issued last year

Beyond the card with next generation EMV technology

One of the first strategic decisions you will need to consider is which additional EMV offerings you would like to take advantage of in order to enhance cardholder services, provide added convenience, and offer additional payment innovations.

Contactless EMV - whether card-based, embedded in a wearable device, or within a smart phone - brings the same level of chip card security in a faster way to

pay. With EMV being recognized as the global security standard in payments, it can bring universal secure protocol across all payment technologies.

The market is increasing its inclination for convenient payments and is looking to their bank to provide the trusted solution that offers the key combination of security and convenience. EMV in a wearable form can provide exactly that solution as a complement to any card profile.

Wearable technology can be issued to a user along with a card as a static or passive device. In this case, it comes pre-personalized, linked to the user's account, and arrives at their doorstep ready to go. This achieves a quick market launch and provides a unique way to increase your card branding and reach, as these wearable devices can be tailored specifically to your bank's identity.

Active wearables are also picking up momentum in the market. These devices are purchased "blank" and require remote provisioning through a trusted service hub (TSH) to enable payment technology; but they have the benefit of allowing multiple payment personalization and end-user management through an interactive user interface.

In either case, a wearable device can provide a medium to reach a large market of users that value convenience and speed, and to capture additional card spend. This market is poised to grow substantially in the coming years. In fact, Gartner projects that the revenue generated from wearable devices will reach \$57 billion by 2020.

Fighting fraud across all channels

With the implementation of EMV, the U.S. can expect to see fraud drop dramatically for in-person purchases, but fraud needs to be addressed on all fronts.

Securing all payment channels

EMV security in any form can be coupled with tokenization technology, which allows for the cardholder's personal account information to be substituted with a tokenized value that is only usable in that one particular transaction application. EMV reduces counterfeit fraud and prevents the cloning of credit cards, but adding tokenization to your security portfolio helps protect against cross-channel fraud, including card-not-present (CNP) fraud.

Additionally, tokenization brings the added benefit of a simplified enrollment process through connection to a trusted service hub. This enables over-the-air, streamlined onboarding of new customers and allows for quick and easy addition of multiple card profiles to a user's account.

Fraudsters will naturally migrate to the weakest link in the payments ecosystem. What are you doing to secure all of your banking and payment channels?

eBanking channels can be secured through Gemalto's EZIO™ Suite of solutions which can provide comprehensive security for your account holders as they access your online banking portal. The EZIO™ Dynamic Fraud Manager is a complete online banking solution that integrates risk-based authentication and real-time monitoring to achieve efficient fraud prevention with minimal customer impact.

Securing eCommerce transactions is also becoming easier through the launch of a solution that features credit/debit cards which are enhanced with a dynamic code verification

(DCV) value. These "intelligent" payment cards feature a small ePaper screen built into the card body itself that generates an algorithmically time-based or event-based security code that is new for each transaction. Because DCV are only valid for one transaction, at one specific point in time, they cannot be duplicated and successfully reused for card-not-present purchases. By integrating this dynamic value directly onto the card, it requires minimal behavior change for the consumer, which is a tremendous advantage over many of the former solutions aimed at addressing eCommerce fraud.

The unique advantage of Gemalto's DCV solution is it can be used with a traditional plastic card or on a mobile device via an app. The user experience is the same for both since the DCV is displayed either on the back of the card or on the mobile app and is easily entered at checkout. It is one convenient system, across different channels to fit the customer's needs providing the optimal balance between security and ease of use.

Starting with EMV and then considering complementary technologies, banks and consumers can be confident that modern payments and banking activities are more secure than ever before, regardless of which channel is used.



Breathing new life into your card designs

Incorporating a chip into the visual landscape of your card design is going to necessitate changes in your artwork to accommodate the size, shape, color and positioning of the chip. While you are rethinking the look and feel of your cards, you may want to consider other card design features that can really set you apart and keep your card top-of-wallet. Below we walk through some of the different elements that can bring innovative design and construction to your card.

ENHANCEMENTS TO DISTINGUISH YOUR CARDS



Colored Core – In-wallet distinction, branded to the core

Traditionally cards are printed on white core, with artwork printed and layered over the front and back of the card, while the outer edges remain white. Opting instead for colored core adds a distinct feature that makes your card recognizable, even when stacked inside a cardholder's wallet. You can choose from a variety of standard colors or a fully customized Pantone to further integrate your branded color scheme and create an eye-catching colorful element.



Eco-Sustainable – A green initiative for your corporate social responsibility

Environmental friendliness is a growing concern for enterprise and end-consumers alike. An eco-sustainable card can bring a green distinction to your brand and to your cardholders. The card body itself made from renewable material, is easily recyclable and compostable, and can be incinerated without emissions of toxic fumes. Additionally, Gemalto offers packaging made from recycled paper and vegetable inks that significantly reduce the product's environmental impact.



Transparent/Translucent – Modern, simplistic and chic

Transparent and translucent plastics can enhance a traditional card by highlighting certain portions of the artwork; or for a truly unique look, you can make your card entirely translucent. This card design technology provides an overall high-end look and adds additional visual security elements, as transparent elements are extremely difficult to duplicate and are often used as security features in other card applications (i.e. government issued ID cards).



Foil – Eye-catching holographic elements or full foil faced cards

Foil application in its various forms offers a variety of unique styles of metallic, shiny or holographic type effect. Standard foil or rainbow foil can bring to life certain elements of a card with a flashy, fun appearance. F-cube creates a classy and elegant effect, reflective of high-end cards. Encapsulated foil offers a more durable foil look with a layered composition.



Metal Card Bodies – Durable, distinctive look and feel

Metal card bodies bring visual, tactile and practical benefits to your cards. A metal card creates a high-end feel for your cards and will appeal to your most distinguished cardholders. They are also thicker and heavier than their plastic counterparts, so they have a unique feel in the user's hand and in their wallet. A card made of metal can stand up to normal wear and tear better than a traditional plastic card, so it is more durable in the field – reducing reissuance of worn or damaged cards.



AllAboutMe™ Customer-Designed Cards – Engage your cardholders and embrace their uniqueness

Allowing a cardholder to design their own card, either by selecting a personal image or choosing from a gallery of pre-selected imaged, is a great way to build personal attachment to their card. Gemalto's AllAboutMe™ solution provides an easy to implement, user-friendly tool that allows cardholders to create a completely custom card, submit it for approval, and if approved, it will quickly be sent to production and personalization.



Other Card Embellishments – Compatible with contact or contactless

There are multiple other options which work with both contact and contactless EMV cards that will make your card stand out above the competition. Some of these include: Tactile Varnish, Embossing Varnish, Flip-Flop Orientation, Magnetic Stripe Print Overlay, Spot Varnish, Hot Stamp, Colored Magnetic Stripe Tape, Custom Signature Panel, Transparent Windows, Pure Silver Ink, Pearlescent Body and 3D Fine Line Printing Effect.

No matter what type of card distinction elements you decide are right for your portfolio, they are all compatible with EMV in its various forms – contact or contactless. So whether you are issuing cards with EMV contact chips or dual interface contact and contactless technology, you can rest assured that these card enhancements will integrate seamlessly.

EXPERIMENT WITH DIFFERENT TYPES OF CARD DESIGNS

With the combination of Gemalto's Allynis Card Compiler™ solution and the new Allynis Card Sampler™ system, it is now easier than ever to experiment with different types of card designs.

Allynis Card Compiler™ is a robust, but user-friendly tool that makes managing and proofing a large number of card profiles and artworks a breeze for banks. You can make changes, instantly see digital proofs of artwork, and allow access to third parties in the instance where outside designers are involved and multi-user collaboration is necessary.

Allynis Card Sampler™ provides a fast and flexible method of printed card proofing, with the same quality and finished appearance of a full production card. Card design elements, especially when looking at the more advanced features, can look very different from digital proof to printed plastic card. The Allynis Card Sampler™ system allows you to test out different card designs and see the finished product much sooner and more easily than previously possible with the traditional press proof process.

Optimizing your issuance strategy

Once you have your next generation EMV form factors developed and your visually distinct EMV cards designed, you need to determine the best approach to streamlining the issuance of those cards. Gemalto offers traditional vendor managed personalization and issuance services, as well as the more nimble Instant Issuance option.



Vendor managed personalization and issuance

Traditional personalization and fulfillment services take the burden of issuance entirely off the plate of the card issuer. Your personalization provider will work directly with your data processing center to receive all of the necessary files to produce, stuff and mail cards directly to your cardholders.

As the **world's #1 provider of EMV cards**, Gemalto has more capacity to manufacture, personalize, and issue EMV cards than anyone else in the world. We also have the largest personalization footprint in North America.

Instant Issuance: in-branch or central issuance

Instant Issuance provides a more direct approach for the card issuer enabling them to provide instant gratification for their cardholders. Instant issuance not only eliminates

the lag-time customers traditionally experience when they receive a new or replacement card through remote fulfillment and mail dispatch; but also addresses the risks and costs associated with mail fraud.

By offering cards on-the-spot, immediate activation and faster card usage enables issuers to benefit from card spend much sooner. For those issuers that want to give their cardholders a more personal touch and increase their sense of belonging and loyalty to their financial institution, in-house issuance can also bring cardholders back to the branch.

Gemalto's Instant Issuance solution is fully optimized to support both contact and dual interface EMV cards, so no matter which type of EMV card you are deploying, Instant Issuance is a great way to get your cards in the field faster.

Partnering with a market leader you can trust

From the card body, artwork and plastic choices, to contactless payment technologies and issuance strategies, it is essential to choose a partner who can guide you as you look beyond EMV security and take full advantage of the overall investment in migrating to EMV. As an experienced partner, Gemalto understands the needs of card issuers because we've supported banks through decades of EMV issuance, working with over 3,000 financial institutions and issuing over two billion payment cards.

Your vendor support doesn't end with the first wave of EMV issuance. That's why it is critical to choose a partner who is ready to be there with you through the entire life-cycle of managing your EMV program. Gemalto's Consulting Services provides expert guidance during each step of your technology deployment process, from planning to execution, for an optimized go-to-market strategy.

As the world's largest provider of EMV solutions, Gemalto has the capacity to scale with your EMV needs better than any other card provider, which means you can achieve your time-to-market goals. And our deep expertise in mobile payment solutions will help to ensure you're getting the most out of your mobile program for the road ahead.

Gemalto is the proven historical market leader, the optimally-equipped vendor to meet your needs today, and the innovative partner who can guide you through all stages of future payment and banking technologies.



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"As technology and banking converge, financial issuers can ensure they remain at the forefront by offering security and innovation to their customers. Gemalto provides a one-stop-shop for financial institutions working on the next phase of their EMV deployment strategy, spanning state-of-the-art visual card-body effects to technologies such as wearable EMV or mobile payments."

Bertrand Knopf
SVP - Secure Transactions
Gemalto North America



GEMALTO'S GLOBAL PRESENCE AND DECADES OF EXPERIENCE with chip payment cards position us as an ideal partner for issuing and personalizing EMV chip cards in the U.S. and Canada. The worldwide demand for EMV implementation and contactless payments is growing, and Gemalto is playing a key role in providing the majority of EMV chip cards and personalization worldwide. In fact, 50% of all EMV contactless cards in circulation today are powered by Gemalto technology. With a wide network of payment experts and facilities, we're able to leverage our global expertise and the local knowledge specifically required by the U.S. market.

Gemalto has decades of experience in providing payment cards and services to card issuers, delivering more than 100 million contactless cards to customers worldwide and offering a range of solutions in financial services, transport, and mobile communications among others. That's why Gemalto is partner to more than 3,000 financial institutions in 180 countries.