smart payment association

Private Label Payment Systems

White Label Systems

15 November 2011

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1. Executive summary

The demand for Private Label payment solutions is increasing, and as a result there is a growing need for clarification of this complex topic. This white paper will help decision makers in the payment industry better understand Private Label and the new horizons it opens.

The interest in Private Label schemes comes from both established and new players in the payment industry. On the one hand, financial institutions are looking for more flexibility and dedicated solutions for their needs and their markets. On the other hand, new entrants from retail, transport, mobile network and the entertainment sectors want to offer solutions to their customers by bundling existing services with a new payment instrument.

In this White Paper the Smart Payment Association (SPA) outlines the different implementation options available for Private Label payment solutions, evaluates the existing models, and identifies all stakeholders involved. Guidance and tools for institutions looking to implement a Private Label payment system are also provided. The SPA focuses on smart card based solutions only, as these incorporate the security standards which today apply for secure payment transactions.

Various implementation options are possible, from the fully proprietary to solutions that use established technology and existing standards. None of the solutions described in this White Paper is superior to another; the decision as to which solution to use will depend on the business case, and the needs of the project initiator and their customers.

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2. Introduction

2.1. Scope

With the increasing migration towards EMV and smart card technology worldwide, SPA members have received numerous requests from multiple markets and customers for Private Label payment solutions. This SPA White Paper aims to provide a broader understanding of the Private Label ecosystem and the existing solutions available.

Today smart card technology is a widely accepted technology for payment systems, thanks to the high degree of security it gives and the functionalities and features it offers. This SPA White Paper focuses on smart card based solutions for Private Label payment systems.

As well as providing a clarification and description of Private Label solutions in the smart card payment environment, this paper presents and reviews all the approaches while keeping in mind that the most appropriate solution will depends on the stakeholder and their needs. It also gives general recommendations to financial institutions and new incomers interested in Private Label payment systems.

2.2. Audience

This White Paper addresses financial and non-financial institutions who want to deploy a payment scheme adapted to their needs, as well as existing schemes and issuers looking to extend their current systems by adding new functionalities, or to overcome security issues. This paper is also relevant for any other stakeholders involved in payment systems, including device and software vendors, system integrators or consulting companies. Private Label payment systems can vary in size, from small retailer systems to large national debit schemes involving few or many stakeholders.

2.3. Smart cards as a security standard

A majority of issuers have made the move towards EMV and are relying on smart card technology in response to new regulations to reduce fraud. Indeed, EMV has had a significant impact on fraud reduction, as discussed in other free SPA publications. Nevertheless, with time, increased usage and performance, issuers have realized that security is not the only driver of the chip migration anymore and the chip migration has also brought many additional benefits to the payment industry. For example, smart card technology has enabled issuers to improve operation expenditure through faster and more cost-effective transaction processing, helped to increase card usage by enabling new functionalities and new possibilities like contactless payment features. The chip also makes it possible for issuers to tailor risk management to their needs, while offering a new generation of value added applications such as loyalty and access control applications.

2.4. Market outlook

Despite the clear demand for Private Label payment systems, concrete market figures are hard to find. One reason could be that some large-scale Private Label payment systems don't regard themselves as such, while many small-scale retail solutions tend to be treated more as loyalty card systems with payment as a minor but important sub-function.

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Many schemes, based on fairly simple components like magnetic stripe cards, paper vouchers or printed barcodes, have been implemented successfully. However, for the parties involved all components - the card or device for the consumer, the issuance process, reader and merchant acceptance, processing and account management including rules and regulations - need to be carefully considered prior to implementation.

The market potential for Private Label payment systems is wide spread. Single merchants, large retail chains and even shopping malls may be interested in offering a Private Label card to consumers. Meanwhile, closed environments like holiday camps, cruise ships, football stadiums or school catering services can also operate such systems. At a regional level, cities can implement a payment scheme, combining this with a bartering system to create a new form of currency. Indeed, to a certain degree large domestic payment schemes have a lot of similarities to Private Label payment systems. As a result, the opportunities for the payment industry are extensive.

To be successful, such systems must be highly scalable and employ common standards to implement and deploy Private Label payments to consumers. Instead of inventing the wheel again and again, using non-branded solutions offered by the payment industry will help to implement new schemes of any size quickly. The success of new schemes and systems will attract other parties, creating even more demand for Private Label systems.

2.5. Concepts and definitions

2.5.1. Private Label

A Private Label payment scheme is a scheme branded and owned by one or more entities that issue and provide payment instruments and services.

The scheme owner can define its own usage rules, type approval process, business model, and configure the degree of acceptance. The payment scheme can be implemented on proprietary technology, by using commonly accepted standards, or be based on fully a interoperable technology.

A Private Label payment scheme can support all existing payment mechanisms: credit, debit, prepaid, charge card or any other existing model.

A Private Label payment scheme can be either an open-loop or closed-loop scheme. Both approaches are reviewed in the following chapters.

2.5.2. Open-loop payment scheme

An open-loop payment network as illustrated in Diagram 1 is a multi-party payment network involving different institutions with dedicated roles.

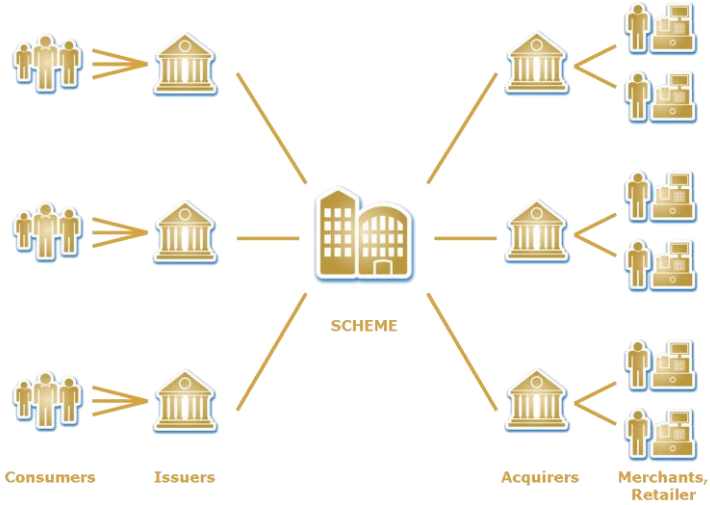

Diagram 1: Open Loop System

On the one hand, the issuing bank issues payment instruments. On the other hand, the acquiring bank accepts payment instruments. Issuer and acquirer are connected via the payment scheme that enables the secured exchange of transaction information between them.

The scheme is 'open' because a single payment scheme can connect a multitude of issuers and acquirers.

Generally, the scheme charges issuer and acquirer scheme usage fees, and creates and manages technical standards to enable a large acceptance of the payment instrument. The scheme does not solicit or charge end-customers and merchants directly.

2.5.3. Closed-loop payment scheme

A closed-loop payment network as illustrated in Diagram 2 is a scheme owned by a single institution. The payment scheme provider is responsible for issuing and acquiring without involving intermediaries.

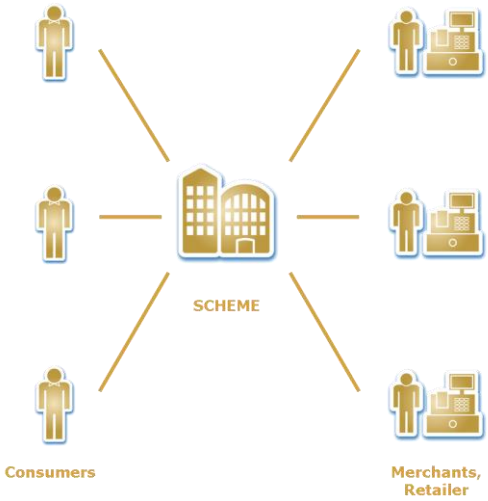

Diagram 2: Closed-Loop Payment Scheme

The scheme serves and charges consumers and merchants directly. This means, it operates the roles of the issuer and acquirer.

2.6. The ecosystem and its stakeholders

2.6.1. Ecosystem, roles and responsibilities

Generally, Private Label systems consist of several components and large systems involve many parties. Such parties, referred to as stakeholders, have various roles and responsibilities. Some of these roles overlap, so a lot of dependencies between the stakeholders arise. In the case of complex interconnections involving many components, the term ecosystem is used.

This section briefly introduces the main stakeholders and their roles in a Private Label scheme ecosystem as illustrated in Diagram 3 – this list is not exhaustive. Several stakeholders are described as separated entities, like Service Providers and Financial Institutions. Depending on the business model, the scale of the system, and other considerations, the roles of the stakeholders may stay separated or be grouped and operated by one entity.

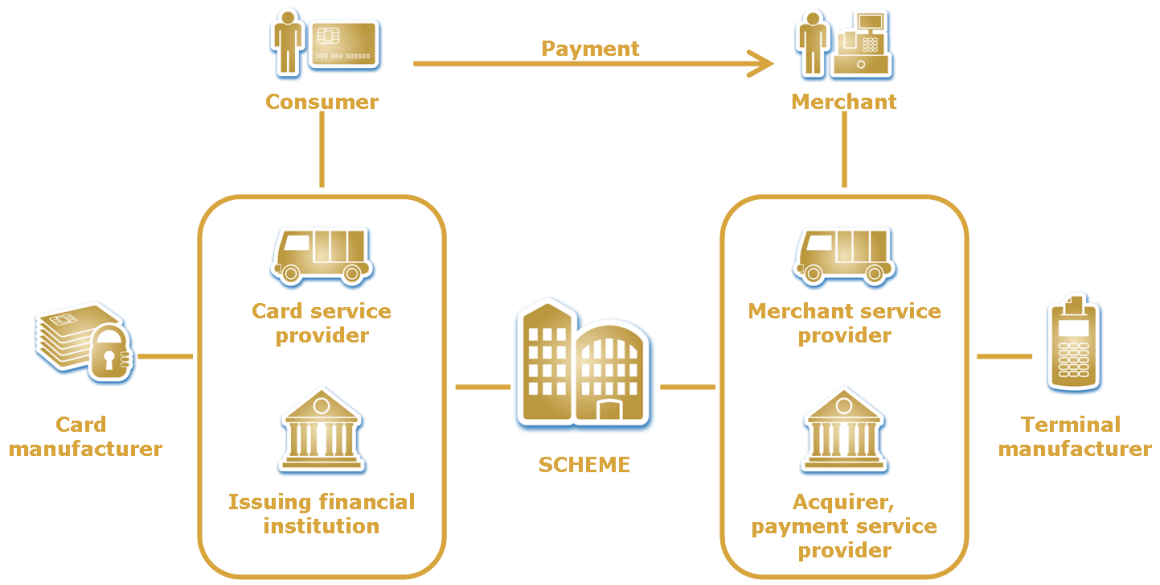

Diagram 3: Private Label Scheme Ecosystem

- **Consumer**
  The consumer is the most important stakeholder and will decide on the success of a payment scheme. The customer acceptance of a payment scheme is based on various factors. Fees, merchant acceptance, and convenience are the three most important ones.

- **Card Manufacturer**
  The card manufacturer, being a major provider of technology and components, develops and maintains payment solutions and devices to issuers, complying with latest security and functional standards. It provides services like consultancy, data services, and security concepts.

- **Terminal Manufacturer**
  Terminal manufacturers provide POS terminal devices, the reader infrastructure, cash register integration, and most of the time the related POS management. Terminal manufacturers will offer additional services like consultancy and security concepts.

- **Merchant, Retail**
  The merchant or retailer is the entity accepting payment instruments for the purchase of goods and services; this may be a 'bricks and mortar' merchant or an online merchant. Here again the success of a scheme will be determined by the applied fees, the convenience and the overall attractiveness of the payment instrument.
  Any new payment scheme is always confronted by a chicken-egg dilemma: consumer use and acceptance of a payment instrument depends on the merchant acceptance and vice-versa.

- **Financial Institution, Issuer**
  The issuer is a financial regulated institution holding the right to issue payment instruments to its customers and maintain the account behind it. Most of the time, the issuer is a bank offering payment instruments alongside other financial services to the user. In small scale environments, like company cantinas, at cruise ships or in stadiums, issuers are not necessarily a full-scale financial institution.

- **Card Service Provider**
  The Card Service Provider provides card services and maintains the customer relationship. Often the consumer receives additional services and all kinds of support from the Card Service Provider, from bonus points to bundled offerings like insurances. In many cases the issuer also acts as the card service provider.

- **Merchant Service Provider**
  The Merchant Service Provider offers POS services to the merchant, and links these to the acquirer. It holds the merchant relationship and offers support services for the terminal and reader infrastructure.

- **Scheme**
  The Scheme, whether this is a dedicated entity or implicitly covered by one of the other stakeholders, sets the standards and specifications for the entire payment system. This represents a set of technical, procedural, financial and legal rules. If the Scheme is a dedicated entity, it usually licenses the other stakeholders (mainly issuers and acquirers) to use its network. The Scheme also implements security concepts, and performs regular audits and reviews (undertaken by the Scheme itself or external providers). In several cases, Schemes operate transaction networks, especially for larger-scale payment systems. The Scheme ensures that its rules comply with the laws and regulations in the regions where the payment system is operated.

- **Acquirer/Payment Service Provider**
  The Acquirer and Payment Service Provider are regulated institutions that maintain merchant accounts and guarantee payment to the merchant. During the clearing and settlement process, acquirers and issuers clear the amounts due, credit merchant accounts, and debit customers.

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2.6.2. Scenarios

A Private Label card within an open-loop environment

- *Scenario 1 as illustrated in Diagram 4:* Issuer, scheme and acquirer are different institutions. One scheme can connect to various issuers and acquirers. The scheme, generally, is an initiative of one or more financial institutions.
- *Example:* National debit schemes

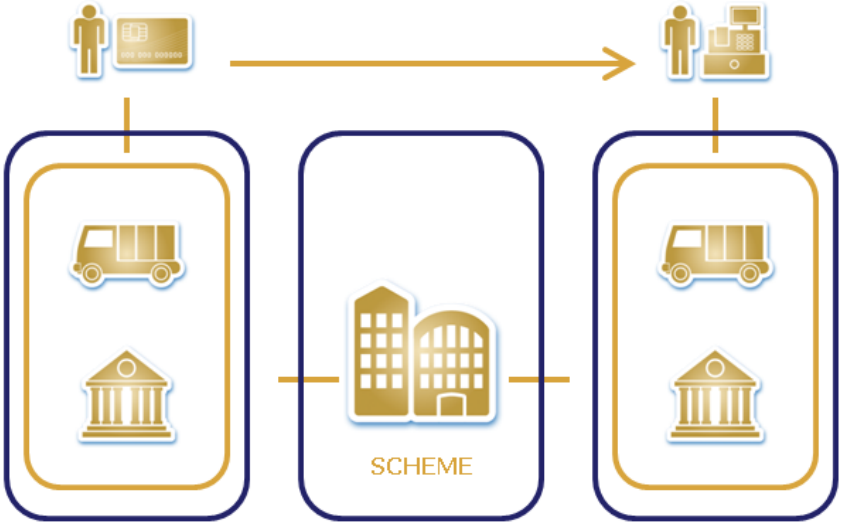

Diagram 4: Private Label Card In An Open-Loop Environment

- Opportunities:
  - The scheme is "fit-for-purpose" and adapted to the domestic needs with its own rules and regulations.
  - The scheme can define its own business model and fee structure.
  - It can reduce fraud and chargeback costs by limiting access to the network.
  - The scheme remains open to new acquirers and issuers and can grow in volume.

- Challenges:
  - An open loop scheme often results in a complex setup and requires consensus between all participants in terms of business model, transaction network and technical standards.
  - The acceptance network needs to be accepted by merchants, and the terminals need to be configured.
  - Significant efforts are required to maintain and promote the scheme.

A Private Label card in a closed-loop environment

- *Scenario 2 as illustrated in Diagram 5:* Scheme, acquirer and issuer and the eventual merchant are the same entity. The scheme directly prospects consumers and merchants.

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- *Examples:* Gas station refueling cards, restaurant tickets, shopping mall cards, cruise ship passenger cards, stadium cards, school and campus cards

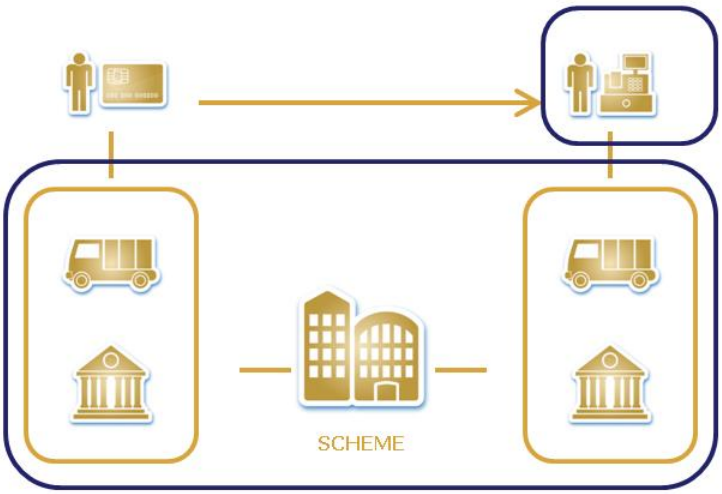

Diagram 5: A Private Label Card in a closed-loop environment

- Opportunities:
  - Such a model requires less revenue share and a smaller level of consensus with other partners.
  - It offers its initiator the opportunity to bundle the payment instrument to other applications like loyalty programs.
  - The usage can be limited to specific goods and services (e.g. gas refueling card).
  - The strong link between the offered product and services, and the payment instrument increases the customer loyalty (e.g. shopping mall card).

- Challenges:
  - A classical closed-loop scheme requires a high level of prospecting effort to contract customers.
  - The acceptance network needs to be implemented and maintained.
  - The user and merchant acceptance will be challenging if the incentives are not high enough.

2.6.3. Possible implementations

To give an example two possible implementations of Private Label systems are now presented, one is a stadium solution, the other one in the public transport area.

Stadium

Within the stadium environment supporters are provided with a range of services – e.g. ticketing, food and beverages, restaurants, fan shops and so on. Therefore many stadiums worldwide are bundling their season or member cards with a payment instrument.

- Considerations:
  - A limited usage for purchase of specific goods and services related to the stadium and most of the time limited to the stadium area.

- The number of card holders is limited to the stadium users; probably in the range of a few thousand.
- The payment instrument is also used to get access to the stadium, loyalty programs can be bundled as well.
- Stadium cards often use contactless technology due to performance and robustness reasons.

- Objectives:
  - Reducing cash handling, speed-up the payment transaction process, optimized for high throughput during the half-time break rush at stadium kiosks
  - Improving customer satisfaction and loyalty
  - Tracking payments and user behavior
  - Platform available for multiple services
  - Combination with physical access

- Challenges:
  - Contactless Payment is recommended to reduce transaction time during half-time rush and to ease access to the stadium.
  - The operator needs to setup and maintain terminal and network infrastructure.
  - The acceptance of the users who will need to hold an additional payment instrument might be a challenge, especially for sporadic visitors.

By choosing a Private Label solution, the stadium operator can bundle access and payment in the stadium area and limit the scope to the stadium visitors and to stadium related goods and services. The operator controls the business model, the risk of fraud, and can offer various services via a single instrument.

Public transport

For the past decades, numerous transit companies in various parts of the world have been focusing on replacing their paper-based fare ticket systems with automated fare collection systems. Ticket dematerialization, thanks to smartcard-based ticketing, has enabled these companies to reduce their cost of collecting fares, to expedite fare payment, and to improve customer convenience.

- Considerations:
  - A large amount of card holders
  - A combination of access to transport and payment functionalities
  - The opportunity to enable secure payments
  - High transaction number and frequency

- Objectives:
  - Reducing the cost of fares collection.
  - Improving customer convenience through intuitive usage (tap & go, pay as you go)
  - Reduce commuting times by a fast and easy access
  - Improve the general quality of the transport service

- Challenges:
  - Contactless technology is a must.
  - Regional integration
  - Operating cost-efficiency
  - Interoperability between transport operators

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Although closed-loop automated fare collection systems have been widely implemented, more and more transit companies are considering open-loop account-based payment systems that use credit, debit and prepaid bank cards as a possible evolution for their fare collection system. In both cases, they view the smart card-based Private Label card as the payment instrument of choice to protect their brand independence and to guarantee a fast and secure fare collection.

3. Implementation

The implementation of a Private Label payment system can be a complex project, even for smaller solutions. Beside the appropriate technology, rules, regulations and laws must be considered.

3.1. Main components of Private Label systems

3.1.1. For the scheme

Whether closed or open loop, the role of the Private Label Payment Scheme is to establish exclusive infrastructure and support systems that operate the clearing and settlement of the transactions initiated with the payment instruments carrying the scheme logo.

- Operates the technical processing of card-based operations (authorization, routing, and the management of payment stoppage).
- Guarantees an adequate degree of security and operational reliability.
- Guarantees an adequate degree of business continuity.

As it covers the entire payment cycle - from the transaction at the point of sale to the clearing and settlement - the scheme has to define how the different parties involved in the process must interact, namely merchant, acquirer and issuer.

- Define a Legal Framework under the relevant jurisdictions to ensure that the payment. system meets requirements in terms of safety and efficiency in the legal, regulatory and contractual fields.
- Define the business rules that manage and contain financial risks in relation to the clearing and settlement process.
- Ensure the right commercial agreements between issuer and acquirer.
- Provide Marketing plans and materials, business models.

The scheme has the responsibility to define the payment instruments that carry its logo and to set the business rules and technical frameworks that govern the issuance of these instruments:

- Specifications: EMV-compliant or proprietary non-EMV.
- Certification process and related test cases.
- Interoperability of cards and payment terminals.
- Centralized key generation and key management for payment instruments and POS terminals (Certification Authority).

3.1.2. For the issuer and its service providers

As a player in a Private Label payment system, the issuer interfaces with both its customers (the cardholder) and the behind-the-scene parties involved in the clearing and settlement of payment transactions (acquirer and processor).

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The issuer must offer its customers the payment instruments supported by the Private Label payment scheme. Whether it issues an EMV or non-EMV payment proprietary card, the issuer will need to look at ways to:

- Provide an overall attractive offering to their consumers.
- Manage cardholder personal information.
- Ensure card secure personalization of the payment instrument.
- Create and maintain issuance channels.

In connection to card issuance, an issuer or its service provider must also invest in a card management system that will enable it to define and manage:

- A pricing policy based on card types and cardholder segmentation.
- A billing policy defining how the cardholder will be billed.
- Additional offers like loyalty and rewards program.
- Offer customer support directly or via an external service provider.
- Managing the card in the field.

As the ultimate decision maker in a transaction life cycle, the issuer is responsible for settling payment – in other words authenticating and authorizing transactions in a timely manner. In short, an issuer must operate a transaction processing engine supporting:

- Authorization rules.
- Transaction settlement and payment consolidation.
- Compliance with local financial regulations.
- Risk management by defining payment transactions rules and the cardholder verification method (CVM).

3.1.3. For the acquirer and its service providers

Private Label using an EMV compliant application

If the card application and the terminal are both EMV compliant, the payment transaction will be performed using the standard EMV transaction flow defined by EMVCo. The impact of the Private Label program on the Terminal side will be limited to parameters upgrade. In most cases no new terminal certification is required except if requested by the Private Label Operator for checking that terminals are correctly set-up.

Private Label using a non-EMV application

If the card application is a proprietary implementation non-compliant with EMV standard, then two options exist: upgrade existing terminal with the related software or deploy new terminals. Prior to this, Private label issuers have to:

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- Define custom terminal specification and provide it to terminal vendors. Depending on the business case, terminal vendors will support the development cost or charge it to the Private Label operator.
- Make sure that they have free access to terminal to perform an upgrade (some terminals belong to banks and not to merchants) and check the upgrade capability and method (manual or remote) of the terminals.
- Make sure that the merchants will accept the need to manage two separate terminals at the point of sale.

Impacts on the acquiring host

The role of the acquiring host is to receive and route authorization requests and clearing demands to the card payment network.

In a typical EMV-based environment, the acquiring host communicates the authorization request to the card network. The merchant's terminal provides the acquiring host with the necessary data to fill the message requested by the card network. This includes an image of the magnetic stripe data, chip cryptogram and data for checking the chip cryptogram.

In current payment terminals, these data are retrieved in EMV application using EMV defined parameters known by all EMV defined terminal application. These data may be also available in a non-EMV compliant card, but terminals will need to be upgraded to retrieve their values and to provide equivalent data to the acquiring host and consequently to the card network.

Using a non-EMV application therefore will have implications for terminals but no impact on the acquiring host.

Acquiring hosts can communicate to the Private Label card network using the standard ISO based protocol or proprietary protocols, and it is the role of the scheme to define which protocol will be used. ISO defines the fields but the field values are frequently specific to each scheme.

The acquiring host will have to be upgraded according to the Private Label network specification to exchange authorization requests and clearing demands. Using common standards like ISO, acquirers can use standard solution offerings and reduce development costs for the acquiring infrastructure.

3.1.4. System integration and interoperability

Having all components in place is the starting point for the scheme and all its stakeholders. The more a scheme uses standards and open interfaces, the easier a scheme can expand or incorporate new components. The more components involved the more effort is required to ensure interoperability.

For example, schemes based on EMV standards should regularly review the specifications for updates and changes. The global schemes do this already, and any new scheme is strongly advised to consider such activities as a major task. These tasks are not only technical related; legal and procedural aspects need to be considered as well. Even small-scale closed-loop systems cannot risk staying focused on this task.

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3.2. Regulations, rules, standards

3.2.1. Rules and regulations

Regulations play a vital role in the payment industry and represent one of the most challenging subjects for payment institutions. The degree of regulation depends on the scope and the size of the payment scheme. For instance, a payment scheme reserved for the employees of a company (e.g. restaurant card) has fewer obligations than a national debit scheme. The regulation framework needs to be evaluated case by case.

Regulations can be found at every level; international, regional and local. It is therefore necessary to look at regulation on a variety of levels and this section outlines some of the key regulations that relate to three primary focus areas.

Customer protection

The three main rules in terms of customer protection are data privacy, charges transparency and prudential behaviors. While the first two requirements do not call for clarification, the third requires more explanation. Prudential regulations are related to the risk exposure of financial institutions. The aim is to protect the interests of the consumer and make sure that financial institutions have a prudent behavior.

Examples: The Durbin Amendment capping debit card interchange fees in the USA.

Promote competition

The aim of such regulations is to improve competition by providing market access to companies that do not hold a bank license and by facilitating innovation. Defining regulatory requirements in accordance with the level of risk of the activity is a typical example how a regulator can improve competition with a "fit-for-purpose" regulatory framework.

Low risk > low regulations:
Set of rules typically applying to the online commerce industry where the Payment Service Provider (PSP) accepts payment instruments on behalf of the merchant. Under certain conditions and jurisdictions, it also applies to mobile operators carrying payment via the user mobile phone bill.

Medium risk > medium regulations:
Often referred to as relating to "e-money institutions", after the payment acceptance the next step is to hold customer monies in so-called virtual accounts, which therefore increases the risk for the user if the institution goes bankrupt. Depending on the jurisdiction, several regulatory frameworks exist to regulate e-money issuers. There are various instruments to control such institutions like the level of available liquid funds, internal control mechanisms, or compliance with money laundry regulations (this is not an exhaustive list).

High risk > high regulations:
The highest level of risk applies to financial institutions holding deposit accounts, providing credits and involved in risk-taking activities. Most of the time, such activities requires a full banking license.

These thresholds do not reflect the regulations in all regions. Some regions require a full banking license for any kind of financial activity.

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Examples: The E-Money Directive (EMD) from the European Parliament simplifying the access of non-financial institutions to the payment market.

Combat financial crime

The aim of the regulator is to avoid a payment scheme being used to finance terrorism or for money laundering. This is typically relevant when an institution is handling cash - for example, when an institution is accepting cash to load a payment instrument.

Examples: The Anti-money laundering, Anti-terrorism financing (AML/ATF) regulations of the Financial Action Task Force (FATF).

Note that the regulations presented here are not an exhaustive list.

3.2.2. Standards

Various standards drive the payment space as illustrated in Diagram 6. The reasons for standardizing payment applications are multiple, but security and interoperability between POS and payment instrument are the main drivers.

EMV
EMV is a joint initiative started by Europay, MasterCard and Visa. Later, American Express and JCB joined the EMVCo. EMV was initiated to bring security to card-based payments by deploying a chip-based infrastructure, with the main focus on interoperability and security for credit and debit payment transactions. EMV is a global standard describing the interaction at the physical, electrical, data and application levels between a payment chip card and a payment POS device. EMV specifications are based on ISO standards. EMVCo is the company that promotes and maintains the standards and certifies institutions using the standards.

CDD and CPA
The Common Core Definitions (CCD) and the Common Payment Applications (CPA) are EMVCo specifications made available to any payment scheme that wants to comply with the EMV standards. CPA is a fully workable card payment application set, while the CDD describe the minimum set of functions and data mandatory for an EMV card application.

Other EMV card applications
There are various owned card application specifications based on the EMV, ISO and Global Platform. These applications can be differentiated in national and international schemes. The EMV specifications are used by several major payment schemes as a common basis, and have been amended with additional features. This gives the payment schemes the flexibility to implement new functionalities that match the needs of their users and in the same time to stay compatible with the EMV standards. The best example for such feature extensions are the scheme-specific enhancements to provide contactless payments. EMVCo's specifications have also been adopted by domestic payment schemes. Again, the reason was to combine national flavors and requirements with the need to support global standards and interoperability.

Non-EMV and proprietary applications
Non-EMV applications are found today in many various implementations. Even non-chip schemes are successfully running Private Label payments based on magnetic stripe cards, barcode or simple paper-based products. Many chip and smart card systems have been implemented in the past as well, ranging from simple contactless-based company restaurant systems to proprietary national payment schemes with smart cards. Many transit operators have adopted contactless chip cards as well, and have been operating such systems for years with a focus on convenience and high

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throughput. On the one hand, proprietary solutions tend to be more flexible when it comes to implementing new features and functionalities quickly. But on the other hand, stakeholders cannot open the scheme or enter a larger one at a later stage due to the lack of interoperability.

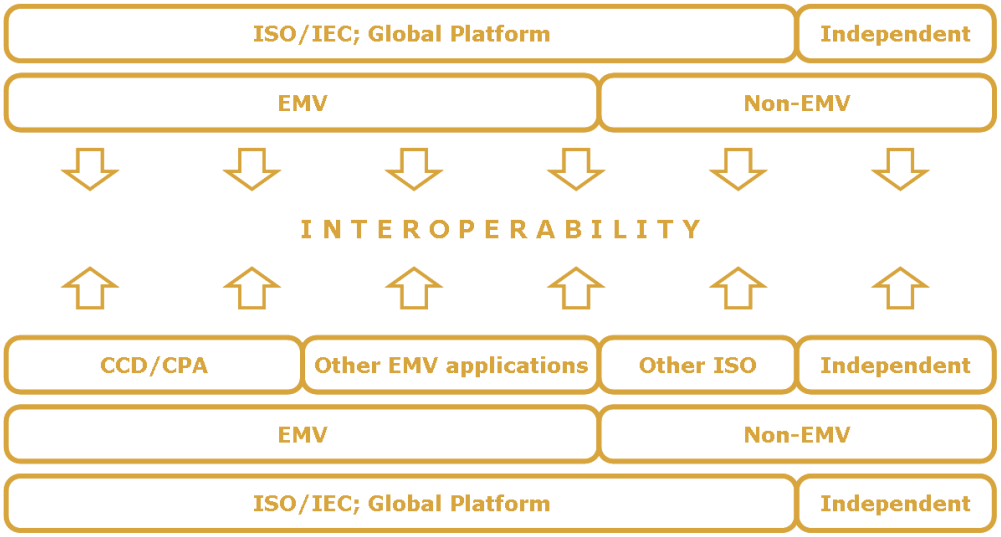

Diagram 6: Payment Standards

3.3. Solution approaches for Private Label schemes

3.3.1. Licensing existing global brand, international scheme

Several established payment schemes offer their technology to be licensed for Private Label implementations. A new payment scheme can therefore have access to a proven technology by using its own brand. If the existing terminal landscape is already able to deal with the established payment scheme, the interoperability is generally guaranteed.

The established scheme providing the technology, the network, and the processing capabilities may also offer the option to limit acceptance to restricted merchants by configuring the terminals accordingly.

This represents an advantage in terms of implementation, as the infrastructure already exists and it limits the changes to configuration work.

This model is conditioned to license agreements, and the branding freedom might be limited by the provider. Additionally, the new payment scheme needs to respect the rules set by the technology provider which will include certification and security standards.

This solution is a good alternative for new schemes that involve a certain level of complexity. This is especially appropriate if the payment landscape is already familiar with the provided technology.

Another advantage for issuers is that they can source solutions from the broad product portfolio offered by the SPA members.

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3.3.2. EMV based implementation

Another solution is to develop a payment scheme application based on EMV. This could be an application based on the EMV Common Payment Application (CPA) or an own EMV derivate based on the EMVCo Common Core Definition (CDD).

In both cases, if the terminal infrastructure is based on EMV, the activity on the terminal side can be limited to configuration tasks so that the new scheme can use the existing infrastructure with only minimal changes.

Such Private Label systems require some implementation on the technology side, primarily relating to the network, processing, and the key management and certification infrastructure.

This is typically a solution for national schemes that demand a higher level of independence and need to be able to interact with more complex payment scheme implementations.

SPA members can offer products for this solution approach.

3.3.3. Proprietary solutions

Proprietary solutions require the scheme owner to consider the entire scheme ecosystem from the issuance of payment instruments to the acceptance at the point of sale, including all the components required for both issuers and acquirer to settle and clear transactions.

The scheme provider has its own set of rules and owns the technology from issuance to acceptance, and controls the business model and the technology. On the other hand, the scheme may face interoperability issues as the system is not based on a standardized technology.

Such a solution is appropriate for large schemes where the initiators are large and experienced enough to deal with such a complex implementation project. However, it is also realistic for small scale implementations - like a company restaurant payment scheme - where the limited size of the scheme and the number of participants limits development and infrastructure maintenance.

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4. Conclusion

Smart card technology enables new payment schemes, whether small or large scale, to offer Private Label payment systems based on proprietary implementations or standardized solutions.

The use of EMV standards is particularly beneficial as these provide a good balance between flexibility in the implementation and interoperability. Additionally, EMVCo has made the CPA application specifications available to the industry in order to further promote the standardization of payment instrument applications. In case of a solution approach based on EMV technology, Private Label schemes can select from a broad range of existing products and solutions from SPA members.

In addition to the technology, Private Label payment schemes must also consider all the legal frameworks on a regional level.

Together with an attractive business model, every stakeholder involved can take advantage of Private Label, and SPA members can help with dedicated consultancy, product development and solutions.

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5. Addendum

5.1. Smart Payment Association – a brief portrait

The Smart Payment Association addresses the challenges of the evolving payment ecosystem, offering leadership and expert guidance to help its members and their financial institution customers realize the opportunities of smart, secure and personalized payment systems & services both now and for the future.

A non-profit organization founded in 2004, the association now counts six members including the three founding members Giesecke & Devrient, Gemalto and Oberthur Technologies, and Austria Card, Incard* and Morpho.

With more than 798 million smart payment cards delivered by its members in 2010, SPA represents around 87% of the smart payment cards market. This figure corresponds to a 18% year-on-year growth (2010 vs. 2011), showing the ongoing momentum of EMV deployment.

The combined Smart Payment Association members' substantial experience and knowledge of the smart payment market has led to its position as expert advisor.

The SPA is an Associate Member of Eurosmart, a Technical Associate of EMVCo and sits on the EMVCo Board of Advisors and a member of the EPC CSG (Spoke Person representing the Vendors sector) which objective is to create a set of standards needed to implement SEPA for cards.

The SPA also collects and analyzes market data in order to increase transparency within the worldwide market for smart payment. The SPA analyzes market evolution on a worldwide basis and communicates its findings once a year.

Estimated volume data and actual shipments data, segmented by region and by interface, are sent on an annual basis by SPA members to an independent third party. There is no direct exchange of data between SPA members. Consistent with SPA's practices for the exchange of historical data, the third party aggregates and anonymises the data so that no SPA member is able to identify another SPA member's contribution. The data is published on an annual basis, at the end of the first quarter of the following year.

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More information on the Smart payment Association (SPA)
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5.2. Abbreviations and glossary

ATM ▶ Automated Teller Machine or cash dispenser is a device providing access to financial transaction in a public space, mainly providing cash.

Chip card ▶ Payment card with chip technology. Better known as a 'smart card'.

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Contactless ▶ In the payment industry, contactless technology refers to payment transactions where the communication between the terminal and the payment instrument occurs without physical contact.

EMV – Europay MasterCard Visa ▶ Global standard for smart card-based payment transactions, maintained by EMVCo, which is owned by the payment schemes MasterCard, Visa, American Express and JCB.

Interchange fees ▶ The interchange fee is the fee paid to a bank for the payment transaction. With a POS transaction, the interchange fee is paid by the acquiring bank to the issuing bank. For an ATM transaction, the fee is paid by the issuing bank to the acquiring bank.

POS – Point of Sale ▶ Merchants and retailer use POS terminals for their card transactions. For contactless payments, the POS terminal must be equipped with a contactless reader.

Smart card ▶ A smart card is equipped with an additional high-security semiconductor chip. This chip contains an operating system, cryptographic keys and one or more applications, like payment. The chip has multiple security devices to protect against attackers and fraudsters.

Specifications ▶ In the payment environment, specifications refer to a set of requirements that a payment device or solution needs to satisfy.

Standard ▶ In the payment environment, standards are the established norms followed and promoted by all stakeholders in the industry. These set of conventions enable the interoperability between the different devices and providers.

5.3. References

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