SEPA CARDS STANDARDISATION (SCS) "VOLUME"

STANDARDS' REQUIREMENTS

BOOK 7

CARDS PROCESSING FRAMEWORK

Payments and Cash Withdrawals with Cards in SEPA

Applicable Standards and Conformance Processes

Abstract	This document contains the work on SEPA cards standardisation to date
Document Reference	ECSG001-17
Issue	Book 7 - v8.7.00
Date of Version	1 March 2017
Reason for Issue	Publication
Reviewed by	Approved for publication by the ECSG Board of 9 February 2017
Produced by	ECSG Secretariat
Owned and Authorised by	ECSG
Circulation	Public

Change History of Book 7		
7.7.1.0x	2014-2015	Working version 2014-2015
7.7.1.05	11.02.2015 (published 10.03.2015)	Consultation version 2015. First release of Book.
7.7.1.1	08.12.2015	EPC Published version – Volume v7.1
7.7.1.11-7.7.1.9	16.12.2015-	Working Version 2015-2016
8.7.00	01.03.2017	ECSG Published version - Volume v8.0

Table of Contents

1 GENERAL

1.1 Book 7 - Executive summary

1.1.1 Purpose of this document

This book defines business principles and requirements for market access and participation in card payment domain services, with the main objective of facilitating an open and transparent market.

1.1.2 Migration Roadmap

A migration roadmap will be proposed after discussion and alignment with the CSG and will be defined later.

1.1.3 Structure of this book

This book contains three main parts

1. Description of existing Cards Processing Framework

2. Business objectives expected via the production of this Book of the SCS Volume

3. Business Principles applying to the different parts of the card payment value chain (e.g., Scheme, Acquirer/processor, Issuer/processor) aiming to achieve the defined business objectives

1.2   **Description of changes since the last version of Book 7**

This version of Book 7 is unmodified from the v7.1 release (December 2015) as no comments were received during the 2016 public consultation.

| **2** | **CARDS PROCESSING FRAMEWORK** |

2.1 Introduction

The market model described is the traditional four party card scheme, where

- Acceptor has contractual relationship with Acquirer;

- Cardholder has contractual relationship with Issuer;

- Acquirer and Issuer interact for authorisation, clearing and financial settlement of transaction.

The Cards Processing Framework should apply to all SEPA card schemes, however the three party card scheme model is not covered in this version.

2.2 Context and Environment

The diagram below depicts main actors and services of the four party card scheme.
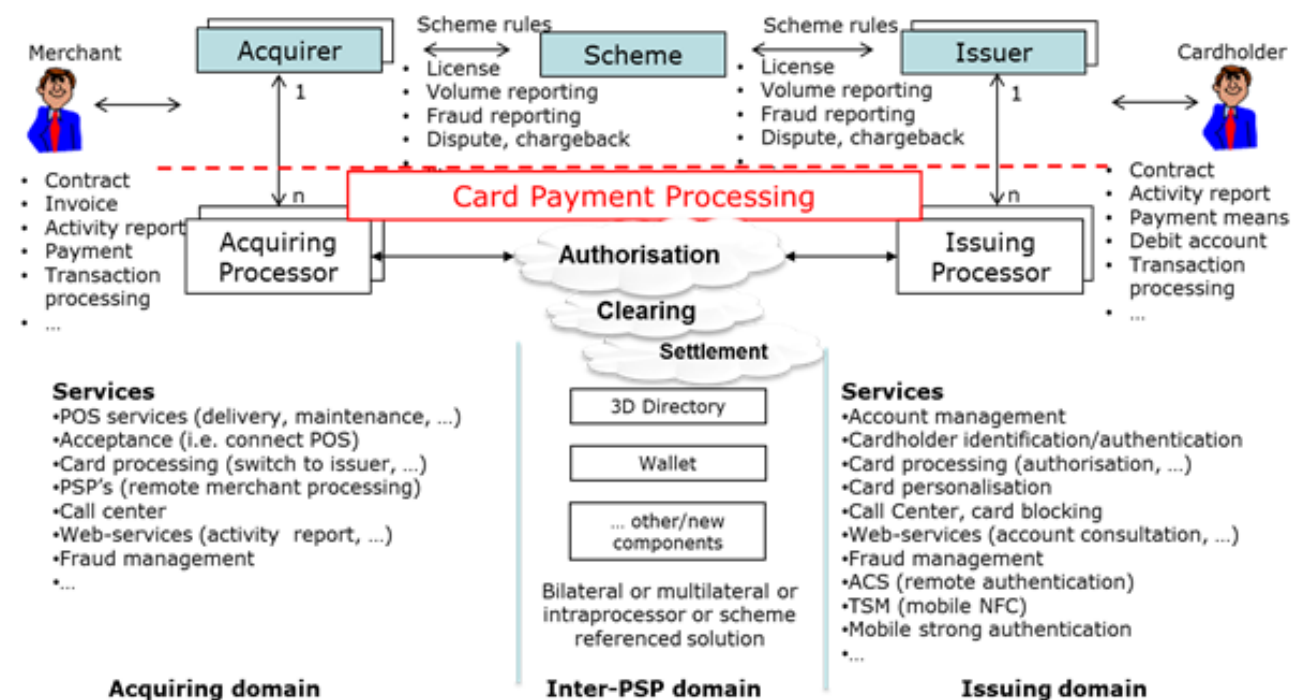
Figure 1: The main actors and services of the four party card scheme

This model applies to card based payment transactions, on ATM, physical POI, remote payment environment (PC, mobile device), in other words any medium that allows the initiation of a Card based transaction

Service providers may provide one or several services in one or several domains; type of services are defined within contractual agreements between Acceptors / Acquirers / Issuers and their service providers

2.2.1 Schemes play an important role

Card Payment Schemes are key players; they define for each of their card brands the rules (business, functional, security, procedural) governing the use and deployment of the products and services associated with those brands and, through oversight requirements, they bear responsibility for operational reliability (business continuity), security levels and commercial accountability (financial liabilities and risks).

Acquirers and Issuers are Scheme Participants. They sign License Agreements with the Scheme, follow the Scheme rules and implement the mandatory services, such as Volume reporting, Fraud reporting, Dispute and Chargeback procedures. In most cases, Acquirers and Issuers support several card brands potentially from several Card Payment Schemes.

Processors provide services to Scheme Participants for the acquiring of transactions and/or issuing of payment applications for one or several Card Payment Brands for one or several Card Payment Schemes. For the sake of clarity, an Acquirer or an Issuer may be its own processor for some or all services (or may subcontract those services to an external supplier).

2.2.2 Three main domains

Three domains are identified in the cards processing landscape:

- Acquiring domain: services provided to Acquirers and their merchant customers for acceptance of transactions (acquiring domain also covers merchant acceptance)

- Issuing domain: services provided to Issuers and their cardholder customers for issuance of card payment products

- Inter-PSP domain (also called inter-bank domain): services allowing Acquirer Processors to interact with Issuing Processors for the execution of the transactions

In each domain, the services are quite broad and can be provided by several suppliers. Scheme Participants (e.g., acquirers, issuers) may use services from different processors, some being more specialized in some activities. For instance, services related to delivery of POI and services related to provisioning of a payment application on a Secure Element of a mobile device are quite specific, independent and in general provided by different suppliers.

2.2.3 Several solutions possible in the 'inter-PSP' domain

The 'inter-PSP' domain covers the interactions between Acquirer (Processors) and Issuers (Processors) and ensures the full reachability of any issuer by any acquirer for a specific scheme:

- An acquirer must be able to reach any issuer

- An issuer must be reachable by all acquirers.

For the Authorisation, Clearing and Settlement services, several solutions are operational on the market

- Bilateral agreements between one acquirer and one issuer for the use of a specific solution

- Multilateral agreements between several acquirers and several issuers to use a common solution, either based on a common interface standard and several connections between each party or via connection to a central switch

- Intraprocessor solution provided by one processor (acting as acquirer and issuer processor) for its acquirer and issuer customers

- Scheme default solution referenced by Scheme (e.g., central solution, multilateral solution)

The current market situation already illustrates the fact that a Scheme may not impose the sole use of its Scheme default Inter-PSP solution. The different solutions may use different technical standards and implementations provided they are compliant with the Scheme rules, which is also in line with the standardisation and conformance ecosystem defined within the Volume.

2.2.4   Some services are scheme/brand specific, others are generic

Many services supported by Scheme Participants and/or their Processors are not scheme dependent; the services are generally performed in a similar manner regardless of the scheme. Examples of these services include but are not limited to:

- Acceptor payment, reporting, contracting, invoicing

- POI acceptance (e.g., POI to Acquiring processor protocol, acquiring processing)

- Card processing (e.g., EMV processing)

- Financial part of the authorisation process (rather specific per card product type, e.g., a 'pay before', a 'pay now' or a 'pay later' product, than typically per brand)

Other services are 'scheme/brand dependent', mainly for interactions with the Payment Schemes. Examples of such Scheme/brand dependent services usually include but are not limited to:

- Interface with the Scheme default brand reachability solution (Switch, Clearing & Settlement for interaction between acquirer and issuer, Directory for remote transactions …) are currently specific per scheme. However, scheme/brand independent Implementation Specifications can already be used provided they take into consideration the scheme governed specific business rules (e.g., real time clearing mandated versus batch clearing).

- Scheme reporting (e.g., volume of transactions, number of cards)

- Fraud reporting (e.g., information on cases of frauds encountered)

- Dispute management, chargeback processes (between Acquirer and Issuer)

Some Scheme rules can be specific per payment scheme, for instance the concept of on-line clearing rather than batch clearing, the support of specific transactions types which are mostly optional.

In the context of emerging products and services, e.g., wallets, mobile payments, it is expected that in the initial phases specific products and services will be developed with non-standard features. These products and services would ideally be aligned to SEPA-wide (scheme independent) standards once the CSG, through its own process, has determined that they are sufficiently mature to be included in the Volume.

2.2.5   SCS Volume aims to ease deployment of brand/scheme independent standards

The Standardisation ecosystem is described in Book 5, with some key principles, such as:

- Several Implementation Specifications per domain of value chain (e.g., POI-acquirer part), with some exceptions, e.g., EMV for card-POI part

- Role of Specification Provider highlighted – independently of Scheme related bodies

- Optional Labelling process to demonstrate conformance of the Implementation Standard with the Volume (requirements and governance)

- Schemes to make public the list of Implementation Specifications they support (transparency objective)

- Approval process by Schemes of products certified by Specification Providers

The combination of those principles with the fact that several card payment services are similar for different schemes (same functional and security requirements) will ease the development of brand/scheme independent Implementation Specifications by Specification Providers which may be independent of Scheme organisations.

3	BUSINESS OBJECTIVES

The Standardisation and conformance ecosystem developed by CSG within this SCS Volume aims to ease the development of 'brand independent' Implementation Specifications (e.g., EMV, POI-acquirer protocol …) and solutions for the benefit of all stakeholders.

The description of the context and environment highlights some key characteristics of card payment services:

- Clear separation of roles between the actors : schemes, acquirers, issuers, processors

  Several services by different suppliers for one acquirer/issuer illustrate that competition already exists

- Most services are 'brand independent' and instead are specific to the card product type

- Cooperation already exists, as demonstrated by the use of common technical and security standards (e.g., EMV, 3D Secure for remote payment) in a competitive context (e.g., specific scheme rules).

In addition to the books related to requirements (functional, security) and the conformance verification process, this book defines additional business principles and requirements for market access and participation with the main objective of further facilitating an **open and transparent market**, which

- maintains competition

- improves efficiency

- fosters interoperability

and are based on scheme independent standards developed by Specification Providers in cooperation with relevant actors in the cards' payment landscape (e.g., schemes, processors, vendors ...).

Those additional business principles and requirements can be considered as the 'Cards Processing Framework'.

3.1   Business Principles and Requirements per domain

In this section, Business Principles and Requirements refer to the business dimensions that apply to the actors of the card payment value chain with the objectives mentioned above.

3.1.1   Schemes

Req S1:   Schemes shall not discriminate among Acquirers and Issuers for licensing their products provided the parties meet the Scheme requirements to get a Scheme license.

Req S2: Schemes shall make available without discrimination and at the same time, to their Participants (Acquirer, Issuer) and their Processors, the applicable scheme rules and specific information, (e.g., BIN tables, MIF rules, product rules), allowing them to setup and operate the Scheme related services according to their contractual agreement (License) with the Scheme.

Req S3: Schemes shall ensure that their Rules are in line with the requirements of the Volume for products or services in a mature stage. If some requirements of the Volume are considered as not aligned with the latest market needs or with emerging solutions that ensure secure services, Schemes shall propose an update of the requirements of the Volume. For emerging solutions[1] (e.g., new wallet solutions) it is expected that a Scheme will define its own specific rules until such solutions are covered by the requirements within the SCS Volume.

Req S4: Schemes shall make publicly available the list of Implementation Specifications they support (e.g., POI application and POI to Acquirer protocol).

Req S5: In order to promote deployment of brand independent SEPA Implementation Specifications, Schemes shall not

- Impose their own Implementation Specifications as the only possible solution,

- Refuse Implementation Specifications, which have been proven to be Volume conformant, without objective reasons (e.g., specific functionality within the Scheme rules not supported by this specification),

- Impose amendments to Volume conformant Implementation Specifications.

However, as Solution Providers, Schemes may decide which Implementation Specifications they use and accept for their default scheme processing infrastructure.

Req S6: In line with the requirements outlined within Book 5, Schemes and Approval Bodies shall ensure that certified products or solutions can be submitted for Type Approval, provided that the product has implemented a listed Implementation Specification and it has been certified by an approved certification body.

Req S7: Schemes shall ensure full reachability (of all Issuers by all Acquirers) by identifying the default infrastructure components required to achieve this (e.g., Connectivity for authorisation, clearing, settlement).

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[1] Emerging solutions refer to new services not yet described in the SCS Volume

Req S8: Schemes shall not provide their Participants more favourable services and terms when these Participants are using default inter-PSP processing infrastructure identified by the Scheme. For instance, card schemes shall not discriminate when pricing services or charging fees, between banks and payment institutions who use additional services offered by the said card scheme and banks and payment institutions who do not, or only partially do so.

Req S9: Schemes shall not impose a specific solution provider (e.g., processor) on their Participants. Schemes may however define minimum standards to ensure quality and scheme integrity as long as it does not create discriminatory barriers.

Req S10: Schemes shall not bundle the characteristics of their Card Products (defined in Scheme Rules) such that it requires the use of a specific processing infrastructure (e.g., supported card transaction types are independent of inter-PSP infrastructure used). For emerging solutions (e.g., new wallet solutions) to develop and promote the new service, Schemes may allow the development and operation of a dedicated infrastructure until the requirements have been described in the SCS Volume; at which point, the principle of free choice of solution provider by Participant as defined above shall apply.

3.1.2   Acquirer and acquirer processing

Req A1: Acquirers, who are working with several brands, shall not restrict Acceptors from choosing the brands they want to accept.

Req A2: Acquirers shall not prevent Acceptors from choosing their acquirer for each brand, so that Acceptors shall be free to choose. However, Acceptors may be subject to risk assessment and certification by the acquirer.

Req A3: Acquirers shall not discriminate amongst POI vendors or POI and Acceptance host solution providers, chosen by their Acceptors, provided those parties meet the acquirer's technical and security requirements and support the Acquirer's protocol.

Req A4: Acquirers shall be able to choose which schemes they want to acquire. The scheme shall not discriminate among acquirers in relation to participation in the scheme. However, Acquirers may be subject to risk assessment and certification by the scheme.

Req A5: Acquirers shall follow Scheme rules as stated in their licence agreement.

Req A6: Acquirers shall be free to choose the processor(s) of choice for acquirer processing services.

Req A7: Acquirer processors shall be free to choose which schemes and which related scheme services they support as per Schemes rules.

Req A8: As provider of services to Acquirer, Acquirer processors shall also follow Scheme rules. Acquirer processors shall have the right to obtain scheme specific information to enable them to process scheme transactions (e.g., BIN routing information). Such necessary information could be provided by the Scheme or the Acquirer to the Acquiring processor.

Req A9: Acquirer processors are free to define the level of services they offer to acquirers (and their customers, the acceptors), how they implement and operate them, e.g., the interfaces between acquirer and processor.

Req A10: Acquirer processors shall be free to choose which Inter-PSP Service Providers (Authorisation, Clearing and Settlement) solutions they use to connect to the issuers under a given scheme (with the agreement of their acquirer customers).

Req A11: Acquirer processors may be subject to certification by the Inter-PSP Service Providers to which they connect.

Req A12: Acquirer / processor may be subject to approval by the schemes (e.g., security compliance of HSM, data protection).

Req A13: Acquirer processors shall decide which Implementation Specifications they want to support, e.g., the POI-Acquirer interface, taking into consideration the customers' needs and the standards recognised by the Schemes they support.

Req A14: Acquirer processors may be subject to certification by the Specification Provider of the Implementation Specifications they use.

Req A15: Acquirer processor may get card transactions from the POI either directly or through one or several levels of acceptance host solutions which connect to the POI.

Req A16: A POI or a combination of POI and acceptance host solutions should support features which allow the Acceptor to facilitate (e.g., by configuration) the support of new card brands and/or new acquirers/processors.

It is expected that the new card brands and/or acquirer processors implement the same Implementation Specification as the one already supported on the POI or its acceptance host.

Req A17: POI or combination of POI and acceptance host solutions may be subject to certification by the Specification Provider of the Implementation Specifications they use.

3.1.3 <u>Issuers and issuing processing</u>

Req I1: Issuers shall be able to choose which schemes they want to issue. The scheme shall not discriminate between issuers in relation to participation in the scheme. However, Issuers may be subject to risk assessment and certification by the Scheme.

Req I2: Issuers shall follow Scheme rules as stated in their licence agreement.

Req I3: Issuers shall be free to choose the processor(s) of choice for issuing processing services.

Req I4: Issuing processors shall be free to choose which schemes and which related scheme services they support as per Schemes rules.

Req I5:   As provider of services to Issuers, Issuing processors shall also follow Scheme rules. Issuer processors shall have the right to obtain scheme specific information to enable them to process scheme transactions (e.g., product specific requirements). Such necessary information could be provided by the Scheme or the Issuer to the Issuing processor.

Req I6:   Issuing processors are free to define the level of services they offer to issuers (and their customers, the cardholders), how they implement and operate them, e.g., the interfaces between issuer and processor.

Req I7:   Issuing processors shall be free to choose which Inter-PSP Service Providers (Authorisation, Clearing and Settlement) solutions can be used to connect acquirers for a given scheme (with the agreement of their issuer customers), provided they shall ensure that they are reachable by any Acquirer processor.

Req I8:   Issuing processors may be subject to certification by the Inter-PSP Service Providers to which they connect.

Req I9:   Issuing processors may be subject to approval by the schemes (e.g., security compliance of HSM, data protection).

Req I10:   Issuing processors shall choose which Implementation Specifications they support, e.g., the Acquirer (processor)-Issuer (processor) interface (aligned with customers' needs and standards recognized by the Schemes supported).

Req I11:   Issuing processors may be subject to certification by the Specification Provider of the Implementation Specifications they use.

3.1.4   Inter-PSP processing

Req IP1   Inter-PSP service providers may propose inter-PSP services to acquirers (processors) and issuers (processors) without discrimination between those customers.

Req IP2   Inter-PSP service providers may choose which schemes' services they process.

Req IP3   Inter-PSP service providers may decide which level of services they deliver to their customers (e.g., transport of authorisation and/or transport of clearing data and settlement); they shall ensure that those services follow scheme rules.

Req IP4   Inter-PSP service providers may require issuer and acquirer processors to certify their interfaces and their behaviour (e.g., connection and transaction authorisation and/or clearing files).

Req IP5   A Processor acting as an acquirer and issuer processor may propose inter-PSP solutions to its acquirer and issuer customers (intra-processor solutions without obligation to open the service to other processors).

Req IP6   Inter-PSP service providers may be subject to approval by the schemes (e.g., security compliance of HSM, data protection).

3.1.5 Implementation Specifications

Note: The following principles as defined in Book 5 are highlighted here with the objective of fostering the continuation of an open market.

The standardisation and conformance ecosystem described in the SCS Volume envisage the existence of several Implementation Specifications for each part of the card payment value chain, with some exceptions, such as for the contact card-POI interface (EMV).

Migration/Convergence to a smaller set of Implementation Specifications per domain of the card payment value chain will be market driven.

Req IS1: The Specification Providers are responsible to develop the Implementation Specifications (e.g., description of functionalities, interfaces, protocols), to ensure Products implementing those Implementation Specifications may be certified, and once certified can be smoothly deployed in the field (e.g., solving potential interoperability issues between parties implementing the same implementation standard).

Req IS2: Specification Providers shall ensure their Implementation Standard and their Governance is conformant with the requirements of the SCS Volume.

Req IS3: Specification Providers shall make the Implementation Specifications available to the Service Providers candidates to implement them, without discrimination and at the same time.

Req IS4: Specification Providers and Certification Bodies involved in the certification processes shall not discriminate between Service Providers applying for certification.

2   FIGURES

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