



Version number	Dated	Reason for revision
Change history of the Volume		
3.0	05.12.2008	Resolution covering the Volume approved at 17.12.2008 Plenary and announcing some editorial changes in the upcoming months
3.1	17.02.2009	IPR issues - Part 2 (annexes not published)
3.2	02.03.2009	Migration of some contents of Part 2 into Part 1 (definitions, A2I study on ISO 20022)
3.2.1	15.03.2009	Layout and corrections
3.5	31.07.2009	Version for public consultation
4.0	30.11.2009	Version for the EPC Plenary
4.5	03.05.2010	Version for public consultation
5.0	15.12.2010	Version produced and reviewed by the CSG as well as approved by the EPC Plenary  NB: Volume BoR v 5.0 of Chapter 5 on the SEPA single set of security requirements has been updated in order to include both cards and terminal requirements; Volume BoR version 5 of Chapter 5 is made available for consultation on further additions.
5.5	01.06.2011	Version for public consultation
5.6	17.10.2011	Version for review by the CWG
5.7	01.11.2011	Version for review by the CSG
5.8	08.11.2011	Final CSG/CWG Validation
5.9	14.11.2011	Version for the approval process for publication, by CoCo and Plenary
6.0	14.12.2011	Interim version (see Ch. 5 and 6) produced and reviewed by the CSG as well as approved by the EPC Plenary
7.1.1.00	12.12.2013 (published 07.01.2014)	EPC Published version – Volume v7.0

Version number	Dated	Reason for revision
7.1.1.05	11.02.2015 (published 10.03.2015)	Consultation version 2015
7.1.2.1	08.12.2015	EPC Published version – Volume v7.1
Bulletin 001	29.02.2016	Bulleting describing the guidelines for using the Data Element provided by EMVCo for meeting the 9 June 2016 IFR deadline
7.1.2.5	11.05.2016	Consultation version 2016

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Version number	Dated	Reason for revision
Change history of Book 1		
6.1.0.x	2012-2013	Working version of Book 1
7.1.1.0x	2014-2015	Working version 2014-2015
7.1.2.11- 7.1.2.50	16.12.2015	Working Version 2015-2016

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39 **1 GENERAL**

40 **1.1 Executive summary**

41 **Goal and Addressees** - This document (The "Volume") is ultimately designed for the benefit of  
42 Payment Service Users in Europe (such as cardholders and acceptors), *enabling them to use general*  
43 *purpose cards to make and receive payments and cash withdrawals throughout SEPA with the same*  
44 *ease and convenience as they do in their home country.* This concept was defined as "SEPA for  
45 Cards" by the European public authorities. The Volume is aimed at the entire cards industry active  
46 in Europe and provides common standardisation requirements, which need to be adopted with a  
47 high priority in order to achieve the aforementioned goal. The Volume also represents the efforts  
48 made by the market in understanding properly the requirements that are part of the Interchange  
49 Fee Regulation, such as e.g., Art. 7.5 that requires: "Processing entities within the Union shall  
50 ensure that their system is technically interoperable with other systems of processing entities  
51 within the Union through the use of standards developed by international or European  
52 standardisation bodies. In addition, payment card schemes shall not adopt or apply business rules  
53 that restrict interoperability among processing entities within the Union."

54 **Volume** - The Volume does not address existing practices, processes or standards, but focuses on  
55 the objective and the path for market developments. It is structured as a set of Books, each  
56 describing an important aspect. This can be from a standardisation, security or conformance  
57 perspective. The Volume is exclusively owned by the European Payments Council (EPC); however  
58 its drafting and maintenance is ensured by the Cards Stakeholders Group (CSG) which is composed  
59 of market representatives from the five main cards related sectors: Payment Service Providers  
60 (gathered in the EPC), Processors, Retailers (acceptors), Schemes and Vendors.

61 **Card Services** - The Volume describes functional requirements applicable to transactions either  
62 initiated by a Card<sup>1</sup> at the card acceptor's terminal as Card Present (local) transactions, or as Card  
63 Not Present (remote) transactions. These transactions result in the provision of the so-called "Card  
64 Services" to the cardholder and acceptor, as specified in the Volume.

65 **Security** - Trust in a card as a payment instrument is largely dependent on the security of all  
66 transaction components. Due to the permanently morphing nature of fraud attacks, requirements  
67 on the security level are continuously evolving. However, the core security requirements should be  
68 common throughout the whole SEPA area. Harmonised security requirements are essential for  
69 maximising the security of and trust in card payments, achieving an effective SEPA for all actors  
70 and ensuring maximum customer protection and user convenience. This is however not the sole  
71 responsibility of the EPC and CSG. The relevant regulatory authorities also have a role in that  
72 domain.

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<sup>1</sup>A "Card" refers to all form factors of a device or payment instrument that can be used by its holder to perform a Card Service.

73 In the incorporation of e- & m-commerce into this version of the Volume, this Volume takes into  
74 account the recent publication of the EBA Final guidelines on the security of internet payments<sup>2</sup>,  
75 based on the earlier SecuRe Pay recommendations. The Volume includes cross references to the  
76 guidelines as appropriate.

77 The consultation period and maintenance process are used to ensure continued alignment with  
78 these publications.

## 79 **Legal Alignment**

80 In the event that inconsistencies are identified, the text of the relevant regulatory documents shall  
81 prevail.

82 This version of the Volume has been drafted with particular attention given to the Interchange Fee  
83 Regulation (Regulation (EU) 2015/751), its deadlines and the implementation issues that need to  
84 be resolved in a harmonised way across SEPA. A dedicated CSG Expert Team worked on these  
85 aspects checking the CSG interpretation on a regular basis with the regulators.

86 *“While the Single Euro Payment Area for cards is not yet a reality, the recent entry into force of the*  
87 *Interchange Fees Regulation mentioned above, the revised Payment Services Directive and the work*  
88 *of the ‘Cards Stakeholders Group’ should significantly reduce the technical barriers between*  
89 *different card schemes and between Member States by 2017. This should foster the emergence of*  
90 *a true single market for card payments, as is already the case today for euro credit transfers and*  
91 *direct debits.”<sup>3</sup>*

92 **Volume Conformance** via Labelling (i.e. a voluntary self-assessment process) - Managing the  
93 Volume is an intensive self-regulatory project based on market consensus. Whilst favouring  
94 technical interoperability and convergence, all contributors must work in accordance with  
95 applicable rules and regulations governing competition matters.

96 A check of SEPA conformance is currently not performed by Regulators. The Volume requirements  
97 are thus not formally imposed on market stakeholders. However, its rules are defined by market  
98 experts, and the ECB and the European Commission provide guidance and actively contributed to  
99 this work. Consequently strong market support is expected.

100 Functional requirements of the Volume may be waived for disabled people, in order to provide  
101 them with equal access to cards services.

102 It is expected that the Volume conformance process (labelling via the CSG) will become operational  
103 in Q3 2016. Please note that as a general rule, if an organisation wishes certain products and  
104 solutions to be conformant to the Volume, they will need to apply all requirements for those  
105 products and solutions defined within the Books. In this case, all newly approved products and  
106 solutions shall comply with the requirements of the latest published Volume release, relevant for

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<sup>2</sup> EBA/GL/2014/12

<sup>3</sup> Answer given by Lord Hill on behalf of the Commission on 15 September 2015.

107 the functions, services and options being implemented by the products and solutions, within a  
108 **maximum of three years after publication.**

109 Schemes, Acquirers and Terminal Vendors should consider the usability for visually impaired when  
110 designing Payment Solutions. This is especially important for local transactions.<sup>4</sup>

111 **Implementation monitoring - Without prejudice to the Interchange Fee Regulation provisions on**  
112 **implementation deadlines**, migration dates and overall deadlines are also included in this release  
113 of the Volume as agreed by the different CSG Sectors. In order to make sure that the market evolves  
114 in due time, in the expected direction and at a normal speed, a monitoring of the implementations  
115 will be organised and conformance results made public on the internet.

116 **Volume Maintenance principles** - The Volume will be regularly updated.

117 1. A full version of the Volume with all its Books is planned to be published based on a 3 years cycle.

118 2. In the meantime, individual Books may be updated to reflect either urgent amendments or  
119 changes in legislation, technology and the evolving landscape. Such individual updates are  
120 published as Bulletins which will be incorporated in the following full version of the Volume.

121 3. In all cases except updates due to regulatory changes, a formal public consultation process will  
122 be undertaken.

123 **Version 7.0.** of the Volume was published in January 2014 as a stable release ready for market  
124 implementation. It was however restricted in scope to “Face-to-Face” card transactions.

125 **Version 7.1.** of the Volume was published in December 2015 to include card services for Card Not  
126 Present [Remote] payments and included conformance to the new card interchange regulation.

127 **Bulletin 001** was published on 29 February 2016 in order to provide guidelines on how to use the  
128 Data Element provided by EMVCo to ease compliance with the Interchange Fee Regulation whose  
129 deadline is 9 June 2016.

130 **Version 8.0** of the Volume is expected to be published as a full version at the end of 2016 to include  
131 i.a., alignments with the Interchange Fee Regulation and the updated Payment Services Directive

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<sup>4</sup> To assist visually impaired customers, the “5” key must have a raised dot on it, in accordance with the recommendation in ISO-9564. Furthermore the vendor should consider providing:

- Raised marks on the function keys, to allow identification without being able to read it.
- A beep when a button is pressed.
- The text in a colour contrasting to the background colour.
- Text to speech functions to allow the terminal to read out the display texts.

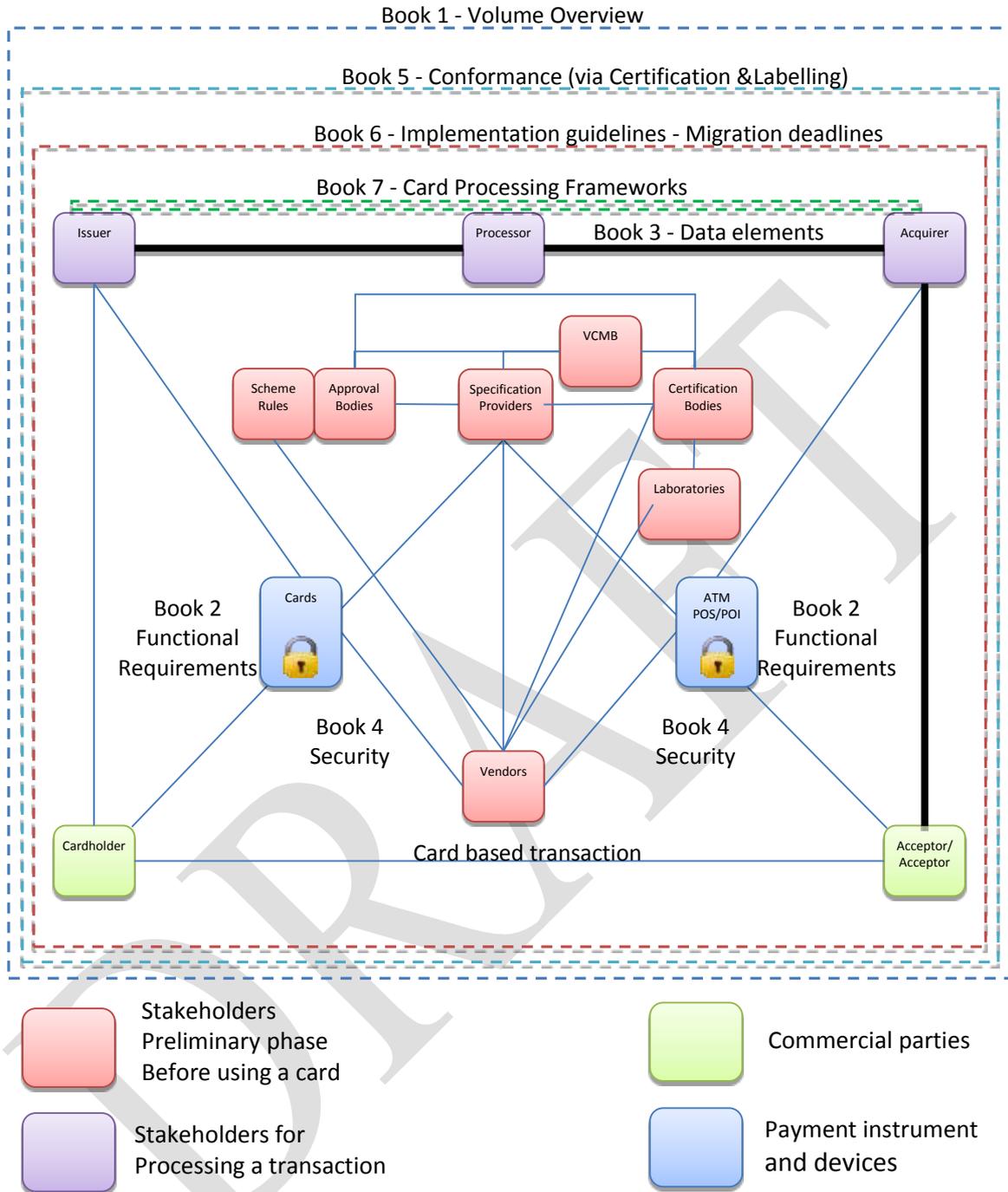


FIGURE 1: VOLUME OVERVIEW

132  
133

134 As illustrated in the drawing above, it is currently composed of

135 Book 1 - ***General***

136 Book 2 - ***Functional Requirements***

137 Book 3 - ***Data Elements***

138 Book 4 - ***Security***

139 Book 5 - ***Conformance Verification Process***

140 Book 6 - ***Implementation Guidelines***

141 Book 7 - ***Card Processing Framework***

142

DRAFT

143 **1.2 Description of changes since the last version of Book 1**

144 This version of Book 1 has been updated with:

- 145 • Reference to the 29 February 2016 Bulletin 001 proposing guidelines for using the Data  
146 Element provided by EMVCo to facilitate compliance with the IFR.  
147 • Details on the maintenance cycle.  
148 • Some new definitions.  
149

150 Note that it is intended to include information on legal ownership of the Volume and Governance  
151 of the new entity proposed to be named the 'European Cards Stakeholders Group' in release 8.0  
152 of this set of books.  
153  
154

DRAFT

155 **2 THE SCS VOLUME AND ITS BOOKS**

156 **2.1 Introduction to the “SEPA Cards Standardisation Volume”**

157 This set of Books assembled into a version of the SEPA Cards Standardisation Volume (hereafter  
158 referred to as the “Volume”) builds historically on the EPC SEPA Cards Framework made available  
159 in March 2006 and has contributed, through the formulation of policy guidelines, to setting the  
160 foundations for the SEPA (Single Euro Payments Area) for payments and cash withdrawals with  
161 cards. The ambition of the Volume is to set common foundations for better interoperability and  
162 for gradual convergence of the technical standards which underpin the card value chain from end-  
163 to-end.

164 Achieving greater standardisation in the European card world is a necessity going forward, yet a  
165 formidable challenge. When undertaking this task a number of conflicting dimensions have to be  
166 reconciled such as:

- 167     ▪ The service experienced by both cardholders and card acceptors may not be disrupted.  
168         Greater standardisation must remain transparent to cardholders and should not  
169         negatively affect their user experience.
- 170     ▪ Retailers have significantly invested in, and deployed, POI equipment (point of interaction  
171         (POI) or point of sale (POS)) as well as related software applications. The depreciation  
172         deadlines of equipments up to now reflect individual decisions rather than any grand  
173         European vision. In addition, in a number of countries retailers have recently completed a  
174         migration to EMV.
- 175     ▪ Equally retailers should not all be perceived as being the same. The different requirements  
176         of their multiple professions and sectors result in specificities which must be translated  
177         into the products they deploy.
- 178     ▪ Vendors appreciate standardisation, yet want also to be able to differentiate their product  
179         and services from each other, and take advantage of innovation, in order to compete in  
180         the marketplace.
- 181     ▪ Policy makers and regulators harbour significant expectations from standardisation:  
182         economies of scale achieved thanks to standard equipment certified and deployable at  
183         European scale should increase choice and competition, foster innovation, decrease costs  
184         and make payments with cards an even more attractive proposition.
- 185     ▪ Finally, SEPA is not an “island”. Standards for cards are not decided only in Europe, and  
186         stakeholders in Europe are concerned about the interoperability beyond Europe’s borders  
187         of the solutions they propose and/or implement.

188 The Volume attempts to reconcile these challenges by offering all stakeholders a pragmatic  
189 approach:

- 190     1. It supplies a set of core functional and security requirements (“SEPA cards standards”)  
191         across the cards value chain to meet the objective for achieving harmonised Europe-wide  
192         certifications and approvals. This includes principles and a framework for a card  
193         standardisation ecosystem.

194 2. These SEPA cards standards will represent the foundation stones on which market  
195 participants will be able to develop detailed implementation specifications to meet the  
196 requisite needs of the various market segments whilst allowing for competition. It will be  
197 the responsibility of each specification provider to ensure that these implementation  
198 specifications are in line with the standards referred to above.

## 199 **2.2 Scope and Objectives of CSG Work on Cards Standardisation**

### 200 **2.2.1 Scope**

201 The scope of EPC's work on cards standardisation in general, and of the present Volume in  
202 particular, is the definition and description of SEPA Cards Standards for setting common foundation  
203 for the better interoperability of card payment and cash withdrawal services, provided or  
204 implemented by the different stakeholders including Volume compliant card schemes, issuers,  
205 acquirers, processors, vendors and acceptors. Additionally, the Volume gives support to the market  
206 regarding the implementation of regulatory requirements, like the ones embedded in the  
207 Interchange Fee Regulation.

### 208 **2.2.2 Objectives**

209 The Volume's objective is to deliver a consistent cardholder and acceptor experience through  
210 harmonised functional and security requirements for cards services within its scope.

211 It will also provide a Card Standardisation Ecosystem - including a conformance verification  
212 Framework - which will enable Volume conformance to be evidenced.

213 The functional and security requirements and the card standardisation ecosystem also include  
214 functional architecture, description of processing flows as well as use and definitions for data  
215 elements.

216 The Volume demonstrates commitment from the main stakeholders of the European card industry,  
217 represented in the CSG, to adopt and deliver a consistent cardholder and acceptor experience. The  
218 CSG Members call upon all other relevant parties throughout the card payment value chain to also  
219 support, adopt and implement these SEPA Cards Standards in order to achieve a true SEPA for  
220 cards.

### 221 **2.2.3 Impact on the Different Stakeholders**

222 Stakeholders in card payments are notably: card schemes, vendors of cards & card acceptance  
223 solutions, retailers, acquirers, processors, issuers, certification entities, cardholders and  
224 consumers.

225 Any stakeholder wishing to present themselves as Volume compliant will have to comply with the  
226 set of Cards related requirements relevant for its activity. However it remains any stakeholder's  
227 discretionary business decision to select which services or options it implements, depending also  
228 on e.g., the environment or business interest.

229 **2.2.4 Implementation of the Volume and Monitoring**

230 During the preparation of this version of the Volume, the CSG experts from the various sectors  
231 worked to define a recommended implementation path for the standards described therein. In the  
232 future, the CSG will work on defining processes to monitor the Volume conformance and  
233 implementation.

234 **2.2.5 Implementation Specifications**

235 The current version of the Volume does not include implementation specifications. The choice of  
236 implementation specifications in line with the Volume is up to the market. Stakeholders will  
237 continue to be free to develop and select implementation specifications which will facilitate  
238 innovation and differentiation and to ensure active competition in the market, and innovation.  
239 However it is expected that these implementation specifications when applying to SEPA will be in  
240 conformance with the Volume requirements.

241 **2.3 Maintenance of the Books**

242 **2.3.1 The Volume, a Set of Books**

243 The Volume is a set of Books. Currently it is composed of:

244 **Book 1 - *General***

245 Contents: Overview of the objective of the Volume, its contents and a glossary.

246 **Book 2 - *Functional Requirements***

247 Contents: Card functional requirements and requirements for POI (Point of  
248 Interaction) to process card services

249 **Book 3 - *Data Elements***

250 Contents: This Book covers the Data Element requirements, their usage and  
251 references and identifications to be used in the messages.

252 **Book 4 - *Security***

253 Contents: Security requirements for cardholder data protection, Terminal to  
254 Acquirer Protocols, PIN, Cards (contact and contactless), Terminals/POI, Payment  
255 Gateways, Hardware Security Modules [HSMs] security requirements.

256 **Book 5 - *Conformance Verification Process***

257 Contents: Description of the CSG Card Standardisation Ecosystem and the  
258 conformance processes (labelling, certification and type approval)

259 **Book 6 - *Implementation Guidelines***

260 Contents: Implementation guidelines, both general and per payment context.

261 Book 7 - **Card Processing Framework**

262 Contents: Card Processing framework, i.e. business principles and requirements for  
263 market access and participation in card payment domain services, with the main  
264 objective of facilitating an open and transparent market.

265 **2.3.2 Maintenance cycles**

266 1. Target date for publication of Volume v8.0 will be 2017.

267 Individual Books may be reviewed in a single year cycle in 2018/2019 depending on the urgency.

268 2. The maintenance of the Volume is managed by the CSG Secretariat, with an Expert Team  
269 dedicated to each Book. Participation in these teams is open but based on expertise on the topic  
270 of the related Book.

271 3. Each publication (Full set or individual Books) will include in its preparation phase, a formal public  
272 consultation process. Relevant details (e.g., Guidance for the completion of the comments form)  
273 will be made available on the CSG and EPC public websites.

274 **2.3.3 Intellectual Property Rights**

275 The entire right, title and interest in and to the copyright and all related rights in the Volume resides  
276 exclusively with the EPC.

277 Neither potential or actual users of this Volume, nor any other person shall assert contrary claims,  
278 or deal with the Volume in a manner that infringes or is likely to infringe the copyright held by the  
279 EPC in the Volume.

280 Parts of the present document are based on contributions by the participants to the EPC Cards  
281 Standardisation Process. When invited to participate in the EPC Cards Standardisation Process,  
282 participants were informed and agreed that one of the primary objectives of the work undertaken  
283 is to ensure that European banks and other stakeholders, including the schemes in which they  
284 participate, have open and free access to, and free usage of, the standardisation work performed.  
285 In order to maximize efficiency all participants also acknowledged that the work to be undertaken  
286 would capitalise to the greatest extent possible on existing initiatives, with the additional objective  
287 to recognise the needs of all relevant stakeholders, coordinate work underway, agree deadlines  
288 and monitor deliverables.

289 Whilst acknowledging the provenance of such material as originating with the participants thereto,  
290 the intellectual property rights, copyright and rights of development and disposal reside exclusively  
291 with the EPC.

292 The Volume can be reproduced, redistributed and transmitted for non-commercial purposes by  
293 any interested party, as long as the EPC as its source is acknowledged and provided that prior  
294 written approval has been given by the EPC.

295 **3 REFERENCES, ABBREVIATIONS AND DEFINITIONS**

296 **3.1 References**

297 NB: The last version of a document always applies, except when a specific one is mentioned.

298 [CPA] EMV Integrated Circuit Card Specifications for Payment Systems, Common  
299 Payment Application Specification

300 [EBA 1] EBA/GL/2014/12 Final guidelines on the security of internet payments

301 [ECB] ECB/EuroSystem Assessment guide for the security of internet payments

302 [EMD] Electronic Money Directive - Directive 2009/110/EC of the European Parliament  
303 and of the Council of 16 September 2009 on the taking up, pursuit and prudential  
304 supervision on the business of electronic money institutions amending Directives  
305 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC

306 [EMV] EMV Integrated Circuit Card Specifications for Payment Systems

307 [EMV B1] EMV Integrated Circuit Card Specifications for Payment Systems, Book 1,  
308 Application Independent ICC to Terminal Interface Requirements

309 [EMV B2] EMV Integrated Circuit Card Specifications for Payment Systems, Book 2, Security  
310 and Key Management

311 [EMV B3] EMV Integrated Circuit Card Specifications for Payment Systems, Book 3,  
312 Application Specification

313 [EMV B4] EMV Integrated Circuit Card Specifications for Payment Systems, Book 4,  
314 Cardholder, Attendant, and Acquirer Interface Requirements

315 [EMV A] EMV Contactless Specifications for Payment Systems (Book A)

316 [EMV B] EMV Contactless Specifications for Payment Systems (Book B)

317 [EMV C1 to C4] EMV Contactless Specifications for Payment Systems. (Book C-1 to C-4)

318 [EMV D] EMV Contactless Specifications for Payment Systems (Book D)

319 [EMV M1] EMVCo Handset Requirements for Contactless Mobile Payment

320 [EMV M2] EMVCo Application Activation User Interface

321 [EPC Crypto] EPC342-08: Guidelines on algorithms usage and key management

322 [EPC PS] EPC343-08: EPC Privacy shielding for PIN entry

323 [EPC Mobile WP] EPC492-09: White paper Mobile Payments

324 [EPC MCP IIG] EPC178-10: Mobile Contactless SEPA Card Payments Interoperability  
325 Implementation Guidelines

326 [FIPS 140-2] Security Requirements for Cryptographic Modules + Annexes

327	[IFR]	Regulation (EU) 2015/751 of the European Parliament and of the Council of 29
328		April 2015 on interchange fees for card-based payment transactions - J.O. May
329		2015
330	ISO/IEC 7810	Identification cards - physical characteristics
331	ISO/IEC 7811	Identification cards - Recording technique
332		ISO/IEC 7811-1: Embossing
333		ISO/IEC 7811-2: Magnetic stripe - Low coercivity
334		ISO/IEC 7811-6: Magnetic stripe - High coercivity
335		ISO/IEC 7811-7: Magnetic stripe - High coercivity, high density
336		ISO/IEC 7811-8: Magnetic stripe - Coercivity of 51,7 kA/m (650 Oe)
337		ISO/IEC 7811-9: Tactile identifier mark
338	ISO/IEC 7812	Identification cards - Identification of issuers
339		ISO/IEC 7812-1 Numbering system
340		ISO/IEC 7812-2 Application and registration procedures
341	ISO/IEC 7813	Information technology - Identification cards - Financial Transaction cards
342	ISO/IEC 7816-5	Identification cards - Integrated circuit(s) cards with contacts - Part 5: Numbering
343		system and registration procedure for application identifiers
344	ISO 8583	Financial transaction card originated messages - interchange message
345		specifications
346		ISO 8583-1: Messages, data elements, code values
347		ISO 8583-2: Application and registration procedures for Institution Identification
348		Codes (IIC)
349		ISO 8583-3: Maintenance procedures for messages, data elements and code
350		values.
351	ISO 9564	Financial services - Personal Identification Number (PIN) management and
352		security.
353		ISO 9564-1: Basic principles and requirements for card-based systems
354		ISO 9564-2: Approved algorithms for PIN encypherment
355		ISO/TR 9564-4: Guidelines for PIN handling in open networks
356	ISO/IEC 9797-1	Information technology - Security techniques - Message Authentication Codes
357		(MACs) - Part 1: Mechanisms using a block cipher
358	ISO/IEC 14443	Information technology - Identification cards -- Contactless integrated circuit
359		cards - Proximity cards
360		ISO/IEC 14443-1: Physical characteristics
361		ISO/IEC 14443-2: Radio frequency power and signal interface

362		ISO/IEC 14443-3: Initialization and anti-collision
363		ISO/IEC 14443-4: Transmission protocol
364	ISO/IEC 15408	Information technology - Security techniques - Evaluation criteria for IT security
365		ISO/IEC 15408-1: Introduction and general model
366		ISO/IEC 15408-2: Security functional components
367		ISO/IEC 15408-3: Security assurance components
368	ISO 20022	Financial Services - Universal financial industry message scheme
369		ISO 20022-1: Metamodel
370		ISO 20022-2: UML profile
371		ISO 20022-3: Modelling
372		ISO 20022-4: XML schema generation
373		ISO 20022-5: Reverse engineering
374		ISO 20022-6: Message transport characteristics
375		ISO 20022-7: Registration
376		ISO 20022-8: ASN.1 generation
377	[OMTP1]	OMTP Trusted Environment ( <a href="http://www.gsma.com">www.gsma.com</a> )
378	[OMTP2]	OMTP Advanced Trusted Environment ( <a href="http://www.gsma.com">www.gsma.com</a> )
379	[OMTP3]	OMTP Security Threats on Embedded Consumer Devices ( <a href="http://www.gsma.com">www.gsma.com</a> )
380	[PCI PTS]	Payment Card Industry PIN Transaction Security
381	[PCI P2PE]	Payment Card Industry Point to Point Encryption
382	[PCI DSS]	Payment Card Industry Data Security Standard
383	[PCI PA-DSS]	Payment Card Industry Payment Application Data Security Standard
384	[PSD]	Payment Services Directive - Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market.
385		
386		
387	[PSD2]	European Commission proposal for a revised PSD.

388 **3.2 Abbreviations**

389

<b>Acronym</b>	<b>Standing for</b>	<b>Acronym</b>	<b>Standing for</b>
A2I	Acquirer to Issuer	CVM	Cardholder Verification Method
AAC	Application Authentication Cryptogram	DCC	Dynamic Currency Conversion
ACS	Access control service	DDA	Dynamic Data Authentication
AID	Application Identifier	DTMF	Dual Tone Multi Frequency
ATC	Application Transaction Counter	EMV	Europay MasterCard Visa
ATICA	Acquirer To Issuer Card Messages	EPA	Embedded Payment Application
ATM	Automated Teller Machine	EPC	European Payments Council
AVS	Address Verification Service	EPP	Encrypting PIN Pad
BIN	Bank Identification Number	fDDA	Fast Dynamic Data Authentication
C2T	Card to Terminal	GSMA	GSM Association
CA	Certification Authority	HPP	Hosted Payment Page
CAM	Card Authentication Method	HSM	Hardware Security Module
CAT	Cardholder-Activated Terminal	ICC	Integrated Chip Card
CB	Certification Board	IF	Interchange Fee
CC	Common Criteria	IIN	Issuer Identification Number
CCD	Common Core Definition	IFR	Interchange Fee Regulation
CDA	Combined DDA/Application Cryptogram Generation	ISO	International Organisation for Standardisation
CDCVM	Consumer Device CVM	(M)CP	(Mobile) Contactless Payment
CPA	Card Payment Application	MRP	(Mobile) Remote Payment
CPS	Card Payment Scheme	MNO	Mobile Network Operator
CSC	Card Security Code	MOTO	Mail Order - Telephone Order
CSG	Cards Stakeholders Group	MRP	Mobile Remote Payment
		NFC	Near-Field Communications

		REE	Rich Execution Environment
OS	Operating System	SCS	SEPA Cards Standardisation
OTA	Over The Air	SDA	Static Data Authentication
OTP	One Time Password	SE	Secure Element
P2P	Point-to-Point (Encryption)	SMS	Short Message Service
PAN	Primary Account Number	SSL	Secure Socket Layer
PCI	Payment Card Industry	T2A	Terminal to Acquirer
PED	PIN Entry Device	TEE	Trusted Execution Environment
POI	Point of Interaction	TOE	Target OF Evaluation (CC)
PPSE	Proximity Payment System Environment	TPM	Trusted Platform Module
PSD	Payment Services Directive	TPP	Third Party Provider
PSE	Payment System Environment	TRSM	Tamper-resistant security module
PSP	Payment Service Provider	TSM	Trusted Services Management
PSU	Payment Service User	UPT	Unattended Payment Terminal
PTS	PIN Transaction Security		
PVV	PIN verification value		

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392 **3.3** Definitions

393 A number of definitions originate from Regulation (EU) 2015/751. These are identified by the  
394 reference number in brackets used in Article 2 of the Regulation.

395 For example: (1) ‘acquirer’ means a payment service provider contracting with a payee to accept  
396 and process card-based payment transactions, which result in a transfer of funds to the payee.

Concept	Definition
3-D Secure	An XML-based protocol designed to be an additional security layer for remote transactions. It was developed by Visa with the intention of improving the security of internet payments and offered to customers as the Verified by Visa service. Services based on the protocol have also been adopted by MasterCard, under the name MasterCard SecureCode, by JCB International as J/Secure and by American Express as SafeKey.  The EMVCo consortium has endorsed 3D Secure.

397 A.

AAC	Application Authentication Cryptogram, which is a Cryptogram generated by the card application. See [EMV B2].
Acceptance	In the field of cards, it refers to the process whereby a particular brand of card is accepted by a terminal, acceptor or other entity.
Acceptance Environment	Environment where the Card transaction is conducted in the Acceptor’s domain. This Volume describes two Acceptance Environments: <ul style="list-style-type: none"> <li>• Physical POI</li> <li>• Remote POI</li> </ul>
Acceptance Technology	The source of and method by which Card Data is obtained. It may also include other processes.
Acceptor	A retailer or any other entity, firm or corporation that enters into an agreement with an Acquirer to accept Card Transactions as payment for goods and services (including cash withdrawals) and displays the card schemes acceptance logo. The Payment will result in a transfer of funds in their favour.  Sometimes also referred to as Merchant.
Account Takeover (Fraud)	A form of fraud where someone accesses another’s personal banking service and changes the address and passcode on someone else’s account, using stolen or fake identification documents.

Acquirer	(1) 'acquirer' means a payment service provider contracting with a payee to accept and process card-based payment transactions, which result in a transfer of funds to the payee;  Note: In some cases the Acquirer may also be an Acceptor.
Acquiring	The service performed by an Acquirer.
Activated/Deactivated	Indicates that a Card Service or a Function or an Acceptance Technology is supported (i.e. implemented) in the POI Application and is configured to be available or not for transaction processing.
Additional Authentication Device	A Chip Card accepting PED which may or may not be connected to the consumer device and which includes an EMV Card Authentication Application.
Address Data	Data entered and transmitted for MOTO transactions consisting of the numeric characters from the address.
Application Cryptogram [AC]	A cryptogram generated by the Card Payment Application in response to a GENERATE AC command.
Application Identifier (AID)	A Data Element specified by ISO/IEC 7816-5 which in the context of the Volume encodes a unique identifier of an EMV Application
Application Profile	An Application Profile determines the configurable parameters which are used to process a Card Service by the POI Application.
Approval Body	A body which performs Type Approval.
ARQC	Authorisation Request Cryptogram, which is a Cryptogram generated by the Card Application to request an online authorisation for the transaction. See [EMV B2].
Asymmetric Key Pair	Two mathematically related cryptographic keys, a public key and a private key, which, when used with the appropriate public key algorithm, can allow the secure exchange of information and message authentication, without the secure exchange of a secret.
ATICA	Acquirer To Issuer Card messages. A set of messages based on the ISO 20022 standard in the Acquirer to Issuer domain intended to support interoperability. During preparation of Volume version 7.1 the ATICA messages had not been finalised.
ATM Cash Withdrawal	A service which allows the cardholder to withdraw cash at a cash dispensing device, i.e. an ATM. Also called "ATM Cash Disbursement".
Attended (POI)	An attendant (an agent of the card acceptor) is present at the Physical POI and participates in the transaction by entering Card Service-related data.
Authentication	The provision of assurance of the claimed identity of an entity or of data origin.

(Mobile) Authentication Application	A Card Application stored or accessed via a (Mobile) Consumer Device used to support the authentication process in a Remote Transaction. It supports transaction processing for the Acceptance Technology “Consumer Device with Credentials and Authentication Application”.
Authentication Method	The method used for the authentication of an entity or data origin.
Authenticator	A security factor used in an authentication method such as: - Something you know, such as a password or passphrase - Something you have, such as a token device or smart card - Something you are, such as a biometric.
Authenticity	The property that ensures that the identity of a subject or resource is the one claimed. Authenticity applies to entities such as users, processes, systems and information.
Authorisation	A Function which allows the Acceptor to make a decision to proceed with a Card Service or not. It can be processed off line by the Card Application or online to the Acquirer/Issuer or their agents. If processed online, the Authorisation may also result in a partial approval.
Automated Teller Machine (ATM)	An Unattended Physical POI that has online capability, accepts PINs, which allows authorised users, typically using machine-readable plastic cards, to withdraw cash from their accounts and/or access other services (e.g., to make balance enquiries, transfer funds or deposit money).

398 B.

Balance Enquiry	A service which allows the cardholder to request information about their account balance.
BIN	Bank Identification Number (also referred to as IIN). It is the first part of the PAN, Primary Account Number, identifying the Issuer of the card. See ISO/IEC 7812 for more information.
Biometric	An identity verification method of a Cardholder based upon one or more intrinsic physical features of that Cardholder.
Brand (also Card Payment Brand)	A product (especially a card) or family of products that have been licensed by their owner for use in a given territory.
Business Day	A day on which the relevant payment service provider of the cardholder or the payment service provider of the acceptor involved in the execution of a payment transaction is open for business as required for the execution of a payment transaction.

399 C.

Cancellation (Card Service)	A Card Service which allows the card acceptor to cancel a previously approved transaction. Cancellation should only occur before the transaction is cleared to the issuer. It is sometimes called "Manual reversal". Its primary function is to prevent the transaction being processed and to readjust the Cardholder Available Funds.
Cancellation (Technical Process)	A process that can be instigated by the cardholder or the acceptor at a POI to nullify a transaction, prior to Data Capture to the Acquirer typically using a "cancel" button on the POI.
Card	A Physical Card or a Virtual Card.
Card Account	An account held by a PSP which will be used for one or more Card Services and which is related to a specific Cardholder. A Card Account is identified by Card Data.
Card Acquirer	See Acquirer.
Card Activation	An operation to activate a new card prior to usage or during first card usage.
Card Application	Software and associated Card Data used to perform a Card Service, including the following types: <ul style="list-style-type: none"> <li>• EMV Card Payment Application (Physical Card)</li> <li>• Mobile Contactless EMV Payment Application (Mobile Device)</li> <li>• EMV Card Authentication Application (Physical Card)</li> <li>• (Mobile) Authentication Application (Consumer Cardholder Device)</li> <li>• (Mobile) Remote Payment Application (Consumer Remote Cardholder Device).</li> </ul>
Card Authentication	A Function by which a chip Card Data is authenticated by the POI Application (Offline Card Authentication), by an Additional Authentication Device and/or by the Issuer (Online Card Authentication).
Card Based Language Selection (Optional)	A Function by which the language can be selected for on-screen dialogues or print-outs.
Card-Based Payment Instrument	(20) 'card-based payment instrument' means any payment instrument, including a card, mobile phone, computer or any other technological device containing the appropriate payment application which enables the payer to initiate a card-based payment transaction which is not a credit transfer or a direct debit as defined by Article 2 of Regulation (EU) No 260/2012;

Card Based Payment Transaction	(7) 'card-based payment transaction' means a service based on a payment card scheme's infrastructure and business rules to make a payment transaction by means of any card, telecommunication, digital or IT device or software if this results in a debit or a credit card transaction. Card-based payment transactions exclude transactions based on other kinds of payment services;
Card Data	A data set used to perform a Card Service that allows the identification of the Cardholder and their account. Card Data consists of the PAN and other data elements.
Card Data Retrieval	A Function which allows the POI to retrieve card data.
Card Funds Transfer	A service which allows the cardholder to use their card to transfer funds to and from their card account and where neither of the involved entities acts as a card acceptor (or professional payee).  Sometimes referred to as 'Card Electronic Transfer'
Card Id Theft (Fraud)	A form of stealing someone's identity in which someone pretends to be someone else by assuming that person's identity, typically in order to access resources or obtain credit and other benefits in that person's name.
Card Issuer	See Issuer.
Card Not Present (CNP)	Transaction based on card-related information without the Card being physically presented to the Acceptor e.g., No-Show, MOTO, e- & m-Commerce.
Card On File	See Stored Card Data
Card Pick-Up Advice	This Pick-up Advice service purpose is to inform the issuer that the card has been confiscated.
Card Present	Transaction based on card-related information with the Card being physically presented to the Acceptor.
Card Processing Framework	A set of business principles and requirements applying to actors of the card payment value chain (e.g., Schemes, Processors, Acquirers, Issuers) in order to further facilitate an open and transparent market.
Card Reader	Data input device that reads data from a card-shaped storage medium.

<p>Card Scheme (or Card Payment Scheme or Scheme)</p>	<p>A card payment scheme is a technical and commercial arrangement (often referred to as the “rules”) between parties in the Card Value Chain, resulting in a set of functions, procedures, arrangements, rules and devices that enable a Cardholder to perform a payment transaction, and/or cash withdrawal or any other Card Service. The Members of the Card Scheme can issue or Acquire transactions performed within the Scheme.</p> <p>Any party may join a Card Scheme, as long as the rules of that Card scheme are met.</p>
<p>Card Security Code (CSC)</p>	<p>A data element that uses secure cryptography to protect the integrity of the card. The code differs depending on the payment channel. There is a CSC on the magnetic stripe, a different one in the chip and a different one again when the payment is contactless.</p> <p>The CSC is also the last three or four digits of the number printed on the reverse of the card (usually found on the signature strip). CVV2/CVC2/CID provides a security feature for "card not present" transactions. It is a three or four digit value which provides the payment processor with a cryptographic check of the card's authenticity. The terms are generally used interchangeably. CVV2 stands for "Card Verification Value 2", CVC2 stands for "Card Validation Code 2", and CID stands for "Card Identification Number". For American Express, the code is a four digit number on the front of the card above the account number. For Visa, MasterCard, Discover and CB the code is a three digit number that appears at the end of the account number (if present) on the back of the card.</p> <p>These code values help validate two things: The customer has the credit card in his/her possession. The card account is legitimate. CVV2/CVC2/CID is printed only on the card - it is not contained in the magnetic stripe information, nor does it appear on sales receipts or statements. Using the CVV2/CVC2 value can help minimize the risk of unknowingly accepting a counterfeit card or being a victim of fraud.</p> <p>The Card Security Code can be static or dynamic. For the latter, the Card Security Code can be generated by the chip of the card (for physical cards only) or be generated or delivered by other means.</p>
<p>Card Service</p>	<p>A process to perform or support financial transactions based on Card Data in the Card environment.</p>
<p>Card Standardisation Ecosystem</p>	<p>The complex of the SEPA cards community interacting with its environment in the field of Volume conformance.</p>
<p>Card Transaction</p>	<p>A transaction used to perform a Card Service. A Card Transaction is a Local (Card) Transaction or a Remote Transaction.</p>
<p>Card Validity Check</p>	<p>A service which allows the validity of the card to be checked. This transaction has no financial impact on the card account. Can also be referred to as a Card Account Status Check.</p>

Cardholder	A Person or entity to whom a Card Application has been issued, or one who has been authorised to use the Card Application.
Cardholder Available Funds	The funds available for use by the Cardholder, taking into account the hold placed on the funds in respect of amount(s) authorised but not yet settled. Also referred to as "Open-to-Buy"
Cardholder Environment	The source from where Card Data is retrieved when performing a Card transaction. These are Physical Card, Virtual Card and Consumer Device.
Cardholder Present	During the transaction, the Cardholder is present at the card Acceptor's premises or at an Unattended Terminal.
Cardholder Verification	Function used to verify whether the person using the card application is the legitimate cardholder.
Cardholder Verification Method (CVM)	A method used to perform Cardholder Verification. Examples include Signature, PIN or No CVM Required.
Cards Stakeholders Group (CSG)	The Group (CSG) set up by the EPC in 2009 with the aim to be a dialogue platform dealing with European Cards Standardisation Matters and as a leading organisation in SEPA cards and terminal standardisation. Five industry sectors combine their efforts in writing and maintaining the "SEPA Cards Standardisation Volume", i.e. Retailers, Processors, the European Payments Council, Vendors and Schemes.
Cash Advance (Attended)	A Card Service at an attended POI which enables a Cardholder to receive cash against the open-to-buy funds on the account. POS cash advances are restricted to specific environments e.g., T&E acceptors and financial institutions. Also called Cash Disbursement.
Cash Deposit	A Card Service which allows the cardholder to deposit cash to their own card account(s). It can take place <ul style="list-style-type: none"> <li>• Either at a counter;</li> <li>• Or at an attended or unattended POI.</li> </ul>
Cashback	See Payment with cashback.
Cashback Amount	See Payment with cashback.
Certification	The process of issuing a 'Certificate' by a Certification Body following the successful assessment of the evaluation and/or test reports to attest the compliance of a given card payment component (POI, card, etc.) with a given set of requirements and specifications.
Certification Authority (CA)	Trusted third party that establishes a proof that links a public key and other relevant information to its owner using a Public Key Certificate.

Certification Body (CB)	The organisation reviewing the output of the evaluation process and issues a 'Certificate' to attest that a Card, POI or any other Card component meets the given set of 'requirements' and 'implementation specifications'.
Charge Card (Delayed Debit Card)	A card enabling its holder to make purchases and/or withdraw cash and have these transactions charged to an account held with the card issuer, up to an authorised limit. The balance of this account is then settled according to conditions agreed between the Card Issuer and the Cardholder. This type of Card is sometimes referred to as a 'Deferred Debit Card'.
Chargeback	A Function initiated by the Issuer requesting the Acquirer to credit the Issuer for the amount in question of a given transaction.
Chip Card (Smart Card)	A Physical Card which is an Integrated Circuit Card and complies with EMV Book 1 and/or EMV Book D or both in case of a Dual Interface Card.  A Chip Card is sometimes referred to as a type of payment Card that has integrated circuits embedded within. The circuits, also referred to as the "chip" contain payment card data including but not limited to data equivalent to the magnetic stripe data.  See Smart Card.
Chip Contactless	An Acceptance Technology where Card Data is retrieved from the chip of an IC Card over the contactless interface compliant with [EMV D]. In this case, the carrier of the chip may be a Chip Card of the ID 1 form factor (as defined in ISO/IEC 7810), a key fob, or another Form Factor.
Chip with Contact	An Acceptance Technology where Card Data is retrieved from the chip of an IC Card over the contact interface compliant with [EMV B1].
Clearing	The process of exchanging financial transaction details between an acquirer and an issuer to facilitate both the posting of transactions to cardholders' accounts and the reconciliation of an institution's settlement position.
Cleartext	See Plaintext.
Co-Badging	(31) 'co-badging' means the inclusion of two or more payment brands or payment applications of the same brand on the same card-based payment instrument;
Co-Branding	(32) 'co-branding' means the inclusion of at least one payment brand and at least one non-payment brand on the same card-based payment instrument;
Combined Data Authentication (CDA)	A type of offline dynamic data authentication where the card combines generation of a cryptographic value (dynamic signature) for validation by the POI with the generation of an Application Cryptogram to verify that it originates from a valid card. See [EMV B2].

Common Core Definition (CCD)	CCD describes a minimum common set of card application implementation options, card application behaviours, and data element definitions sufficient to accomplish an EMV transaction. CCD is not a functional application specification.
Common Criteria (CC) Evaluation	The Common Criteria was developed through a combined effort of six countries: the United States, Canada, France, Germany, the Netherlands, and the United Kingdom. As an international standard (ISO/IEC 15408), it enables an objective evaluation to validate that a particular product or system satisfies a defined set of security requirements. Although the focus of the Common Criteria is evaluation, it presents a standard that should be of interest to those who develop security requirements.
Common Payment Application (CPA)	A functional specification for an issuer payment application that complies with the CCD requirements, and defines card applications, implementation options and card application behaviours.
Completion	A Function which provides information on how the transaction was completed. It includes all or some of the following steps: <ul style="list-style-type: none"> <li>• Complete the transaction for the Card Application</li> <li>• Inform Cardholder, Attendant and/or Acquirer about the result of the transaction</li> <li>• Deliver a receipt to Cardholder and/or Attendant</li> </ul>
Compliance	Adherence of Products and Solutions to detailed specifications.
Conformance	When a Product, Service or implementation Specification has been developed in accordance with the requirements of the SEPA Cards Standardisation Volume it is conformant with the Volume.
Conformance Verification Process	The processes by which the SEPA Cards Community interacts with its environment for verifying the SCS Volume conformance.
Commercial card	(6) 'commercial card' means any card-based payment instrument issued to undertakings or public sector entities or self-employed natural persons which is limited in use for business expenses where the payments made with such cards are charged directly to the account of the undertaking or public sector entity or self-employed natural person;
Consumer	(3) 'consumer' means a natural person who, in payment service contracts covered by this Regulation, is acting for purposes other than the trade, business or profession of that person;

Consumer Device	<p>An internet and/or NFC capable device used by the Cardholder to conduct Card Services. It is either</p> <ul style="list-style-type: none"> <li>• a Mobile Device used for Mobile Contactless or Mobile Remote Transactions ,</li> <li>• An Electronic Device used for Remote Transactions.</li> </ul> <p>It can be a carrier of Credentials or a Card Application. It includes a user interface that enables the Cardholder to enter data.</p> <p>This is sometimes referred to as Cardholder Controlled Device or Cardholder Operated Device.</p>
Consumer Device Cardholder Verification Method (CDCVM)	A Cardholder Verification Method (CVM) performed on, and validated by, the consumer device.
Contactless Payment	A payment processed using the Chip Contactless Acceptance Technology or the Mobile Contactless Acceptance Technology.
Counterfeit Card (Fraud)	A card that has been fraudulently manufactured, embossed or encoded to appear to be genuine but which has not been authorised by a card scheme or issued by a member. A card originally issued by a member but subsequently altered without the issuer's knowledge or consent.
CPS Governance Authority	<p>The Card Payment Scheme actor who is accountable for the overall functioning of the CPS and its coherence; it should ensure that all other actors follow the rules and apply relevant measures. The CPS standards allocate responsibility directly to the governance authority.</p> <p>The CPS rules may allow delegation of some of these responsibilities to other actors of the CPS. The governance authority should clearly define such cases and ensure that the choices of the other actors of the CPS are compliant with the overall CPS standards. The governance authority could be a specific organisation or entity or be represented by decision-making bodies of cooperating schemes.</p>
Credentials	The information - generally confidential - provided by a Cardholder or PSP for the purposes of authentication.
Credit Card (Card With A Credit Function)	(34) 'credit card' means a category of payment instrument that enables the payer to initiate a credit card transaction;
Credit Card transaction	(5) 'credit card transaction' means a card-based payment transaction where the amount of the transaction is debited in full or in part at a pre agreed specific calendar month date to the payer, in line with a prearranged credit facility, with or without interest;

Cross-Border Payment Transaction	(8) 'cross-border payment transaction' means a card-based payment transaction where the issuer and the acquirer are located in different Member States or where the card-based payment instrument is issued by an issuer located in a Member State different from that of the point of sale;
Cryptographic Algorithm	A mathematical function that is applied to data to ensure confidentiality, data integrity and/or authentication. A cryptographic algorithm, using keys, can be symmetric or asymmetric. In a symmetric algorithm, the same key is used for encryption and decryption. In an asymmetric algorithm, different keys are used for encryption and decryption. The result from applying a cryptographic algorithm to a piece of data that can be used to hide the data, or to produce a digital signature to verify the origin and integrity of the data.
Cryptographic Key	The numeric value entered into a cryptographic algorithm that allows the algorithm to encrypt or decrypt a message.
Cryptographic Zone	The technique of using unique keys for communication between two organisations is referred to as zone encryption. A cryptographic zone defines a range for which a specific key is used.
Cryptography	Discipline that embodies principles, means, and mechanisms for the transformation of data in order to hide its information content, prevent its undetected modification and/or prevent its unauthorised use.
CVM List	An issuer-defined list in the chip card's payment application profile indicating the hierarchy of preferences for verifying a cardholder's identity.

400 D.

Data Capture	A Function to transfer data captured at a Point of Interaction to the Acquirer for financial presentment.
Data Elements	A named basic unit of information built on standard structures having a unique meaning. The basic building blocks for messages.
Debit Card (Card With A Debit Function)	(33) 'debit card' means a category of payment instrument that enables the payer to initiate a debit card transaction excluding those with prepaid cards;
Debit Card Transaction	(4) 'debit card transaction' means a card-based payment transaction, including those with prepaid cards that is not a credit card transaction;
Decryption, Decipherment	Transformation of data by a cryptographic algorithm to retrieve data in its original state from cipher text.

Deferred Payment	A combined service which enables the card acceptor to perform an authorisation for a temporary amount and a completion for the final amount within a limited time frame. Deferred Payment is available in attended and unattended environments. This is widely used in the petrol environment. This is also called “Outdoor Petrol” when used in the specific petrol sector.
Delayed Fulfilment/Settlement	An environment where there is a delay between the time the payment is initiated and in fulfilling the goods and services or in completing the settlement record.
Digital Signature	Data appended to, or a cryptographic transformation of, a data unit that allows a recipient of the data unit to prove the source and integrity of the data unit and protect against forgery e.g., by the recipient.
Dynamic Authentication	Authentication method that uses cryptography or other techniques to create a one-per-transaction random authenticator (a so-called ‘dynamic authenticator’).
Dynamic Currency Conversion (DCC)	A feature which allows the cardholder to select the currency of the transaction for a given Card Service, choosing between the cardholder’s currency and the card acceptor’s currency.
Dynamic Data Authentication (DDA)	A method of offline data authentication used by a chip enabled device to validate the authenticity of the chip data and the card, using a public key algorithm to generate a cryptographic value, including transaction specific data elements, validated by the POI to protect against counterfeit or skimming. Two forms of offline dynamic data authentication are defined by EMV B2: DDA and CDA.

401 E.

e-Commerce	A remote transaction initiated by the Cardholder using a Consumer Device and conducted via a Virtual POI to buy products and services over the internet. If the Consumer Device is an Electronic Device, this is referred to as an E-Commerce transaction.
e-Purse - Loading/Unloading	Services which allow the cardholder to transfer funds between an electronic purse and his card account.
EEA issued cards	A Chip Card or MCP Application issued in the EEA (European Economic Area).
Electronic Device	Personal device with communication capabilities such as internet, Wi-Fi ... Examples of Electronic Devices include PCs...

Electronic Money	A monetary value, represented by a claim on the issuer, which is: 1) Stored on an electronic device (e.g., a card or computer); 2) Issued upon receipt of funds in an amount not less in value than the monetary value received; and 3) Accepted as a means of payment by undertakings other than the issuer.
Electronic Money Institution (ELMI)	A legal person that has been granted authorisation under Title II of the Directive 2009/110/EC on the taking up, pursuit and prudential supervision of the business of electronic money institutions to issue electronic money .
Electronic Product ID	IFR Art 10 §5 Issuers shall ensure that their payment instruments are <u>electronically</u> identifiable and, in the case of newly issued card-based payment instruments, also visibly identifiable, enabling payees and payers to unequivocally identify which brands and categories of prepaid cards, debit cards, credit cards or commercial cards are chosen by the payer.
Embossed	Characters raised in relief from the front surface of a card.
EMV	An acronym describing the set of specifications developed by EMVCo, which is promoting a global standardisation of electronic financial transactions - in particular the global interoperability of Chip Cards. "EMV" stands for "Europay, MasterCard and Visa".
EMV Card Authentication Application	A Card Application based on EMV and stored on a Physical Card to perform an Authentication for Remote Payments using an Additional Authentication Device.
EMV Card Payment Application	A Card Application according to EMV and stored on a Physical Card. Each EMV Card Payment Application is identified by an Application Identifier (AID). An EMV Card Payment Application may be contact, contactless or both. An EMV Card Payment Application is called a Contact Card Payment Application if it supports transaction processing for the Acceptance Technology "Chip with Contact". It is called a Contactless EMV Card Payment Application if it supports transaction processing for the "Chip Contactless" Acceptance Technology.
EMV Online Authentication	Authentication of the Card Application using Application Cryptograms with online communication to the issuer.
EMVCo	An LLC formed in 1999 by Europay International, MasterCard International and Visa International to enhance the EMV Integrated Circuit Card Specifications for Payments Systems. It manages, maintains, and enhances the EMV specifications jointly owned by the payment systems. It currently consists of American Express, Discover, JCB, MasterCard, Union Pay and VISA.
Encryption, Encipherment	(Reversible) Transformation of data by a cryptographic algorithm to produce cipher text, i.e., to hide the information content of the data.

European Economic Area (EEA)	An area currently composed of the 28 European Union (EU) member states, as well as 3 of the 4 member states of the European Free Trade Association (EFTA): Iceland, Liechtenstein and Norway. It also provisionally include Croatia pending ratification of its accession by all EEA parties. One EFTA member, Switzerland, has not joined the EEA, but has a series of bilateral agreements with the EU which allow it also to participate in the internal market.
Evaluation Methodology	A methodology that will be used to evaluate compliance and assurance level with a specific implementation specification,

402 F.

Face-To-Face (Card) Payment	See Local (Card) Payment
Face-To-Face (Card) Transaction	See Local (Card) Transaction
Financial Presentment	A Function which enables acquirers to send issuers the transactions details and the amounts due for the processed transactions. This is generally called "Clearing".
Floor Limit	A transaction amount in a specific currency, above which an online authorisation is required for a single transaction.
Form Factor	The physical characteristics of a Card or any Consumer Device.
Four party card scheme	A Card Scheme which includes the following stakeholders: The Cardholder, the Issuer (who has a relationship with the Cardholder), the Acceptor and the Acquirer (who has a relationship with the Acceptor). The Scheme defines the rules which apply to all parties; there are no limitations as to who may join the scheme, as long as the requirements of that scheme are met.
'Four Party Payment Card Scheme'	(17) 'four party payment card scheme' means a payment card scheme in which card-based payment transactions are made from the payment account of a payer to the payment account of a payee through the intermediation of the scheme, an issuer (on the payer's side) and an acquirer (on the payee's side);
Framework Contract	A payment service contract which governs the future execution of individual and successive payment transactions and which may contain the obligations and conditions for setting up a payment account.
Function	A Function is a processing step or a sub-element of a Card service.
Funds	Banknotes and coins, scriptural money and electronic money as defined in [EMD]

403 G.

General Purpose Card	A Card that can be used by a cardholder to pay bills, obtain cash at ATMs and make purchases everywhere it is accepted, including internet and mail order/telephone order to acceptors.
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404 H.

Hardware Security Module (HSM)	Physical equipment/components including a secure crypto processor and used within the cryptographic boundary to process security functions (including cryptographic algorithms and key generation).
Hashing	Computationally efficient function mapping binary strings of arbitrary length to binary strings of fixed length, such that it is computationally infeasible to find two distinct values that hash into the same value.
Honour All Cards	Rule under which Acceptors are required to accept all the different types of cards that are valid and branded by the same Card Payment Scheme.

405 I.

Implementation Specification	Generally developed and managed by Specification Providers, implementation specifications are detailed description for applying standards and requirements.
Imprint	Image of the embossed card data on the front of a card.
Instalment Payment	<p>A service which allows the card acceptor to split the Payment of a single purchase of goods or services in a finite number of periodic transactions, with a specified end date.</p> <p>Note: It is not considered an Instalment Payment if the issuer performs multiple debits of a cardholder's account for a single purchase of goods or services over an agreed period of time. In this case the issuer authorises the complete Payment amount, and the splitting of the Payment amount is transparent for the card acceptor/acquirer.</p>
(Data) Integrity	The property that data has not been altered or destroyed in an unauthorised manner.
Interchange Fee (IF)	(10) 'interchange fee' means a fee paid for each transaction directly or indirectly (i.e. through a third party) between the issuer and the acquirer involved in a card-based payment transaction. The net compensation or other agreed remuneration is considered to be part of the interchange fee;

International Organization For Standardisation (ISO)	Non-governmental organisation consisting of a network of the national standards institutes of over 150 countries, with one member per country and a central secretariat in Geneva, Switzerland, that coordinates the system.
Interoperability	The ability of two or more components involved in the card industry area payment systems to exchange the agreed information and to use the information that has been exchanged in order to complete a payment, a transaction or a service and exchange value between payment participants.
Issuer	(2) 'issuer' means a payment service provider contracting to provide a payer with a payment instrument to initiate and process the payer's card-based payment transactions;  Note: This PSP can be a member of a Card Payment Scheme.
Issuer Application Data	Payment system defined application data for transmission from the chip card to the issuer in an online transaction.
Issuer Authentication Data	Data sent from the issuer to the ICC as a result of online issuer authentication.

406 J.

407 K.

Kernel	A piece of terminal application software that supports the EMV payment application functions as defined in the EMV specifications. The non-EMV functionality that supports functions like the printer and display, and building messages to send to the acquirer, is not considered part of the kernel.
Kiosk	Unattended self-service booths with computers that dispense information or make sales via a touch screen. Any modern vending machine that accepts cards can be called a kiosk.

408 L.

Labelling	Optional Volume conformance process based on self-assessment for detailed implementation specifications.
Laboratory	In the context of the SCS Volume, an entity accredited by the Certification Body to evaluate a given card payment component (POI, card) against the requirements defined in a given implementation specification or standard. The Laboratory issues an evaluation report to the card or POI vendor and the Certification Body for certification.

Language Selection	A Function which allows selecting, automatically (Card based Language Selection without cardholder or attendant interaction) or manually (Manual Language Selection by the cardholder or attendant), the language used on the POI for communication with the cardholder.
Liability	The obligation to pay an amount owing. The term 'liability' is also used to refer to the party that is responsible for covering or absorbing an amount in respect of a fraud or cardholder dispute.
Local (Card) Payment	A Card Payment initiated at the Acceptor's Physical POI (sometimes referred to as 'Face to Face' transactions). This concept is in opposition with Remote (Card) Payment.
Local (Card) Transaction	A Card Transaction initiated at the Acceptor's Physical POI (sometimes referred to as 'Face to Face' transactions).
Luhn algorithm	Also known as the "modulus 10" or "mod 10" algorithm, a simple checksum formula used to validate a variety of identification numbers, such as credit card numbers (created by IBM scientist Hans Peter Luhn)

409 M.

m-Commerce	A remote transaction initiated by the Cardholder using a Mobile Device and conducted via a Virtual POI to buy products and services over the internet.
MACing	A function which maps strings of bits and a secret key to fixed-length strings of bits, satisfying the following properties: <ul style="list-style-type: none"> <li>• for any key and any input string the function can be computed efficiently;</li> <li>• for any fixed key, and given no prior knowledge of the key, it is computationally infeasible to compute the function value on any new input string, even given knowledge of the set of input strings and corresponding function values, where the value of the input string may have been chosen after observing the value of the first <math>i-1</math> function values (see ISO/IEC 9797-1)</li> </ul>
Magnetic Stripe	Acceptance Technology where Card Data is retrieved from the magnetic stripe of a Magnetic Stripe Card.
Magnetic Stripe Card	A Physical Card carrying a magnetic stripe which complies with ISO 7810, 7811, 7812, 7813.
Magstripe Fallback	Refers to the scenario where a chip card cannot be read on a chip-enabled terminal, so the terminal gathers the information from the magnetic stripe and generates a magnetic stripe transaction. The Scenario is referred to as operating in fallback mode.

Manual Entry	Acceptance Technology where Card data is keyed in manually at the time of the transaction by the Attendant or by the Cardholder.
Means Of Distance Communication	It refers to any means which, without the simultaneous physical presence of the payment service provider and the payment service user, may be used for the conclusion of a payment services contract.
Means Of Payment	Assets or claims on assets that are accepted by a payee as discharging a payment obligation on the part of a payer vis-à-vis the payee. See also payment instrument.
Merchant	See Acceptor.
Merchant Agreement	A contract between a Merchant (Acceptor) and an Acquirer containing their respective rights, duties and obligations of participation in the scheme payment system.
Merchant Service Charge	(12) 'merchant service charge' means a fee paid by the payee to the acquirer in relation to card-based payment transactions;
Mobile Code	This method is a CVM which is dedicated to mobile payments (Mobile Contactless Payments (MCPs) or Mobile Remote Payments (MRPs). The mobile code is entered via the keyboard of the Mobile Device. The check is made either online by the issuer or offline by a dedicated application such as the MCP/MRP or Authentication Application in a secure environment via the Mobile Device.
Mobile Contactless	Acceptance Technology where Card Data is retrieved from a Mobile Contactless Payment (MCP) Application in a Mobile Device over the contactless interface compliant with [EMV D].
Mobile Contactless Card Payment Application	A Card Application according to EMV and stored in a Secure Element on a Mobile Device <sup>5</sup> . Each Mobile Contactless Card Payment Application is identified by an Application Identifier (AID). It supports transactions processing for the Acceptance Technology "Mobile Contactless".
Mobile Device	Consumer device with mobile communication capabilities such as a telecom network connection, Wi-Fi, Bluetooth ...  Examples of Mobile Devices include mobile phones, smart phones and tablets.
(Mobile) EMV Payment Application	Software and associated Card Data used to perform a Card Service, including the following types: <ul style="list-style-type: none"> <li>• EMV Card Payment Application (Physical Card)</li> <li>• Mobile Contactless EMV Payment Application (Mobile Device)</li> </ul>

<sup>5</sup>The storage of a Mobile contactless application according to HCE (Host Card Emulation) is not covered in the current release of the Volume.

Mobile Remote Payment (MRP)	A remote payment initiated through a mobile device.
(Mobile) Remote Card Payment Application	A Card Application stored on/or accessed via a (Mobile) Remote Device used to perform a (Mobile) Remote Transaction. It supports transaction processing for the Acceptance Technology “Consumer Device with (M)RP Application”.
Mobile Remote Payment - Basic Mobile Commerce	A mobile remote payment using a static authentication method.
Mobile Remote Payment - Secured Mobile Commerce	A mobile remote payment using a dynamic authentication method.
Mobile Remote Transaction	A Remote Transaction initiated through a Mobile Device.
Mobile Wallet	A service accessed through a mobile device which allows the wallet holder to securely access, manage and use a variety of services/applications including payments. This service may reside on a mobile device owned by the cardholder or may be remotely hosted on a secured server (or a combination thereof) or an acceptor website.
Money Remittance	A payment service where funds are received from a payer, without any payment accounts being created in the name of the payer or the payee, for the sole purpose of transferring a corresponding amount to a payee or to another payment service provider acting on behalf of the payee, and/or where such funds are received on behalf of and made available to the payee.
MOTO	A Card not present transaction conducted in the Acceptor’s environment using Manual Entry with the cardholder interacting remotely for Mail Order or Telephone Order (MOTO).  The Card Data is key manual entered either by the Acceptor via a Physical POI or a Virtual Terminal. If DTMF is used, Card Data is entered by the Cardholder via a Virtual Terminal.

410 N.

Near Field Communication (NFC)	A contactless communication interface and protocol specified in ISO/IEC 18092 and ISO/IEC 21481
No CVM Required	A Cardholder Verification Method as defined in [EMV].
No-Show	A service which allows the card acceptor to charge the cardholder's account if a cardholder fails to cancel or use a reservation for car hire or a room rental.

411 O.

Offline Card Transaction	See Offline Transaction.
Offline Data Authentication	A process whereby the card is validated at the point of transaction, using public key technology to protect against counterfeit or skimming. Three forms of offline data authentication are defined by EMV: SDA, DDA and CDA.
Offline Enciphered PIN	An Offline PIN whereby the PIN is transmitted to the card encrypted using public key cryptography at the POI's PIN Pad.
Offline Only Terminal	A chip terminal that is not capable of sending an online authorisation request and where all transactions have to be approved offline.
Offline PIN	A Cardholder Verification Method where the PIN code entered by the cardholder is verified by the card against a reference PIN stored on the Card. There are two types: Offline Plaintext PIN or Offline Enciphered PIN.
Offline Plaintext PIN	An Offline PIN whereby the PIN is transmitted to the card in plaintext.
Offline Transaction	A card transaction which is authorised offline by the Card Application.
One Stop Shopping	A concept associated with the SEPA for Cards objective of the ECB. "One Stop Shopping" per service implies that a component (card/terminal) certified in one SEPA country as SEPA compliant could be deployed all over SEPA without additional costs and formalities.
Online Capable Terminal	A POI that supports both offline and online processing. This type of POI can authorise a payment locally and can also go online to the Acquirer/Issuer for authorisation when required.
Online Card Transaction	See Online Transaction.
Online PIN	A Cardholder Verification Method where the PIN entered to verify cardholder's identity is checked by sending an encrypted PIN to the Issuer or delegated entity for validation as part of an authorisation request.
Online Transaction	A transaction that is approved or declined at a POI following a real-time dialogue between the acquirer and issuer (or its agent). This requires that POI is connected online during the transaction phase to the acquirer, to send the request and to receive the response.

Open-Loop Versus Closed-Loop Payments Networks	General purpose and limited-purpose payments networks primarily operate under two different business models. Open-loop payments networks, such as international schemes, are multi-party and operate through a system that connects two financial institutions - one that issues the card to the cardholder, known as the issuing financial institution or issuer, and one that has the banking relationship with the acceptor, known as the acquiring financial institution or acquirer-and manages information and the flow of value between them. In a typical closed-loop payments network, the payment services are provided directly to acceptors and cardholders by the owner of the network without involving third-party financial institution intermediaries.
Original Credit	A service which allows the card acceptor to perform a credit to a cardholder's account. An original credit is not preceded by another card payment.
Over the air (OTA)	A method of distributing software to mobile phones and provisioning handsets with the settings necessary to access messaging services.

412 P.

PAN	Primary Account Number (see Payment Card Numbers). A series of digits which identify a customer account or relationship. This number contains a maximum of 19 digits according to ISO/IEC 7812.
Passive Authentication	An authentication method without direct Cardholder interaction, which can be used in combination with other authentication methods. This may include analysing historical data about both the Cardholder and the Acceptor alongside analysing transaction specifics e.g., transaction amount, consumer device characteristics (logical, physical and usage), and location (e.g., geo-location, IP address).
Payee	(13) 'payee' means a natural or legal person who is the intended recipient of funds which have been the subject of a payment transaction;
Payer	(14) 'payer' means a natural or legal person who holds a payment account and allows a payment order from that payment account, or, where there is no payment account, a natural or legal person who gives a payment order; Note: Payer is also called "Cardholder" in the Volume.
Payment	The basic service which allows the cardholder to pay for the purchase of goods and services from a card acceptor using their card application or credentials.
Payment Account	(22) 'payment account' means an account held in the name of one or more payment service users which is used for the execution of payment transactions, including through a specific account for electronic money as defined in point 2 of Article 2 of Directive 2009/110/EC of the European Parliament and of the Council (1);

Payment Amount	The amount to be paid for the purchase of goods or services.
Payment Application	(21) 'payment application' means computer software or equivalent loaded on a device enabling card-based payment transactions to be initiated and allowing the payer to issue payment orders;
Payment Brand	(30) 'payment brand' means any material or digital name, term, sign, symbol or combination thereof, capable of denoting under which payment card scheme card-based payment transactions are carried out;
Payment Card	(15) 'payment card' means a category of payment instrument that enables the payer to initiate a debit or credit card transaction;  Note: This Payment Card can offer the cardholder the ability to make payments for goods and services, either at an accepting device or remotely (via MOTO, e- or m-commerce - these are known as "card-not-present" transactions) or to access cash at an ATM.
Payment Card Industry (PCI)	A consortium of the following card schemes, Visa, MasterCard, American Express, JCB and Discover, which became formalised as the PCI Security Standards Council or PCI-SSC and which manages various aspects related to common industry security requirements.
Payment Card Scheme'	(16) 'payment card scheme' means a single set of rules, practices, standards and/or implementation guidelines for the execution of card-based payment transactions and which is separated from any infrastructure or payment system that supports its operation, and includes any specific decision-making body, organisation or entity accountable for the functioning of the scheme;
Payment Completion	A Card service which is part of the Pre-Authorisation Services. It is used to finalise the transaction using the final amount.
Payment Context	A set of functional and security requirements related to Card Services in a specific transaction environment. Payment contexts are identified either based on specific sector, market or transactional volume requirements.
Payment Gateway	A service operated by an Acquirer that switches authorisation requests and clearing records between the Acceptor and the Acquirer.
Payment Institution	A legal person that has been granted authorisation in accordance with Article 10 of the Payment Services Directive to provide and execute payment services throughout the Community.
Payment Instrument	(19) 'payment instrument' means any personalised device(s) and/or set of procedures agreed between the payment service user and the payment service provider and used in order to initiate a payment order;
Payment Order	(23) 'payment order' means any instruction by a payer to its payment service provider requesting the execution of a payment transaction;

Payment Page	A page presented through the Virtual POI to the Cardholder which enables the entry of Card Data via the Consumer Device.
Payment Product	Product defined by a Payment Scheme.
Payment Service Provider (PSP)	(24) 'payment service provider' means any natural or legal person authorised to provide the payment services listed in the Annex to Directive 2007/64/EC or recognised as an electronic money issuer in accordance with Article 1(1) of Directive 2009/110/EC. A payment service provider can be an issuer or an acquirer or both;
Payment Service User	(25) 'payment service user' means a natural or legal person making use of a payment service in the capacity of either payer or payee, or both;
Payment Services	Execution of payment transactions, cash withdrawal and other services as defined in the Payment Services Directive.
Payment System	A funds transfer system with formal and standardised arrangements and common rules for the processing, clearing and/or settlement of payment transactions.
Payment Transaction	(26) 'payment transaction' means an action, initiated by the payer or on its behalf or by the payee of transferring funds, irrespective of any underlying obligations between the payer and the payee;
Payment With Aggregated Amount	A feature which allows the Acceptor or the Acquirer in specific payment contexts to submit a payment by summing up (aggregating) several underlying amounts based upon the same card to obtain the final amount.
Payment With Cashback	A service available in a retail environment which allows the Cardholder to obtain cash from the Acceptor in conjunction with a Payment (also referred to as Cashback). The Cardholder receives the extra cash amount (referred to as Cashback amount) in notes and/or coins along with the goods or services. For a Payment with Cashback, the transaction amount is the sum of the Payment amount and the Cashback amount. The service is only available in a Cardholder present environment. In some countries, the service is prohibited by law.
Payment With Deferred Authorisation	A feature whereby the Acceptor postpones the online authorisation until a later time, but performs the authorisation before submission for clearing/settlement. It is used for Payments performed on airlines/cruise ships and other types of acceptance environments that are not on line at all times.
Payment With Deferred Clearing	A feature where the Acquirer postpones the clearing of the transaction. It is used for example for the payment of health expenses.
Payment With Increased Amount	A feature which allows the Cardholder to increase the amount to pay by adding an extra amount, for example where a gratuity (tip) is added.

Payment With Loyalty Information	A feature which allows an Acceptor to accept payment with loyalty or reward for their customers or other loyalty programmes.
Payment With Purchasing Or Corporate Card Data	A feature to include data related to a specific activity. This is often in support of the use of a company purchasing or corporate card.  The additional data can be for example: VAT, reference numbers, e-invoicing or sector specific data.
Personal Code	This method is a CVM which is dedicated to e-commerce. The personal code is entered via the keyboard of the electronic device. The check is made either online by the Issuer or offline by a dedicated application such as an RP or Authentication Application in a secure environment via the electronic device.
Personal Identification Number (PIN)	A personal and confidential numerical code which the user of a payment instrument may need to use in order to verify their identity.
Personally Identifiable Information	Information that can be utilised to identify an individual, such as, but not limited to name, address, social security number, phone number.
Physical Card	A plastic card which may have a Magnetic Stripe, a Chip Card or both. It is a carrier of Card Data and, if it is a Chip Card, of an EMV Card Payment Application or EMV Card Authentication Application or both.
Physical POI	The initial point where Card Data is retrieved in the Acceptor's Domain. A POI consists of hardware and software which enables a Cardholder and/or an Acceptor to perform a Local Card transaction. This is also referred to as a Physical/EMV Terminal. It may be Attended or Unattended.
PIN Block	A block of data used to encapsulate a PIN during processing. The PIN block format defines the content of the PIN block and how it is processed to retrieve the PIN. The PIN block is composed of the PIN, the PIN length and may contain a subset of the PAN. ISO 9564 contains the standards to which the PIN block must adhere.
PIN Bypass	The activity of bypassing the input of a PIN.
PIN Change/Unlock	The PIN Change/Unlock service provides the cardholder the capability to change or un(b)lock their PIN.
PIN Entry Device (PED)	A secure device that allows cardholders to enter a PIN.
Plaintext	Unenciphered/unencrypted information.
Point of Interaction (POI)	A POI is a Physical POI or a Remote POI.

<p>POI Application</p>	<p>An Acquirer dedicated application consisting of software and data used to perform a Card Service. Depending on the architecture of the POI (Physical or Remote), the POI Application may be implemented on one component or distributed on several components. The POI Application may be integrated with a sale system or may be standalone.</p> <p>A POI Application on a Physical POI for processing Local Transactions may be referred to as Physical POI Application.</p> <p>A POI Application on a Virtual POI may be referred to as Virtual POI Application.</p> <p>A POI Application on a Physical POI or a Virtual Terminal for processing MOTO transactions is referred to as MOTO Application</p>
<p>Point of Sale (POS)</p>	<p>(29) 'point of sale' means the address of the physical premises of the merchant at which the payment transaction is initiated. However:</p> <p>(a) in the case of distance sales or distance contracts (i.e. e-commerce) as defined in point 7 of Article 2 of Directive 2011/83/EU, the point of sale shall be the address of the fixed place of business at which the merchant conducts its business regardless of website or server locations through which the payment transaction is initiated;</p> <p>(b) in the event that the merchant does not have a fixed place of business, the point of sale shall be the address for which the merchant holds a valid business licence through which the payment transaction is initiated;</p> <p>(c) in the event that the merchant does not have a fixed place of business nor a valid business licence, the point of sale shall be the address for correspondence for the payment of its taxes relating to its sales activity through which the payment transaction is initiated;</p>
<p>Pre-Authorisation Services</p>	<p>A service composed of 3 linked steps:</p> <ul style="list-style-type: none"> <li>• Pre-Authorisation</li> <li>• Update Pre-Authorisation (potentially with several occurrences)</li> <li>• Payment Completion</li> </ul> <p>The Pre-Authorisation allows the Acceptor to reserve an amount in order to secure sufficient funds to complete a subsequent payment. It is used only to secure the amount since the final amount of the actual payment is not known (e.g., car rental, hotel, video rental, etc.).</p> <p>The Update Pre-Authorisation allows the Acceptor to update the amount of a Pre-Authorisation. This may either increase or decrease (potentially to zero) the previously authorised amount.</p> <p>The Payment Completion allows the Acceptor to finalise the payment.</p>
<p>Prepaid Card</p>	<p>(35) 'prepaid card' means a category of payment instrument on which electronic money, as defined in point 2 of Article 2 of Directive 2009/110/EC, is stored.</p>

Prepaid Card - Loading & Unloading	A service which allows the cardholder to transfer funds to or from a prepaid card account.
Presentment	See Financial Presentment
Private Key	The secret component of an asymmetric key pair. The private key is always kept secret by its owner. It may be used to digitally sign messages for authentication purposes.
Processing	(27) 'processing' means the performance of payment transaction processing services in terms of the actions required for the handling of a payment instruction between the acquirer and the issuer;  Note: Processing may include clearing, sorting, netting, matching and/or settlement.
Processing Entity	(28) 'processing entity' means any natural or legal person providing payment transaction processing services;
Processor	In the context of Card Services, a Processor is a Service Provider mainly acting on behalf of the Acquirer and/or the Issuer or in the Inter-PSP Domain (e.g., routing services between Acquirers and Issuers).
Products and Solutions	Concept covering any type of products, services and solutions offered by "Solution Providers" to cardholders and/or stakeholders of the SEPA card transaction chain.
Proximity Payment	See Contactless Payment.
PIN Transaction Security (PTS)	PTS is a set of modular evaluation requirements managed by PCI Security Standards Council, for PIN acceptance POI terminals.
Public Key	The public component of an asymmetric key pair. The public key is usually publicly exposed and available to users. A certificate to prove its origin often accompanies it.
Public Key Algorithm	Cryptographic algorithm that uses two related keys, a public key and a private key. The two keys have the property that deriving the private key from the public key is computationally infeasible. This is also sometimes referred to as asymmetric algorithm.
Public Key Certificate	A digital signature on a public key by a Certificate Authority and intended to prove to the public key recipient, the origin and integrity of the public key.
PVV	PIN verification value. Discretionary value encoded in magnetic stripe of payment card.

413 Q.

Quasi-Cash Payment	A Card Service which allows the cardholder to obtain items which are representative of actual cash and directly convertible to cash. Examples include gaming chips, travellers cheques.
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414 R.

Reconciliation	A service which enables two entities (Acceptor, Acquirer, Issuer or their agents) to seek an agreement on financial totals (amounts, number of transactions).
Recurring Payment	A Card Service where the Cardholder authorises an Acceptor to charge their account on a recurring basis and without a specified end date.
Reference Exchange Date	The exchange date which is used as the basis to calculate any currency exchange and which is made available by the Payment Service Provider or comes from a publicly available source.
Reference Interest Date	The interest date which is used as the basis for calculating any interest to be applied and which comes from a publicly available source which can be verified by both parties to a payment service contract.
Referral	A function where a Card Service is completed with a voice conversation to obtain an approval code. This Function does not necessarily involve the Card Application or the Cardholder.
Refund	A Card Service which allows the card acceptor to reimburse the cardholder partially or totally. Refund is linked to a previous transaction.
Relay attack	A form of man-in-the-middle attack where payment data is obtained in one environment (for example, at a POS terminal) before being manipulated and "relaying" it to another environment where it is used fraudulently (for example, at an ATM).
Remote (Card) Payment	A Card Payment which is either e- & m-Commerce or MOTO. The concept is in opposition with Local (Card) Payment.
Remote Payment - Basic Electronic Commerce	A Remote Payment using a static authentication method.
Remote Payment - Mobile	A Remote Payment initiated through a Mobile Device.
Remote Payment - Secured Electronic Commerce	A Remote Payment using a dynamic authentication method.

Remote POI	<p>The initial point where Card Data enters the Acceptor's domain for Remote Transactions.</p> <p>The Remote POI exists in a variety of technical platforms which enable a Cardholder and/or an Acceptor to generate a Remote Transaction.</p> <p>The Remote POI is either</p> <ul style="list-style-type: none"> <li>• A Virtual POI including a Payment Page, accessed by the Cardholder using a Remote Device for e- &amp; m-Commerce</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• A Virtual Terminal used by the Acceptor for MOTO.</li> </ul>
Remote Transaction	A Card Transaction which is either e- & m-Commerce or MOTO.
Reversal	The partial or complete nullification of the effects of a previous Authorisation or Data Capture Transaction. A Reversal is sometimes also referred to as an authorisation adjustment.

415 S.

Scheme Participant	A party having signed a License Agreement with a Card Scheme in order to provide Card Services for Card Payment Brands of the Scheme. Examples of Scheme Participants are Acquirers and Issuers.
Secure Element (SE)	<p>A tamper-resistant platform (typically a one chip secure microcontroller) capable of securely hosting applications and their confidential and cryptographic data (e.g., key management) in accordance with the rules and security requirements set forth by a set of well-identified trusted authorities.</p> <p>There are three different form factors of SE: Universal Integrated Circuit Card (UICC), embedded SE and microSD. Both the UICC and microSD are removable.</p>
Secure Environment	<p>A system which implements the controlled storage and use of information. A secure environment is used to protect personal and/or confidential data.</p> <p>In the context of Remote Payments it may be located in the Consumer Device, such as a SE, a TPM or a TEE, or in a remote secured server.</p>
Selection of the Application	<p>For the Acceptance Technologies Chip with Contact, Chip Contactless and Contactless with Mobile, it is the function which allows the selection of an application supported by both the card and the POI as well as an Application Profile used to process a service for a transaction.</p> <p>For the Acceptance Technologies referred to as e- &amp; m-Commerce, it is the function which allows the selection of a brand/card product by the cardholder.</p>

Semi-Attended	The cardholder conducts the transaction at the Point of Interaction without the participation of an attendant (agent of the card acceptor or of the acquirer). However an attendant is present to provide assistance to the cardholder if necessary. Therefore, for the purpose of this document, Semi-Attended is categorised as Attended.
SEPA For Cards	A key objective of the ECB for enabling Payment Service Users in Europe (such as cardholders and acceptors) to use general purpose cards to make and receive payments and cash withdrawals in euro throughout the SEPA area with the same ease and convenience than they do in their home country.
Service Code	Three-digit value as defined in [ISO/IEC 7813].
Sensitive Payment Data	Data which allows control over the Cardholder Account or which may be used to carry out fraud.
Service Provider	An entity that provides communications, processing, storage, consulting, and any other service to the Value Chain.
Settlement	The completion of a transaction or of processing with the aim of discharging Acquirers' and Issuers' obligations through the transfer of funds.
Signature	A Cardholder Verification Method using the Cardholder's handwritten signature to approve a transaction.
Signature on File	Consent given by the cardholder when entering into a contract with the acceptor for the delivery of goods or services and which will be charged for at a later stage(s).
Single Euro Payments Area (SEPA)	The Single Euro Payments Area (SEPA) stands for the European Union (EU) payments integration initiative. The SEPA vision was set out by EU governments in the Lisbon Agenda, March 2000, which aims to make Europe more dynamic and competitive.
Smart Card	See Chip Card.
Solution	A Product or a Service.
Solution Provider	An entity selling Software or Hardware related to Card services and/or products.

Specification Provider	<p>Organisation which:</p> <ul style="list-style-type: none"> <li>• develops Implementation Specifications based upon the high level requirements specified in the Volume for use by Solution Providers to develop products or solutions;</li> <li>• provides a maintenance process, notably for interoperability and/or security issues linked to the implementation specifications;</li> <li>• has its own certification body or a relationship (formal or informal) with an external certification body to certify products and solutions.</li> </ul>
Standards	Document approved by a recognised body that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.
Static Authentication	An authentication method which always uses the same authenticator.
Static Data Authentication (SDA)	A type of offline Card data authentication where the POI validates a cryptographic value stored on the card by the issuer (as defined in EMV B2). It protects against some types of counterfeit fraud but does not protect against skimming.
Stored Card Data	<p>Acceptance Technology where PAN and Expiry Date has been provided prior to the transaction and stored securely for later use. This Acceptance Technology is used for Card Not Present transactions.</p> <p>This is often referred to as Card on File.</p>
Strong Authentication	A dynamic authentication method which involves at least 2 independent authenticators. This means that at least one of them is dynamic.
Strong Customer Authentication	<p>According to the EBA guidelines [EBA 1], this is a procedure based on the use of 2 or more of the following elements - categorised as knowledge, ownership and inherence:</p> <ol style="list-style-type: none"> <li>1. Something only the user knows, e.g., static password, code, PIN</li> <li>2. Something only the user possesses, e.g., token, smart card, mobile phone</li> <li>3. Something the user is, e.g., biometric characteristic, such as a finger print.</li> </ol> <p>In addition, the elements selected must be mutually independent, i.e. the breach of one does not compromise the other(s). At least one of the elements should be non-reusable and non-replicable (except for inherence), and not capable of being surreptitiously stolen via the internet. The strong authentication procedure should be designed in such a way as to protect the confidentiality of the authentication data.</p>
Surcharging/Rebate	A feature which allows the card acceptor to charge a fee or give a rebate to the cardholder in relation to a given Card Service.

Switch	The routing centre that transfers authorisation requests, approvals and card transaction information to the appropriate receiver.
Symmetric Algorithm	An algorithm in which the key used for encryption is identical to the key used for decryption. DES is the best known symmetric encryption algorithm.

416 7.

Tamper Resistant Security Module (TRSM)	A Tamper-Resistant Security Module (TRSM) is a device that incorporates physical protections to prevent compromise of Cryptographic Security Parameters therein contained.
TC	Transaction Certificate, which is a Cryptogram generated by the card application. See [EMV B2].
Technology Selection	A Function which allows to select the acceptance technology (e.g., chip, magnetic stripe, etc.) to be used to process a service for a transaction.
Terminal	See POI.
Terminal Risk Management (TRM)	Offline checks performed by the terminal to determine whether a transaction should proceed further. Examples are floor limit checking and exception file checking.
Test Laboratory	In the context of the SEPA Cards Ecosystem, it relates to an accredited organisation that is mandated to test "Products and solutions" related to cards against a list of specifications. The latter are defined by Implementation Specifications Provider in conformance with the last published version of the Volume and its Bulletins.
Test plan	A test plan is a document detailing a systematic approach to testing a "product or solution".
Test script	A test script is a set of instructions that will be performed on the "product or solution" to test that it functions as expected.
Third Party Processor	See Third Party Service Provider
Third Party Provider (TPP)	See Third Party Service Provider
Third Party Service Provider	A processor or other service provider who stores, processes, and/or transmits Card Data in the context of Authorisation and Settlement for a Card Service (sometimes also referred to as Third Party Provider or Third Party Processor)[different from the PSD definition]

Three-Party Card Scheme	(18) 'three party payment card scheme' means a payment card scheme in which the scheme itself provides acquiring and issuing services and card-based payment transactions are made from the payment account of a payer to the payment account of a payee within the scheme. When a three party payment card scheme licenses other payment service providers for the issuance of card-based payment instruments or the acquiring of card-based payment transactions, or both, or issues card-based payment instruments with a co-branding partner or through an agent, it is considered to be a four party payment card scheme;
Transaction Amount	The amount to be authorised when performing a financial transaction.
Transaction Initialisation	A Function which allows selection of the Card Service for the next transaction and where the transaction amount is set, transaction data is initialised and processing of the Card Service is started.
Transaction Risk Analysis	Evaluation of the risk related to a specific transaction taking into account criteria such as, for example, customer payment patterns (behaviour), value of the related transaction, type of product and payee profile.
Transaction Reference	The reference number used to identify a given transaction that allow the Acceptor or Acquirer to keep track of their transactions.
Transit Payment	A payment occurring in a public transport environment usually working offline and requiring high speed transactions.
Truncated PAN	Method of rendering the full PAN unreadable by permanently removing a segment of PAN data. Truncation relates to protection of PAN when stored in files, databases etc. Only the last 4 digits of the PAN are printed.
Trusted Execution Environment (TEE)	A separate execution environment that runs alongside the operating system (OS). The TEE provides security services to the OS environment and isolates access to resources from the Rich OS and its applications.  It is to be noted that a TEE protects against malicious software but does not provide the hardware protection of an SE.
Type Approval	The process which a product or solution must undergo in order to obtain the authorisation for deployment from a given card payment scheme or Approval Body.

417 U.

Unattended (POI)	The Cardholder is present and conducts the transaction at the Physical POI, without the participation of an attendant representing the Acceptor or the Acquirer (e.g., kiosks, vending machines, petrol pumps (UPT), etc.).
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Unsolicited Available Funds	A feature which allows the card issuer to provide account balance information in the authorisation response message.
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418 V.

Value Chain	A chain of activities by different Service Providers and Vendors in order to deliver a Card Service.
Value Date	A reference time used by a payment service provider for the calculation of interest on the funds debited from or credited to a payment account.
Vendor	See Solution Provider.
Virtual Card	A card-based payment solution where card data is issued without a physical card, which can be used for e- & m- commerce.
Virtual POI	<p>The initial point where Card Data enters the Acceptor's domain via a Consumer Device for e- &amp; m-commerce. It consists of hardware and software which enables a Cardholder to perform an e-and m-Commerce Transaction. It includes a Payment Page which may be presented to the Cardholder from either a Payment Gateway or the Acceptor's website.</p> <p>The Virtual POI may also facilitate (redirection) services to support Authentication of the Cardholder by the Card Issuer for e-and m-Commerce.</p>
Virtual Terminal	<p>A MOTO Application used by the Acceptor to enter Card Data. It comprises a Payment Page hosted by an Acquirer or TPP for the entry of Card Data by the Acceptor for MOTO Transactions.</p> <p>A Virtual Terminal can also be used by the Cardholder, but only for Telephone Orders if DTMF technology is used.</p>
Visual Product ID	IFR Art 10 §5 Issuers shall ensure that their payment instruments are electronically identifiable and, in the case of newly issued card-based payment instruments, also <u>visibly</u> identifiable, enabling payees and payers to unequivocally identify which brands and categories of prepaid cards, debit cards, credit cards or commercial cards are chosen by the payer.
Voice Authorisation	See Referral

419 W.

420 X.

XML	The acronym used for "Extensible Markup Language", a computer metalanguage used to simplify the transmission of formatted data.
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421 Y.

422 Z.

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**ANNEX 1 - FIGURES**

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Figure 1: Volume Overview..... 8

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