## ETSI TR 102216 v5.0.0 (2019-11)

TECHNCAL REPORT

Smart Cards;
Vocabulary for Smart Card Platform specifications

| Reference |  |
| :---: | :---: |
| RTR/SCP-000014 |  |
| Keywords |  |
| smart card |  |
| ETSI |  |
| 650 Route des Lucioles <br> 21 Sophia Antipolis Cedex - FRANCE |  |
| Tel.: +33492944200 Fax: +33493654716 |  |
| Siret No 34862356 Association à but non Sous-Préfecture de | 00017 - NAF 742 C lucratif enregistrée à la Gasse (06) № 7803/88 |

## Important notice

The present document can be downloaded from: http://www.etsi.org/standards-search

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at www.etsi.org/deliver.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx

If you find errors in the present document, please send your comment to one of the following services:
https://portal.etsi.org/People/CommiteeSupportStaff.aspx

## Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.
The content of the PDF version shall not be modified without the written authorization of ETSI.
The copyright and the foregoing restriction extend to reproduction in all media.
© ETSI 2019.
All rights reserved.
DECT $^{\text {TM }}$, PLUGTESTS ${ }^{\text {TM }}$, UMTS ${ }^{\text {TM }}$ and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. 3GPPTM and LTETM are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.
oneM2M ${ }^{\text {™ }}$ logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners.
GSM ${ }^{\circledR}$ and the GSM logo are trademarks registered and owned by the GSM Association.

## Contents

Intellectual Property Rights ..... 5
Foreword .....  5
Modal verbs terminology. .....  5
1 Scope .....  6
2 References .....  6
2.1 Normative references .....  6
2.2 Informative references .....  6
3 Definition of terms, symbols, equations and abbreviations ..... 7
3.1 Terms .....  7
3.1.0 Introduction .....  7
3.1.1 0-9 .....  7
3.1.2 A .....  7
3.1.3 B .....  8
3.1.4 C. .....  8
3.1.5 D .....  9
3.1.6 E .....  9
3.1.7 F. .....  9
3.1.8 G .....  .9
3.1.9 H ..... 10
3.1.10 I ..... 10
3.1.11 J ..... 10
3.1.12 K ..... 10
3.1.13 L. ..... 10
3.1.14 M ..... 10
3.1.15 N ..... 10
3.1.16 O ..... 10
3.1.17 P. ..... 10
3.1.18 Q ..... 11
3.1.19 R ..... 11
3.1.20 S ..... 11
3.1.21 T. ..... 11
3.1.22 U ..... 12
3.1.23 V ..... 12
3.1.24 W ..... 12
3.1.25 X ..... 12
3.1.26 Y ..... 12
3.1.27 Z. ..... 12
3.2 Symbols and equations ..... 12
3.3 Abbreviations ..... 13
3.3.0 Introduction ..... 13
3.3.1 0-9 ..... 13
3.3.2 A ..... 13
3.3.3 B ..... 13
3.3.4 C ..... 13
3.3.5 D ..... 14
3.3.6 E. ..... 14
3.3.7 F. ..... 14
3.3.8 G ..... 14
3.3.9 H ..... 14
3.3.10 I.. ..... 14
3.3.11 J. ..... 15
3.3.12 K ..... 15
3.3.13 L. ..... 15
3.3.14 M ..... 15
3.3.15 N ..... 15
3.3.16 O ..... 15
3.3.17 ..... 15
3.3.18 ..... 16
3.3.19 ..... 16
3.3.20 ..... 16
3.3.21 ..... 16
3.3.22 U ..... 16
3.3.23 V ..... 16
3.3.24 W ..... 16
3.3.25 X ..... 17
3.3.26 $Y$ ..... 17
3.3.27 Z. ..... 17
Annex A: Change history ..... 18
History ..... 19

## Intellectual Property Rights

## Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for ETSI members and non-members, and can be found in ETSI SR 000 314: "Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (https://ipr.etsi.org/).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

## Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

## Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Smart Card Platform (SCP).
The contents of the present document are subject to continuing work within EP SCP and may change following formal EP SCP approval. If EP SCP decide to modify the contents of the present document, it will be re-released by EP SPC with an identifying change of release date and an increase in version number as follows:

Version x.y.z
where:
$x$ the first digit:
1 presented to EP SCP for information;
2 presented to EP SCP for approval;
3 or greater indicates EP SCP approved document under change control.
y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
z the third digit is incremented when editorial only changes have been incorporated in the document.

## Modal verbs terminology

In the present document "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).
"must" and "must not" are NOT allowed in ETSI deliverables except when used in direct citation.

## 1 Scope

The purpose of the present document is to identify specialist technical terms used within the Smart Card Platform (SCP) project for the purposes of writing technical documents. The motivations for this are:

- to ensure that editors use terminology that is consistent across specifications;
- to provide a reader with convenient reference for technical terms that are used across multiple documents;
- to prevent inconsistent use of terminology across documents.

The present document is a collection of terms, definitions, abbreviations and acronyms related to the baseline documents defining SCP objectives and systems framework. The present document provides a tool for further work on SCP technical documentation and facilitates their understanding.

The terms, definitions and abbreviations as given in the present document are either imported from existing documentation (SCP, 3GPP, ETSI, ISO/IEC or elsewhere) or newly created by smart card experts whenever the need for precise vocabulary was identified.

The following types of terms and acronyms are not included in the present document:

- terms and acronyms generally used in computer science, information technology and cryptography;
- terms and acronyms from specific application domains such as mobile telephony and banking;
- terms and acronyms defined and used solely within a specific SCP specification to facilitate readability.

But such terms and acronyms may be included if they are frequently used in the SCP specifications and a common, precise definition of the term or acronym would aid the interpretation and implementation of the specifications.

## 2 References

### 2.1 Normative references

Normative references are not applicable in the present document.

### 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

- In the case of a reference to a TC SCP document, a non specific reference implicitly refers to the latest version of that document in the same Release as the present document.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.
[i.1] Void.
[i.2]
ETSI TS 102 221: "Smart Cards; UICC-Terminal interface; Physical and logical characteristics".

## 3 Definition of terms, symbols, equations and abbreviations

### 3.1 Terms

### 3.1.0 Introduction

The purpose of the present document is to provide the terms to be used in ETSI SCP deliverables.

### 3.1.1 $0-9$

1,8 V technology Smart Card: smart card containing an integrated circuit designed to operate with supply voltages of $1,8 \mathrm{~V} \pm 10 \%$ and $3 \mathrm{~V} \pm 10 \%$

3 V technology Smart Card: smart card containing an integrated circuit designed to operate with supply voltages of $3 \mathrm{~V} \pm 10 \%$ and $5 \mathrm{~V} \pm 10 \%$

### 3.1.2 A

Access Mode (AM): one or more bytes encoding an operation that can be performed on a resource; e.g. read, write, delete, deactivate, etc.
access rule: ordered pair consisting of an access mode and a security condition
NOTE: The operation described by the access mode is allowed by the UICC operating system if and only if the security condition is satisfied with respect to the current security state of the card.
administrative command: command that creates or deletes a resource or modifies the security attributes of a resource
Answer To Reset (ATR): byte sequence issued on the communication line by a UICC immediately after a reset signal has been applied to the reset line
application: computer program that defines and implements a useful functionality on a smart card
NOTE: The term may apply to the functionality itself, to the representation of the functionality in a programming language, or to the realization of the functionality as executable code.

Application Dedicated File (ADF): directory on the UICC that is the root of a sub-hierarchy of files and sub-directories that contain data specific to a particular application
application executable: representation of an application as collection of executable code
application firewall: mechanism that prevents one UICC application from accessing the data or functionality of another application

NOTE: An application firewall can be implemented in hardware or in software.
Application Identifier (AID): data element that uniquely identifies an application in a card
NOTE: An application identifier is composed of a registered application provider identifier that identifies the entity providing the application and a proprietary application identifier extension that identifies the application within the set of applications provided by the application provider named by the registered application provider identifier.
application program: representation of an application in a programming language such as assembly language, BASIC, C, Java ${ }^{\text {TM }}$ SMIL, WML or XHTML

Application Programming Interface (API): collection of entry points and data structures that an application program can access when translated into an application executable
application protocol: set of procedures and message formats used to communicate with an application
application protocol data unit: synonym for command
Application Provider (AP): entity that provides the software components on a card required to perform an application application session: related sequence of commands to and responses from a UICC application starting with application selection and ending either at application de-selection on logical channels or at the end of card session

### 3.1.3 B

bearer: communication technology for transmitting information
Bearer Independent Protocol (BIP): mechanism by which the terminal provides access to the data bearers supported by the terminal and the network
binding: association of two objects, for example the binding of a security attribute to a file
NOTE: Also, the realization of an application programming interface with respect to a specific programming language or software technology.
byte code: processor independent representation of a primitive computer instruction of a hypothetical central processing unit

### 3.1.4 C

card: synonym for smart card
Card Application Toolkit (CAT): mechanism that allows applications existing in the UICC to issue commands, during a card session, to the terminal and receive responses, and to receive events from the terminal
card holder: person who is in possession of a smart card and has been authorized to use that smart card by the card issuer
card issuer: entity that provides a smart card to card holder
NOTE: The card issuer is typically responsible for the security of the data on the card and for the applications placed on the card.
card session: entire sequence of commands and responses between the UICC and the terminal starting with the answer to reset and ending with a subsequent reset of or removal of power from the UICC
card manager: system application that governs the flow of content on to and off of the UICC and dispatches commands to applications on the UICC
channel session: related sequence of commands and responses between the card and an external entity during a card session on a given logical channel, starting with the opening of the logical channel and ending with the closure of the logical channel or the termination of the card session
class A operating conditions: conditions existing when the supply voltage provided by the terminal to the UICC is 5 V $\pm 10 \%$
class B operating conditions: conditions existing when the supply voltage provided by the terminal to the UICC is 3 V $\pm 10 \%$
class C operating conditions: conditions existing when the supply voltage provided by the terminal to the UICC is $1.8 \mathrm{~V} \pm 10 \%$
command: sequence of bytes sent to a UICC that the UICC operating system or a UICC application interprets as an instruction to execute function or perform a procedure

Counter (CNTR): mechanism or data field used for keeping track of a message sequence
NOTE: A counter can be implemented as a sequence oriented or time stamp derived value maintaining a level of synchronization.

Cryptographic Checksum (CC): string of bits derived from the data with which the cryptographic checksum is associated and specific cryptographic material
current ADF: currently selected ADF on a logical channel
current directory: directory most recently selected on the UICC; part of the current state of the UICC
current elementary file: elementary file most recently selected on the UICC; part of the current state of the UICC
current file: current directory or the current elementary file
current record number: record pointer associated with a file that holds index of the most recently accessed record; part of the current state of the UICC
cyclic file: fixed length record file with the property that the record that logically follows the last record in the file is the first record in the file and the record that precedes the first record in the file is the last record in the file

## 3.1 .5

data channel: communication channel between a UICC application and an entity external to the UICC
Data Object (DO): information coded as TLV object(s), i.e. consisting of a Tag, a Length and a Value syntax part data structure: memory address that can be accessed by an application executable in order to read or write data

Dedicated File (DF): deprecated synonym for directory
Digital Signature (DS): string of bits derived from the data with which the digital signature is associated and the private key of an asymmetric key pair
directory: file in the UICC file system that contains only other files

### 3.1.6 E

Elementary File (EF): file in a UICC file system containing data but no other files
NOTE: An elementary file can be a transparent file or a record file.
end-user application: application whose functionality can be accessed via the terminal
entry point: name, for example a memory address, that can be used by an application executable in order to access functionality defined by an application programming interface

NOTE: Depending on the software technology, an entry point is also called a subroutine, a function or a method.
executable code: generic term for either byte code or native code

### 3.1.7 F

file: named set of bytes on the UICC
NOTE: A file can be either a directory or an elementary file.
File Identifier (FID): 2-byte name of a file in the UICC file system
file system: hierarchically-organized set of files on the UICC
fixed length record file: record file in which the records all contain the same number of bytes
framework: set of application programming interfaces

### 3.1.8 G

None.

### 3.1.9 H

None.

### 3.1.10 |

ID-000: physical form factor for a UICC; commonly called the plug-in form factor
ID-1: physical form factor for a UICC; commonly called the credit card form factor interpreter: software program that simulates a hypothetical central processing unit

### 3.1.11

None.

### 3.1.12 K

keystore: file or a collection of files that contain cryptographic key material such as PINs or other authentication material

### 3.1.13

logical channel: one of one or more command/response communication contexts multiplexed on the physical channel between the terminal and the UICC

### 3.1.14 M

Master File (MF): directory file representing the root in the card using a hierarchy of DFs multi-application UICC: contain more than one application
multi-session UICC: supports more than one concurrent application session during a card session
multi-verification capable UICC: multi-application UICC that supports separate authentication requirements for each application

### 3.1.15 N

native code: processor-dependent representation of a basic computer operation such as "increment by one" that is executed by the hardware circuitry of a computer

Network Access Application (NAA): application residing on a UICC provides authorization to access a network
EXAMPLE: A USIM application.

### 3.1.16

None.

### 3.1.17 $P$

plug-in UICC: UICC in a $I D-000$ physical form factor
proactive UICC: UICC which is capable of issuing commands to the terminal
proactive UICC session: sequence of related commands and responses which starts with the status response ' 91 XX ' (proactive command pending) and ends with a status response of ' 9000 ' (normal ending of command) after Terminal Response

### 3.1.18

None.

### 3.1.19 R

record: sequence of bytes of data in a record file that is regarded as a single block of data and can be referenced as a unit using a record number
record file: elementary file in a UICC file system that consists of a sequence of records
NOTE: A record file can be a fixed length record file, a variable length record file or a cyclic file.
record length: number of bytes in a record
record number: sequential number that uniquely identifies each record within a record file
record pointer: UICC state variable that holds a record number associated with a record file
Redundancy Check (RC): string of bits derived from the data with which the redundancy check is associated for the purpose of detecting accidental changes to the message without the use of any secret information
response: portion of the consequence of executing a command on the UICC that is communicated back to the entity issuing the command
root directory: synonym for Master File

### 3.1.20 S

security attribute: set of access rules associated with a resource on the UICC
Security Condition (SC): sequence of one or more bytes that encodes a Boolean expression over variables whose value depends on the current state of the UICC

NOTE: If the Boolean expression evaluates to TRUE the security condition is said to be satisfied. One such variable could be "The password associated with key number 1 has been successfully entered".

Short File Identifier (SFI): 5-bit value associated with an elementary file in the UICC file system that can be used to specify the target elementary file of a command
single verification capable UICC: UICC that supports only one authentication requirement that is used by all applications
smart card: physically secure computing device in one of the physical formats defined in ETSI TS 102221 [i.2]
system application: UICC application whose functionality can be accessed by other applications running on the same UICC

### 3.1.21 T

terminal: device that can send commands to and interpret responses from a UICC
toolkit application: application on the UICC that calls or is called by the Card Application Toolkit application programming interface

Toolkit Application Reference (TAR): unique identifier associated with a Toolkit Application
transparent file: elementary file in a UICC file system consisting of a sequence of bytes without any further structure from the UICC operating system point of view
type 1 UICC: UICC that enters a negotiable communication mode after a warm reset
type 2 UICC: UICC that enters a specific communication mode after a warm reset

### 3.1.22 U

UICC: smart card that conforms to the specifications written and maintained by the ETSI Smart Card Platform project
NOTE: UICC is neither an abbreviation nor an acronym.
UICC application: application residing on a UICC
UICC application session: synonym for application session
UICC operating system: executable codes stored in a UICC that manages the logical resources of the UICC, including external and inter-application communication, process scheduling, file system management and resource access control

### 3.1.23 V

variable length record file: record file in which different records may have different record lengths
virtual machine: synonym for interpreter

### 3.1.24 W

None.

### 3.1.25 X

None.

### 3.1.26 $Y$

None.

### 3.1.27 Z

None.

### 3.2 Symbols and equations

The purpose of the present document is to provide the symbols and equations to be used in ETSI SCP deliverables.

| '0' - '9' 'A' - 'F' | Typographic representation of the sixteen hexadecimal digits used in SCP specifications <br> b8 ... b1 |
| :--- | :--- |
| Bits of one byte. b8 is the most significant and b1 is the least significant when the byte is <br> interpreted as an integer value |  |
| etu | elementary time unit <br> f |
| frequency |  |
| Fi | clock rate conversion factor |
| Gnd | Ground |
| $\mathrm{I}_{\mathrm{cc}}$ | Supply current |
| Kc | Ciphering key |
| Ki | Individual subscriber authentication key |
| KIc | Key and algorithm Identifier for ciphering |
| Lc | Number of bytes in the data field of a C-APDU |
| Le | Maximum number of bytes of data expected in the data field of an R-APDU |
| Luicc | Number of bytes of data in an R-APDU |
| tf | Fall time |
| tr | Rise time |
| $\mathrm{V}_{\mathrm{cc}}$ | Supply Voltage (also Vcc) |
| $\mathrm{V}_{\mathrm{pp}}$ | Programming Voltage (also Vpp) |
| $\mathrm{V}_{\mathrm{IH}}$ | Input Voltage (high) |


| $\mathrm{V}_{\mathrm{IL}}$ | Input Voltage (low) |
| :--- | :--- |
| $\mathrm{V}_{\mathrm{OH}}$ | Output Voltage (high) |
| $\mathrm{V}_{\mathrm{OL}}$ | Output Voltage (low) |

### 3.3 Abbreviations

### 3.3.0 Introduction

The purpose of the present document is to provide the abbreviations to be used in ETSI SCP deliverables.

### 3.3.1 0-9

None.

| 3.3.2 A |  |
| :--- | :--- |
| AC |  |
| ACK | Access Condition |
| ADD | Access Domain Data |
| ADF | Application Dedicated File |
| ADM | ADMinistrative |
| ADP | Access Domain Parameter |
| AID | Application IDentifier |
| ALW | ALWays |
| AM | Access Mode |
| AM_DO | Access Mode - Data Object |
| AP | Application Provider |
| APDU | Application Protocol Data Unit |
| API | Application Programming Interface |
| ARR | Access Rule Reference |
| AT | Authentication Template |
| ATR | Answer To Reset |
| AVN | Applet Version Number |
|  |  |

### 3.3.3 B

| BCD | Binary Coded Decimal |
| :--- | :--- |
| BER | Basic Encoding Rules |
| BGT | Block Guard Time |
| BIP | Bearer Independent Protocol |
| BWI | Block Waiting Integer |
| BWT | Block Waiting Time |

### 3.3.4 C

| C-APDU | Command - Application Protocol Data Unit |
| :--- | :--- |
| C-TPDU | Command - Transmission Protocol Data Unit |
| CAD | Card Acceptance Device |
| CAT | Card Application Toolkit |
| CBC | Cipher Block Chaining |
| CC | Cryptographic Checksum |
| CCT | Cryptographic Checksum Template |
| CHI | Command Header Identifier |
| CHL | Command Header Length |
| CHV | Card Holder Verification information |
| CLA | CLAss |
| CLK | ClocK |


| CNTR | CouNTeR |
| :--- | :--- |
| CPI | Command Packet Identifier |
| CPL | Command Packet Length |
| CRC | Cyclic Redundancy Check |
| CRT | Control Reference Template |
| CT | Confidentiality Template |
| CWI | Character Waiting Integer |
| CWT | Character Waiting Time |

### 3.3.5 D

| DAD | Destination ADdress |
| :--- | :--- |
| DAP | Digital Authentication Pattern |
| DCS | Data Coding Scheme |
| DES | Data Encryption Standard |
| DF | Dedicated File |
| DO | Data Object |
| DS | Digital Signature |
| DST | Digital Signature Template |
| DTMF | Dual Tone Multiple Frequency |
| DUUP | Do not Use Universal PIN |


| 3.3.6 | E |  |
| :---: | :--- | :--- |
| ECB |  | Electronic Code Book |
| ECC |  | Elliptic Curve Cryptography |
| EDC |  | Error Detection Code byte |
| EF |  | Elementary File |

### 3.3.7 F

FCI File Control Information

FCP File Control Parameter
FID File IDentifier

### 3.3.8 G

GP GlobalPlatform

### 3.3.9 H

HT Hash code Template

| 3.3.10 |  |
| :--- | :--- |
| I/O | Input/Output |
| I-Block | Information Block |
| IC | Integrated Circuit |
| ICC | Integrated Circuit Card |
| ICCID | Integrated Circuit Card IDentification |
| ID | IDentifier |
| IFD | InterFace Device |
| IFS | Information Field Size |
| IFSC | Information Field Size for the UICC |
| IFSD | Information Field Size for the terminal |
| IMS | IP Multimedia Services |
| INF | INFormation field |
| INS | INStruction |
| IOP | InterOPerability |


| IP | Internet Protocol |
| :--- | :--- |
| ISIM | IMS SIM |

### 3.3.11 J

None.

### 3.3.12 K

| KID | Key and algorithm IDentifier for RC/CC/DS |
| :--- | :--- |
| KIK | Key Identifier for protecting Kic and KID |

### 3.3.13 L

| LCSI | Life Cycle Status Information |
| :--- | :--- |
| LCSI_DO | Life Cycle Status Information - Data Object |
| LEN | LENgth |
| LRC | Longitudinal Redundancy Check |
| LSB | Least Significant Bit |

### 3.3.14 M

| M | Mandatory |
| :--- | :--- |
| MAC | Message Authentication Code |
| MF | Master File |
| MSB | Most Significant Bit |
| MSL | Minimum Security Level |
| MSLD | Minimum Security Level Data |

### 3.3.15 N

| NAA | Network Access Application |
| :--- | :--- |
| NACK | Negative ACKnowledgement |
| NAI | Next Action Indicator |
| NAD | Node Address byte |
| NEV | NEVer |

### 3.3.16

O Optional
3.3.17 P

| P1 | Parameter 1 |
| :--- | :--- |
| P2 | Parameter 2 |
| P3 | Parameter 3 |
| PCB | Protocol Control Byte |
| PCI | Protocol Control Information |
| PCNTR | Padding CouNTeR |
| PDU | Protocol Data Unit |
| PIN | Personal Identification Number |
| PIX | Proprietary application Identifier eXtension |
| PoR | Proof of Receipt |
| PPS | Protocol and Parameter Selection |
| PS | PIN Status |
| PS_DO | PIN Status - Data Object |

### 3.3.18

None.

### 3.3.19 R

| R-APDU | Response - Application Protocol Data Unit |
| :--- | :--- |
| R-Block | Receive-Ready block |
| R-TPDU | Response - Transmission Protocol Data Unit |
| RC | Redundancy Check |
| RFU | Reserved for Future Use |
| RHI | Response Header Identifier |
| RHL | Response Header Length |
| RID | Registered application provider IDentifier |
| RPC | Remote Procedure Call |
| RPI | Response Packet Identifier |
| RPL | Response Packet Length |
| RST | ReSeT |

### 3.3.20 S

| S-Block | Supervisory - Block |
| :--- | :--- |
| SAD | Source ADdress |
| SAT | SIM Application Toolkit |
| SC | Security Condition |
| SC_DO | Security Condition - Data Object |
| SDU | Service Data Unit |
| SE | Security Environment |
| SEID | Security Environment IDentifier |
| SFI | Short elementary File Identifier |
| SIM | Subscriber Identity Module |
| SM | Secure Message |
| SPI | Security Parameters Indication |
| SW | Status Word |
| SW1/SW2 | Status Word 1/Status Word 2 |

### 3.3.21 T

| TAR | Toolkit Application Reference |
| :--- | :--- |
| TLV | Tag Length Value |
| TPDU | Transfer Protocol Data Unit |


| 3.3.22 | U |  |
| :---: | :--- | :--- |
| UCS2 |  | Universal Character Set 2 |
| USAT | USIM Application Toolkit |  |
| USIM | Universal Subscriber Identity Module |  |
| UUP | Use Universal PIN |  |

### 3.3.23 V

None.

### 3.3.24 W <br> WI Waiting time Integer <br> WTX Waiting Time eXtension <br> WWT Work Waiting Time

3.3.25 X

None.
3.3.26 Y

None.
3.3.27 Z

None.

## Annex A: Change history

The table below indicates all changes that have been incorporated into the present document since it was placed under change control.

| Change history |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- | :--- | :---: | :---: |
| Date | Meeting | Plenary Doc | CR | Rev | Cat | Subject/Comment | Old | New |
|  | SCP-13 | SCP-030161 | - |  | - | Presented to SCP \#13 for information | - | 1.0 .0 |
|  | - | - | - |  | - | Presented to SCP WG1 \#7 | 1.0 .0 | 1.1 .0 |
|  | SCP-14 | SCP-030217 | - |  | - | Approved at SCP plenary meeting 14 | 2.0 .0 | 3.0 .0 |
|  | SCP\#88 | - | - |  | - | Approved at SCP plenary meeting 88 | 3.0 .0 | 4.0 .0 |
|  | SCP\#89 | SCP(19)000172 | - |  | F | Alignment of CAT definitions and <br> abbreviations with ETSI TS 102 223 | 4.0 .0 | 5.0 .0 |

## History

| Document history |  |  |
| :--- | :--- | :--- |
| V3.0.0 | September 2003 | Publication |
| V4.0.0 | May 2019 | Publication |
| V5.0.0 | November 2019 | Publication |
|  |  |  |
|  |  |  |

