


# eUICC Profile Package: Interoperable Format Test Specification

Version 2.2.1

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## 1. Objective

The objective of this document is to define the test specification of the interoperable eUICC Profile. This specification is based on [SA PP TS].

## 2. Introduction

This specification has the objective of testing if a profile is correctly interpreted and correctly loaded on an eUICC.

This document is agnostic on the format of the eUICC: both soldered (embedded in a device) and non-soldered (stand-alone) eUICCs can be the subject of testing. The test cases are written so that they can be used to test both soldered and non-soldered eUICC formats. The exceptions are the test cases listed in Section 6.6.7 which can be used only for non-soldered eUICCs, because certain APDU commands used during test execution have to be sent to the eUICC using the ISO interface.

The elements within the scope of this test specification are described in the following figure:

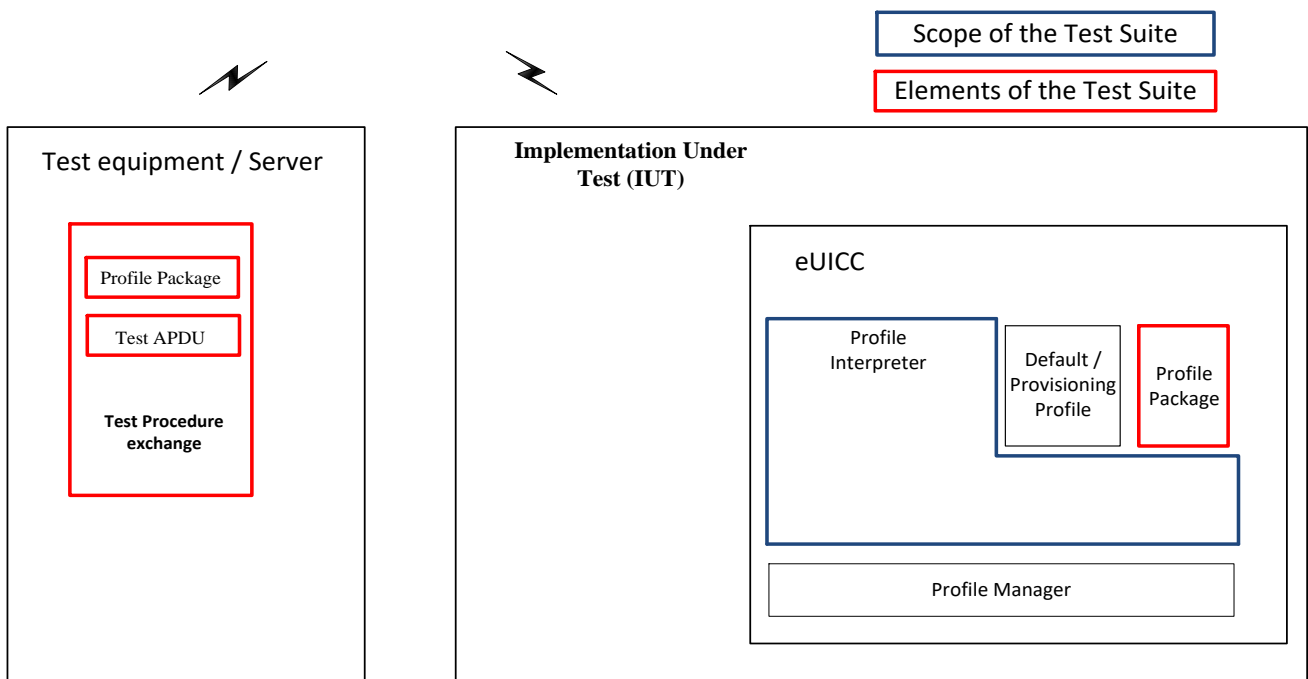


Figure 1: Scope of the testing

## 3. References

Note: these references do not mandate the implementation of the complete version referenced.

### 3.1 Normative References

- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.0.
- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.1.
- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.2.
- [GS RPT]: GSMA Remote Provisioning Architecture for Embedded UICC Technical Specification V3.1, 27 May 2016.
- [GS RPT]: GSMA Remote Provisioning Architecture for Embedded UICC Technical Specification V3.2, 27 June 2017.
- [GP AA]: Confidential Card Content Management Card Specification v2.3 – Amendment A V1.1.
- [GP AE]: GlobalPlatform Card Specification Amendment E v1.0.1.
- [GP SE]: GlobalPlatform Secure Element Configuration v1.0.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 3.1, 31 May 2016.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 3.2, 27 June 2017.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 3.3, 02. August 2018.
- [GS SGP22]: GSMA RSP Technical Specification V2.1.
- [GS SGP22]: GSMA RSP Technical Specification V2.2.1
- [RFC TLS]: RFC5246 The Transport Layer Security (TLS) Protocol V1.2.
- [MILENAGE TEST]: ETSI TS 135208 Specification of the MILENAGE algorithm set V11.0.0.
- [TUAK TEST]: ETSI TS 135233 Specification of the TUAK algorithm set V13.0.0.
- [JAVACARD VM] Java Card 3 Platform Virtual Machine Specification, Classic Edition Version 3.0.4

For further Normative References see Chapter 4.1 Normative References in [SA PP TS].

### 3.2 Informative References

- [TS 133102] ETSI TS 133 102 Security architecture V15.0.0.

For further Informative References see Chapter 4.2 Informative References in [SA PP TS].

## 4. Abbreviations

ADF	Application Dedicated File
AID	Application Identifier
AKA	Authentication and Key Agreement
APDU	Application Protocol Data Unit
ASN.1	Abstract Syntax Notation One
CASD	Controlling Authority Security Domain
CAT_TP	Card Application Toolkit Transport Protocol
CD	Configuration Data
CDMA	Code Division Multiple Access
CSIM	cdma2000 Subscriber Identity Module
CIN	Card Image Number / Card Identification Number
DF	Dedicated File
DGI	Data Grouping Identifier
DO	Data Object
EAP	Extensible Authentication Protocol
EF	Elementary File
eUICC	embedded UICC
EUM	eUICC Manufacturer
FCP	File Control Parameters
FFS	For Further Study
GBA	Generic Bootstrapping Architecture
HCI	Host Controller Interface
ICCID	Integrated Circuit Card ID
ID	Identifier
IIN	Issuer Identification Number
IMSI	International Mobile Subscriber Identity
ISD-P	Issuer Security Domain Profile
ISIM	IP Multimedia Services Identity Module
IUT	Implementation Under Test
LCSI	Life Cycle Status Information
M2M	Machine to Machine
MAC	Message Authentication Code
MAC-A	MAC used for authentication and key agreement
MBMS	Multimedia Broadcast/Multicast Service
MNO	Mobile Network Operator
MNO-SD	Mobile Network Operator Security Domain (Root SD of a Profile)
NAA	Network Access Application
NAC	Network Access Control
OID	Object Identifier
OS	Operating System (of the eUICC)
OTA	Over the Air
PE	Profile Element
PIN	Personal Identification Number
PDU	Protocol Data Unit

POL	Policy Rules within the Profile
PUK	PIN Unblocking Key
RAM	Remote Application Management
RFM	Remote File Management
RQ	Requirement
SCP	Secure Channel Protocol
SDU	Service Data Unit
SFI	Short File Identifier
SD	Security Domain
SP	Service Provider
SQN	Sequence Number
SSD	Supplementary Security Domain
SW	Status Word
SWP	Single Wire Protocol
USIM	Universal Subscriber Identity Module
T	Test Tool

## 5. Definitions

Default Profile	A profile which can be used to connect to the network.
embedded UICC	An UICC which is not easily accessible or replaceable, is not intended to be removed or replaced in the terminal, and enables the secure changing of subscriptions.
Policy Rules	Defines the atomic action of a policy and the conditions under which it is executed.
Profile	Combination of a file structure, data and applications on an eUICC.
Profile Creator	External entity in charge of creating the Profile Package based on MNO requirements, protecting the Profile Package from modification and/or content access.
Profile Element	A Profile Element is a part of the Profile Package representing one or several features of the Profile encoded using TLV structures based on ASN.1 description.
Profile Interpreter	On card entity, which interprets and translates the ASN profile data to objects residing on the eUICC (files, SD-s, applications, keys, etc.).
Profile Manager	On-card entity, which is able to load, install, activate and deactivate a profile as per GSMA [GS RPT].
Profile Package	A Personalised Profile using an interoperable description format transmitted to an eUICC in order to load and install a Profile.
Provisioning	The downloading and installation of a Profile into an eUICC.
Provisioning Profile	The profile which can be used to download an Operational Profile into an eUICC.
Remote Provisioning	Provisioning done by the subscription manager on an eUICC outside of their premises, using a secure data link.

## 6. Test environment

### 6.1 Table of optional features

The supplier of the implementation shall state the support of possible options in Table 1.

Item	Option	Support	Mnemonic
1	Support of USIM.		O_USIM
2	Support of ISIM.		O_ISIM
3	Support of CSIM.		O_CSIM
4	Support of milenage.		O_MILENAGE
5	Support of TUAK 128		O_TUAK_128
6	Support of CAVE.		O_CAVE
7	Support of GBA-USIM.		O_GBA_USIM
8	Support of GBA-ISIM.		O_GBA_ISIM
9	Support of MBMS.		O_MBMS
10	Support of EAP.		O_EAP
11	Support Contactless.		O_CONTACTLESS
12	Support of Java Card.		O_JAVACARD
13	Support of Multos.		O_MULTOS
14	Support of ETSI TS 102 613 and TS 102 622. Card-emulation Mode.		O_CARDEMULATION
15	Support of ETSI TS 102 613 and TS 102 622. Reader Mode.		O_READER_MODE
16	Support of GlobalPlatform UICC Configuration.		O_UICC_CONFIGURATION
17	VOID		
18	VOID		
19	For ApplicationLoadPackage, the following parameters are supported: nonVolatileCodeLimitC6 volatileDataLimitC7 nonVolatileDataLimitC8. For volatileDataLimitC7 with value '7FFF' the eUICC reports error status.		O_MEMORY_LIMIT
20	For ApplicationLoadPackage hashValue is supported.		O_HASHVALUE
21	The eUICC reports error status and aborts the installation when profile with PE-USIM before PE-MF is loaded.		O_ERROR_FOR_PE_USIM_BEFORE PE_MF
22	The eUICC reports error status and aborts the installation when profile with PE-Application before PE-SecurityDomain is loaded.		O_ERROR_FOR_PE_APPL ICATION_BEFORE PE_SECURITYDOMAIN
23	The eUICC reports error status and aborts the installation when profile with PE-RFM before PE-SecurityDomain is loaded.		O_ERROR_FOR_PE_RFM_BEFORE PE_SECURITYDOMAIN
24	VOID		VOID
25	VOID		VOID
26	VOID		VOID
27	Support of PE MF (OID: 2.23.143.1.2.1) creation by template.		O_PE_MF_BY_TEMPLATE
28	Support of PE USIM (OID: 2.23.143.1.2.4) creation by template.		O_PE_USIM_BY_TEMPLATE
29	Support of PE OPT USIM (OID: 2.23.143.1.2.5) creation by template.		O_PE_OPT_USIM_BY_TEMPL ATE
30	Support of PE CD (OID: 2.23.143.1.2.2) creation by template.		O_PE_CD_BY_TEMPLATE
31	Support of PE TELECOM (OID: 2.23.143.1.2.3) creation by template.		O_PE_TELECOM_BY_TEM PLATE
32	Support of file type BER-TLV.		O_BER_TLV
33	Support of tag list (5C).		O_SUPPORT_TAG_5C
34	Support of tag 'CF' in tag list (5C).		O_SUPPORT_TAG_CF
35	Support of file type DF-link.		O_DF_LINK
36	Support of PE CSIM (OID: 2.23.143.1.2.10) creation by template.		O_PE_CSIM_BY_TEMPLAT E
37	Support of PE OPT CSIM (OID: 2.23.143.1.2.11) creation by template.		O_PE_OPT_CSIM_BY_TE MPLATE
38	Support of PE ISIM (OID: 2.23.143.1.2.8) creation by template.		O_PE_ISIM_BY_TEMPLAT E



39	Support of PE OPT ISIM (OID: 2.23.143.1.2.9) creation by template.	O_PE_OPT_ISIM_BY_TEMPLATE
40	Support Memory Management acc to [GP CS]	O_MEMO_MANAGEMENT
41	Support of Scenario#3 with NIST P-256 as defined in [GP AE]	O_SCENARIO3_NIST
42	Support of usim-test-algorithm	O_USIM_TEST_ALGORITHM
43	Support of TUAK 256	O_TUAK_256
44	Support extended range of TUAK authentication parameter lengths from [SA PP TS] i.e. not restricted by [TS 133102]	O_EXTENDED_AUTH_PARAMETER_LEN
45	Support of CAT_TP	O_CAT_TP
46	Support offset in eUICC Response	O_RESP_OFFSET
47	Support of pin-code-missing status	O_PIN_CODE_MISSING
48	Support of services N°8 HRPD and N°14 3GPD-SIP and N°15 3GPD-MIP by CSIM.	O_CSIM_SERVICES_8_AND_14_AND_15
49	Support of PE GSM-ACCESS (OID: 2.23.143.1.2.7) creation by template.	O_PE_GSMACCESS_BY_TEMPLATE
50	Support of PE PHONEBOOK (OID: 2.23.143.1.2.6) creation by template.	O_PE_PHONEBOOK_BY_TEMPLATE
51	Support of AuthCounterMax with error '6F00'h	O_AUTH_MAX
52	Support of RSA Keys with length 1024	O_RSA_1024
53	Support of Scenario#2B as defined in [GP AA]	O_SCENARIO2B

Table 1: Options

In the current version of this document the eUICC SHALL support O\_JAVACARD.

The following dependencies exist between the options:

- At least one of the runtime environments O\_JAVACARD and O\_MULTOS shall be supported.

## 6.2 Applicability table

Table 2 specifies the applicability of each test case to the IUT.

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2
	<b>Profile Package Elements Definition tests</b>			
	<b>Check Profile Format</b>			
8.2.1.1	VOID.			
8.2.1.2	Installing profile with PE-USIM before PE-MF, eUICC reports error.	C006	C006	C006
8.2.1.3	Installing profile with PE-Application before PE-SecurityDomain, eUICC reports error.	C007	C007	C007
8.2.1.4	Installing profile with PE-RFM before PE-SecurityDomain, eUICC reports error.	C008	C008	C008
	<b>Check Profile Header</b>			
8.2.2.1	Error when cat-tp in ServicesList and eUICC does not support CAT_TP	NA	NA	C029
8.2.2.2	Error when package in eUICC-Mandatory-AIDs is not known	NA	NA	C009
8.2.2.3	Error when version in eUICC-Mandatory-AIDs is not supported	NA	NA	C009
8.2.2.4	No error when package and version in eUICC-Mandatory AIDs is known and supported	NA	NA	C009

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2
	<b>Check File System</b>			
8.2.3.1	Installing USIM files by generic file management.	C009	C009	C009
8.2.3.2	Installing USIM files by template.	C010	C009	C009
8.2.3.3	Installing USIM files by template with OPT-USIM-2.	C010	C009	C009
8.2.3.4	Installing USIM files by template with BER-TLV files in ServicesList.	NA	C012	C012
8.2.3.5	Error when installing PE-USIM when eUICC does not support USIM.	C003	C003	C003
8.2.3.6	Warning when installing USIM files by template with BER-TLV files in a non mandatory PE when eUICC does not support BER-TLV.	NA	C013	C013
8.2.3.7	Warning when creating a DF with dfLink in a non mandatory PE when eUICC does not support dfLink.	NA	C015	C015
8.2.3.8	Creating a DF with dfLink when eUICC supports dfLink.	C016	NA	NA
8.2.3.9	Creating a DF with dfLink when eUICC supports dfLink and dfLink is in ServicesList.	NA	C016	C016
8.2.3.10	Installing CSIM files by template.	C017	C018	C018
8.2.3.11	Installing ISIM files by template.	C019	C020	C020
8.2.3.12	Installing USIM files by template without content.	NA	NA	C009
8.2.3.13	Creating file instances with and without explicitly set file ID.	NA	NA	C009
8.2.3.14	Error when installing PE-CSIM when eUICC does not support CSIM.	C022	C022	C022
8.2.3.15	Installing GSM-ACCESS files by template.	C034	C009	C009
8.2.3.16	Installing USIM Phonebook files by template.	C035	C009	C009
8.2.3.17	Installing EAP files by template	NA	NA	C036
	<b>Check NAA(s)</b>			
8.2.4.1	Installing PE-AKAPParameters with MILENAGE and sending AUTHENTICATE	C009	C009	C009
8.2.4.2	Installing PE-AKAPParameters with TUAK and sending AUTHENTICATE	C021	C021	C021
8.2.4.3	Installing PE-AKAPParameters with usim-test-algorithm and sending AUTHENTICATE	NA	C025	C025
8.2.4.4	Installing PE-AKAPParameters with TUAK with 256 bit key and restricted length and sending AUTHENTICATE	C026	C026	C026
8.2.4.5	Installing PE-AKAPParameters with TUAK with 256 bit key and sending AUTHENTICATE	C028	C028	C028
8.2.4.6	Installing PE-AKAPParameters with TUAK with numberOfKeccak and restricted length and sending AUTHENTICATE	NA	C026	C026
8.2.4.7	Installing PE-AKAPParameters with TUAK with numberOfKeccak and sending AUTHENTICATE	NA	C028	C028
8.2.4.8	Error when authCounterMax exceeded	C037	C037	C037
8.2.4.9	Test Milenage PIN verification and defined constants	C009	C009	C009
8.2.4.11	Testing SQN delta and age limit	C009	C009	C009
8.2.4.12	Test usim-test-algorithm with 32 bit RES length	NA	NA	C025
8.2.4.13	Installing PE-CDMAPParameters and send COMPUTE ID AUTHENTICATE in Simple IP CHAP Mode	C032	C033	C033
8.2.4.14	Installing PE-CDMAPParameters and send COMPUTE ID AUTHENTICATE in Simple IP HRPD Access Mode	C032	C033	C033

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2
8.2.4.15	Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Mobile IP Mode	C032	C033	C033
8.2.4.16	Installing USIM and ISIM with sharing NAA parameters	C019	C020	C020
	<b>Check PIN and PUK codes</b>			
8.2.5.1	Installing PINs in enabled state.	C009	C009	C009
8.2.5.2	Installing PINs in disabled state.	C009	C009	C009
8.2.5.3	Installing different PINs with different PUKs	NA	NA	C009
8.2.5.4	Checking the access domain validity of an RFM instance in case of a blocked PIN	C009	C009	C009
8.2.5.5	Checking the PIN context of a Global PIN	C010	C009	C009
8.2.5.6	Checking the PIN context of a Local PIN	NA	NA	C009
8.2.5.7	Checking the “PIN state change allowed” and “PIN state change not allowed” status	C009	C009	C009
8.2.5.8	Checking the “PIN can be changed” and “PIN cannot be changed” status	C009	C009	C009
8.2.5.9	Error when no consistency between pinStatusTemplateDO and PE PINCodes Local	NA	NA	C031
	<b>Check Security Domains</b>			
8.2.6.1	Check mandatory elements in PE Security Domain.	C009	C009	C009
8.2.6.2	Check key list in PE Security Domain.	C009	C009	C009
8.2.6.3	Check number of keyComponent objects.	C009	C009	C009
8.2.6.4	Check sdPersoData.	C009	C009	C009
8.2.6.5	Check OTA HTTPs Personalisation.	C009	C009	C009
8.2.6.6	Check CASD personalization – Scenario#3	NA	NA	C024
8.2.6.7	Check CASD personalization – Scenario#2B	C040	C040	C040
8.2.6.8	Check installing an SSD under a self extradited SSD	C009	C009	C009
8.2.6.9	Check initial counter is default when keyCounterValue absent	C009	C009	C009
8.2.6.10	Error when Installing KeyObject parameter not supported	C039	C039	C039
	<b>Check Application loading and installation</b>			
8.2.7.1	Check Application PE and mandatory elements in ApplicationInstance.	C009	C009	C009
8.2.7.2	Check all elements in ApplicationLoadPackage – taking size into account. – PE application is mandatory.	C004	C004	C004
8.2.7.3	Check all elements in ApplicationInstance.	C009	C009	C009
8.2.7.4	Error when loading an Application PE and bad library is provided.	C009	C009	C009
8.2.7.5	Check multiple ApplicationInstance.	C009	C009	C009
8.2.7.6	Check processData.	C009	C009	C009
8.2.7.7	Error when loading Application PE and the lifecycle of SD is not PERSONALISED.	NA	C009	C009
8.2.7.8	Check all elements in ApplicationLoadPackage – taking size into account – PE application is not mandatory.	NA	C004	C004
8.2.7.9	Check all elements in ApplicationInstance when eUICC supports tag list '5C' with tag 'CF'.	C014	C014	C014
8.2.7.10	Check loaded libraries within a PE-Application	C009	C009	C009
8.2.7.11	Check PE-Application installation when Memory Management is supported	C023	C023	C023
8.2.7.12	Installing profile with contactless eUICC Mandatory service selected and userInteractionContactlessParameters, eUICC reports error.	C027	C027	C027

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2
8.2.7.13	Check the contactlessProtocolParameters set inside the ApplicationInstance with contactless eUICC Mandatory service selected	C038	C038	C038
	<b>Check RFM parameters</b>			
8.2.8.1	Installing PE-RFM with adfRFMAccess.	C009	C009	C009
8.2.8.2	Installing PE-RFM without adfRFMAccess.	C009	C009	C009
8.2.8.3	Installing profile with two difference PE-RFMs	C009	C009	C009
8.2.8.4	Installing PE-RFM associated to SSD1	C009	C009	C009
	<b>Check Non standardised content</b>			
8.2.9.1	No error when installing non mandatory PE-NonStandard.	C009	C009	C009
	<b>Check eUICC Response</b>			
8.2.11.1	Check unsupported major version.	C009	C009	C009
8.2.11.2	Check unsupported template in Profile Header.	C009	C009	C009
8.2.11.3	Check offset in eUICC Response with error.	NA	NA	C030

**Table 2: Applicability of tests**

Conditional item	Condition
C001	VOID
C002	VOID
C003	IF O_USIM NOT SUPPORTED THEN M ELSE N/A
C004	IF (O_MEMORY_LIMIT SUPPORTED AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED) THEN M ELSE N/A
C005	IF (O_HASHVALUE SUPPORTED AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED) THEN M ELSE N/A
C006	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ERROR_FOR_PE_USIM_BEFORE PE_MF SUPPORTED) THEN M ELSE N/A
C007	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ERROR_FOR_PE_APPLICATION_BEFORE PE_SECURITYDOMAIN SUPPORTED) THEN M ELSE N/A
C008	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ERROR_FOR_PE_RFM_BEFORE PE_SECURITYDOMAIN SUPPORTED) THEN M ELSE N/A
C009	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED) THEN M ELSE N/A
C010	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C011	VOID
C012	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_BER_TLV SUPPORTED) THEN M ELSE N/A
C013	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_BER_TLV NOT SUPPORTED) THEN M ELSE N/A
C014	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SUPPORT_TAG_5C AND O_SUPPORT_TAG_CF) THEN M ELSE N/A
C015	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_DF_LINK NOT SUPPORTED) THEN M ELSE N/A
C016	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_DF_LINK SUPPORTED) THEN M ELSE N/A
C017	IF (O_CSIM SUPPORTED AND O_PE_CSIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_CSIM_BY_TEMPLATE SUPPORTED AND O_CAVE SUPPORTED) THEN M ELSE N/A
C018	IF (O_CSIM SUPPORTED AND O_CAVE SUPPORTED) THEN M ELSE N/A
C019	IF (O_USIM SUPPORTED AND O_ISIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_ISIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_ISIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C020	IF (O_USIM SUPPORTED AND O_ISIM SUPPORTED AND O_MILENAGE) THEN M ELSE N/A
C021	IF (O_USIM SUPPORTED AND O_TUAK_128 SUPPORTED) THEN M ELSE N/A
C022	IF O_CSIM NOT SUPPORTED THEN M ELSE N/A
C023	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_MEMO_MANAGEMENT SUPPORTED) THEN M ELSE N/A
C024	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SCENARIO3_NIST SUPPORTED) THEN M ELSE N/A

Conditional item	Condition
C025	IF (O_USIM SUPPORTED AND O_USIM_TEST_ALGORITHM SUPPORTED) THEN M ELSE N/A
C026	IF (O_USIM SUPPORTED AND O_TUAK_256 SUPPORTED) THEN M ELSE N/A
C027	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_CONTACTLESS NOT SUPPORTED) THEN M ELSE N/A
C028	IF (O_USIM SUPPORTED AND O_TUAK_256 SUPPORTED AND O_EXTENDED_AUTH_PARAM_LEN) THEN M ELSE N/A
C029	IF (O_USIM SUPPORTED AND O_CAT_TP NOT SUPPORTED) THEN M ELSE N/A
C030	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_RESP_OFFSET) THEN M ELSE N/A
C031	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PIN_CODE_MISSING SUPPORTED) THEN M ELSE N/A
C032	IF (O_CSIM SUPPORTED AND O_PE_CSIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_CSIM_BY_TEMPLATE SUPPORTED AND O_CAVE SUPPORTED AND O_CSIM_SERVICES_8_AND_14_AND_15) THEN M ELSE N/A
C033	IF (O_CSIM SUPPORTED AND O_CAVE SUPPORTED AND O_CSIM_SERVICES_8_AND_14_AND_15) THEN M ELSE N/A
C034	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED AND O_PE_GSMACCESS_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C035	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED AND O_PE_PHONEBOOK_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C036	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_EAP SUPPORTED) THEN M ELSE N/A
C037	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_AUTH_MAX SUPPORTED) THEN M ELSE N/A
C038	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_CONTACTLESS SUPPORTED) THEN M ELSE N/A
C039	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_RSA_1024 NOT SUPPORTED) THEN M ELSE N/A
C040	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SCENARIO2B SUPPORTED AND O_RSA_1024 SUPPORTED) THEN M ELSE N/A

Table 3: Conditional items referenced by Table 2

## 6.3 Optional features and applicability tables formatting

### 6.3.1 Format of the table of optional features

The columns in Table 1 have the following meaning.

Column	Meaning
Option:	The optional feature supported or not by the implementation.
Support:	The support columns are to be filled in by the supplier of the implementation. The following common notations are used for the support column in table 1. <ul style="list-style-type: none"> <li>Y or y supported by the implementation;</li> <li>N or n not supported by the implementation;</li> <li>N/A, or n/a - no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status).</li> </ul>
Mnemonic:	The mnemonic column contains mnemonic identifiers for each item.

### 6.3.2 Format of the applicability table

The applicability of every test in Table 2 is formally expressed by the use of Boolean expressions defined in the following clause 6.3.3.

The columns in Table 2 have the following meaning:

Column	Meaning
Test case:	The "Test case" column gives a reference to the test case number(s) detailed in the present document.
Test case title:	The "Test case title" column gives the title of the test case.
Version X:	The "Version X" column indicates which test cases are applicable for the given Technical Specification version. Several different status notifications can be used in this column. They are defined in clause 6.3.3.

### 6.3.3 Status and Notations

The "Version X" columns show the status of the entries as follows:

The following notations are used for the status column:

- M mandatory – the capability is required to be supported.
- O optional – the capability may be supported or not.
- N/A not applicable – in the given context, it is impossible to use the capability.
- X prohibited (excluded) – there is a requirement not to use this capability in the given context.
- O.i qualified optional – for mutually exclusive or selectable options from a set. "i" is an integer which identifies a unique group of related optional items and the logic of their selection, which is defined immediately following the table.
- Ci conditional – the requirement on the capability ("M", "O", "X" or "N/A") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression, which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." is to be used to avoid ambiguities.



## 6.4 Test environment description

The general architecture for the test environment is:

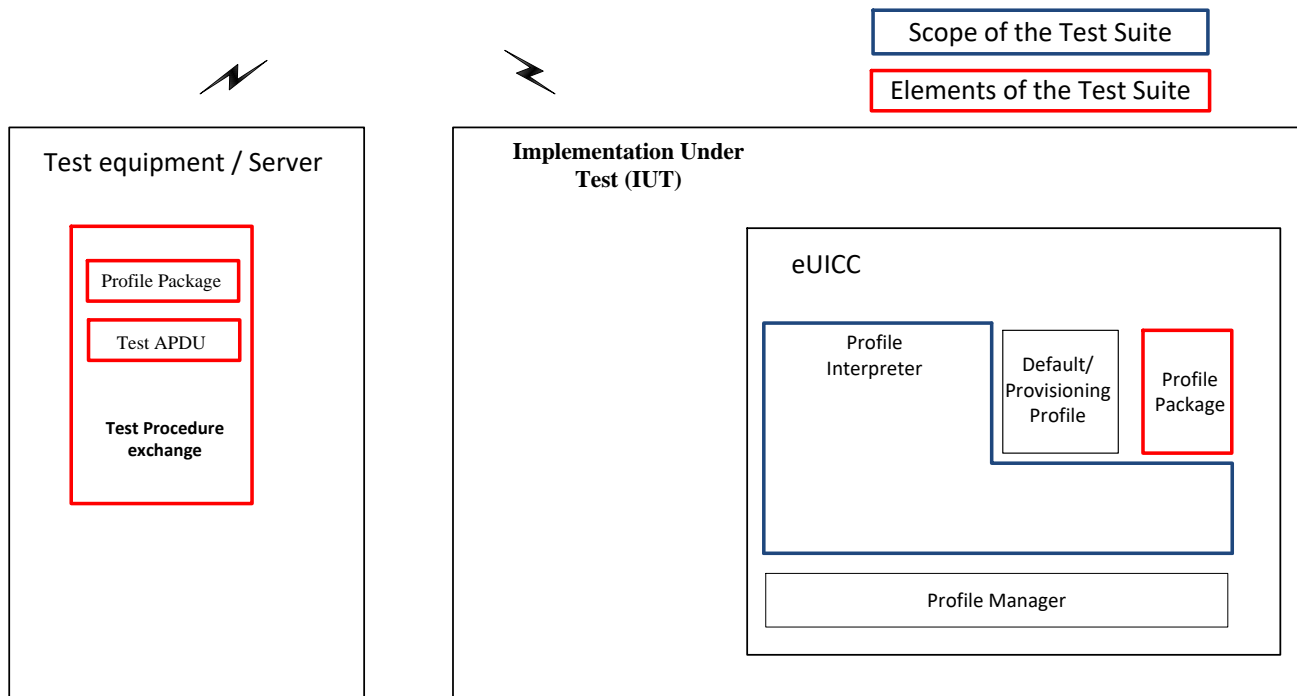


Figure 2: Test environment description

## 6.5 Test equipment

The test equipment shall meet the following requirements:

- The result of I/O commands shall be presented at the application layer.
- It shall be able to provide results of the tests.
- It shall be able to accept all valid status codes returned.
- It shall send all data specified in the Profile Package.
- It may be able to send and receive commands remotely to/from the IUT, OR
- It may provide a terminal simulation that is connected to the IUT during test procedure execution, unless otherwise specified. With respect to the eUICC, the terminal simulation shall act according to ETSI TS 102 221 [102 221], 3GPP TS 31.101 [UICC] (if this interface is present at the UICC) and 3GPP TS 31.102 [USIM], unless otherwise specified. The terminal simulation may provide the possibility to monitor the eUICC on the ETSI TS 102 221 [102 221] interface if this interface is accessible.

## 6.6 Test execution

The order of the PE-s in the Profile Packages shall be kept as it is defined in the “Test Execution” subchapter of each test case.

After each test case execution, the eUICC shall be put back to its initial state.



### 6.6.1 General Initial Conditions

The General Initial Conditions are a set of general prerequisites for the IUT prior to the execution of testing. For each test procedure described in the present document, the following rules apply to the Initial Conditions:

- Unless otherwise stated, the IUT shall be reset before each test procedure.

#### 6.6.1.1. M2M Architecture

In dependence on the [GS RPAT] the eUICC whether it is removable or not has to reside in an initial state to allow download of a profile. In order to ease the test execution, the creation of the ISD-P is part of the download process mentioned in this document. The following conditions shall be applied:

Initial state
<p>The ISD-R shall be installed and first personalized by the EUM during eUICC manufacturing.</p> <p>After eUICC manufacturing, the ISD-R shall be in life-cycle state PERSONALIZED as defined in GlobalPlatform Card Specification [GP CS], section 5.3.</p> <p>The ISD-R privileges shall be granted according to Annex C of [GS RPT]</p>
<p>The ECASD shall be installed and personalized by the EUM during the eUICC manufacturing with:.</p> <ul style="list-style-type: none"> <li>• PK.CI.ECDSA</li> <li>• SK.ECASD.ECKA</li> <li>• CERT.ECASD.ECKA for eUICC Authentication and key establishment</li> <li>• EID</li> </ul> <p>After eUICC manufacturing, the ECASD shall be in life-cycle state PERSONALIZED as defined in GlobalPlatform Card Specification [GP CS], section 5.3.</p>
<p>At least one ISD-P with a Profile shall be installed and first personalized by the EUM during eUICC manufacturing to allow future eUICC connectivity.</p>
<p>According to [GS RPT]:</p> <ul style="list-style-type: none"> <li>• The RID of the Executable Load File, the Executable Module and the Application of the ISD- R and the ECASD shall be set to 'A000000559'. .</li> <li>• The ISD- R Executable Load File AID and the ISD-R Executable Module AID can be freely selected by the EUM.</li> <li>• The ISD-R application AID shall be 'A0 00 00 05 59 10 10 FF FF FF FF 89 00 00 01 00'.</li> <li>• The ECASD Executable Load File AID and the ECASD Executable Module AID can be freely selected by the EUM.</li> </ul>
<p>To enable SCP80, the ISD-R shall be personalized before issuance by the EUM with at least one key set, with a Key Version Number between '01' to '0F' following GlobalPlatform Card Specification UICC Configuration [GP UC].</p>
<p>To enable SCP81, the ISD-R shall be personalized with at least one key set, with a Key Version Number between '40' to '4F' following [GP SE]</p>
<p>The following certificates shall be signed and issued by the CI:</p> <ul style="list-style-type: none"> <li>• Self-signed Root Certificate</li> <li>• EUM Certificates</li> <li>• SM-SR Certificates</li> <li>• SM-DP Certificates</li> </ul>
<p>The following certificates shall be signed and issued by the EUM:</p> <ul style="list-style-type: none"> <li>• eUICC Certificates</li> </ul>
<p>The following certificate and key shall be stored in the eUICC:</p> <ul style="list-style-type: none"> <li>• The eUICC Certificate</li> <li>• The Root public key</li> </ul>

Initial state
<p>The eUICC Certificate is part of the EIS (eUICC Information Set) which is stored in the SM-SR and/or at EUM level. This certificate contains:</p> <ul style="list-style-type: none"> <li>• The PK.ECASN.ECKA used for ElGamal Elliptic Curves key agreement as defined in [GP AE]</li> <li>• The EID</li> </ul>

#### 6.6.1.2. Consumer Device Architecture

The eUICC whether it is removable or not has to reside in an initial state to allow download of a profile. The following conditions shall be applied:

Initial state
<p>The ISD-R shall be installed and first personalized by the EUM during eUICC manufacturing. After eUICC manufacturing, the ISD-R shall be in life-cycle state PERSONALIZED as defined in GlobalPlatform Card Specification [GP CS], section 5.3.</p> <p>The ISD-R privileges shall be set according to Annex A of [GS SGP22].</p>
<p>The ECASN shall be installed and personalized by the EUM during the eUICC manufacturing.</p> <ul style="list-style-type: none"> <li>• CERT.EUICC.ECDSA (NIST, or Brainpool ,or FRP256V1)</li> <li>• PK.EUICC.ECDSA</li> <li>• PK.CI.ECDSA.</li> <li>• CERT.EUM.ECDSA (NIST, or Brainpool, or FRP256V1)</li> <li>• eUICC Manufacturer's (EUMs) keyset for key/certificate renewal: <ul style="list-style-type: none"> <li>○ Renew eUICC's Private Key(s) and Certificate(s)</li> <li>○ Renew EUM Certificate(s)</li> <li>○ Renew CI public key(s)</li> </ul> </li> </ul> <p>After eUICC manufacturing, the ECASN shall be in life-cycle state PERSONALIZED as defined in GlobalPlatform Card Specification [GP CS], section 5.3.</p>
<p>If the eUICC is embedded into a device at least one profile shall be installed and first personalized by the EUM during eUICC manufacturing to allow cellular network connectivity.</p>
<p>According to [GS RPT]:</p> <ul style="list-style-type: none"> <li>• The RID of the Executable Load File, the Executable Module and the Application of the ISD- R and the ECASN shall be set to 'A000000559'.</li> <li>• The ISD- R Executable Load File AID and the ISD-R Executable Module AID can be freely selected by the EUM.</li> <li>• The ISD-R application AID shall be 'A0 00 00 05 59 10 10 FF FF FF FF 89 00 00 01 00'.</li> <li>• The ECASN Executable Load File AID and the ECASN Executable Module AID can be freely selected by the EUM.</li> </ul>
<p>The following certificates shall be signed and issued by the CI:</p> <ul style="list-style-type: none"> <li>• Self-signed Root Certificate</li> <li>• EUM Certificates</li> <li>• SM-DP+ Certificates</li> </ul>
<p>The following certificates shall be signed and issued by the EUM:</p> <ul style="list-style-type: none"> <li>• eUICC Certificates</li> </ul>

### 6.6.2 General Post Conditions

For each test procedure described in the present document, the following rules apply to the Post Conditions:

- After each test procedure in which a Profile Package is installed and enabled the Profile Package shall be disabled according to 6.12, and deleted according to 6.13.

### 6.6.3 SCP80

In order to validate the result of test procedures (e.g. getting the status of Security Domains, reading Files, getting data from applications) certain operations shall be executed using SCP80. The following conditions shall be applied:

- SPI byte 2 shall be set to '21' (SMS\_SUBMIT)

### 6.6.4 Specific rules for FCP verification

#### 6.6.4.1. Tag 'A5'

The presence of tag 'A5' in the returned FCP (in consequence the presence of sub tag 'C0') shall not be checked by the test tool even if the returned FCP contains this tag.

#### 6.6.4.2. Tag 'DO88' (SFI)

Tag 'DO88' from the returned FCP of an Elementary File shall be verified based on the definition in ETSI TS 102 221 Section 11.1.1.4.8. Specifically:

I. For an EF created by PE template without shortEFID present in fileDescriptor structure the test tool shall check the SFI value in the returned FCP as follows:

For implementiations based on [SA PP TS] v2.0 and v2.1:

- if the SFI value is mandated in the respective file specification and it equals to bits b5 to b1 of the second byte of the file identifier: DO'88' can be absent, or can be present with the correct SFI value. The test tool shall check this. ANNEX B (Normative) : SFI values contains the lists of those files for which the related specification mandates the support of Short File Identifier and also defines a concrete SFI value.
- if the SFI value is mandated in the respective file specification and not equal to bits b5 to b1 of the second byte of the file identifier: DO'88' shall be present with the correct SFI value. The test tool shall check this. ANNEX B (Normative) : SFI values contains the lists of those files for which the related specification mandates the support of Short File Identifier and also defines a concrete SFI value.
- if the SFI is not supported according to the respective file specification: DO'88' shall be present with a length set to zero. The test tool shall check this.
- if the SFI is 'Optional' according to the respective file specification: the test tool shall not check the presence of DO '88'

For implementiations based on [SA PP TS] v2.2 or later:

- if the SFI value is listed in {Annex A of [SA PP TS] v2.2 or later} and it equals to bits b5 to b1 of the second byte of the file identifier: DO'88' can be absent, or can be present with the correct SFI value. The test tool shall check this.
- if the SFI value is listed in {Annex A of [SA PP TS] v2.2 or later} and not equal to bits b5 to b1 of the second byte of the file identifier: DO'88' shall be present with the correct SFI value. The test tool shall check this.
- if the SFI is not listed in {Annex A of [SA PP TS] v2.2 or later}: DO'88' shall be present with a length set to zero. The test tool shall check this.

II. For an EF created by PE template with shortEFID present in fileDescriptor structure the test tool shall check the SFI value in the returned FCP as follows:

- if the shortEFID has no value the DO'88' shall be present with a length set to zero. The test tool shall check this.
- if the shortEFID is present with a length of 1 byte the DO'88' can be absent (only if SFI equals to bits b5 to b1 of the second byte of the FID), or can be present with the correct SFI value. The test tool shall check this.

III. For an EF created by Generic File Management PE-s the test tool shall check the SFI value in the FCP as follows:

- if the shortEFID is not present in the createFCP structure of the EF the DO'88' can be absent, or can be present with the correct SFI value. The test tool shall check this.
- if the shortEFID is present in the createFCP structure of the EF but has no value the DO'88' shall be present with a length set to zero. The test tool shall check this.
- if the shortEFID is present in the createFCP structure of the EF with a length of 1 byte the DO'88' can be absent (only if SFI equals to bits b5 to b1 of the second byte of the FID), or can be present with the correct SFI value. The test tool shall check this.

#### 6.6.4.3. Files created based on a PE Template

The test tool shall verify the FCP of those files **also** which are created based on a PE template. If fcp parameters are not provided in the Test PE the default parameters defined in Annex A of [SA PP TS] shall be verified by the test tool. It applies to the EFs, MF, ADFs and DF-s also.

#### 6.6.4.4. Verify that all the files are created

The test tool shall check that all the files specified in the specific file system PE are created.

The test tool shall allow other (eg: proprietary) files to be created, except:

- files tagged with "doNotCreate" in the PE
- files defined in Not created by default templates, but not listed in the PE.

#### 6.6.4.5. Tag '82' (File Descriptor)

For any file created by PE template without fileDescriptor parameter present in the fileDescriptor structure the test tool shall check the File descriptor byte in the returned FCP considering the following specific rules:

- the value of File accessibility shall not be checked for any file (EF, DF, or ADF)
- both Working EF and Internal EF shall be accepted when checking the File type for an elementary file (EF)

### 6.6.5 **Specific rules for file content verification**

#### 6.6.5.1. Files created based on a PE Template

The test tool shall verify the content of those files **also** which are created based on a PE template. If the content is not provided in the Test PE the default content defined in Annex A of [SA PP TS] shall be verified by the test tool.

#### 6.6.5.2. Ber-tlv files created with content FF..FF

In case of ber-tlv files created with content FF..FF the test tool has to validate that the ber-tlv file is created instead of validating the content of the file. This is possible by using RETRIEVE DATA command for Tag '5C' (Tag List). The expected result is an empty tag list TLV.

### 6.6.6 Specific rules for checking the returned status

For those cases when PESTatus (0) ok is expected the eUICC may return a warning status before returning the ok status. This is allowed and it shall not cause the test case to be failed.

### 6.6.7 ISO interface

The following two APDU commands used during test execution have to be sent to the eUICC using the ISO interface:

AUTHENTICATE command used in the following test cases: TC 8.2.4.1; TC 8.2.4.2; TC 8.2.4.3; TC 8.2.4.4; TC 8.2.4.5; TC 8.2.4.6; TC 8.2.4.7; TC 8.2.4.8; TC 8.2.4.9; TC 8.2.4.10; TC 8.2.4.11 and TC 8.2.4.12.

VERIFY PIN command used in the following test cases: TC 8.2.5.4; TC 8.2.5.5 and TC 8.2.5.6.

### 6.6.8 Specific rules for checking the returned tags of GET STATUS command

The response of the GET STATUS may contain additional tags besides those specified in the test step descriptions, except when a tag list (tag '5C') is present in the command data field. The test tool shall ignore these additional tags returned, except when a tag list (tag '5C') is present in the command data field. When a tag list (tag '5C') is present in the command data field and additional tags are returned the test case will fail.

## 6.7 Pass criterion

A test shall be considered successful, only if the test procedure was carried out successfully with the IUT respecting all conformance requirements referenced in the test procedure.

## 6.8 VOID

## 6.9 eUICC Initialisation Procedures

This procedure shall be applied by the test tool only when the eUICC under test is in an unsoldered format. When the eUICC under test is embedded in a device, the initialisation procedure is accomplished by the device.

When testing implementations according to [GS RPT] to initialise the communication between T and the eUICC, these commands shall be executed:

Step	Direction	Description	RQ
1	T → eUICC	RESET	
2	eUICC → T	ATR	
3	T → eUICC	[TERMINAL_PROFILE]	
4	eUICC → T	Toolkit initialization SW='9000'	

When testing implementations according to [GS SGP22] to initialise the communication between T and the eUICC, these commands shall be executed:

Step	Direction	Description	RQ
1	T → eUICC	RESET	
2	eUICC → T	ATR	
3	T → eUICC	SELECT MF	
4	eUICC → T	FCP template is present SW='9000'	
5	T → eUICC	[TERMINAL_CAPABILITY]	
6	eUICC → T	SW='9000'	
7	T → eUICC	[TERMINAL_PROFILE]	
8	eUICC → T	Toolkit initialization SW='9000'	

The value of the [TERMINAL\_PROFILE] is the same as specified by [GS RPAT] in Annex E1.

The value of the [TERMINAL\_CAPABILITY] is: CLA = 80; INS = AA; P1 = 00; P2 = 00; LC = <L>;  
Data = A9 05 81 00 83 01 07.

NOTE: It is assumed that some proactive commands may be sent by the eUICC after sending the TERMINAL PROFILE (i.e. SET UP EVENT LIST, POLL INTERVAL, PROVIDE LOCAL INFORMATION...). In this case, T shall send the corresponding FETCH and TERMINAL RESPONSE (successfully performed) commands.

### 6.10 Profile loading

Profile packages shall be loaded using the respective standard procedures supported by the eUICC (e.g. [GS RPT], or [GS SGP22]).

### 6.11 Profile enabling

Profile packages shall be enabled using the respective standard procedures supported by the eUICC (e.g. [GS RPT], or [GS SGP22]).

### 6.12 Profile disabling

Profile packages shall be disabled using the respective standard procedures supported by the eUICC (e.g. [GS RPT], or [GS SGP22]).

### 6.13 Profile deleting

Profile packages shall be deleted using the respective standard procedures supported by the eUICC (e.g. [GS RPT], or [GS SGP22]).

## 6.14 Test PE description

If not stated otherwise the Test PEs in this chapter are compatible for all versions from v2.0 of the SIMalliance eUICC Profile Package: Interoperable Format Technical Specification.

The Test PEs described in this chapter are provided also as ASN1 files and are available for download on the SIMalliance website. These ASN1 files shall be used to create the DER codes.

The parameters below have been chosen to personalise the Profile:

- Profile type: "SIMalliance Profile Package".
- ICCID: '89019990001234567893'.
- IMSI: 234101943787656.
- IMPI: 001010123456789@test.3gpp.com
- IMPU: sip:user@test.3gpp.com
- UIM ID: '0102030405060708'
- MNO-SD AID / TAR value: 'A000000151000000' / 'B20100'.
- RFM application AID / TAR values: 'A00000055910100001' / 'B00000' , 'A00000055910100002' / 'B00002' and 'A00000055910100004' / 'B00140' and 'A00000055910100005' / 'B00150'
- Executable Load File AID for SD: 'A0000001515350'.
- Executable Module AID for SD: 'A000000151535041'.
- SSD AID / TAR values: 'A00000055910100102736456616C7565' / '6C7565' and 'A00000055910100102736456616C7566' / '6C7566'.

If not stated otherwise access rules are taken from section "Access Rules Definition" of [SA PP TS].

Two additional Access Rules are used in this specification:

**Table 4: Additional Access Rules**

File Access Conditions						Access Rules	Values
Read	Update	Incr.	Act.	Deact.	Delete		
ALWAYS	PIN 1 OR PIN 2	NEVER	ADM 1	ADM 1	ADM 1	15	8001019000800102A010A40683 0101950108A406830102950108 800158A40683010A950108
ALWAYS	PIN 1 AND ADM 1	NEVER	ADM 1	ADM 1	ADM 1	16	8001019000800102AF10A40683 0101950108A40683010A950108 800158A40683010A950108

### 6.14.1 Profile Header

Note: When testing implementations according to [GS SGP22] the Profile Headers defined in this Section SHALL not contain the connectivityParameters data object.

#### 6.14.1.1. Profile-Header-1

Default Profile Header for USIM.

##### Profile-Header-1

```
headerValue ProfileElement ::= header : {
    major-version 2,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
        usim NULL,
        milenage NULL,
        javacard NULL
    },
    eUICC-Mandatory-GFSTEList {
    },
    -- SMS parameters
    connectivityParameters 'A0090607914486994211F0'H
}
```

#### 6.14.1.2. Profile-Header-2

It contains the MF ID and CD ID and TELECOM ID and USIM ID in eUICC-Mandatory-GFSTEList.

##### Profile-Header-2

```
headerValue ProfileElement ::= header : {
    major-version 2,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
        usim NULL,
        milenage NULL,
        javacard NULL
    },
    eUICC-Mandatory-GFSTEList {
        -- MF-ID
        {2 23 143 1 2 1},
        -- CD-ID
        {2 23 143 1 2 2 },
        -- TELECOM-ID
        {2 23 143 1 2 3 },
        -- USIM-ID
        {2 23 143 1 2 4},
        -- OPT-USIM-ID
        {2 23 143 1 2 5}
    },
    -- SMS parameters
    connectivityParameters 'A0090607914486994211F0'H
}
```



6.14.1.3. Profile-Header-3

It contains an unsupported major version.

**Profile-Header-3**

```
headerValue ProfileElement ::= header : {
    major-version 255,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
    },
    eUICC-Mandatory-GFSTEList {
    },
    -- SMS parameters
    connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.4. Profile-Header-4

It contains an unsupported template.

**Profile-Header-4**

```
headerValue ProfileElement ::= header : {
    major-version 2,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
    },
    eUICC-Mandatory-GFSTEList {
        { 2 999 1 }
    },
    -- SMS parameters
    connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.5. Profile-Header-5

It contains ber-tlv in eUICC-Mandatory-services and MF ID and CD ID and TELECOM ID and USIM ID and OPT-USIM ID in eUICC-Mandatory-GFSTEList. It is compatible for versions from v2.1 of [SA PP TS].

**Profile-Header-5**

```
headerValue ProfileElement ::= header : {
    major-version 2,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
        usim NULL,
        milenage NULL,
        javacard NULL,
        ber-tlv NULL
    },
    eUICC-Mandatory-GFSTEList {
        { 2 23 143 1 2 1 }, --id-MF
        { 2 23 143 1 2 2 }, --id-CD
    }
}
```

```

    { 2 23 143 1 2 3 }, --id TELECOM
    { 2 23 143 1 2 4 }, --id-USIM
    { 2 23 143 1 2 5 } --id-OPTUSIM

},
-- SMS parameters
connectivityParameters 'A0090607914486994211F0'H
}

```

#### 6.14.1.6. Profile-Header-6

It contains dfLink in eUICC-Mandatory-services and MF ID, CD ID, TELECOM ID and USIM ID in eUICC-Mandatory-GFSTEList. It is compatible for versions from v2.1 of [SA PP TS]

#### Profile-Header-6

```

headerValue ProfileElement ::= header : {
    major-version 2,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
        usim NULL,
        milenage NULL,
        javacard NULL,
        dfLink NULL
    },
    eUICC-Mandatory-GFSTEList {
        { 2 23 143 1 2 1 }, --id-MF
        { 2 23 143 1 2 2 }, --id CD
        { 2 23 143 1 2 3 }, --id TELECOM
        { 2 23 143 1 2 4 } --id-USIM
    },
    -- SMS parameters
    connectivityParameters 'A0090607914486994211F0'H
}

```

#### 6.14.1.7. Profile-Header-7

It contains tuak128 in eUICC-Mandatory-services

#### Profile-Header-7

```

headerValue ProfileElement ::= header : {
    major-version 2,
    minor-version 2,
    profileType "SIMalliance Profile Package",
    iccid '89019990001234567893'H,
    eUICC-Mandatory-services {
        usim NULL,
        tuak128 NULL,
        javacard NULL
    },
    eUICC-Mandatory-GFSTEList {
    },
    -- SMS parameters
    connectivityParameters 'A0090607914486994211F0'H
}

```

**6.14.1.8. Profile-Header-8**

It contains csim and cave in eUICC-Mandatory-services and id-CSIM in GFSTEList.

**Profile-Header-8**

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    csim NULL,
    cave NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
    { 2 23 143 1 2 1 }, --id-MF
    { 2 23 143 1 2 10 }, --id-CSIM
    { 2 23 143 1 2 11 } --id-OPTCSIM
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

**6.14.1.9. Profile-Header-9**

It contains isim in eUICC-Mandatory-services and MF ID and CD ID and TELECOM ID and USIM ID and OPT-USIM ID and ISIM ID and OPT-ISIM ID in eUICC-Mandatory-GFSTEList.

**Profile-Header-9**

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    isim NULL,
    milenage NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
    { 2 23 143 1 2 1 }, --id-MF
    { 2 23 143 1 2 2 }, --id-CD
    { 2 23 143 1 2 3 }, --id-TELECOM
    { 2 23 143 1 2 4 }, --id-USIM
    { 2 23 143 1 2 5 }, --id-OPT-USIM
    { 2 23 143 1 2 8 }, --id-ISIM
    { 2 23 143 1 2 9 } --id-OPT-ISIM
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

#### 6.14.1.10. Profile-Header-10

It contains usim-test-algorithm in eUICC-Mandatory-services

##### Profile-Header-10

```
headerValue ProfileElement ::= header : {  
    major-version 2,  
    minor-version 2,  
    profileType "SIMalliance Profile Package",  
    iccid '89019990001234567893'H,  
    eUICC-Mandatory-services {  
        usim NULL,  
        javacard NULL,  
        usim-test-algorithm NULL  
    },  
    eUICC-Mandatory-GFSTEList {  
    },  
    -- SMS parameters  
    connectivityParameters 'A0090607914486994211F0'H  
}
```

#### 6.14.1.11. Profile-Header-11

It contains tuak256 in eUICC-Mandatory-services

##### Profile-Header-11

```
headerValue ProfileElement ::= header : {  
    major-version 2,  
    minor-version 2,  
    profileType "SIMalliance Profile Package",  
    iccid '89019990001234567893'H,  
    eUICC-Mandatory-services {  
        usim NULL,  
        javacard NULL,  
        tuak256 NULL  
    },  
    eUICC-Mandatory-GFSTEList {  
    },  
    -- SMS parameters  
    connectivityParameters 'A0090607914486994211F0'H  
}
```

#### 6.14.1.12. Profile-Header-12

It contains contactless in eUICC-Mandatory-services

##### Profile-Header-12

```
headerValue ProfileElement ::= header : {  
    major-version 2,  
    minor-version 2,  
    profileType "SIMalliance Profile Package",  
    iccid '89019990001234567893'H,  
    eUICC-Mandatory-services {  
        contactless NULL,  
        usim NULL,  
        milenage NULL,  
        javacard NULL  
    },  
    eUICC-Mandatory-GFSTEList {  
    },  
    -- SMS parameters  
    connectivityParameters 'A0090607914486994211F0'H  
}
```

#### 6.14.1.13. Profile-Header-13

It contains cat-tp in eUICC-Mandatory-services

##### Profile-Header-13

```
headerValue ProfileElement ::= header : {  
    major-version 2,  
    minor-version 2,  
    profileType "SIMalliance Profile Package",  
    iccid '89019990001234567893'H,  
    eUICC-Mandatory-services {  
        usim NULL,  
        cat-tp NULL  
    },  
    eUICC-Mandatory-GFSTEList {  
    },  
    -- SMS parameters  
    connectivityParameters 'A0090607914486994211F0'H  
}
```

```

    javacard NULL,
    cat-tp NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}

```

#### 6.14.1.14. Profile-Header-14

It contains an unknown package AID ('A0100000620101') in eUICC-Mandatory-AIDs

##### Profile-Header-14

```

headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H,
  eUICC-Mandatory-AIDs {
    {
      aid 'A0100000620101'H,
      version '0101'H
    }
  }
}

```

#### 6.14.1.15. Profile-Header-15

It contains an unsupported package version (javacard.framework v9.4) in eUICC-Mandatory-AIDs

##### Profile-Header-15

```

headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H,
  eUICC-Mandatory-AIDs {
    {
      aid 'A0000000620101'H,
      version '0904'H
    }
  }
}

```

6.14.1.16. Profile-Header-16

It contains known and supported package AIDs and versions (javacard.framework v1.4 and java.lang v1.0) in eUICC-Mandatory-AIDs

**Profile-Header-16**

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H,
  eUICC-Mandatory-AIDs {
    {
      aid 'A0000000620101'H,
      version '0104'H
    },
    {
      aid 'A0000000620001'H,
      version '0100'H
    }
  }
}
```

6.14.1.17. Profile-Header-17

It contains the MF ID and CD ID and TELECOM ID and USIM ID and OPT-USIM ID and GSM-ACCESS ID in eUICC-Mandatory-GFSTEList.

**Profile-Header-17**

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- CD-ID
    {2 23 143 1 2 2 },
    -- TELECOM-ID
    {2 23 143 1 2 3 },
    -- USIM-ID
    {2 23 143 1 2 4},
    -- OPT-USIM-ID
    {2 23 143 1 2 5},
    -- GSM-ACCESS-ID
    {2 23 143 1 2 7}
  }
```

```

},
-- SMS parameters
connectivityParameters 'A0090607914486994211F0'H
}

```

#### 6.14.1.18. Profile-Header-18

It contains the MF ID and CD ID and TELECOM ID and USIM ID and OPT-USIM ID and PHONEBOOK ID in eUICC-Mandatory-GFSTEList.

##### Profile-Header-18

```

headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- CD-ID
    {2 23 143 1 2 2 },
    -- TELECOM-ID
    {2 23 143 1 2 3 },
    -- USIM-ID
    {2 23 143 1 2 4},
    -- OPT-USIM-ID
    {2 23 143 1 2 5},
    -- PHONEBOOK-ID
    {2 23 143 1 2 6}
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}

```

#### 6.14.1.19. Profile-Header-19

It contains the MF ID and CD ID and TELECOM ID and USIM ID and EAP ID in eUICC-Mandatory-GFSTEList.

##### Profile-Header-19

```

headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 2,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},

```



```
-- CD-ID
{2 23 143 1 2 2 },
-- TELECOM-ID
{2 23 143 1 2 3},
-- USIM-ID
{2 23 143 1 2 4},
-- OPT-USIM-ID
{2 23 143 1 2 5},
-- EAP- ID
{2 23 143 1 2 12},
},
-- SMS parameters
connectivityParameters 'A0090607914486994211F0'H
}
```

## 6.14.2 File System

### 6.14.2.1. MF

#### 6.14.2.1.1. PE-MF-by-Template-1

##### PE-MF-by-Template-1

```
mfVal ProfileElement ::= mf : {
  mf-header {
    mandated NULL,
    identification 11
  },
  templateID { 2 23 143 1 2 1 },
  mf {
    fileDescriptor : {
      pinStatusTemplateDO '01020A'H
    }
  },
  ef-pl {
    fileDescriptor : {
      -- EF_PL modified to use Access Rule 15 within EF_ARR
      securityAttributesReferenced '0F'H
    },
  },
  ef-iccid {
    fileDescriptor : {
      -- use Access Rule 16 within EF_ARR
      securityAttributesReferenced '10'H
    },
  },
  -- swapped ICCID: 98109909002143658739
  fillFileContent : '98109909002143658739'H
},
  ef-dir {
    fileDescriptor : {
      -- Shareable Linear Fixed File
      -- 4 records, record length: 38 bytes
      fileDescriptor '42210026'H,
      efFileSize '98'H
    },
  },
  -- USIM AID: A0000000871002FF33FF018900000100
  fillFileContent :
'61184F10A0000000871002FF33FF01890000010050045553494DFFFFFF
FFFFFFFFFFFFFFFFFFFFFFFF'H
},
  ef-arr {
    fileDescriptor : {
      -- Shareable Linear Fixed File
      -- 16 records, record length: 37 bytes
      -- ARR created with content recommended in Annex A
      (Section 9.9) of [SA PP TS] plus two additional records
      for use with EF_PL and EF ICCID
      fileDescriptor '42210025'H,
      efFileSize '0250'H
    },
  },
  fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
  fillFileOffset : 10,
  fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
  fillFileOffset : 15,
  fillFileContent : '80015BA40683010A950108'H,
  fillFileOffset : 26,
  fillFileContent : '800101900080015A9700'H,
```

```

    fillFileOffset : 27,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H
  }
}

```

## 6.14.2.1.2.

## MF-by-Generic-File-Management-1

## MF-by-Generic-File-Management-1

```

altMFVal ProfileElement ::= genericFileManagement : {
  gfm-header {
    mandated NULL,
    identification 12
  },
  fileManagementCMD {
    {
-- create MF
      createFCP : {
        fileDescriptor '7821'H,
        fileID '3F00'H,
        securityAttributesReferenced '0E'H,
        pinStatusTemplateDO '01020A'H
      },
-- create PL
      createFCP : {
        fileDescriptor '4121'H,
        fileID '2F05'H,

```

```

        securityAttributesReferenced '0F'H,
        efFileSize '03'H,
        shortEFID '28'H
    },
-- create ICCID
    createFCP : {
        fileDescriptor '4121'H,
        fileID '2FE2'H,
        securityAttributesReferenced '10'H,
        efFileSize '0A'H
    },
-- swapped ICCID: 98109909002143658739
    fillFileContent : '98109909002143658739'H,
-- create DIR
-- Shareable Linear Fixed File
-- 4 records, record length: 38 bytes
    createFCP : {
        fileDescriptor '42210026'H,
        fileID '2F00'H,
        securityAttributesReferenced '0A'H,
        efFileSize '98'H,
        shortEFID 'F0'H
    },
-- USIM AID: A0000000871002FF33FF018900000100
    fillFileContent :
'61184F10A0000000871002FF33FF01890000010050045553494D'H,
-- create ARR
    createFCP : {
-- Shareable Linear Fixed File
-- 15 records, record length: 37 bytes
        fileDescriptor '42210025'H,
        fileID '2F06'H,
        securityAttributesReferenced '0A'H,
        efFileSize '0250'H
    },
    fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,

```

```

    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|
PIN Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H,
-- create UMPC
    createFCP : {
        fileDescriptor '4121'H,
        fileID '2F08'H,
        securityAttributesReferenced '0A'H,
        efFileSize '05'H
    }
}
}
}
}

```

## 6.14.2.1.3.

## PE-MF-by-Template-2

It contains USIM AID and ISIM AID in EF DIR.

## PE-MF-by-Template-2

```

mfVal ProfileElement ::= mf : {
    mf-header {
        mandated NULL,
        identification 15
    },
    templateID { 2 23 143 1 2 1 },
    mf {
        fileDescriptor : {
            pinStatusTemplateDO '01020A'H
        }
    },
    ef-pl {
        fileDescriptor : {
-- EF_PL modified to use Access Rule 15 within EF_ARR
            securityAttributesReferenced '0F'H
        }
    },
    ef-iccid {
        fileDescriptor : {
-- use Access Rule 16 within EF_ARR
            securityAttributesReferenced '10'H
        },
-- swapped ICCID: 98109909002143658739
        fillFileContent : '98109909002143658739'H
    },
    ef-dir {
        fileDescriptor : {

```

```

-- Shareable Linear Fixed File
-- 4 records, record length: 38 bytes
    fileDescriptor '42210026'H,
    efFileSize '98'H
  },
-- USIM AID: A0000000871002FF33FF018900000100
    fillFileContent :
'61184F10A0000000871002FF33FF01890000010050045553494DFFFFFF
FFFFFFFFFFFFFFFFFFFF'H,
-- ISIM AID: A0000000871004FF33FF018900000100
    fillFileContent :
'61184F10A0000000871004FF33FF01890000010050044953494DFFFFFF
FFFFFFFFFFFFFFFFFFFF'H
  },
  ef-arr {
    fileDescriptor : {
-- Shareable Linear Fixed File
-- 16 records, record length: 37 bytes
-- ARR created with content recommended in Annex A
-- (Section 9.9) of [SA PP TS] plus two additional records
-- for use with EF_PL and EF_ICCID
      fileDescriptor '42210025'H,
      efFileSize '0250'H
    },
    fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
  }
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]

```

```

    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H
  }
}

```

## 6.14.2.1.4.

## PE-MF-by-Template-3

It contains CSIM AID in EF DIR.

## PE-MF-by-Template-3

```

mfVal ProfileElement ::= mf : {
  mf-header {
    mandated NULL,
    identification 16
  },
  templateID { 2 23 143 1 2 1 },
  mf {
    fileDescriptor : {
      pinStatusTemplateDO '01020A'H
    }
  },
  ef-pl {
    fileDescriptor : {
-- EF_PL modified to use Access Rule 15 within EF_ARR
      securityAttributesReferenced '0F'H
    }
  },
  ef-iccid {
    fileDescriptor : {
-- use Access Rule 16 within EF_ARR
      securityAttributesReferenced '10'H
    },
-- swapped ICCID: 98109909002143658739
    fillFileContent : '98109909002143658739'H
  },
  ef-dir {
    fileDescriptor : {
-- Shareable Linear Fixed File
-- 4 records, record length: 38 bytes
    fileDescriptor '42210026'H,
    efFileSize '98'H
  },
-- CSIM AID: A0000003431002FF33FF018900000100
    fillFileContent :
'61184F10A0000003431002FF33FF01890000010050044353494DFFFFFFF
FFFFFFFFFFFFFFFFFFFF'H
  },
  ef-arr {
    fileDescriptor : {
-- Shareable Linear Fixed File
-- 16 records, record length: 37 bytes
-- ARR created with content recommended in Annex A (Section
9.9) of [SA PP TS] plus two additional records for use with
EF_PL and EF ICCID
    fileDescriptor '42210025'H,

```

```

        efFileSize '0250'H
    },
    fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A4068301
01950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A4068301
0A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A406830102950108800158
A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A950108800158
A40683010A950108'H
    }
}

```

#### 6.14.2.1.5.

#### PE-MF-by-Template-4

It contains the following EAP related Data Objects in EF DIR: Application EAP support types list; Application EAP Dedicated File list; Application EAP Label.



## PE-MF-by-Template-4

```

mfVal ProfileElement ::= mf : {
  mf-header {
    mandated NULL,
    identification 17
  },
  templateID { 2 23 143 1 2 1 },
  mf {
    fileDescriptor : {
      pinStatusTemplateDO '01020A'H
    }
  },
  ef-pl {
    fileDescriptor : {
      -- EF_PL modified to use Access Rule 15 within EF_ARR
      securityAttributesReferenced '0F'H
    }
  },
  ef-iccid {
    fileDescriptor : {
      -- use Access Rule 16 within EF_ARR
      securityAttributesReferenced '10'H
    }
  },
  -- swapped ICCID: 98109909002143658739
  fillFileContent : '98109909002143658739'H
},
  ef-dir {
    fileDescriptor : {
      -- Shareable Linear Fixed File
      -- 4 records, record length: 46 bytes
      fileDescriptor '4221002E'H,
      efFileSize 'B8'H
    },
    -- USIM AID: A0000000871002FF33FF018900000100
    -- Application EAP Label: 4541502D414B41
    fillFileContent :
    '612C4F10A0000000871002FF33FF01890000010050045553494D7312A
    01080011781026D3582074541502D414B41'H
  },
  ef-arr {
    fileDescriptor : {
      -- Shareable Linear Fixed File
      -- 16 records, record length: 37 bytes
      -- ARR created with content recommended in Annex A
      (Section 9.9) of [SA PP TS] plus two additional records
      for use with EF_PL and EF ICCID
      fileDescriptor '42210025'H,
      efFileSize '0250'H
    },
    fillFileContent :
    '8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
    '800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
    '800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,

```

```

    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H
  }
}

```

#### 6.14.2.2. DF-CD

##### 6.14.2.2.1. *PE-CD-by-Template-1*

#### PE-CD-by-Template-1

```

cdValue ProfileElement ::= cd : {
  cd-header {
    mandated NULL,
    identification 21
  },
  templateID { 2 23 143 1 2 2 },
  df-cd {
    fileDescriptor : {
      pinStatusTemplateDO '010A'H
    }
  },
  ef-launchpad {
    fileDescriptor : {

```

```

        securityAttributesReferenced '2F0602'H,
        efFileSize '05'H
    },
    fillFileContent : '1122334455'H
},

ef-icon {
    fileDescriptor : {
        securityAttributesReferenced '2F0602'H,
        efFileSize '10'H
    },
    fillFileContent : '11223344556677889900112233445566'H,
-- 2nd ef-icon with different file ID
    fileDescriptor : {
        fileID '6F41'H,
        securityAttributesReferenced '2F0602'H,
        efFileSize '20'H
    },
    fillFileContent :
'112233445566778899001122334455661122334455667788990011223
3445566'H
    }
}

```

## 6.14.2.2.2.

## DF-CD-by-Generic-File-Management-1

## DF-CD-by-Generic-File-Management-1

```

df-CD ProfileElement ::=
genericFileManagement : {
    gfm-header {
        mandated NULL,
        identification 22
    },

    fileManagementCMD {
        {
-- DF CD
        createFCP : {
            fileDescriptor '7821'H,
            fileID '7F11'H,
            securityAttributesReferenced '0E'H,
            pinStatusTemplateDO '010A'H
        },
-- ef-launchpad
        createFCP : {
            fileDescriptor '4121'H,
            fileID '6F01'H,
            securityAttributesReferenced '2F0602'H,
            efFileSize '05'H,
            shortEFID ''H
        },
        fillFileContent : '1122334455'H,
-- ef-icon 1
        createFCP : {
            fileDescriptor '4121'H,
            fileID '6F40'H,
            securityAttributesReferenced '2F0602'H,
            efFileSize '10'H,
            shortEFID ''H
        }
    }
}

```

```

    },
    fillFileContent :
'11223344556677889900112233445566'H,
-- ef-icon 2
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F41'H,
        securityAttributesReferenced '2F0602'H,
        efFileSize '20'H,
        shortEFID 'H
    },
    fillFileContent :
'112233445566778899001122334455661122334455667788990011223
3445566'H
    }
}
}
}

```

#### 6.14.2.2.3. PE-CD-by-Template-2

Compared to PE-CD-by-Template-1 defined in 6.14.2.2.1, the 2<sup>nd</sup> instance of EF ICON is defined without an explicitly set file ID and the 3<sup>rd</sup> instance of EF ICON is defined with a file ID out of the upper range defined in Annex A of SA PP TS.

#### PE-CD-by-Template-2

```

cdValue ProfileElement ::= cd : {
    cd-header {
        mandated NULL,
        identification 23
    },
    templateID { 2 23 143 1 2 2 },
    df-cd {
        fileDescriptor : {
            pinStatusTemplateDO '010A'H
        }
    },
    ef-launchpad {
        fileDescriptor : {
            securityAttributesReferenced '2F0602'H,
            efFileSize '05'H
        }
        fillFileContent : '1122334455'H
    },
    ef-icon {
        fileDescriptor : {
            securityAttributesReferenced '2F0602'H,
            efFileSize '10'H
        },
        fillFileContent : '11223344556677889900112233445566'H,
-- 2nd ef-icon without explicitly defined file ID
        fileDescriptor : {
            securityAttributesReferenced '2F0602'H,
            efFileSize '20'H
        },
    },
}

```

```

    fillFileContent :
'112233445566778899001122334455661122334455667788990011223
3445566'H,
-- 3rd ef-icon with file ID out of range
    fileDescriptor : {
        fileID '6F80'H,
        securityAttributesReferenced '2F0602'H,
        efFileSize '20'H
    },
    fillFileContent :
'112233445566778899001122334455661122334455667788990011223
3445566'H
    }
}

```

### 6.14.2.3. DF-TELECOM

#### 6.14.2.3.1. *PE-TELECOM-by-Template-1*

It contains no BER-TLV files.

#### PE-TELECOM-by-Template-1

```

teleValue ProfileElement ::= telecom : {
    telecom-header {
        mandated NULL,
        identification 31
    },
    templateID { 2 23 143 1 2 3 },
    df-telecom {
        fileDescriptor : {
            pinStatusTemplateDO '010A'H
        }
    },
    ef-arr {
        fileDescriptor : {
            linkPath '2F06'H
        }
    },
    ef-rma {
        fileDescriptor : {
            -- 2 record of 10 bytes
            fileDescriptor '4221000A'H,
            efFileSize '14'H
        },
        fillFileContent : '00010203040506070809'H,
        fillFileContent : '00010203040506070809'H
    },
    ef-sume {
        fileDescriptor : {
            efFileSize '10'H
        },
        fillFileContent : '850431323334'H
    },
    ef-ice-dn {

```

```

    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H
    }
  },
  ef-ice-ff {
    fileDescriptor : {
      -- 1 records of 32 bytes
      fileDescriptor '42210020'H,
      efFileSize '20'H
    }
  },
  ef-psismsc {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H
    },
    fillFileContent : '80000102030405060708091011121314'H
  },

  df-graphics {
    fileDescriptor : {
      pinStatusTemplateDO '010A'H
    }
  },
  ef-img {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H
    }
  },
  ef-iidf {
    fileDescriptor : {
      efFileSize '18'H
    }
  },

  -- no ef-ice-graphics (BER-TLV)

  ef-launch-scws {
    fileDescriptor : {
      efFileSize '10'H
    },
    fillFileContent : '000102030405060708090A0B0C0D0E0F'H
  },
  ef-icon {
    fileDescriptor : {
      efFileSize '15'H
    },
    fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314'H
  },

  df-phonebook {
    fileDescriptor : {
      pinStatusTemplateDO '010A'H

```

```
    }
  },
  ef-pbr {
    fileDescriptor : {
      -- 3 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '30'H
    },
    fillFileContent : 'A808C0024F58C6024F90AA04C2024F38'H
  },
  ef-ext1 {
    fileDescriptor : {
      -- 2 records of 13 bytes
      -- Record size 0x0D defined in template
      -- fileDescriptor '4221000D'H,
      efFileSize '1A'H,
      shortEFID '08'H
    }
  },
  ef-aas {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H
    }
  },
  ef-gas {
    fileDescriptor : {
      -- 2 records of 8 bytes
      fileDescriptor '42210008'H,
      efFileSize '10'H
    }
  },
  ef-psc {
    fileDescriptor : {
      shortEFID '10'H
    }
  },
  ef-cc {
    fileDescriptor : {
      shortEFID '18'H
    }
  },
  ef-puid {
    fileDescriptor : {
      shortEFID '20'H
    }
  },
  ef-iap {
    fileDescriptor : {
      -- 2 records of 5 bytes
      fileDescriptor '42210005'H,
      efFileSize '0A'H,
      shortEFID '28'H
    }
  },
  ef-adn {
    fileDescriptor : {
      -- 2 records of 16 bytes
```

```
        fileDescriptor '42210010'H,  
        efFileSize '20'H,  
        shortEFID '30'H  
    },  
    ef-pbc {    -- record size = 2 bytes  
        fileDescriptor : {  
            efFileSize '10'H,  
            shortEFID '38'H  
        }  
    },  
    ef-anr {  
        fileDescriptor : {  
            -- 1 record of 20 bytes  
            fileDescriptor '42210014'H,  
            efFileSize '14'H,  
            shortEFID '40'H  
        }  
    },  
    ef-puri {  
        fileDescriptor : {  
            -- 2 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '20'H,  
            shortEFID '48'H  
        },  
        fillFileContent : '80000102030405060708090A0B0C0D0E'H,  
        fillFileContent : '80000102030405060708090A0B0C0D0E'H  
    },  
    ef-email {  
        fileDescriptor : {  
            -- 2 records of 20 bytes  
            fileDescriptor '42210014'H,  
            efFileSize '28'H,  
            shortEFID '50'H  
        }  
    },  
    ef-sne {  
        fileDescriptor : {  
            -- 1 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '10'H,  
            shortEFID '58'H  
        }  
    },  
    ef-uid {  
        fileDescriptor : {  
            -- 8 records of 2 bytes  
            efFileSize '10'H,  
            shortEFID '60'H  
        }  
    },  
    ef-grp {  
        fileDescriptor : {  
            -- 2 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '20'H,  
            shortEFID '68'H  
        }  
    }
```



```

},
ef-ccpl {
  fileDescriptor : {
    -- 4 records of 8 bytes
    fileDescriptor '42210008'H,
    efFileSize '20'H,
    shortEFID '70'H
  }
},

df-multimedia {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},
-- no ef-mml (BER-TLV)
-- no ef-mmdf (BER-TLV)
df-mmss {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},

ef-mlpl {
  fileDescriptor : {
    efFileSize '18'H
  },
  fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314151617'H
},
ef-mspl {
  fileDescriptor : {
    efFileSize '19'H
  },
  fillFileContent :
'000102030405060708090A0B0C0D0E0F101112131415161718'H
},
ef-mmssmode {
  fillFileContent : '01'H
}
}

```

## 6.14.2.3.2.

## PE-TELECOM-by-Template-2

It contains BER-TLV files.

## PE-TELECOM-by-Template-2

```

teleValue ProfileElement ::= telecom : {
  telecom-header {
    mandated NULL,
    identification 32
  },
  templateID { 2 23 143 1 2 3 },
  df-telecom {
    fileDescriptor : {
      pinStatusTemplateDO '010A'H
    }
  },
}

```

```
ef-arr {
  fileDescriptor : {
    linkPath '2F06'H
  }
},
ef-rma {
  fileDescriptor : {
    -- 2 record of 10 bytes
    fileDescriptor '4221000A'H,
    efFileSize '14'H
  },
  fillFileContent : '00010203040506070809'H,
  fillFileContent : '00010203040506070809'H
},
ef-sume {
  fileDescriptor : {
    efFileSize '10'H
  },
  fillFileContent : '850431323334'H
},
ef-ice-dn {
  fileDescriptor : {
    -- 2 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '20'H
  }
},
ef-ice-ff {
  fileDescriptor : {
    -- 1 records of 32 bytes
    fileDescriptor '42210020'H,
    efFileSize '20'H
  }
},
ef-psismsc {
  fileDescriptor : {
    -- 1 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '10'H
  },
  fillFileContent : '80000102030405060708091011121314'H
},
df-graphics {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},
ef-img {
  fileDescriptor : {
    -- 2 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '20'H
  }
},
ef-iidf {
  fileDescriptor : {
    efFileSize '18'H
  }
}
```

```

},

ef-ice-graphics {  -- BER-TLV
  fileDescriptor : {
    efFileSize '18'H
  }
},
ef-launch-scws {
  fileDescriptor : {
    efFileSize '10'H
  },
  fillFileContent : '000102030405060708090A0B0C0D0E0F'H
},
ef-icon {
  fileDescriptor : {
    efFileSize '15'H
  },
  fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314'H
},

df-phonebook {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},
ef-pbr {
  fileDescriptor : {
    -- 3 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '30'H
  },
  fillFileContent : 'A808C0024F58C6024F90AA04C2024F38'H
},
ef-ext1 {
  fileDescriptor : {
    -- 2 records of 13 bytes
    -- Record size 0x0D defined in template
    -- fileDescriptor '4221000D'H,
    efFileSize '1A'H,
    shortEFID '08'H
  }
},
ef-aas {
  fileDescriptor : {
    -- 1 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '10'H
  }
},
ef-gas {
  fileDescriptor : {
    -- 2 records of 8 bytes
    fileDescriptor '42210008'H,
    efFileSize '10'H
  }
},
ef-psc {
  fileDescriptor : {

```

```
        shortEFID '10'H
    }
},
ef-cc {
    fileDescriptor : {
        shortEFID '18'H
    }
},
ef-puid {
    fileDescriptor : {
        shortEFID '20'H
    }
},
ef-iap {
    fileDescriptor : {
        -- 2 records of 5 bytes
        fileDescriptor '42210005'H,
        efFileSize '0A'H,
        shortEFID '28'H
    }
},
ef-adn {
    fileDescriptor : {
        -- 2 records of 16 bytes
        fileDescriptor '42210010'H,
        efFileSize '20'H,
        shortEFID '30'H
    }
},
ef-pbc { -- record size = 2 bytes
    fileDescriptor : {
        efFileSize '10'H,
        shortEFID '38'H
    }
},
ef-anr {
    fileDescriptor : {
        -- 1 record of 20 bytes
        fileDescriptor '42210014'H,
        efFileSize '14'H,
        shortEFID '40'H
    }
},
ef-puri {
    fileDescriptor : {
        -- 2 records of 16 bytes
        fileDescriptor '42210010'H,
        efFileSize '20'H,
        shortEFID '48'H
    },
    fillFileContent : '80000102030405060708090A0B0C0D0E'H,
    fillFileContent : '80000102030405060708090A0B0C0D0E'H
},
ef-email {
    fileDescriptor : {
        -- 2 records of 20 bytes
        fileDescriptor '42210014'H,
        efFileSize '28'H,
        shortEFID '50'H
    }
```

```
    }
},
ef-sne {
    fileDescriptor : {
        -- 1 records of 16 bytes
        fileDescriptor '42210010'H,
        efFileSize '10'H,
        shortEFID '58'H
    }
},
ef-uid {
    fileDescriptor : {
        -- 8 records of 2 bytes
        efFileSize '10'H,
        shortEFID '60'H
    }
},
ef-grp {
    fileDescriptor : {
        -- 2 records of 16 bytes
        fileDescriptor '42210010'H,
        efFileSize '20'H,
        shortEFID '68'H
    }
},
ef-ccpl {
    fileDescriptor : {
        -- 4 records of 8 bytes
        fileDescriptor '42210008'H,
        efFileSize '20'H,
        shortEFID '70'H
    }
},

df-multimedia {
    fileDescriptor : {
        pinStatusTemplateDO '010A'H
    }
},
ef-mml {    -- BER-TLV
    fileDescriptor : {
        efFileSize '20'H
    }
},
ef-mmdf {    -- BER-TLV
    fileDescriptor : {
        efFileSize '28'H
    }
},

df-mmss {
    fileDescriptor : {
        pinStatusTemplateDO '010A'H
    }
},

ef-mlpl {
    fileDescriptor : {
        efFileSize '18'H
```

```

    },
    fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314151617'H
  },
  ef-mspl {
    fileDescriptor : {
      efFileSize '19'H
    },
    fillFileContent :
'000102030405060708090A0B0C0D0E0F101112131415161718'H
  },
  ef-mmssmode {
    fillFileContent : '01'H
  }
}

```

### 6.14.2.3.3.

### PE-TELECOM-by-Template-3

It contains BER-TLV files and the PE is not mandated.

#### PE-TELECOM-by-Template-3

```

teleValue ProfileElement ::= telecom : {
  telecom-header {
    identification 33
  },
  templateID { 2 23 143 1 2 3 },
  df-telecom {
    fileDescriptor : {
      pinStatusTemplateDO '010A'H
    }
  },
  ef-arr {
    fileDescriptor : {
      linkPath '2F06'H
    }
  },
  ef-rma {
    fileDescriptor : {
      -- 2 record of 10 bytes
      fileDescriptor '4221000A'H,
      efFileSize '14'H
    },
    fillFileContent : '00010203040506070809'H,
    fillFileContent : '00010203040506070809'H
  },
  ef-sume {
    fileDescriptor : {
      efFileSize '10'H
    },
    fillFileContent : '850431323334'H
  },
  ef-ice-dn {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H
    }
  }
}

```

```

},
ef-ice-ff {
  fileDescriptor : {
    -- 1 records of 32 bytes
    fileDescriptor '42210020'H,
    efFileSize '20'H
  }
},
ef-psismsc {
  fileDescriptor : {
    -- 1 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '10'H
  },
  fillFileContent : '80000102030405060708091011121314'H
},

df-graphics {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},
ef-img {
  fileDescriptor : {
    -- 2 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '20'H
  }
},
ef-iidf {
  fileDescriptor : {
    efFileSize '18'H
  }
},

ef-ice-graphics { -- BER-TLV
  fileDescriptor : {
    efFileSize '18'H
  }
},
ef-launch-scws {
  fileDescriptor : {
    efFileSize '10'H
  },
  fillFileContent : '000102030405060708090A0B0C0D0E0F'H
},
ef-icon {
  fileDescriptor : {
    efFileSize '15'H
  },
  fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314'H
},

df-phonebook {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},

```

```
ef-pbr {
  fileDescriptor : {
    -- 3 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '30'H
  },
  fillFileContent : 'A808C0024F58C6024F90AA04C2024F38'H
},
ef-ext1 {
  fileDescriptor : {
    -- 2 records of 13 bytes
    -- Record size 0x0D defined in template
    -- fileDescriptor '4221000D'H,
    efFileSize '1A'H,
    shortEFID '08'H
  }
},
ef-aas {
  fileDescriptor : {
    -- 1 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '10'H
  }
},
ef-gas {
  fileDescriptor : {
    -- 2 records of 8 bytes
    fileDescriptor '42210008'H,
    efFileSize '10'H
  }
},
ef-psc {
  fileDescriptor : {
    shortEFID '10'H
  }
},
ef-cc {
  fileDescriptor : {
    shortEFID '18'H
  }
},
ef-puid {
  fileDescriptor : {
    shortEFID '20'H
  }
},
ef-iap {
  fileDescriptor : {
    -- 2 records of 5 bytes
    fileDescriptor '42210005'H,
    efFileSize '0A'H,
    shortEFID '28'H
  }
},
ef-adn {
  fileDescriptor : {
    -- 2 records of 16 bytes
    fileDescriptor '42210010'H,
```



```
        efFileSize '20'H,  
        shortEFID '30'H  
    }  
},  
ef-pbc {    -- record size = 2 bytes  
    fileDescriptor : {  
        efFileSize '10'H,  
        shortEFID '38'H  
    }  
},  
ef-anr {  
    fileDescriptor : {  
        -- 1 record of 20 bytes  
        fileDescriptor '42210014'H,  
        efFileSize '14'H,  
        shortEFID '40'H  
    }  
},  
ef-puri {  
    fileDescriptor : {  
        -- 2 records of 16 bytes  
        fileDescriptor '42210010'H,  
        efFileSize '20'H,  
        shortEFID '48'H  
    },  
    fillFileContent : '80000102030405060708090A0B0C0D0E'H,  
    fillFileContent : '80000102030405060708090A0B0C0D0E'H  
},  
ef-email {  
    fileDescriptor : {  
        -- 2 records of 20 bytes  
        fileDescriptor '42210014'H,  
        efFileSize '28'H,  
        shortEFID '50'H  
    }  
},  
ef-sne {  
    fileDescriptor : {  
        -- 1 records of 16 bytes  
        fileDescriptor '42210010'H,  
        efFileSize '10'H,  
        shortEFID '58'H  
    }  
},  
ef-uid {  
    fileDescriptor : {  
        -- 8 records of 2 bytes  
        efFileSize '10'H,  
        shortEFID '60'H  
    }  
},  
ef-grp {  
    fileDescriptor : {  
        -- 2 records of 16 bytes  
        fileDescriptor '42210010'H,  
        efFileSize '20'H,  
        shortEFID '68'H  
    }  
},  
},
```

```
ef-ccpl {
  fileDescriptor : {
    -- 4 records of 8 bytes
    fileDescriptor '42210008'H,
    efFileSize '20'H,
    shortEFID '70'H
  }
},

df-multimedia {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},
ef-mm1 { -- BER-TLV
  fileDescriptor : {
    efFileSize '20'H
  }
},
ef-mmdf { -- BER-TLV
  fileDescriptor : {
    efFileSize '28'H
  }
},

df-mmss {
  fileDescriptor : {
    pinStatusTemplateDO '010A'H
  }
},

ef-mlpl {
  fileDescriptor : {
    efFileSize '18'H
  },
  fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314151617'H
},
ef-mspl {
  fileDescriptor : {
    efFileSize '19'H
  },
  fillFileContent :
'000102030405060708090A0B0C0D0E0F101112131415161718'H
},
ef-mmssmode {
  fillFileContent : '01'H
}
}
```

6.14.2.4. CUSTOM6.14.2.4.1. *DF-CUSTOM-by-Generic-File-Management-*

1

**DF-CUSTOM-by-Generic-File-Management-1**

```

customDF ProfileElement ::= genericFileManagement : {

    gfm-header {
        mandated NULL,
        identification 41
    },

    fileManagementCMD {
    {
        -- no filePath, shall go under MF
        -- Custom DF
        createFCP : {
            fileDescriptor '7821'H, -- sharable (A)DF
            fileID '7FA0'H,
            securityAttributesReferenced '0E'H,
            pinStatusTemplateDO '010A'H
        },

        -- EF_ARR Link
        createFCP : {
            fileDescriptor '42210025'H,
            fileID '6F06'H,
            securityAttributesReferenced '0A'H,
            shortEFID 'B8'H,
            linkPath '2F06'H
        },

        -- ef_1
        createFCP : {
            fileDescriptor '4121'H, -- sharable binary EF
            fileID '6F01'H,
            securityAttributesReferenced '01'H, -- RD ALW, UP
PIN1
            efFileSize '06'H,
            shortEFID '08'H
        },

        -- ef_2
        createFCP : {
            fileDescriptor '42210010'H, -- sharable lin.fixed EF,
record size 0x10
            fileID '6F02'H,
            securityAttributesReferenced '02'H, -- RD PIN1, UP
ADM1
            efFileSize '80'H,
            shortEFID ''H
        },

        -- ef_3
        createFCP : {
            fileDescriptor '42210020'H, -- record size 0x20
            fileID '6F03'H,

```

```

        securityAttributesReferenced '05'H, -- RD PIN1, UP
PIN1
        efFileSize '60'H,
        shortEFID ''H
    }
}
}
}

```

#### 6.14.2.4.2.

#### DF-CUSTOM-by-Generic-File-Management-

2

It is a non mandatory custom DF that creates a dfLink file.

#### DF-CUSTOM-by-Generic-File-Management-2

```

linkDF ProfileElement ::= genericFileManagement : {
    gfm-header {
        identification 42
    },

    fileManagementCMD {
        {
            -- no filePath, shall go under MF
            -- Link DF
            createFCP : {
                fileDescriptor '7821'H, -- sharable DF
                fileID '7FA1'H,
                securityAttributesReferenced '0D'H,
                linkPath '7F105F3A'H -- DF Phonebook
            }
        }
    }
}

```

#### 6.14.2.4.3

#### DF-CUSTOM-by-Generic-File-Management-

3

It is a mandatory custom DF that creates a dfLink file.

#### DF-CUSTOM-by-Generic-File-Management-3

```

linkDF ProfileElement ::= genericFileManagement : {
    gfm-header {
        mandated NULL,
        identification 43
    },

    fileManagementCMD {
        {
            -- no filePath, shall go under MF
            -- Link DF
            createFCP : {
                fileDescriptor '7821'H, -- sharable DF

```

```

        fileID '7FA1'H,
        securityAttributesReferenced '0D'H,
        linkPath '7F11'H -- DF CD
    }
}
}
}

```

#### 6.14.2.4.4. ADF-CUSTOM-by-Generic-File-Management-1

##### ADF-CUSTOM-by-Generic-File-Management-1

```

customDF ProfileElement ::= genericFileManagement : {

    gfm-header {
        mandated NULL,
        identification 45
    },
    fileManagementCMD {
        {
            -- no filePath, shall go under MF
            -- Custom DF
            createFCP : {
                fileDescriptor '7821'H, -- sharable ADF
                fileID '7FA1'H,
                dfName 'A000000600020002000001'H,
                securityAttributesReferenced '0E'H,
                pinStatusTemplateDO '01810A'H
            },
            -- create ARR
            createFCP : {
                -- Shareable Linear Fixed File
                -- 15 records, record length: 37 bytes
                fileDescriptor '42210025'H,
                fileID '6F06'H,
                securityAttributesReferenced '0A'H,
                efFileSize '0250'H
            },
            fillFileContent :
            '8001019000800102A406830101950108800158A40683010A950108'H,
            fillFileOffset : 10,
            fillFileContent :
            '800101A40683010195010880015AA40683010A950108'H,
            fillFileOffset : 15,
            fillFileContent : '80015BA40683010A950108'H,
            fillFileOffset : 26,
            fillFileContent : '800101900080015A9700'H,
            fillFileOffset : 27,
            fillFileContent :
            '800103A406830101950108800158A40683010A950108'H,
            fillFileOffset : 15,
            fillFileContent :
            '800111A40683010195010880014AA40683010A950108'H,
            fillFileOffset : 15,
            fillFileContent :
            '800103A406830101950108800158A40683010A950108840132A406830
            101950108'H,
            fillFileOffset : 4,

```

```

-- Rule 8: [Read: Always][Update: second PIN Appl
1][Incr.: Never][Deactivate, Activate, Delete: ADM1]
    fillFileContent :
'8001019000800102A406830181950108800158A40683010A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|
PIN Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H,
-- ef_1
    createFCP : {
        fileDescriptor '4121'H,    -- sharable binary EF
        fileID '6F01'H,
        securityAttributesReferenced '08'H, -- RD ALW, UP
Local PIN1
        efFileSize '0A'H,
        shortEFID ''H
    },
    fillFileContent : '00112233445566778899'H,
-- ef_2
    createFCP : {
        fileDescriptor '4121'H,    -- sharable binary EF
        fileID '6F02'H,
        securityAttributesReferenced '05'H, -- RD PIN1, UP
PIN1
        efFileSize '0A'H,
        shortEFID ''H
    },
    fillFileContent : '66778899AABBCCDDEEFF'H
}
}
}

```

6.14.2.5. DF-EAP6.14.2.5.1. *PE-EAP-by-Template-1***PE-EAP-by-Template-1**

```

eapValue ProfileElement ::= eap : {
  eap-header {
    mandated NULL,
    identification 191
  },

  templateID { 2 23 143 1 2 12 },

  df-eap {
    fileDescriptor : {
      fileID '6D35'H,
      pinStatusTemplateDO '010A'H
    }
  },

  ef-eapkeys {
    fileDescriptor : {
      securityAttributesReferenced '6F0602'H,
      efFileSize '84'H
    },
    fillFileContent : '8040 39d45aea f4e30601 983e972b
6cfd46d1 c3637733 65690d09 cd44976b 525f47d3 a60a985e
955c53b0 90b2e4b7 3719196a 40254296 8fd14a88 8f46b9a7
886e4488 81 40 5949eab0 fff69d52 315c6c63 4fd14a7f
0d52023d 56f79698 fa6596ab eed4f93f bb48eb53 4d985414
ceed0d9a 8ed33c38 7c9dfdab 92ffbf2 40fcec6f 5a2c93b9'H
    },
    ef-eapstatus {},

    ef-puid {
      fileDescriptor : {
        securityAttributesReferenced '6F0602'H,
        efFileSize '64'H
      },
      -- permanent username: 1123456789098765
      fillFileContent : ' 31313233343536373839303938373635'H
    },

    ef-ps {
      fileDescriptor : {
        securityAttributesReferenced '6F0605'H,
        efFileSize '64'H
      },
      -- pseudonym username: 3s7ah6n9q
      fillFileContent : '3373376168366E3971'H
    },

    ef-curid {
      fileDescriptor : {
        securityAttributesReferenced '6F0605'H,
        efFileSize '64'H
      }
    }
  },

```

```

ef-reid {
    fileDescriptor : {
        securityAttributesReferenced '6F0605'H,
        efFileSize '64'H
    },
    -- fast re-authentication username: 53953754
    fillFileContent :
'80173533393533373534006D796F70657261746F722E636F6D8102000
1'H
    },
}

ef-realm {
    fileDescriptor : {
        securityAttributesReferenced '6F0605'H,
        efFileSize '0F'H
    },
    -- domain name: myoperator.com
    fillFileContent : '0E6D796F70657261746F722E636F6D'H
}
}

```

### 6.14.3 PE-PUKCodes

#### 6.14.3.1. PE-PUKCodes-1

#### PE-PUKCodes-1

```

pukVal ProfileElement ::= pukCodes : {
    -- PUK PE needs be right after the MF
    puk-Header {
        mandated NULL,
        identification 51
    },
    pukCodes {
        {
            keyReference pukAppl1,
            pukValue '3132333435363738'H,
            -- maxNumOfAttempts:9, retryNumLeft:9
            maxNumOfAttempts-retryNumLeft 153
        },
        {
            keyReference pukAppl2,
            pukValue '3132333435363738'H
        },
        {
            keyReference secondPUKAppl1,
            pukValue '3132333435363738'H,
            -- maxNumOfAttempts:8, retryNumLeft:8
            maxNumOfAttempts-retryNumLeft 136
        }
    }
}

```



**6.14.4 PE-PINCodes****6.14.4.1. PE-PINCodes-1****PE-PINCodes-1**

```

pinVal ProfileElement ::= pinCodes : {
-- the PIN codes for global PINs have to be created under
the MF context and right after the MF context
  pin-Header {
    mandated NULL,
    identification 61
  },
  pinCodes pinconfig : {
    {
      keyReference pinAppl1,
      pinValue '3132333435363738'H,
      unblockingPINReference pukAppl1
    },
    {
      keyReference pinAppl2,
      pinValue '3132333435363738'H,
      unblockingPINReference pukAppl1
    },
    {
      keyReference adm1,
      pinValue '3132333435363738'H
    }
  }
}

```

**6.14.4.2. PE-PINCodes-2**

Compared to PE-PINCodes-1 as defined in 6.14.4.1 pinAppl1 is disabled.

**PE-PINCodes-2**

```

pinVal ProfileElement ::= pinCodes : {
-- the PIN codes for global PINs have to be created under
the MF context and right after the MF context
  pin-Header {
    mandated NULL,
    identification 62
  },
  pinCodes pinconfig : {
    {
      keyReference pinAppl1,
      pinValue '3132333435363738'H,
      unblockingPINReference pukAppl1,
      -- PIN is disabled
      pinAttributes 6
    },
    {
      keyReference pinAppl2,
      pinValue '3132333435363738'H,
      unblockingPINReference pukAppl1
    },
    {
      keyReference adm1,
      pinValue '3132333435363738'H
    }
  }
}

```

6.14.4.3. PE-PINCodes-3

Compared to PE-PINCodes-1 as defined in 6.14.4.1 pinAppl1 has a different unblockingPINReference.

**PE-PINCodes-3**

```
pinVal ProfileElement ::= pinCodes : {
  -- the PIN codes for global PINs have to be created under
  the MF context and right after the MF context
  pin-Header {
    mandated NULL,
    identification 63
  },
  pinCodes pinconfig : {
    {
      keyReference pinAppl1,
      pinValue '3132333435363738'H,
      unblockingPINReference secondPUKAppl1
    },
    {
      keyReference pinAppl2,
      pinValue '3132333435363738'H,
      unblockingPINReference pukAppl1
    },
    {
      keyReference adm1,
      pinValue '3132333435363738'H
    }
  }
}
```

**6.14.5 USIM ADF**6.14.5.1. USIM6.14.5.1.1. *PE-USIM-by-Template-1***PE-USIM-by-Template-1**

```
usimValue ProfileElement ::= usim : {
  usim-header {
    mandated NULL,
    identification 81
  },
  templateID { 2 23 143 1 2 4 },
  adf-usim {
    fileDescriptor : {
      fileID '7FF1'H,
      dfName 'A0000000871002FF33FF018900000100'H,
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-imsi {
    -- numerical format: 234101943787656
    fillFileContent : '082943019134876765'H
  },
  ef-arr {
    fileDescriptor : {
      linkPath '2F06'H
    }
  }
}
```

```

    },
    ef-ust {
        fileDescriptor : {
            fileDescriptor '4121'H,
            efFileSize '0F'H -- plus one byte
        },
        fillFileContent : '220A04080200000000001000000000'H
    },
    ef-spn {
        -- ASCII format: "SIMalliance"
        fillFileContent : '0253494D616C6C69616E6365'H
    },
    ef-est {
        -- Services deactivated
        fillFileContent : '00'H
    },
    ef-acc {
        -- Access class 2
        fillFileContent : '0040'H
    },
    ef-ecc {
        -- Emergency Call Code 911
        fillFileContent : '19F1FF01'H
    },
    ef-epsloci {
        -- do not create EF EPSLOCI
        doNotCreate : NULL
    }
}

```

## 6.14.5.1.2.

## USIM-by-Generic-File-Management-1

## USIM-by-Generic-File-Management-1

```

altUsimValue ProfileElement ::= genericFileManagement : {
    gfm-header {
        mandated NULL,
        identification 82
    },
    fileManagementCMD {
        {
-- ADF_USIM
            createFCP : {
                fileDescriptor '7821'H,
                fileID '7FF1'H,
                dfName 'A0000000871002FF33FF018900000100'H,
                securityAttributesReferenced '0A'H,
                pinStatusTemplateDO '01810A'H
            },
-- EF_IMSI
            createFCP : {
                fileDescriptor '4121'H,
                fileID '6F07'H,
                securityAttributesReferenced '02'H,
                efFileSize '09'H,

```

```

        shortEFID '38'H
    },
    -- provide content for EF_IMSI
    -- numerical format: 234101943787656
    fillFileContent : '082943019134876765'H,

-- EF_ARR Link
    createFCP : {
        fileDescriptor '42210025'H,
        fileID '6F06'H,
        securityAttributesReferenced '0A'H,
        shortEFID 'B8'H,
        linkPath '2F06'H
    },

-- EF_Keys
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F08'H,
        securityAttributesReferenced '05'H,
        efFileSize '21'H,
        shortEFID '40'H,
        proprietaryEFInfo {
            specialFileInformation '80'H,
            fillPattern '07FF'H
        }
    },

-- EF_KeysPS
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F09'H,
        securityAttributesReferenced '05'H,
        efFileSize '21'H,
        shortEFID '48'H,
        proprietaryEFInfo {
            specialFileInformation '80'H,
            fillPattern '07FF'H
        }
    },

-- EF_HPPLMN
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F31'H,
        securityAttributesReferenced '02'H,
        efFileSize '01'H,
        shortEFID '90'H,
        proprietaryEFInfo {
-- specialFileInformation with Default value
            specialFileInformation '00'H,
            fillPattern '0A'H
        }
    },

-- EF_UST
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F38'H,

```

```

        securityAttributesReferenced '02'H,
        efFileSize '0E'H,
        shortEFID '20'H
    },
    -- provide UST settings

    fillFileContent : '220A040802000000000010000000'H,

-- EF_FDN
    createFCP : {
        fileDescriptor '4221001A'H,
        fileID '6F3B'H,
        securityAttributesReferenced '08'H,
        efFileSize '0208'H,
        shortEFID 'H',
        proprietaryEFInfo {
            fillPattern '00FF'H
        }
    },

-- EF_SMS
    createFCP : {
        fileDescriptor '422100B0'H,
        fileID '6F3C'H,
        securityAttributesReferenced '05'H,
        efFileSize '06E0'H,
        shortEFID 'H',
        proprietaryEFInfo {
            fillPattern '00FF'H
        }
    },

-- EF_SMSP
    createFCP : {
        fileDescriptor '42210026'H,
        fileID '6F42'H,
        securityAttributesReferenced '05'H,
        efFileSize '26'H,
        shortEFID 'H'

    },

-- EF_SMSS
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F43'H,
        securityAttributesReferenced '05'H,
        efFileSize '02'H,
        shortEFID 'H',
        proprietaryEFInfo {
            specialFileInformation '80'H
        }
    },

-- EF_SPN
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F46'H,
    },
    -- provide the full access rule including EF_ARR File ID

```

```

        securityAttributesReferenced '6F060A'H,
        efFileSize '11'H,
        shortEFID 'H
    },
    -- ASCII format: "SIMalliance"
    fillFileContent : '0253494D616C6C69616E6365'H,

-- EF_EST
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F56'H,
        securityAttributesReferenced '08'H,
        efFileSize '01'H,
        shortEFID '28'H
    },
    -- EST Services deactivated
    fillFileContent : '00'H,

-- EF_START-HFN
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F5B'H,
        securityAttributesReferenced '05'H,
        efFileSize '06'H,
        shortEFID '78'H,
        proprietaryEFInfo {
            specialFileInformation '80'H,
-- use of repeat pattern to initialize the content
            repeatPattern 'F00000'H
        }
    },

-- EF_THRESHOLD
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F5C'H,
        securityAttributesReferenced '02'H,
        efFileSize '03'H,
        shortEFID '80'H,
        proprietaryEFInfo {
            specialFileInformation '80'H
        }
    },

-- EF_PSLOCI
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F73'H,
        securityAttributesReferenced '05'H,
        efFileSize '0E'H,
        shortEFID '60'H,
        proprietaryEFInfo {
            specialFileInformation '80'H
        }
    },
    -- Initialize PSLOCI
    fillFileOffset : 7,
    fillFileContent : '00F1100000FF01'H,

```

```

-- EF_ACC
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F78'H,
        securityAttributesReferenced '02'H,
        efFileSize '02'H,
        shortEFID '30'H
    },
    -- Provide Content for ACC
    -- Access class 2
    fillFileContent : '0040'H,

-- EF_FPLMN
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F7B'H,
        securityAttributesReferenced '05'H,
        efFileSize '0C'H,
        shortEFID '68'H
    },

-- EF_LOCI
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6F7E'H,
        securityAttributesReferenced '05'H,
        efFileSize '0B'H,
        shortEFID '58'H,
        proprietaryEFInfo {
            specialFileInformation '80'H
        }
    },
    -- Initialize LOCI
    fillFileOffset : 7,
    fillFileContent : '0000FF01'H,

-- EF_AD
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6FAD'H,
        securityAttributesReferenced '0A'H,
        efFileSize '04'H,
        shortEFID '18'H,
        proprietaryEFInfo {
-- use of fillPattern in Combination with fillFileContent
(not efficient in this example)
            fillPattern '00'H
        }
    },
    -- Initialize AD
    fillFileOffset : 3,
    fillFileContent : '02'H,

-- EF_ECC
    createFCP : {
        fileDescriptor '42210004'H,
        fileID '6FB7'H,
        securityAttributesReferenced '0A'H,
        efFileSize '04'H,

```

```

        shortEFID '08'H
    },
    -- Initialize ECC
    -- Emergency Call Code 911
    fillFileContent : '19F1FF01'H,

-- EF_NETPAR
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6FC4'H,
        securityAttributesReferenced '05'H,
        efFileSize '80'H,
        shortEFID 'H',
        proprietaryEFInfo {
            specialFileInformation '80'H
        }
    },

-- EF_EPSLOCI is not created to have the same
configuration as in PE_USIM-by-Template-1
-- EF_EPSNSC
    createFCP : {
        fileDescriptor '4121'H,
        fileID '6FE4'H,
        securityAttributesReferenced '05'H,
        efFileSize '50'H,
        shortEFID 'C0'H,
        proprietaryEFInfo {
            specialFileInformation '80'H
        }
    }
}
}
}
}

```

#### 6.14.5.1.3. PE-USIM-by-Template-2

The content of PE-USIM-by Template-2 is identical to PE-USIM-by-Template-1, with the exception of the content of EF UST which has been adapted to the use of PE-OPT-USIM-by-Template-2.

#### PE-USIM-by-Template-2

```

usimValue ProfileElement ::= usim : {
    usim-header {
        mandated NULL,
        identification 83
    },
    templateID { 2 23 143 1 2 4 },
    adf-usim {
        fileDescriptor : {
            fileID '7FF1'H,
            dfName 'A0000000871002FF33FF018900000100'H,
            pinStatusTemplateDO '01810A'H
        }
    },
    ef-imsi {
        -- numerical format: 234101943787656
        fillFileContent : '082943019134876765'H
    }
}

```



```

},
ef-arr {
    fileDescriptor : {
        linkPath '2F06'H
    }
},
ef-ust {
    fileDescriptor : {
        fileDescriptor '4121'H,
        efFileSize '0F'H -- plus one byte
    },
    fillFileContent : '220A04080200000000001004000000'H
},
ef-spn {
    -- ASCII format: "SIMalliance"
    fillFileContent : '0253494D616C6C69616E6365'H
},
ef-est {
    -- Services deactivated
    fillFileContent : '00'H
},
ef-acc {
    -- Access class 2
    fillFileContent : '0040'H
},
ef-ecc {
    -- Emergency Call Code 911
    fillFileContent : '19F1FF01'H
},
ef-epsloci {
    -- do not create EF EPSLOCI
    doNotCreate : NULL
}
}

```

#### 6.14.5.1.4.

#### USIM-by-Generic-File-Management-2

The content is identical to 6.14.5.1.2 USIM-by-Generic-File-Management-1, except:

- the value of identification field which equals 84
- EF UST which is defined below:

```

-- EF_UST
createFCP : {
    fileDescriptor '4121'H,
    fileID '6F38'H,
    securityAttributesReferenced '02'H,
    efFileSize '0E'H,
    shortEFID '20'H
},
-- provide UST settings
-- including EF Ext5
fillFileContent : '220A140802080000000010000000'H,

```

#### 6.14.5.1.5. PE-USIM-by-Template-3

The content is identical to 6.14.5.1.1 PE-USIM-by-Template-1, except:

- the value of identification field which equals 85
- the content of EF UST, which is defined below:

```
ef-ust {
  fileDescriptor : {
    fileDescriptor '4121'H,
    efFileSize '0F'H -- plus one byte
  },
  -- including EF Ext 5, EF PSISMSC
  fillFileContent : '220A14080208000000001004000000'H
}
```

#### 6.14.5.1.6. PE-USIM-by-Template-4

The content is identical to 6.14.5.1.1 PE-USIM-by-Template-1, except:

- the value of identification field which equals 86
- the content of EF UST, which is defined below:

```
ef-ust {
  fileDescriptor : {
    fileDescriptor '4121'H,
    efFileSize '0F'H -- plus one byte
  },
  -- including EF Ext 5, EF PSISMSC, ber tlv
  fillFileContent : '220A14080208000004001004000000'H
}
```

#### 6.14.5.1.7. PE-USIM-by-Template-5

The content is identical to 6.14.5.1.1 PE-USIM-by-Template-1, except:

- the value of identification field which equals 87
- the content of EF UST, which is defined below:

```
ef-ust {
  fileDescriptor : {
    fileDescriptor '4121'H,
    efFileSize '0F'H -- plus one byte
  },
  -- including GSM Access, CPBCH Information and
  Investigation Scan
  fillFileContent : '220A140CC208000000001004000000'H
}
```

### 6.14.5.2. OPT-USIM

#### 6.14.5.2.1. PE-OPT-USIM-by-Template-1

##### PE-OPT-USIM(by-Template)-1

```
optusimValue ProfileElement ::= opt-usim : {
  optusim-header {
    mandated NULL,
    identification 91
  },
  templateID { 2 23 143 1 2 5 },
```

```

    ef-li {
    },
    ef-msisdn {
    },
    ef-ext5 {
    }, ef-ipd {
    fileDescriptor : {
    fileDescriptor '42210004'H,
    efFileSize '10'H
    }
    }
}

```

#### 6.14.5.2.2. OPT-USIM-by-Generic-File-Management-1

##### OPT-USIM-by-Generic-File-Management-1

```

gmOptUsimValue ProfileElement ::= genericFileManagement :
{
    gfm-header {
        mandated NULL,
        identification 92
    },

    fileManagementCMD {
    {
-- Context: ADF USIM (temp. File ID)
        filePath : '7FF1'H,

-- ef-li
        createFCP : {
            fileDescriptor '4121'H,
            fileID '6F05'H,
            securityAttributesReferenced '01'H,
            efFileSize '06'H,
            shortEFID '10'H
        },

-- ef-ext5
        createFCP : {
            fileDescriptor '4221000D'H,
            fileID '6F4E'H,
            securityAttributesReferenced '05'H,
            efFileSize '82'H,
            shortEFID ''H
        },

-- ef-msisdn
        createFCP : {
            fileDescriptor '42210018'H,
            fileID '6F40'H,
            securityAttributesReferenced '02'H,
            efFileSize '18'H,
            shortEFID ''H
        },

-- ef-ipd
        createFCP : {
            fileDescriptor '42210004'H,
            fileID '6FF2'H,
            securityAttributesReferenced '03'H,
            efFileSize '10'H,

```

```

        shortEFID 'H
    }
}
}
}

```

## 6.14.5.2.3.

## PE-OPT-USIM-by-Template-2

## PE-OPT-USIM(by-Template)-2

```

optusimValue ProfileElement ::= opt-usim : {
    optusim-header {
        mandated NULL,
        identification 93
    },
    templateID { 2 23 143 1 2 5 },

    ef-li {
    },
    ef-acmax {
    },
    ef-acm {
    },
    ef-gid1 {
        fillFileContent : '0102030405060708'H
    },
    ef-gid2 {
        fillFileContent : '0203040506070809'H
    },
    ef-msisdn {
    },
    ef-puct {
    },
    ef-cbmi {
    },
    ef-cbmid {
    },
    ef-sdn {
    },
    ef-ext2 {
    },
    ef-ext3 {
    },
    ef-cbmir {
    },
    ef-plmnwact {
    },
    ef-oplmnwact {
    },
    ef-hplmnwact {
    },
    ef-dck {
    },
    ef-cn1 {
    },
    ef-smsr {
    },
    ef-bdn {

```

```

},
ef-ext5 {
},
ef-ccp2 {
},
ef-ext4 {
},
ef-acl {
},
ef-cmi {
},
ef-ici {
},
ef-oci {
},
ef-ict {
},
ef-oct {
},
ef-vgcs {
    fillFileContent :
'0102030405060708091011121314151617181920'H
},
ef-vgcsc {
    fillFileContent : '11121314151617'H
},
ef-vbs {
    fillFileContent :
'1112131415161718192001020304050607080910'H
},
ef-vbss {
    fillFileContent : '02030405060708'H
},
ef-emlpp {
    fillFileContent : '0405'H
},
ef-aaem {
},
ef-hiddenkey {
},
ef-pnn {
    fillFileContent : '11020304050607080910111213141511'H,
    fillFileContent : '12020304050607080910111213141512'H,
    fillFileContent : '13020304050607080910111213141513'H,
    fillFileContent : '14020304050607080910111213141514'H,
    fillFileContent : '15020304050607080910111213141515'H,
    fillFileContent : '16020304050607080910111213141516'H,
    fillFileContent : '17020304050607080910111213141517'H,
    fillFileContent : '18020304050607080910111213141518'H,
    fillFileContent : '19020304050607080910111213141519'H,
    fillFileContent : '20020304050607080910111213141520'H
},
ef-opl {
    fillFileContent :
'210203040506070809101112131415161721'H,
    fillFileContent :
'220203040506070809101112131415161722'H,
    fillFileContent :
'230203040506070809101112131415161723'H,

```

```

    fillFileContent :
'240203040506070809101112131415161724'H,
    fillFileContent :
'250203040506070809101112131415161725'H
  },
  ef-mbdn {
    fillFileContent :
'010203040506070809101112131415161718192021222324'H,
    fillFileContent :
'020203040506070809101112131415161718192021222302'H,
    fillFileContent :
'030203040506070809101112131415161718192021222303'H
  },
  ef-ext6 {
  },
  ef-mbi {
    fillFileContent : '1102030411'H,
    fillFileContent : '2202030422'H,
    fillFileContent : '3302030433'H,
    fillFileContent : '4402030444'H,
    fillFileContent : '5502030455'H,
    fillFileContent : '6602030466'H,
    fillFileContent : '7702030477'H,
    fillFileContent : '8802030488'H,
    fillFileContent : '9902030499'H,
    fillFileContent : '0002030411'H
  },
  ef-mwis {
  },
  ef-cfis {
  },
  ef-ext7 {
  },
  ef-spdi {
    fileDescriptor : {
      efFileSize '07'H
    },
    fillFileContent : 'A3058003FFFFFF'H
  },
  ef-mmsn {
  },
  ef-ext8 {
  },
  ef-mmsicp {
  },
  ef-mmsup {
    fileDescriptor : {
      fileDescriptor '42210040'H,
      efFileSize '40'H
    }
  },
  ef-mmsucp {
  },
  ef-nia {
  },
  ef-vgcsca {
    fileDescriptor : {
      efFileSize '08'H

```

```
    }
  },
  ef-vbsca {
    fileDescriptor : {
      efFileSize '06'H
    }
  },
  -- ef-gbabp not included
  -- ef-msk    not included
  -- ef-muk    not included

  ef-ehplmn {
  },
  -- ef-gbanl not included

  ef-ehplmmpi {
  },
  ef-lrplmnsi {
  },
  -- ef-nafkca not included

  ef-spni {
    fileDescriptor : {
      efFileSize '20'H
    }
  },
  ef-pnni {
    fileDescriptor : {
      fileDescriptor '42210030'H,
      efFileSize '30'H
    }
  },
  ef-ncp-ip {
    fileDescriptor : {
      fileDescriptor '42210010'H,
      efFileSize '10'H
    },
    fillFileContent : '16020304050607080910111213141516'H
  },
  ef-ufc {
  },
  ef-nasconfig {
    fillFileContent :
'180203040506070809101112131415161718'H
  },
  ef-uicciari {
    fileDescriptor : {
      fileDescriptor '42210014'H,
      efFileSize '14'H
    },
    fillFileContent :
'2002030405060708091011121314151617181920'H
  },
  ef-pws {
    fileDescriptor : {
      efFileSize '0F'H
    },
    fillFileContent : '150203040506070809101112131415'H
  },
```

```

ef-fdnuri {
  fileDescriptor : {
    fileDescriptor '4221000E'H,
    efFileSize '0E'H
  }
},
ef-bdnuri {
  fileDescriptor : {
    fileDescriptor '4221000D'H,
    efFileSize '0D'H
  }
},
ef-sdnuri {
  fileDescriptor : {
    fileDescriptor '4221000C'H,
    efFileSize '0C'H
  }
},
ef-iwl {
  fileDescriptor : {
    fileDescriptor '42210012'H,
    efFileSize '48'H
  },
  fillFileContent :
'801001020304050607080910111213141516'H,
  fillFileContent :
'811002020304050607080910111213141516'H,
  fillFileContent :
'811003020304050607080910111213141516'H,
  fillFileContent :
'801004020304050607080910111213141516'H
},
ef-ips {
  fileDescriptor : {
    efFileSize '08'H
  }
},
ef-ipd {
  fileDescriptor : {
    fileDescriptor '42210004'H,
    efFileSize '10'H
  }
}
}

```

#### 6.14.5.2.4.

#### PE-OPT-USIM-by-Template-3

The content is identical to PE-OPT-USIM-by-Template-2 as defined in 6.14.5.2.3, except:

- the value of identification field which equals 94

the content of EF GID1 and EF-GID2, which are defined below:

#### PE-OPT-USIM(by-Template)-3

```

ef-gid1 {
},
ef-gid2 {
},

```



### 6.14.5.3. DF-GSM ACCESS

#### 6.14.5.3.1. *PE-GSM-ACCESS-by-Template-1*

##### PE-GSM-ACCESS-by-Template-1

```
gsmAccessValue ProfileElement ::= gsm-access : {  
    gsm-access-header {  
        mandated NULL,  
        identification 221  
    },  
    templateID { 2 23 143 1 2 7 },  
    df-gsm-access {  
        fileDescriptor : {  
            pinStatusTemplateDO '01810A'H  
        }  
    },  
    ef-kc {  
    },  
    ef-kcgprs {  
    },  
    ef-cpbcch {  
    },  
    ef-invscan {  
    }  
}
```

### 6.14.5.4. DF-Phonebook

#### 6.14.5.4.1. *PE-Phonebook-by-Template-1*

##### PE-Phonebook-by-Template-1

```
phonebookValue ProfileElement ::= phonebook : {  
    phonebook-header {  
        mandated NULL,  
        identification 231  
    },  
    templateID { 2 23 143 1 2 6 },  
    df-phonebook {  
        fileDescriptor : {  
            pinStatusTemplateDO '01810A'H  
        }  
    },  
    ef-pbr {  
        fileDescriptor : {  
            -- 3 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '30'H  
        },  
        fillFileContent : 'A808C0024F58c6024F90AA04C2024F38'H  
    },  
    ef-ext1 {  
        fileDescriptor : {  
            -- 2 records of 13 bytes  
            -- Record size 0x0D defined in template  
        }  
    }  
}
```

```
-- fileDescriptor '4221000D'H,
    efFileSize '1A'H,
    shortEFID '08'H
}
},
ef-aas {
    fileDescriptor : {
        -- 1 records of 16 bytes
        fileDescriptor '42210010'H,
        efFileSize '10'H
    }
},
ef-gas {
    fileDescriptor : {
        -- 2 records of 8 bytes
        fileDescriptor '42210008'H,
        efFileSize '10'H
    }
},
ef-psc {
    fileDescriptor : {
        shortEFID '10'H
    }
},
ef-cc {
    fileDescriptor : {
        shortEFID '18'H
    }
},
ef-puid {
    fileDescriptor : {
        shortEFID '20'H
    }
},
ef-iap {
    fileDescriptor : {
        -- 2 records of 5 bytes
        fileDescriptor '42210005'H,
        efFileSize '0A'H,
        shortEFID '28'H
    }
},
ef-adn {
    fileDescriptor : {
        -- 2 records of 16 bytes
        fileDescriptor '42210010'H,
        efFileSize '20'H,
        shortEFID '30'H
    }
},
ef-abc {
    fileDescriptor : {
        efFileSize '10'H,
        shortEFID '38'H
    }
},
ef-anr {
    fileDescriptor : {
        -- 1 record of 20 bytes
```

```
        fileDescriptor '42210014'H,  
        efFileSize '14'H,  
        shortEFID '40'H  
    },  
    ef-puri {  
        fileDescriptor : {  
            -- 2 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '20'H,  
            shortEFID '48'H  
        },  
        fillFileContent : '80000102030405060708090A0B0C0D0F'H,  
        fillFileContent : '80000102030405060708090A0B0C0D0F'H  
    },  
    ef-email {  
        fileDescriptor : {  
            -- 2 records of 20 bytes  
            fileDescriptor '42210014'H,  
            efFileSize '28'H,  
            shortEFID '50'H  
        },  
    },  
    ef-sne {  
        fileDescriptor : {  
            -- 1 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '10'H,  
            shortEFID '58'H  
        },  
    },  
    ef-uid {  
        fileDescriptor : {  
            -- 8 records of 2 bytes  
            efFileSize '10'H,  
            shortEFID '60'H  
        },  
    },  
    ef-grp {  
        fileDescriptor : {  
            -- 2 records of 16 bytes  
            fileDescriptor '42210010'H,  
            efFileSize '20'H,  
            shortEFID '68'H  
        },  
    },  
    ef-ccpl {  
        fileDescriptor : {  
            -- 4 records of 8 bytes  
            fileDescriptor '42210008'H,  
            efFileSize '20'H,  
            shortEFID '70'H  
        },  
    },  
}
```

**6.14.6 ISIM ADF****6.14.6.1. ISIM****6.14.6.1.1. *PE-ISIM-by-Template-1*****PE-ISIM-by-Template-1**

```

isimValue ProfileElement ::= isim : {
    isim-header {
        mandated NULL,
        identification 101
    },

    templateID { 2 23 143 1 2 8 },
    adf-isim {
        fileDescriptor : {
            fileID '7FF2'H,
            dfName 'A00000000871004FF33FF018900000100'H,
            pinStatusTemplateDO '010A'H
        }
    },

    ef-impi {
        fileDescriptor : {
            fileDescriptor '4121'H,
            efFileSize '1F'H
        },
        -- 001010123456789@test.3gpp.com
        fillFileContent :
'801D30303130313031323334353637383940746573742E336770702E6
36F6D'H
    },

    ef-impu {
        fileDescriptor : {
            -- 1 record of 24 bytes
            fileDescriptor '42210018'H,
            efFileSize '18'H
        },
        -- sip:user@test.3gpp.com

        fillFileContent :
'80167369703A7573657240746573742E336770702E636F6D'H
    },

    ef-domain {
        fileDescriptor : {
            fileDescriptor '4121'H,
            efFileSize '0F'H
        },
        -- sip:user@test.3gpp.com

        fillFileContent : '800D746573742E336770702E636F6D'H
    },

    ef-ist {
        fileDescriptor : {
            fileDescriptor '4121'H,
            efFileSize '03'H
        },

```

```

    fillFileContent : '710000'H
  },

  ef-ad {
  },

  ef-arr {
    fileDescriptor : {
      linkPath '2F06'H
    }
  }
}

```

#### 6.14.6.2. OPT-ISIM

##### 6.14.6.2.1. *PE-OPT-ISIM-by-Template-1*

#### PE-OPT-ISIM-by-Template-1

```

optIsimValue ProfileElement ::= opt-isim : {
  optisim-header {
    mandated NULL,
    identification 111
  },

  templateID { 2 23 143 1 2 9 },

  ef-pcscf {
    fileDescriptor : {
      -- 1 record of 30 bytes
      fileDescriptor '4221001E'H,
      efFileSize '1E'H
    },
    -- Type '00' = FQDN: pcscf1.anyims.test.3gpp.com

    fillFileContent :
    '801C007063736366312E616E79696D732E746573742E336770702E636
    F6D'H
  },

  ef-sms {
  },
  ef-smssp {
  },
  ef-smss {
  },
  ef-smsr {
  }
  -- ef-gbabp not present
  -- ef-gbanl not present
  -- ef-nafkca not present
  -- ef-uicciari not present
}

```

## 6.14.7 CSIM ADF

### 6.14.7.1. CSIM

#### 6.14.7.1.1. *PE-CSIM-by-Template-1*

#### PE-CSIM-by-Template-1

```
csimValue ProfileElement ::= csim : {
  csim-header {
    mandated NULL,
    identification 121
  },
  templateID { 2 23 143 1 2 10},
  adf-csim {
    fileDescriptor : {
      fileID '7F88'H,
      dfName 'A0000003431002FF33FF018900000100'H,
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-arr {
    fileDescriptor : {
      linkPath '2F06'H
    }
  },
  ef-call-count {},
  ef-imsi-m {},
  ef-imsi-t {},
  ef-tmsi {},
  ef-ah {},
  ef-aop {
    -- Analog Operational Parameters 1 byte
    fillFileContent : '01'H
  },
  ef-alloc {
    -- Analog Location and Registration Indicators  7
    bytes
    fillFileContent : '01020304050607'H
  },
  ef-cdmahome {
    -- CDMAHome size
    fileDescriptor : {
      efFileSize '05'H
    }
  },
  ef-znregi {
    -- ef-znregi size
    fileDescriptor : {
      efFileSize '08'H
    }
  },
  ef-snregi {
    -- CDMA System-Network Registration Indicators  7
    bytes
    fillFileContent : '01020304050607'H
  },
  ef-distregi {},
  ef-accolc {
    -- Access Overload Class ACCOLCp  1 byte
    fillFileContent : '01'H
  },
  ef-term {
    -- Call Termination Mode Preferences  1 byte
    fillFileContent : '01'H
  }
}
```

```

    },
ef-acp {
    -- Analog Channel Preferences  7 bytes
    fillFileContent : '01020304050607'H
},
ef-prl {
    -- Preferred Roaming List MAX_PR_LIST_SIZE
    fileDescriptor : {
        efFileSize '0C'H
    },
    fillFileContent : '0102030405060708090A0B0C'H
},
ef-ruimid {
    -- UIM_ID  8 bytes
    fileDescriptor : {
        efFileSize '08'H
    },
    fillFileContent : '0102030405060708'H
},
ef-csim-st {
    -- CSIM Service Table  X bytes, X>=1  (SAIP 6 bytes)
    fillFileContent : '000C00000000'H
},
ef-spc {},
ef-otapaspc {},

ef-namlock {
    -- namlock  1 byte
    fillFileContent : '01'H
},
ef-ota {
    -- OTASP/OTAPA Features  File size: 2N + 1 bytes
(SAIP 17 bytes)
    fillFileContent :
'0102030405060708090A0B0C0D0E0F1011'H
},
ef-sp {
    -- Service Preferences  1 byte
    fillFileContent : '01'H
},
ef-esn-meid-me {},
ef-li {},

ef-usgind {
    -- UIM_ID/SF_EUIMID Usage Indicator 1 byte
    fillFileContent : '01'H
},
ef-ad {},

ef-max-prl {
    -- Maximum PRL  2 or 4 bytes  (SAIP 4 bytes)
    fillFileContent : '01020304'H
},
    ef-spcs {
    -- SPC Status  1 byte
    fillFileContent : '00'H
},
ef-mecrp {},

ef-home-tag {
    -- Home System Tag  X bytes
    fileDescriptor : {
        efFileSize '04'H
    },
    fillFileContent : '01020304'H
}

```

```

    },
    ef-group-tag {
        -- Group Tag List  GROUP_TAG_LIST_SIZE  bytes
        fileDescriptor : {
            efFileSize '04'H
        },
        fillFileContent : '01020304'H
    },
    ef-specific-tag {
        -- Specific Tag List  SPEC_TAG_LIST_SIZE  bytes
        fileDescriptor : {
            efFileSize '04'H
        },
        fillFileContent : '01020304'H
    },
    ef-call-prompt {
        -- Call Prompt List  CALL_PRMPPT_LIST_SIZE  bytes
        fileDescriptor : {
            efFileSize '04'H
        },
        fillFileContent : '01020304'H
    }
}

```

#### 6.14.7.1.2. PE-CSIM-by-Template-2

The content is identical to PE-OPT-USIM-by-Template-21 as defined in 6.14.7.1.1, except the content of EF-CSIM-ST which also contains services N°8 HRPD, N°14 3GPD-SIP and N°15 3GPD-MIP.

#### PE-CSIM-by-Template-2

```

csimValue ProfileElement ::= csim : {
    csim-header {
        mandated NULL,
        identification 122
    },
    templateID { 2 23 143 1 2 10 },
    adf-csim {
        fileDescriptor : {
            fileID '7F88'H,
            dfName 'A0000003431002FF33FF018900000100'H,
            pinStatusTemplateDO '01810A'H
        }
    },
    ef-arr {
        fileDescriptor : {
            linkPath '2F06'H
        }
    },
    ef-call-count {},
    ef-imsi-m {},
    ef-imsi-t {},
    ef-tmsi {},
    ef-ah {},
    ef-aop {
        -- Analog Operational Parameters 1 byte
        fillFileContent : '01'H
    },
    ef-alloc {

```



```

-- Analog Location and Registration Indicators  7
bytes
  fillFileContent : '01020304050607'H
},
ef-cdmahome {
-- CDMAHome size
  fileDescriptor : {
    efFileSize '05'H
  },
  ef-znregi {
-- ef-znregi size
    fileDescriptor : {
      efFileSize '08'H
    },
    ef-snregi {
      -- CDMA System-Network Registration Indicators  7
bytes
      fillFileContent : '01020304050607'H
    },
    ef-distregi {},
    ef-accolc {
      -- Access Overload Class ACCOLCp  1 byte
      fillFileContent : '01'H
    },
    ef-term {
      -- Call Termination Mode Preferences  1 byte
      fillFileContent : '01'H
    },
    ef-acp {
      -- Analog Channel Preferences  7 bytes
      fillFileContent : '01020304050607'H
    },
    ef-prl {
      -- Preferred Roaming List MAX_PR_LIST_SIZE
      fileDescriptor : {
        efFileSize '0C'H
      },
      fillFileContent : '0102030405060708090A0B0C'H
    },
    ef-ruimid {
      -- UIM_ID  8 bytes
      fileDescriptor : {
        efFileSize '08'H
      },
      fillFileContent : '0102030405060708'H
    },
    ef-csim-st {
      -- CSIM Service Table  X bytes, X>=1  (SAIP 6 bytes)
      fillFileContent : '806C00000000'H
    },
    ef-spc {},
    ef-otapaspc {},
    ef-namlock {
      -- namlock  1 byte
      fillFileContent : '01'H
    },
    ef-ota {
      -- OTASP/OTAPA Features  File size: 2N + 1 bytes
      (SAIP 17 bytes)
      fillFileContent :
'0102030405060708090A0B0C0D0E0F1011'H
    },
    ef-sp {

```

```

-- Service Preferences 1 byte
fillFileContent : '01'H
},
ef-esn-meid-me {},
ef-li {},

ef-usgind {
-- UIM_ID/SF_EUIMID Usage Indicator 1 byte
fillFileContent : '01'H
},
ef-ad {},

ef-max-prl {
-- Maximum PRL 2 or 4 bytes (SAIP 4 bytes)
fillFileContent : '01020304'H
},
    ef-spcs {
-- SPC Status 1 byte
fillFileContent : '00'H
},
ef-mecrp {},

ef-home-tag {
-- Home System Tag X bytes
    fileDescriptor : {
        efFileSize '04'H
    },
    fillFileContent : '01020304'H
},
    ef-group-tag {
-- Group Tag List GROUP_TAG_LIST_SIZE bytes
    fileDescriptor : {
        efFileSize '04'H
    },
    fillFileContent : '01020304'H
},
    ef-specific-tag {
-- Specific Tag List SPEC_TAG_LIST_SIZE bytes
    fileDescriptor : {
        efFileSize '04'H
    },
    fillFileContent : '01020304'H
},
    ef-call-prompt {
-- Call Prompt List CALL_PRMP_LIST_SIZE bytes
    fileDescriptor : {
        efFileSize '04'H
    },
    fillFileContent : '01020304'H
}
}

```

#### 6.14.7.2. OPT-CSIM

##### 6.14.7.2.1. *PE-OPT-CSIM-by-Template-1*

#### PE-OPT-CSIM-by-Template-1

```

optcsimValue ProfileElement ::= opt-csim : {
    optcsim-header {
        mandated NULL,
        identification 131
    }
}

```

```

},
templateID { 2 23 143 1 2 11},
ef-est {
  fileDescriptor : {

    efFileSize '02'H
  },
  fillFileContent : '000C'H
}
}

```

#### 6.14.7.2.2. PE-OPT-CSIM-by-Template-2

It contains enabled services for N°8 HRPD, N°14 3GPD-SIP and N°15 3GPD-MIP.

#### PE-OPT-CSIM-by-Template-2

```

optcsimValue ProfileElement ::= opt-csim : {
  optcsim-header {
    mandated NULL,
    identification 132
  },
  templateID { 2 23 143 1 2 11},
  ef-est {
    fileDescriptor : {

      efFileSize '02'H
    },
    fillFileContent : '806C'H
  }
}

```

### 6.14.8 PE-PINCodes (Local PIN)

#### 6.14.8.1. PE-PINCodes-Local-PIN-1

#### PE-PINCodes-Local-PIN-1

```

localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 71
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl1,
      pinValue '3131313131313131'H,
      pinAttributes 1,
      maxNumOfAttempts-retryNumLeft 34
    }
  }
}

```

6.14.8.2. PE-PINCodes-Local-PIN-2**PE-PINCodes-Local-PIN-2**

```

localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 72
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINApp12,
-- PIN = 1234
      pinValue '31323334FFFFFFFF'H,
      unblockingPINReference secondPUKApp11,
      -- PIN is Enabled
      pinAttributes 1,
      -- maxNumOfAttempts:2, retryNumLeft:2
      maxNumOfAttempts-retryNumLeft 34
    }
  }
}

```

6.14.8.3. PE-PINCodes-Local-PIN-3

This PE contains a disabled secondPINApp11.

**PE-PINCodes-Local-PIN-3**

```

localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 73
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINApp11,
      pinValue '31313131313131'H,
      pinAttributes 4,
      maxNumOfAttempts-retryNumLeft 34
    }
  }
}

```

6.14.8.4. PE-PINCodes-Local-PIN-4**PE-PINCodes-Local-PIN-4**

```

localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 74
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINApp11,
-- PIN = 1234
    }
  }
}

```

```

pinValue '31323334FFFFFFFF'H,
unblockingPINReference pukAppl1,
-- PIN is Enabled
pinAttributes 1,
-- maxNumOfAttempts:2, retryNumLeft:2
maxNumOfAttempts-retryNumLeft 34
}
}
}

```

#### 6.14.8.5. PE-PINCodes-Local-PIN-5

##### PE-PINCodes-Local-PIN-5

```

localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 75
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl1,
      pinValue '31323334FFFFFFFF'H,
      pinAttributes 1,
      maxNumOfAttempts-retryNumLeft 34
    }
  }
}

```

#### 6.14.9 PE-AKA Parameters

##### 6.14.9.1. PE-AKAParameters-1

This PE contains parameters for AKA authentication algorithm: MILENAGE.

##### PE-AKAParameters-1

```

akaMilenage ProfileElement ::= akaParameter : {
  aka-header {
    mandated NULL,
    identification 141
  },
  algoConfiguration algoParameter : {
    algorithmID milenage,
    algorithmOptions '01'H,      -- RES and MAC 64 bits,
    CK and IK 128 bits
    key '465B5CE8B199B49FAA5F0A2EE238A6BC'H ,
    opc 'CD63CB71954A9F4E48A5994E37A02BAF'H ,
    -- rotationConstants uses default: '4000204060'H,
    -- xoringConstants uses default:
    '00000000000000000000000000000000100000000000002000000000
    000000400000000000000008'H,
    authCounterMax '010203'H
  },
  sqnOptions '0E'H      -- Anonymity key used, SQN wrap
  around not allowed, SQN Delta and SQN Age Limit are not
  used
  -- sqnDelta uses default: '000010000000'H
  -- sqnAgeLimit uses default: '000010000000'H
  -- sqnInit: uses default: all bytes zero

```

}

### 6.14.9.2. PE-AKAParameters-2

This PE contains parameters for AKA authentication algorithm: TUAK.

#### PE-AKAParameters-2

```

akaTUAK ProfileElement ::= akaParameter : {
    aka-header {
        mandated NULL,
        identification 142
    },
    algoConfiguration algoParameter : {
        algorithmID tuak,
        algorithmOptions '00'H,      -- RES 32 bits, MAC 64
bits, CK and IK 128 bits
        key 'ababababababababababababababab'H,
        opc
        'bd04d9530e87513c5d837ac2ad954623a8e2330c115305a73eb45d1f4
0cccbff'H,
        -- rotationConstants ignored for TUAK,
        -- xoringConstants ignored for TUAK,
        authCounterMax '010203'H
    },
    sqnOptions '0E'H      -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
    -- sqnDelta uses default: '000010000000'H
    -- sqnAgeLimit uses default: '000010000000'H
    -- sqnInit: uses default: all bytes zero
}

```

### 6.14.9.3. PE-AKAParameters-3

This PE contains AKA parameters mapped to NAA USIM excluding SQN.

#### PE-AKAParameters-3

```

usimMappedAKA ProfileElement ::= akaParameter : {
    aka-header {
        mandated NULL,
        identification 143
    },
    algoConfiguration mappingParameter : {
        -- share sqnInit, sqnOptions, sqnDelta, sqnAgeLimit
mappingOptions '02'H,
mappingSource 'A0000000871002FF33FF018900000100'H --
USIM
    }
    -- sqnOptions uses default: '02'H,
    -- Anonymity key used, SQN wrap around not allowed, SQN
Delta & Age Limit used)
    -- sqnDelta shared
    -- sqnAgeLimit shared
    -- sqnInit shared
}

```

6.14.9.4. PE-CDMAParameters-1

This PE contains parameters for the CSIM authentication algorithm: CAVE.

**PE-CDMAParameters-1**

```
cdmaParam ProfileElement ::= cdmaParameter : {
    cdma-header {
        mandated NULL,
        identification 151
    },
    authenticationKey '0102030405060708'H,
    ssd '0123456789ABCDEF0123456789ABCDEF'H,
    --HRDP Access Authentication Value:
    0x43484150434841504348415043484150
        hrpdAccessAuthenticationData
    '821A420A821A420A821A420A821A420A80'H,
    /*
    Simple IP CHAP SS Parameters:
    - Value:
    entry 00: 0x43484150434841504348415043484150
    entry 01:
    0x44554D4D5944554D4D5944554D4D5944554D4D5944554D4D5944554D
    4D5944
    entry 02: 0x4E4144414E414441
    */
        simpleIPAuthenticationData
    '30821A420A821A420A821A420A821A420A80FD1155353565115535356
    5115535356511553535651155353565115535356510909C8288829C828
    882'H,

    /*
    Mobile IP SS Parameters:
    - Value:
    entry 00:
    - MN-AAA-SS: 0x31323334353637383930313233343536
    - MN-HA-SS: 0x303031313232333334343535363737
    entry 01:
    - MN-AAA-SS:
    0x44554D4D5944554D4D5944554D4D5944554D4D5944554D4D5944554D
    4D5944
    - MN-HA-SS: 0x4E4144414E414441
    entry 02:
    - MN-AAA-SS: 0x4E4144414E414441
    - MN-HA-SS:
    0x44554D4D5944554D4D5944554D4D5944554D4D5944554D4D5944554D
    4D5944
    */
        mobileIPAuthenticationData
    '3081899199A1A9B1B9C1C981899199A1A9B40C0C0C4C4C8C8CCCCD0D0
    D4D4D8D8DCDC7E88AA9A9AB288AA9A9AB288AA9A9AB288AA9A9AB288AA
    9A9AB288AA9A9AB28884E4144414E414441242720A220A720A220FD115
    5353565115535356511553535651155353565115535356511553535651
    0'H
    }
}
```

6.14.9.5. PE-AKAParameters-4

This PE contains parameters for AKA authentication algorithm: usim-test-algorithm.

**PE-AKAParameters-4**

```
akaTestAlg ProfileElement ::= akaParameter : {
  aka-header {
    mandated NULL,
    identification 144
  },
  algoConfiguration algoParameter : {
    algorithmID usim-test-algorithm,
    algorithmOptions '02'H,          -- RES 128 bits, MAC 64
bits, CK and IK 128 bits
    key '000102030405060708090A0B0C0D0E0F'H,
    opc '00'H -- ignored for usim-test-algorithm
    -- rotationConstants ignored for usim-test-algorithm,
    -- xoringConstants ignored for usim-test-algorithm,
    -- authCounterMax ignored for usim-test-algorithm
  }
  -- sqnOptions ignored for usim-test-algorithm
  -- sqnDelta ignored for usim-test-algorithm
  -- sqnAgeLimit ignored for usim-test-algorithm
  -- sqnInit: ignored for usim-test-algorithm
}
```

6.14.9.6. PE-AKAParameters-5

This PE contains parameters for AKA authentication algorithm: TUAK with 256 bit key.

**PE-AKAParameters-5**

```
akaTUAK ProfileElement ::= akaParameter : {
  aka-header {
    mandated NULL,
    identification 145
  },
  algoConfiguration algoParameter : {
    algorithmID tuak,
    algorithmOptions '09'H,          -- RES 64 bits, MAC 128
bits, CK and IK 128 bits
    key
'ffffefdfcfbfaf9f8f7f6f5f4f3f2f1f0efeeedecebeae9e8e7e6e5e4e
3e2e1e0'H,
    opc
'305425427e18c503c8a4b294ea72c95d0c36c6c6b29d0c65de5974d59
77f8524'H,
    -- rotationConstants ignored for TUAK,
    -- xoringConstants ignored for TUAK,
    authCounterMax '010203'H
  },
  sqnOptions '0E'H -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
  -- sqnDelta uses default: '000010000000'H
  -- sqnAgeLimit uses default: '000010000000'H
  -- sqnInit: uses default: all bytes zero
}
```





```

    sqnOptions '0C'H,      -- Anonymity key used, SQN wrap
around allowed, SQN Delta and SQN Age Limit are not used
-- sqnDelta    uses default: '000010000000'H
-- sqnAgeLimit uses default: '000010000000'H
    sqnInit { '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H,
'07FFFFFFFF'H, '07FFFFFFFF'H, '07FFFFFFFF'H }
}

```

#### 6.14.9.9. PE-AKAParameters-8

This PE contains parameters for AKA authentication algorithm: MILENAGE. Parameters rotationConstants and xoringConstants are defined.

#### PE-AKAParameters-8

```

akaMilenage ProfileElement ::= akaParameter : {
    aka-header {
        mandated NULL,
        identification 148
    },
    algoConfiguration algoParameter : {
        algorithmID milenage,
        algorithmOptions '01'H,      -- RES and MAC 64 bits,
CK and IK 128 bits
        key 'FEC86BA6EB707ED08905757B1BB44B8F'H,
        opc '1006020F0A478BF6B699F15C062E42B3'H,
        rotationConstants '4307203154'H,
        xoringConstants
'A00000000000000000000000005500000000B0000000000000000000004
400000000000C00000000000000000000003300000000000000000000000000000
000002200000000000000000E000000000000000011000000'H
    },
    sqnOptions '0C'H -- Anonymity key used, SQN wrap around
allowed, SQN Delta and SQN Age Limit are not used
-- sqnDelta    uses default: '000010000000'H
-- sqnAgeLimit uses default: '000010000000'H
-- sqnInit:    uses default: all bytes zero
}

```

#### 6.14.9.10. PE-AKAParameters-9

This PE contains parameters for AKA authentication algorithm: TUAK with 256 bit key. It adheres to the authentication parameter length restrictions from [TS 133102].

#### PE-AKAParameters-9

```

akaTUAK ProfileElement ::= akaParameter : {
    aka-header {
        mandated NULL,
        identification 149
    },

```

```

    algoConfiguration algoParameter : {
        algorithmID tuak,
        algorithmOptions '01'H,      -- RES and MAC 64 bits,
        CK and IK 128 bits
        key
        'fffe9dfcfbfaf9f8f7f6f5f4f3f2f1f0efeeedecebeae9e8e7e6e5e4e
        3e2e1e0'H,
        opc
        '305425427e18c503c8a4b294ea72c95d0c36c6c6b29d0c65de5974d59
        77f8524'H,
        -- rotationConstants ignored for TUAK,
        -- xoringConstants ignored for TUAK,
        authCounterMax '010203'H
    },
    sqnOptions '0E'H      -- Anonymity key used, SQN wrap
    around not allowed, SQN Delta and SQN Age Limit are not
    used
    -- sqnDelta    uses default: '000010000000'H
    -- sqnAgeLimit uses default: '000010000000'H
    -- sqnInit:    uses default: all bytes zero
}

```

#### 6.14.9.11. PE-AKAParameters-10

This PE contains parameters for AKA authentication algorithm: TUAK with 256 bit key and numberOfKeccak defined. It adheres to the authentication parameter length restrictions from [TS 133102].

#### PE-AKAParameters-10

```

akaTUAK ProfileElement ::= akaParameter : {
    aka-header {
        mandated NULL,
        identification 150
    },
    algoConfiguration algoParameter : {
        algorithmID tuak,
        algorithmOptions '02'H,      -- RES 128 bits, MAC 64
        bits, CK and IK 128 bits
        key '
        1574ca56881d05c189c82880f789c9cd4244955f4426aa2b69c29f1577
        0e5aa5'H,
        opc '
        b04a66f26c62fcd6c82de22a179ab65506ecf47f56245cd149966cfa9c
        ec7a51'H,
        -- rotationConstants ignored for TUAK,
        -- xoringConstants ignored for TUAK,
        authCounterMax '010203'H,
        numberOfKeccak 2
    },
    sqnOptions '0E'H      -- Anonymity key used, SQN wrap
    around not allowed, SQN Delta and SQN Age Limit are not
    used
    -- sqnDelta    uses default: '000010000000'H
    -- sqnAgeLimit uses default: '000010000000'H
    -- sqnInit:    uses default: all bytes zero
}

```



```

}
-- sqnOptions ignored for usim-test-algorithm
-- sqnDelta ignored for usim-test-algorithm
-- sqnAgeLimit ignored for usim-test-algorithm
-- sqnInit: ignored for usim-test-algorithm
}

```

### 6.14.10 PE-SecurityDomain (MNO SD)

#### 6.14.10.1 PE-SecurityDomain-MNO-SD-1

Default PE-SecurityDomain for MNO-SD.

#### PE-SecurityDomain-MNO-SD-1

```

mnoSdValue ProfileElement ::= securityDomain : {
    sd-Header {
        mandated NULL,
        identification 161
    },
    instance {
        applicationLoadPackageAID 'A0000001515350'H,
        classAID 'A000000151535041'H,
        instanceAID 'A000000151000000'H,
        applicationPrivileges '82DC00'H,
        -- Secured
        lifeCycleState '0F'H,
        -- SCP80 supported acc. UICC Config., extradition
        supported
        applicationSpecificParametersC9
        '810280008201F08701F0'H,
        -- other parameters may be necessary
        applicationParameters {
            -- TAR: B20100, MSL: 12
            uiccToolkitApplicationSpecificParametersField
            '0100010100000202011203B2010000'H
        }
    },
    keyList {
        {
            -- C-ENC + R-ENC
            keyUsageQualifier '38'H,
            -- may be used by SD and application
            keyAccess '00'H,
            -- ENC key
            keyIdentifier '01'H,
            keyVersionNumber '01'H,
            keyComponents {
                {
                    -- -- AES (16, 24 or 32 bytes long keys)
                    keyType '88'H,
                    keyData '11223344556677889910111213141516'H
                }
            }
        },
        {
            -- C-MAC + R-MAC
            keyUsageQualifier '34'H,
            -- may be used by SD and application
            keyAccess '00'H,
            -- MAC key
            keyIdentifier '02'H,

```

```

    keyVersionNumber '01'H,
    keyComponents {
        {
            -- AES (16, 24 or 32 bytes long keys)
            keyType '88'H,
            keyData '11223344556677889910111213141516'H
        }
    },
    {
        -- C-DEK + R-DEK
        keyUsageQualifier 'C8'H,
        -- may be used by SD and application
        keyAccess '00'H,
        -- data ENC key
        keyIdentifier '03'H,
        keyVersionNumber '01'H,
        keyComponents {
            {
                -- AES (16, 24 or 32 bytes long keys)
                keyType '88'H,
                keyData '11223344556677889910111213141516'H
            }
        }
    }
}

```

#### 6.14.10.2. VOID

#### 6.14.10.3. PE-SecurityDomain-MNO-SD-3

Compared to PE-SecurityDomain-MNO-SD-1 defined in 6.14.10.1 the first key of the keylist contains two key component definitions.

#### PE-SecurityDomain-MNO-SD-3

```

mnoSdValue ProfileElement ::= securityDomain : {
    sd-Header {
        mandated NULL,
        identification 163
    },
    instance {
        applicationLoadPackageAID 'A0000001515350'H,
        classAID 'A000000151535041'H,
        instanceAID 'A000000151000000'H,
        applicationPrivileges '82DC00'H,
        -- Secured
        lifeCycleState '0F'H,
        -- SCP80 supported acc. UICC Config. , extradition
        supported
        applicationSpecificParametersC9
        '810280008201F08701F0'H,
        -- other parameters may be necessary
        applicationParameters {
            -- TAR: B20100, MSL: 12
            uiccToolkitApplicationSpecificParametersField
            '0100010100000202011203B2010000'H
        }
    },
    keyList {
        {

```

```

-- C-ENC + R-ENC
keyUsageQualifier '38'H,
-- may be used by SD and application
keyAccess '00'H,
-- ENC key
keyIdentifier '01'H,
keyVersionNumber '01'H,
keyComponents {
    {
        -- AES (16, 24 or 32 bytes long keys)
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
    },
    {
        -- AES (16, 24 or 32 bytes long keys)
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
    }
},
{
-- C-MAC + R-MAC
keyUsageQualifier '34'H,
-- may be used by SD and application
keyAccess '00'H,
-- MAC key
keyIdentifier '02'H,
keyVersionNumber '01'H,
keyComponents {
    {
        -- AES (16, 24 or 32 bytes long keys)
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
    }
},
{
-- C-DEK + R-DEK
keyUsageQualifier 'C8'H,
-- may be used by SD and application
keyAccess '00'H,
-- data ENC key
keyIdentifier '03'H,
keyVersionNumber '01'H,
keyComponents {
    {
        -- AES (16, 24 or 32 long keys)
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
    }
}
}
}

```

6.14.10.4. PE-SecurityDomain-MNO-SD-4

Compared to PE-SecurityDomain-MNO-SD-1 defined in 6.14.10.1 the PE SD contains the sdPerso Data definition.

**PE-SecurityDomain-MNO-SD-4**

```

mnoSdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 164
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A000000151000000'H,
    applicationPrivileges '82DC00'H,
    -- Secured
    lifeCycleState '0F'H,
    -- SCP80 supported acc. UICC Config. , extradition
    supported
    applicationSpecificParametersC9
    '810280008201F08701F0'H,
    -- other parameters may be necessary
    applicationParameters {
      -- TAR: B20100, MSL: 12
      uiccToolkitApplicationSpecificParametersField
        '0100010100000202011203B2010000'H
    }
  },
  keyList {
    {
      -- C-ENC + R-ENC
      keyUsageQualifier '38'H,
      -- may be used by SD and application
      keyAccess '00'H,
      -- ENC key
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    },
    {
      -- C-MAC + R-MAC
      keyUsageQualifier '34'H,
      -- may be used by SD and application
      keyAccess '00'H,
      -- MAC key
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    },
    {
      -- C-DEK + R-DEK

```



```

        keyUsageQualifier 'C8'H,
        -- may be used by SD and application
        keyAccess '00'H,
        -- data ENC key
        keyIdentifier '03'H,
        keyVersionNumber '01'H,
        keyComponents {
            {
                -- AES (16, 24 or 32 bytes long keys)
                keyType '88'H,
                keyData '11223344556677889910111213141516'H
            }
        }
    },
    -- IIN and CIN
    sdPersoData {
        '0070084206010203040506'H,
        '0070084506060504030201'H
    }
}

```

#### 6.14.10.5. PE-SecurityDomain-MNO-SD-5

Compared to PE-SecurityDomain-MNO-SD-1 defined in 6.14.10.1 the instance definition is extended by the sdPersoData definition containing HTTPs configuration data.

#### PE-SecurityDomain-MNO-SD-5

```

mnoSdValue ProfileElement ::= securityDomain : {
    sd-Header {
        mandated NULL,
        identification 165
    },
    instance {
        applicationLoadPackageAID 'A0000001515350'H,
        classAID 'A000000151535041'H,
        instanceAID 'A000000151000000'H,
        applicationPrivileges '82DC00'H,
        -- Secured
        lifeCycleState '0F'H,
        -- SCP80 supported acc. UICC Config.
        applicationSpecificParametersC9 '8102800081028101'H,
        -- other parameters may be necessary
        applicationParameters {
            -- TAR: B20100, MSL: 12
            uiccToolkitApplicationSpecificParametersField
                '0100010100000202011203B2010000'H
        }
    },
    keyList {
        {
            -- C-ENC + R-ENC
            keyUsageQualifier '38'H,
            -- may be used by SD and application
            keyAccess '00'H,
            -- ENC key
            keyIdentifier '01'H,
            keyVersionNumber '01'H,
            keyComponents {
                {
                    -- AES (16, 24 or 32 bytes long keys)
                    keyType '88'H,
                    keyData '11223344556677889910111213141516'H
                }
            }
        }
    }
}

```

```

    }
  },
  {
    -- C-MAC + R-MAC
    keyUsageQualifier '34'H,
    -- may be used by SD and application
    keyAccess '00'H,
    -- MAC key
    keyIdentifier '02'H,
    keyVersionNumber '01'H,
    keyComponents {
      {
        -- AES (16, 24 or 32 bytes long keys)
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
      }
    },
  },
  {
    -- C-DEK + R-DEK
    keyUsageQualifier 'C8'H,
    -- may be used by SD and application
    keyAccess '00'H,
    -- data ENC key
    keyIdentifier '03'H,
    keyVersionNumber '01'H,
    keyComponents {
      {
        -- AES (16, 24 or 32 bytes long keys)
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
      }
    },
  },
  {
    -- PSK
    keyUsageQualifier '3C'H,
    -- may be used by SD and application
    keyAccess '00'H,
    keyIdentifier '01'H,
    keyVersionNumber '40'H,
    keyComponents {
      {
        -- PSK
        keyType '85'H,
        keyData
        'F0C0FAAC0EF1364A3E5EB4229CF797A3752CD0C8277844576B3E05D50
        5A03F21'H
      }
    },
  },
  {
    keyUsageQualifier 'C8'H,
    keyAccess '00'H,
    keyIdentifier '02'H,
    keyVersionNumber '40'H,
    keyComponents {
      {
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
      }
    }
  }
}

```

```
}
}
},
-- HTTP Configuration according Amend.B
sdPersoData {
'0070AE8581AB842435070200000300000239020578470947534D41655
54943433C03021F413E05217F000001850A0650534B494431024001897
78A096C6F63616C686F73748B582F2F73652D69642F6569642F3030363
336383536303030303030303030303030303030303030303030303737373
B2F2F61612D69642F6169642F41303030303030303031382F34333444303
830393041304230433030303030308C102F67736D612F61646D696E616
7656E74'H
}
}
```

#### 6.14.10.6. PE-SecurityDomain-MNO-SD-6

Compared to PE-SecurityDomain-MNO-SD-1 defined in 6.14.10.1, the instance definition is extended by sdPersoData definition containing ECC Curve Parameters.

MNO SD personalised with :

NIST P-256

- ```
- A = FFFFFFFF00000001000000000000000000000000FFFFFFFFFFFFFFFFFFFFFFFFC  
- B = 5AC635D8AA3A93E7B3EBBD55769886BC651D06B0CC53B0F63BCE3C3E27D2604B  
- Cofactor (K) = 1  
- Order (R) = FFFFFFFF00000000FFFFFFFFFFFFFFFFFBCE6FAADA7179E84F3B9CAC2FC632551  
- Field = FFFFFFFF00000001000000000000000000000000FFFFFFFFFFFFFFFFFFFFFFFF  
- Fixed Point (G) (EC point in uncompressed format) =  
046B17D1F2E12C4247F8BCE6E563A440F277037D812DEB33A0F4A13945D898C2964FE342E2FE1A7F9  
B8EE7EB4A7C0F9E162BCE33576B315ECECB6406837BF51F5
```

## PE-SecurityDomain-MNO-SD-6

```
mnoSdValue ProfileElement ::= securityDomain : {
    sd-Header {
        mandated NULL,
        identification 166
    },
    instance {
        applicationLoadPackageAID 'A0000001515350'H,
        classAID 'A000000151535041'H,
        instanceAID 'A000000151000000'H,
        applicationPrivileges '82DC00'H,
        -- Secured
        lifeCycleState '0F'H,
        -- SCP80 supported acc. UICC Config.
        applicationSpecificParametersC9 '81028000'H,
        -- other parameters may be necessary
        applicationParameters {
            -- TAR: B20100, MSL: 12
        }
        uiccToolkitApplicationSpecificParametersField
        '01000101000000202011203B2010000'H
    }
}
```

```
    }
  },
  keyList {
    {
      -- C-ENC + R-ENC
      keyUsageQualifier '38'H,
      -- may be used by SD and application
      keyAccess '00'H,
      -- ENC key
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          -- AES mode implicitly known
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    },
    {
      -- C-MAC + R-MAC
      keyUsageQualifier '34'H,
      -- may be used by SD and application
      keyAccess '00'H,
      -- MAC key
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          -- AES mode implicitly known
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    },
    {
      -- C-DEK + R-DEK
      keyUsageQualifier 'C8'H,
      -- may be used by SD and application
      keyAccess '00'H,
      -- data ENC key
      keyIdentifier '03'H,
```

[illegible]

6.14.10.7. PE-SecurityDomain-MNO-SD-7

MNO SD with following RSA Keys:

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PK_RSA | Public Key:<br>public exponent = 010001<br>modulus =<br>F51A5B456A37C84317B9F84099975BF1FEC17AF3AE31BC6158D92DDFE1A48B636BF4C2<br>BEAA2002420D2B01F8E3A5DC00E501B937669825731117CB4AF81ED759B23298C59852C<br>A1ECB159F261221408E428B16A24E15DAD384E5B770A3F3E5B291390062464D88CC9B13<br>AA0ECF305C285E2104F91A4C8DF2FE42EFB4F93C94E7                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| SK_RSA | Private key in CRT format:<br>P =<br>F634C80DC443C65EAFB07A08EE6B6A38D4E384A93BA4D8F61510DDFD469D49771315F2<br>C83A35732CF18411F39DBAD135DD3E77FC0E8BF9AA55AB918C200B1293<br>Q =<br>FEDA572B1BFB2A7DC6CB3149515D1547280435639340E1F345F8906F044DB862A60280D<br>B6823A9629FD760692CADB0F493DCC66821FB3847147C44F054D7C4DD<br>DP =<br>0A1C02B6E5FF2E6F06E1C53106B12C6C66F96CA2124BE388BF36B116CC467B14C398DC<br>1E329DAD3C0432BB15F8BD0A081F2C887AB612334F363354479FAD34B7<br>DQ =<br>DB299B02B89A632D2CD2BA7CC99A99DCCA5DEC27C88F688013B1314C37503AFBA2B5C<br>E686083227C6CE703C30EA803E0207420AF96617B412D2DBCFF4C870D85<br>PQ =<br>57ADD3EBD94B583891F62350B28D834F4D6159369E9DF78C785BDD907EDD22E673647D3<br>ABB7B8DB5057C34E3D272237355BD8988FAF3813087E86A5DD97FFF7F |

**PE-SecurityDomain-MNOSD-7**

```

value1 ProfileElement ::= securityDomain : {
    sd-Header {
        mandated NULL,
        identification 167
    },
    instance {
        applicationLoadPackageAID 'A0000001515350'H,
        classAID 'A000000151535041'H,
        instanceAID 'A000000151000000'H,
        applicationPrivileges '82DC00'H,
        lifeCycleState '0F'H,
        applicationSpecificParametersC9
        '810280008201F08701F0'H,
        applicationParameters {
            uiccToolkitApplicationSpecificParametersField
            '0100010100000202011203B2010000'H
        }
    },
    keyList {
        {
            keyUsageQualifier '38'H,
            keyAccess '00'H,
            keyIdentifier '01'H,
            keyVersionNumber '01'H,
            keyComponents {
                {
                    keyType '88'H,
                    keyData '11223344556677889910111213141516'H
                }
            }
        },
        {
            keyUsageQualifier '34'H,
            keyAccess '00'H,
            keyIdentifier '02'H,
            keyVersionNumber '01'H,
            keyComponents {
                {
                    keyType '88'H,
                    keyData '11223344556677889910111213141516'H
                }
            }
        }
    }
}

```

```

    }
  },
  {
    keyUsageQualifier 'C8'H,
    keyAccess '00'H,
    keyIdentifier '03'H,
    keyVersionNumber '01'H,
    keyComponents {
      {
        keyType '88'H,
        keyData '11223344556677889910111213141516'H
      }
    }
  },
  {
    keyUsageQualifier '4C'H,
    keyAccess '00'H,
    keyIdentifier '01'H,
    keyVersionNumber '74'H,
    keyComponents {
      {
        keyType 'A1'H,
        keyData
'F51A5B456A37C84317B9F84099975BF1FEC17AF3AE31BC6158D92DDFE
1A48B636BF4C2BEAA2002420D2B01F8E3A5DC00E501B93766982573111
7CB4AF81ED759B23298C59852CA1ECB159F261221408E428B16A24E15D
AD384E5B770A3F3E5B291390062464D88CC9B13AA0ECF305C285E2104F
91A4C8DF2FE42EFB4F93C94E7'H
      },
      {
        keyType 'A0'H,
        keyData '010001'H
      }
    }
  },
  {
    keyUsageQualifier '4C'H,
    keyAccess '00'H,
    keyIdentifier '03'H,
    keyVersionNumber '74'H,
    keyComponents {
      {
        keyType 'A4'H,
        keyData
'F634C80DC443C65EAFB07A08EE6B6A38D4E384A93BA4D8F61510DDFD4
69D49771315F2C83A35732CF18411F39DBAD135DD3E77FC0E8BF9AA55A
B918C200B1293'H
      },
      {
        keyType 'A5'H,
        keyData
'FEDA572B1BFB2A7DC6CB3149515D1547280435639340E1F345F8906F0
44DB862A60280DB6823A9629FD760692CADB0F493DCC66821FB3847147
C44F054D7C4DD'H
      },
      {
        keyType 'A6'H,
        keyData
'57ADD3EBD94B583891F62350B28D834F4D6159369E9DF78C785BDD907
EED22E673647D3ABB7B8DB5057C34E3D272237355BD8988FAF3813087E
86A5DD97FFF7'H
      },
      {
        keyType 'A7'H,
        keyData
'0A1C02B6E5FF2E6F06E1C53106B12C6C66F96CA2124BE388BF36B116C
C467B14C398DC1E329DAD3C0432BB15F8BD0A081F2C887AB612334F363
354479FAD34B7'H
      },
      {
        keyType 'A8'H,
        keyData
'DB299B02B89A632D2CD2BA7CC99A99DCCA5DEC27C88F688013B1314C3

```

```

7503AFBA2B5CE686083227C6CE703C30EA803E0207420AF96617B412D2
DBCFF4C870D85'H
    }
  }
}
}
}

```

## 6.14.11 PE-SecurityDomain (SSD, CASD)

### 6.14.11.1. PE-SecurityDomain-SSD-1

#### PE-SecurityDomain-SSD-1

```

ssdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 171
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A00000055910100102736456616C7565'H,
    applicationPrivileges '808000'H,
    lifeCycleState '0F'H,
    applicationSpecificParametersC9 '810280008201F0'H,
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
      '01000101000002020112036C756500'H
    }
  },
  keyList {
    {
      keyUsageQualifier '38'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier '34'H,
      -- keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '03'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    }
  }
}

```



6.14.11.2. PE-SecurityDomain-SSD-2

Compared to PE-SecurityDomain-SSD-1 defined in 6.14.11.1 no keyList is provided. The lifeCycleState is changed to '07'H (SELECTABLE).

**PE-SecurityDomain-SSD-2**

```

ssdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 172
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A00000055910100102736456616C7565'H,
    applicationPrivileges '808000'H,
    lifeCycleState '07'H,
    applicationSpecificParametersC9 '810280008201F0'H,
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
      '01000101000002020112036C756500'H
    }
  }
}

```

6.14.11.3. PE-SecurityDomain-CASD-1

CASD is personalised with:

- CASD Private ECC Key defined with **#SK\_CASD\_ECKA** (KVN='74', KID='04') with NIST P\_256
- The certificate 7F21 with value: **#CASD\_CERTIFICATE\_ECC** (including **#PK\_CASD\_ECKA**), knowing that the signature is computed with **#EUM\_PK\_ECDSA** (private part)

|              |                                                                                                                                                                                                                              |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PK_CASD_ECKA | ECC asymmetric key of the PE CASD.<br>Public Key (EC point in uncompressed format):<br>'04 38156B01DD1FF66862553BFC452F3ED4E630A20C91AC23D96932E9BD2317DEF6450A13E4A4EB7EDAD3349EABE4AC1233D830A2BB6CF140493A0CFC0AA547FE3E' |
| SK_CASD_ECKA | ECC asymmetric key of the PE CASD.<br>Private key:<br>'9D14841BF1E4DF9E0E14E73AE1A42E02A25E012E2B56549C3DF2B47CFA8B6544'                                                                                                     |
| SM_EPK_ECKA  | Ephemeral Public Key used for ECKA.<br>'04805A689368C520BB1184DD59BB2A2B3CA37EF0CFF0DE2D74578AD4CA7DB28E121DD81525148<br>07955B51CA9F904947AD51C9A1340B48BD6D5E941CFFDA04D6EB5'<br>NIST P-256                                |
| SM_ESK_ECKA  | Ephemeral Private Key used for ECKA<br>'ED8B1679723E7B02CCFEC0980563C1982ECB858F996EA28E8F626F490AABC997'<br>NIST P-256                                                                                                      |
| EUM_PK_ECDSA | Public ECC key of the EUM used for ECDSA. (used for Scenario 3):<br>'04DDD1D81792448C074A8A9E6063B4A4F4781DFCD72F9622952E39E59F4CFBB3549D61173C6284<br>EDE983D0BCD2870580175B319A1B1B377522D50F0BA736226C3B'                 |
| EUM_SK_ECDSA | Private ECC key of the EUM used for ECDSA. (used for Scenario 3):<br>'FFC4C94EBAB3017AAD972141FBC753A812B995FA2FB3A8361BADAC1F68CE3FF8'<br>NIST P-256                                                                        |

**PE-SecurityDomain-CASD-1**

```

casdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 173
  },
  instance {
    applicationLoadPackageAID 'A000000151535043415344'H,
    classAID 'A00000015153504341534400'H,
    instanceAID 'A00000015153504341534400'H,
    applicationPrivileges '808100'H,
    lifeCycleState '0F'H,
    applicationSpecificParametersC9
'810280008201F88701F886020800'H,
    systemSpecificParameters {
      globalServiceParameters '8300'H
    },
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
'01000000000003B2020100'H
    }
  },
  keyList {
    {
      keyUsageQualifier '38'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier '34'H,
      -- keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '03'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier '40'H,
      keyAccess '00'H,
      keyIdentifier '04'H,
      keyVersionNumber '74'H,
      keyComponents {
        {
          keyType 'B1'H,
          keyData
'9D14841BF1E4DF9E0E14E73AE1A42E02A25E012E2B56549C3DF2B47CF
A8B6544'H
        },
        {
          keyType 'F0'H,

```

```

        keyData '00'H
    }
}
},
-- Certificat
sdPersoData{
'7F21E47F2181E0931043657274696669636174655F534E30314210434
15F4964656E7469666965725F30315F20105375626A6563745F4964656
E745F3031950200805F240420100401451043415344496D6167654E756
D626572317F4946B0410438156B01DD1FF66862553BFC452F3ED4E630A
20C91AC23D96932E9BD2317DEF6450A13E4A4EB7EDAD3349EABE4AC123
3D830A2BB6CF140493A0CFC0AA547FE3EF001005F3740294C12E94294A
994A8ADD6934626C9DD1807B01FD3451B8008467B2E68586ED46DB423C
E5CC0199BDD47560754C0F3146D7A3B9E31484F415BE7043AA0362ABE'
H
}
}

```

#### 6.14.11.4. PE-SecurityDomain-SSD-3

Compared to PE-SecurityDomain-SSD-1 defined in 6.14.11.1, this SSD is self extradited.

#### PE-SecurityDomain-SSD-3

```

ssdValue ProfileElement ::= securityDomain : {
    sd-Header {
        mandated NULL,
        identification 174
    },
    instance {
        applicationLoadPackageAID 'A0000001515350'H,
        classAID 'A000000151535041'H,
        instanceAID 'A00000055910100102736456616C7565'H,
        extraditeSecurityDomainAID
        'A00000055910100102736456616C7565'H,
        applicationPrivileges '808000'H,
        lifeCycleState '0F'H,
        applicationSpecificParametersC9 '810280008201F0'H,
        applicationParameters {
            uiccToolkitApplicationSpecificParametersField
            '01000101000002020112036C756500'H
        }
    },
    keyList {
        {
            keyUsageQualifier '38'H,
            keyAccess '00'H,
            keyIdentifier '01'H,
            keyVersionNumber '01'H,
            keyComponents {
                {
                    keyType '88'H,
                    keyData '11223344556677881122334455667788'H
                }
            }
        },
        {
            keyUsageQualifier '34'H,
            -- keyAccess '00'H,
            keyIdentifier '02'H,
            keyVersionNumber '01'H,
            keyComponents {
                {
                    keyType '88'H,
                    keyData '11223344556677881122334455667788'H
                }
            }
        }
    }
}

```

```

    }
  },
  {
    keyUsageQualifier 'C8'H,
    keyAccess '00'H,
    keyIdentifier '03'H,
    keyVersionNumber '01'H,
    keyComponents {
      {
        keyType '88'H,
        keyData '11223344556677881122334455667788'H
      }
    }
  }
}
}
}

```

#### 6.14.11.5. PE-SecurityDomain-SSD-4

Compared to PE-SecurityDomain-SSD-1 defined in 6.14.11.1 this SSD is extradited to SSD-3 defined in 6.14.11.4.

#### PE-SecurityDomain-SSD-4

```

ssdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 175
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A00000055910100102736456616C7566'H,
    extraditeSecurityDomainAID
'A00000055910100102736456616C7565'H,
    applicationPrivileges '808000'H,
    lifeCycleState '0F'H,
    applicationSpecificParametersC9 '810280008201F0'H,
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
'01000101000002020112036C756600'H
    }
  },
  keyList {
    {
      keyUsageQualifier '38'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier '34'H,
      -- keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyComponents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '03'H,

```



## PE-SecurityDomain-CASD-2

```

casdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 176
  },
  instance {
    applicationLoadPackageAID 'A000000151535043415344'H,
    classAID 'A00000015153504341534400'H,
    instanceAID 'A00000015153504341534400'H,
    applicationPrivileges '808500'H,
    lifeCycleState '07'H,
    applicationSpecificParametersC9 '8102025586020401'H,
    systemSpecificParameters {
      volatileMemoryQuotaC7 'FFFF'H,
      nonVolatileMemoryQuotaC8 'FFFF'H,
      globalServiceParameters '8300'H
    },
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
'01000000000003B2020100'H
    }
  },
  keyList {
    {
      keyUsageQualifier '4C'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '74'H,
      keyComponents {
        {
          keyType 'A1'H,
          keyData
'F51A5B456A37C84317B9F84099975BF1FEC17AF3AE31BC6158D92DDFE
1A48B636BF4C2BEAA2002420D2B01F8E3A5DC00E501B93766982573111
7CB4AF81ED759B23298C59852CA1ECB159F261221408E428B16A24E15D
AD384E5B770A3F3E5B291390062464D88CC9B13AA0ECF305C285E2104F
91A4C8DF2FE42EFB4F93C94E7'H
        },
        {
          keyType 'A0'H,
          keyData '010001'H
        }
      }
    },
    {
      keyUsageQualifier '4C'H,
      keyAccess '00'H,
      keyIdentifier '03'H,
      keyVersionNumber '74'H,
      keyComponents {
        {
          keyType 'A1'H,
          keyData
'F51A5B456A37C84317B9F84099975BF1FEC17AF3AE31BC6158D92DDFE
1A48B636BF4C2BEAA2002420D2B01F8E3A5DC00E501B93766982573111
7CB4AF81ED759B23298C59852CA1ECB159F261221408E428B16A24E15D
AD384E5B770A3F3E5B291390062464D88CC9B13AA0ECF305C285E2104F
91A4C8DF2FE42EFB4F93C94E7'H
        },
        {
          keyType 'A3'H,
          keyData
'D1C1CA966F3E69DE3131F028A8C905E0E5DA82F48401006C76F2F5F58
14FA61261D347CE901D7091425FAA026C200755A4A682F1CC952C877AF
B57F942BA72241E337BD457BC74D3F53F03922593DB33F198CAA50E020
B6E048106E3F7A64A07CB7E9FB48EEFA0A9E3E5899489CED6DA1EBC30A
44423A887994E4F99347AF051'H
        }
      }
    }
  },
  sdPersoData {

```

### 6.14.12 PE-Application

## PE-Application-1

## Security, Identity, Mobility

6.14.12.2. PE-Application-2

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application has all elements for LoadBlock except hashValue.

**PE-APPLICATION-2**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 202
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    securityDomainAID 'A000000151000000'H,
    nonVolatileCodeLimitC6 '0000'H,
    volatileDataLimitC7 '7FFF'H,
    nonVolatileDataLimitC8 '0000'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001
    F000F002800220019004F000A000C0000007E00000000000000301000
    4002803040107A0000000620101000110A0000000090005FFFFFFFFF8
    912000000000107A000000062000103000F010BA0000005591010011
    12233000806001942800300FF00050400000033FFFF0030004080020
    08108010807004F000110188C00007A04328F00013D8C00022E181D2
    52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
    0207A02301E046B071967041877017700207A02108D0006058E02000
    7007A08000A0000000000000000000000500220008068003000100000
    0060000001038003010380030206000043068110000181090009000C0
    00000080506040E0C0419050B007E010001000002000000068002810
    80081000100120005000000000109000800140026000000000701003
    0001B00010000000005010033001F000B00000000080100400026000
    100000000FF0200430012000A0000000000080012FFFF00120012001
    400120017FFFF011004B43105681090066800A10B680063680020024
    1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100211223301'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000311223300'H
      }
    }
  }
}

```



6.14.12.3. PE-Application-3

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application contains all elements in ApplicationInstance.

**PE-APPLICATION-3**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 203
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001
    F000F002800220019004F000A000C0000007E0000000000000301000
    4002803040107A0000000620101000110A0000000090005FFFFFFFFF8
    912000000000107A000000062000103000F010BA0000005591010011
    12233000806001942800300FF00050400000033FFFFF0030004080020
    08108010807004F000110188C00007A04328F00013D8C00022E181D2
    52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
    0207A02301E046B071967041877017700207A02108D0006058E02000
    7007A08000A000000000000000000000500220008068003000100000
    006000001038003010380030206000043068110000181090009000C0
    00000080506040E0C0419050B007E010001000002000000068002810
    80081000100120005000000000109000800140026000000000701003
    0001B00010000000005010033001F000B00000000080100400026000
    100000000FF0200430012000A0000000000080012FFFFF00120012001
    400120017FFFF011004B43105681090066800A10B680063680020024
    1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID '
A00000055910100102736456616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {

        implicitSelectionParameter '41'H      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000311223300'H,
        uiccAccessApplicationSpecificParametersField
        '00010000'H,
        uiccAdministrativeAccessApplicationSpecificParametersFie
        ld '00010000'H
      }
    }
  }
}

```

6.14.12.4. PE-Application-4

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application contains a bad library.

**PE-APPLICATION-4**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 204
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file based on the applet1 with AID
    modified in the LoadBlockObject to use a non-existing
    library. The AID of javacard.framework was changed from
    "A0 00 00 00 62 01 01" to "A0 10 00 00 62 01 01".
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001
    F000F002800220019004F000A000C0000007E0000000000000301000
    4002803040107A0100000620101000110A0000000090005FFFFFFF8
    912000000000107A000000062000103000F010BA0000005591010011
    12233000806001942800300FF00050400000033FFFF0030004080020
    08108010807004F000110188C00007A04328F00013D8C00022E181D2
    52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
    0207A02301E046B071967041877017700207A02108D0006058E02000
    7007A08000A00000000000000000000500220008068003000100000
    006000001038003010380030206000043068110000181090009000C0
    00000080506040E0C0419050B007E010001000002000000068002810
    80081000100120005000000000109000800140026000000000701003
    0001B00010000000005010033001F000B00000000080100400026000
    100000000FF0200430012000A0000000000080012FFFF00120012001
    400120017FFFF011004B43105681090066800A10B680063680020024
    1'H
  }
}

```

6.14.12.5. PE-Application-5

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application contains multiple instances.

**PE-APPLICATION-5**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 205
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001
    F000F002800220019004F000A000C0000007E0000000000000301000
    4002803040107A0000000620101000110A0000000090005FFFFFFFFF8
    912000000000107A000000062000103000F010BA0000005591010011
    12233000806001942800300FF00050400000033FFFF0030004080020
    08108010807004F000110188C00007A04328F00013D8C00022E181D2
    52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
    0207A02301E046B071967041877017700207A02108D0006058E02000
    7007A08000A00000000000000000000500220008068003000100000
    006000001038003010380030206000043068110000181090009000C0
    0000080506040E0C0419050B007E010001000002000000068002810
    80081000100120005000000000109000800140026000000000701003
    0001B00010000000005010033001F000B00000000080100400026000
    100000000FF0200430012000A0000000000080012FFFF00120012001
    400120017FFFF011004B43105681090066800A10B680063680020024
    1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100544556601'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000311223300'H
      }
    },
    -- Second Instance
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100544556602'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000344556600'H
      }
    }
  }
}

```

6.14.12.6. PE-Application-6

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application contains the processData element.

**PE-APPLICATION-6**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 206
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet2
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001F0
    00F00440062001F0161000C002C000000E900020000000005010004004
    405040107A0000000620101000110A0000000090005FFFFFFFFF8912000
    000020106A00000015100010110A0000000871005FFFFFFFFF891320000
    0000107A000000062000103000F010BA00000055910100111223300180
    6001F438003020002050500000080FFFF0040008D00DE8002008108010
    882080109070161000210188C000218110100900B870018110100900B8
    7017A04328F00033D8C00042E181D252904160461081B8B0005700C1B1
    81D044116048B00061B8C00077A04220331188B000860037A198B00092
    E1B04257500120001FFCA0009181B038C000A317008116D008D000B198
    B000C3B191E08438B000D19081E08438B000E7A02301E046B071967041
    8770177052303311D056B3E8D000F2E1B1B8E01001013AD01031B8E010
    010148E050010063B18AD01038C000A318D001128041504AD01081E084
    38E0400120E1504048E020012177A02108D0013058E020014007A07621
    E084105412906191E08418D0015290716077D00166B2B19160625026B0
    55906015906011916062510926B16191606AD000319160604412505418
    D00173B0378116A808D000B037806310332191E05418D00151100926B2
    3AD0003256015AD0003191E0841AD00042505418D0017327010116A888
    D000B7008116A888D000B1F7808000C000200000000000000020070050
    0620018020000000200000106800300010000000600000103800301038
    00302060000D20380030303800A01060001280680070103800A0703800
    A0903800A04068303000183010006810F0001810400068110000181090
    006801004050000000680100109002C00090E088B100E51290607001F0
    516040E0C04090713090408081907090509040E080705120728090D1B0
    9080B00E901000100000300030008800281088208FF0A00000008004000
    2000000003201020000010032008100010034001500000000010900180
    036002600000000070100400055003E00000000050100800059000B000
    000000801008D003E004300000000FF0200D20034000A0000000009010
    0DE0060004800000000FF020128003B003700000000001800320032003
    4FFFF003400340036003400390032003B003E0040003E00420045FFFF0
    049FFFF004DFFFF003B0040005101B0011004B431012003B4400241014
    003441005683010056810400568109006B4B444066800A10B680063680
    02006B44B44'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100111223306'H,
      applicationPrivileges '000000'H,

      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          '010001010000000000311223300'H
      },
      processData {

```

```

        '80E2880009007006920411223344'H
    }
}
}
}

```

#### 6.14.12.7. PE-Application-7

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application is not mandatory.

#### PE-APPLICATION-7

```

appletValue ProfileElement ::= application : {
  app-Header {
    identification 207
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    securityDomainAID 'A000000151000000'H,
    nonVolatileCodeLimitC6 '0000'H,
    volatileDataLimitC7 '7FFF'H,
    nonVolatileDataLimitC8 '0000'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001
    F000F002800220019004F000A000C0000007E00000000000000301000
    4002803040107A0000000620101000110A0000000090005FFFFFFFFF8
    912000000000107A000000062000103000F010BA0000005591010011
    12233000806001942800300FF000504000000033FFFF0030004080020
    08108010807004F000110188C00007A04328F00013D8C00022E181D2
    52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
    0207A02301E046B071967041877017700207A02108D0006058E02000
    7007A08000A000000000000000000000500220008068003000100000
    006000001038003010380030206000043068110000181090009000C0
    00000080506040E0C0419050B007E010001000002000000068002810
    80081000100120005000000000109000800140026000000000701003
    0001B000100000000005010033001F000B000000000080100400026000
    100000000FF0200430012000A0000000000080012FFFF00120012001
    400120017FFFF011004B43105681090066800A10B680063680020024
    1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100211223301'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000311223300'H
      }
    }
  }
}

```

#### 6.14.12.8. PE-Application-8

PE-Application with loadBlockObject only.

**PE-APPLICATION-8**

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 208
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001F0
    00F002800220019004F000A000C0000007E00000000000003010004002
    803040107A0000000620101000110A0000000090005FFFFFFFFF8912000
    000000107A000000062000103000F010BA000000559101001112233000
    806001942800300FF00050400000033FFF00300040800200810801080
    7004F000110188C00007A04328F00013D8C00022E181D2529041604610
    81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
    B071967041877017700207A02108D0006058E020007007A08000A00000
    000000000000000500220008068003000100000006000001038003010
    380030206000043068110000181090009000C000000080506040E0C041
    9050B007E0100010000020000000680028108008100010012000500000
    00001090008001400260000000007010030001B0001000000000501003
    3001F000B00000000080100400026000100000000FF0200430012000A0
    00000000080012FFFF00120012001400120017FFFF011004B43105681
    090066800A10B6800636800200241'H
  }
}
```

6.14.12.9. PE-Application-9

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application contains tags volatileMemoryQuotaC7 and nonVolatileMemoryQuotaC8.

**PE-APPLICATION-9**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 209
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001
    F000F002800220019004F000A000C0000007E0000000000000301000
    4002803040107A0000000620101000110A0000000090005FFFFFFF8
    912000000000107A000000062000103000F010BA0000005591010011
    12233000806001942800300FF00050400000033FFFF0030004080020
    08108010807004F000110188C00007A04328F00013D8C00022E181D2
    52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
    0207A02301E046B071967041877017700207A02108D0006058E02000
    7007A08000A000000000000000000000500220008068003000100000
    006000001038003010380030206000043068110000181090009000C0
    00000080506040E0C0419050B007E010001000002000000068002810
    80081000100120005000000000109000800140026000000000701003
    0001B00010000000005010033001F000B000000000080100400026000
    100000000FF0200430012000A0000000000080012FFFF00120012001
    400120017FFFF011004B43105681090066800A10B680063680020024
    1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID '
      A00000055910100102736456616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {
        volatileMemoryQuotaC7 '0200'H,
        nonVolatileMemoryQuotaC8 '0200'H
      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000311223300'H,
        uiccAccessApplicationSpecificParametersField
        '00010000'H,
        uiccAdministrativeAccessApplicationSpecificParametersFie
        ld '00010000'H
      }
    }
  }
}

```

6.14.12.10. PE-Application-10

Compared to PE-Application-1 defined in 6.14.12.1, this PE Application contains userInteractionContactlessParameters.

**PE-APPLICATION-10**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 210
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001F0
    00F002800220019004F000A000C0000007E00000000000003010004002
    803040107A0000000620101000110A0000000090005FFFFFFFFF8912000
    000000107A000000062000103000F010BA000000559101001112233000
    806001942800300FF00050400000033FFFF00300040800200810801080
    7004F000110188C00007A04328F00013D8C00022E181D2529041604610
    81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
    B071967041877017700207A02108D0006058E020007007A08000A00000
    000000000000000500220008068003000100000006000001038003010
    380030206000043068110000181090009000C0000000080506040E0C041
    9050B007E0100010000020000000680028108008100010012000500000
    00001090008001400260000000007010030001B0001000000000501003
    3001F000B00000000080100400026000100000000FF0200430012000A0
    00000000080012FFFF00120012001400120017FFFF011004B43105681
    090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID
      'A00000055910100102736456616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {
        implicitSelectionParameter '41'H,
        userInteractionContactlessParameters
        '7F20395F5004AABBCCDD6D285F44200123456789ABCDEF0123456789A
        BCDEF0123456789ABCDEF0123456789ABCDEF67035301015F450501435
        2454CA620DDAA
        AAAAAAAAAAAAAABB8701FA880101'H
      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '010001010000000000311223300'H,
        uiccAccessApplicationSpecificParametersField
        '00010000'H,
        uiccAdministrativeAccessApplicationSpecificParametersField
        '00010000'H
      }
    }
  }
}

```



6.14.12.11. PE-Application-11

Compared to PE-Application-3 defined in 6.14.12.3, this PE Application contains the `contactlessProtocolParameters`.

**PE-APPLICATION-11**

```

appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 211
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    -- Java file for the applet1
    loadBlockObject
    '010012DECAFFED010204000108A00000055910100102001F0012001F0
    00F002800220019004F000A000C0000007E00000000000003010004002
    803040107A0000000620101000110A0000000090005FFFFFFFFF8912000
    000000107A000000062000103000F010BA000000559101001112233000
    806001942800300FF00050400000033FFFFF00300040800200810801080
    7004F000110188C00007A04328F00013D8C00022E181D2529041604610
    81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
    B071967041877017700207A02108D0006058E020007007A08000A00000
    000000000000000500220008068003000100000006000001038003010
    380030206000043068110000181090009000C000000080506040E0C041
    9050B007E0100010000020000000680028108008100010012000500000
    00001090008001400260000000007010030001B0001000000000501003
    3001F000B00000000080100400026000100000000FF0200430012000A0
    000000000080012FFFFF00120012001400120017FFFF011004B43105681
    090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID
      'A00000055910100102736456616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {
        implicitSelectionParameter '41'H,
        contactlessProtocolParameters '
        8101008003828184A206A10490020002'H
      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
        '01000101000000000311223300'H,
        uiccAccessApplicationSpecificParametersField
        '00010000'H,
        uiccAdministrativeAccessApplicationSpecificParametersField
        '00010000'H
      }
    }
  }
}

```

**6.14.13 PE-RFM****6.14.13.1. PE-RFM-1**

The RFM instance is associated to USIM ADF.

**PE-RFM-1**

```
rfmValue ProfileElement ::= rfm : {  
  rfm-header {  
    mandated NULL,  
    identification 181  
  },  
  instanceAID 'A00000055910100001'H,  
  tarList {  
    'B00000'H  
  },  
  minimumSecurityLevel '12'H,  
  uiccAccessDomain '00'H,  
  uiccAdminAccessDomain '00'H,  
  adfRFMAccess {  
    adfAID 'A0000000871002FF33FF0189000000100'H,  
    adfAccessDomain '00'H,  
    adfAdminAccessDomain '00'H  
  }  
}
```

**6.14.13.2. PE-RFM-2**

The RFM instance is not associated to any ADF.

**PE-RFM-2**

```
rfmValue ProfileElement ::= rfm : {  
  rfm-header {  
    mandated NULL,  
    identification 182  
  },  
  instanceAID 'A00000055910100002'H,  
  tarList {  
    'B00002'H  
  },  
  minimumSecurityLevel '12'H,  
  uiccAccessDomain '00'H,  
  uiccAdminAccessDomain '00'H  
}
```

### 6.14.13.3. PE-RFM-ISIM

The RFM instance is associated to ISIM ADF.

#### PE-RFM-ISIM

```
iSIMrfmValue ProfileElement ::= rfm : {  
    rfm-header {  
        mandated NULL,  
        identification 183  
    },  
    instanceAID 'A00000055910100003'H,  
    tarList {  
        'B00140'H  
    },  
    minimumSecurityLevel '12'H,  
    uiccAccessDomain '00'H,  
    uiccAdminAccessDomain '00'H,  
    adfRFMAccess {  
        adfAID 'A0000000871004FF33FF0189000000100'H,  
        adfAccessDomain '00'H,  
        adfAdminAccessDomain '00'H  
    }  
}
```

### 6.14.13.4. PE-RFM-CSIM

The RFM instance is associated to CSIM ADF.

#### PE-RFM-CSIM

```
cSIMrfmValue ProfileElement ::= rfm : {  
    rfm-header {  
        mandated NULL,  
        identification 184  
    },  
    instanceAID 'A00000055910100005'H,  
    tarList {  
        'B00150'H  
    },  
    minimumSecurityLevel '12'H,  
    uiccAccessDomain '00'H,  
    uiccAdminAccessDomain '00'H,  
    adfRFMAccess {  
        adfAID 'A0000003431002FF33FF0189000000100'H,  
        adfAccessDomain '00'H,  
        adfAdminAccessDomain '00'H  
    }  
}
```

#### 6.14.13.5. PE-RFM-3

Compared to PE-RFM-2 defined in 6.14.13.2, the RFM instance is associated to SSD1 as defined in 6.14.11.1.

##### PE-RFM-3

```
rfmValue ProfileElement ::= rfm : {  
  rfm-header {  
    mandated NULL,  
    identification 185  
  },  
  instanceAID 'A00000055910100002'H,  
  securityDomainAID 'A00000055910100102736456616C7565'H,  
  tarList {  
    'B00003'H  
  },  
  minimumSecurityLevel '12'H,  
  uiccAccessDomain '00'H,  
  uiccAdminAccessDomain '00'H  
}
```

#### 6.14.14 PE-End

##### 6.14.14.1. PE-END-1

##### PE-END-1

```
endValue ProfileElement ::= end : {  
  end-header {  
    mandated NULL,  
    identification 999  
  }  
}
```

#### 6.14.15 PE-NonStandard

##### 6.14.15.1. PE-NonStandard-1

This PE is not mandated.

##### PE-NonStandard-1

```
nonStdValue ProfileElement ::= nonStandard : {  
  nonStandard-header {  
    identification 250  
  },  
  issuerID { 2 999 1 },  
  content '0102030405060708090A0B0C0D0E0F'H  
}
```

## 7. Profile Package General Structure

### 7.1 Test requirements

The test requirements are extracted from sections 7.2 and 7.3 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ7.1.1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Each PE is described and can be processed by the eUICC independently from the others.                                                                                                                                                                                                                                       |
| RQ7.1.1.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | An identification number shall be associated to every PE.                                                                                                                                                                                                                                                                   |
| RQ7.1.1.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | A PE starts with a header containing the following information: <ul style="list-style-type: none"> <li>• PE identification number.</li> <li>• Optional flag indicating that the support of this PE is mandatory.</li> <li>• PE type.</li> <li>• PE length.</li> </ul>                                                       |
| RQ7.1.1.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | If a feature described by a PE which is flagged as mandatory is not supported by the eUICC: <ul style="list-style-type: none"> <li>• An error is reported to the Profile Creator.</li> <li>• The processing of the Profile Package is cancelled.</li> <li>• And all the PE already processed shall be discarded.</li> </ul> |
| RQ7.1.1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | If a PE is not flagged as mandatory, and if the eUICC does not support the associated feature, the error is reported but the processing of the Profile Package continues.                                                                                                                                                   |
| RQ7.1.1.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | In order to avoid errors and warnings during the processing of a Profile Package, the Profile Creator may audit the targeted eUICC before building a Profile Package. In that case, all the features described in the Profile Package will be entirely supported by the eUICC.                                              |
| RQ7.1.1.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The features that shall be supported by the Profile are also described in the Profile header. In case the eUICC does not support one of the features listed in this Profile header, the eUICC shall immediately return an error code and abort the processing of the Profile.                                               |
| RQ7.1.1.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | When an eUICC encounters an unknown tag, it shall report either an error or a warning using the code <code>invalid-parameter</code>                                                                                                                                                                                         |
| <p>NOTE 1: RQ7.1.1.2 and RQ7.1.1.3 are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.</p> <p>NOTE 2: Testing of RQ7.1.1.4 and RQ7.1.1.8 is FFS.</p> <p>NOTE 3: RQ7.1.1.6 is out of the scope of this specification.</p> <p>NOTE 4: RQ7.1.1.1 is not testable</p> |                                                                                                                                                                                                                                                                                                                             |

### 7.2 Test cases / scenarios

RQ7.1.1.5 is tested in Chapter 8.2.3.

## **8.** Profile Package Elements Definition

### **8.1** Test requirements

#### **8.1.1** Common types

The test requirements are extracted from section 8.1 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|             |                                                                                                                                                                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.1.1   | The Profile Package shall respect the size constraints 0 to 255 for the basic integer type Uint8.                                                                                                                                                     |
| RQ8.1.1.2   | The Profile Package shall respect the size constraints 0 to 32267 for the basic integer type Uint15.                                                                                                                                                  |
| RQ8.1.1.3   | The Profile Package shall respect the size constraints 0 to 65535 for the basic integer type Uint16.                                                                                                                                                  |
| RQ8.1.1.4   | VOID                                                                                                                                                                                                                                                  |
| RQ8.1.1.5   | The Application Identifier (AID) shall be an OCTET STRING with the size of 5 to 16 bytes.                                                                                                                                                             |
| RQ8.1.1.6   | The PE Header shall be present at the beginning of all PE-s described in this specification.                                                                                                                                                          |
| RQ8.1.1.7   | The PE Header may consist of an optional "mandated" field. The type of the mandated field shall be NULL.                                                                                                                                              |
| RQ8.1.1.8   | If the mandated field is set the support of this PE is mandatory for the installation of this Profile. If the eUICC does not support the following PE, it shall abort the processing of the Profile and return an error to the sender of the Profile. |
| RQ8.1.1.9   | The PE Header shall consist of an "identification" field. The type of the identification field shall be Uint15.                                                                                                                                       |
| RQ8.1.1.10  | The identification field is used to uniquely identify the PE within a Profile. It will be used for error reporting to the sender of the Profile.                                                                                                      |
| RQ8.1.1.11  | VOID                                                                                                                                                                                                                                                  |
| RQ8.1.1.12  | The ProfileHeader shall be the first element and provided once within a profile download only.                                                                                                                                                        |
| RQ8.1.1.13  | VOID                                                                                                                                                                                                                                                  |
| RQ8.1.1.13a | The PE MF may be provided once as the first element of the file system creation after the ProfileHeader PE.                                                                                                                                           |
| RQ8.1.1.13b | If PE MF is not used, the MF shall be created as the first element of the file system using the PE Generic File Management.                                                                                                                           |
| RQ8.1.1.14  | The PE-CD is optional and shall come after the creation of the MF.                                                                                                                                                                                    |
| RQ8.1.1.15  | The PE-TELECOM is optional and shall come after the creation of the MF.                                                                                                                                                                               |
| RQ8.1.1.16  | The PE-USIM is optional and shall come after the creation of the MF.                                                                                                                                                                                  |
| RQ8.1.1.17  | The PE-ISIM is optional and shall come after the creation of the MF.                                                                                                                                                                                  |
| RQ8.1.1.18  | The PE-CSIM is optional and shall come after the creation of the MF.                                                                                                                                                                                  |
| RQ8.1.1.19  | The PE-OPT-USIM is optional and shall come after the PE-USIM.                                                                                                                                                                                         |
| RQ8.1.1.20  | The PE-GSM-ACCESS is optional and shall come after the PE-USIM.                                                                                                                                                                                       |
| RQ8.1.1.21  | The PE-PHONENOOK is optional and shall come after the PE-USIM.                                                                                                                                                                                        |
| RQ8.1.1.22  | The PE-OPT-ISIM is optional and shall come after the PE-ISIM.                                                                                                                                                                                         |
| RQ8.1.1.23  | The PE-OPT-CSIM is optional and shall come after the PE-CSIM.                                                                                                                                                                                         |
| RQ8.1.1.24  | When using PE-GenericFileManagement the dependencies within the file system creation need to be considered.                                                                                                                                           |
| RQ8.1.1.25  | PE-PINCodes shall be created in the context according to their scope.                                                                                                                                                                                 |
| RQ8.1.1.26  | Global PINs (Application PINs according to ETSI TS 102 221) shall be provided once in the context of the creation of the MF of the UICC.                                                                                                              |
| RQ8.1.1.26b | Local PINs may be provided once in the context of the creation of a DF or ADF.                                                                                                                                                                        |
| RQ8.1.1.27  | Only a single PE-PINCodes is allowed in the context of the MF, or in the context of a DF (ADF).                                                                                                                                                       |
| RQ8.1.1.28  | VOID                                                                                                                                                                                                                                                  |
| RQ8.1.1.28a | If PE-AKAPParameters is provided, it shall be present in the context of the creation of a NAA filesystem.                                                                                                                                             |
| RQ8.1.1.29  | VOID                                                                                                                                                                                                                                                  |
| RQ8.1.1.29a | PE-AKAPParameters may be provided once or several times per NAA. If several sets of parameters are provided for one NAA, the set of parameters used by this NAA is not defined.                                                                       |
| RQ8.1.1.30  | PE-AKAPParameters is not allowed in the context of MF.                                                                                                                                                                                                |
| RQ8.1.1.31  | PE-AKAPParameters is not allowed in the context of SDs.                                                                                                                                                                                               |
| RQ8.1.1.32  | PE-AKAPParameters is not allowed in the context of applications.                                                                                                                                                                                      |
| RQ8.1.1.33  | VOID                                                                                                                                                                                                                                                  |
| RQ8.1.1.33a | PE-PUKCodes may only be provided once within the context of the UICC file system (MF). If PE-PUKCodes is not present in the Profile Package then no PUK codes are defined.                                                                            |
| RQ8.1.1.34  | PE-PUKCodes shall include all PUK codes for the complete profile.                                                                                                                                                                                     |
| RQ8.1.1.35  | PE-SecurityDomain is optional and shall be provided after the creation of the file system, NAA parameters and PIN/PUK configuration.                                                                                                                  |
| RQ8.1.1.36  | PE-Application is optional and should be provided after the creation of the SDs. Note: This REQ is applicable up to SA PP TS v2.0                                                                                                                     |
| RQ8.1.1.36b | PE-Application is optional and shall be provided after the creation of the SDs. Note: This REQ is applicable from SA PP TS v2.1 onwards.                                                                                                              |
| RQ8.1.1.37  | PE-RFM is optional. It shall be provided after the creation of the SDs the RFM parameters shall be assigned to.                                                                                                                                       |
| RQ8.1.1.38  | PE-NonStandard is optional and in general may be provided in any position after the profile header. Further restrictions depend on the respective application.                                                                                        |
| RQ8.1.1.39  | PE-End shall be provided once at the end of the Profile Package.                                                                                                                                                                                      |
| RQ8.1.1.40  | PE-EAP is optional and shall come after creation of the ADF that supports the EAP feature.                                                                                                                                                            |

NOTE 1: RQ8.1.1.1, RQ8.1.1.2, RQ8.1.1.3, RQ8.1.1.5, RQ8.1.1.6, RQ8.1.1.7 and RQ8.1.1.9 are not testable.

NOTE 2: VOID

NOTE 3: VOID

NOTE 4: VOID

NOTE 5: VOID

NOTE 6: Testing of RQ8.1.1.30, RQ8.1.1.31 and RQ8.1.1.32 are out of scope.

NOTE 7: VOID

NOTE 8: Testing of RQ8.1.1.8, is FFS.

NOTE 9: RQ8.1.1.29a is tested only with one PE-AKAPParameters provided for the NAA.

NOTE 10: RQ8.1.1.12, RQ8.1.1.13a, RQ8.1.1.13b, RQ8.1.1.14, RQ8.1.1.15, RQ8.1.1.17, RQ8.1.1.18, RQ8.1.1.19, RQ8.1.1.22, RQ8.1.1.23, RQ8.1.1.24, RQ8.1.1.26, RQ8.1.1.26b, RQ8.1.1.27, RQ8.1.1.28a, RQ8.1.1.33a, RQ8.1.1.35, RQ8.1.1.39 are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

NOTE 11: RQ8.1.1.38 is only partially testable.

### 8.1.2 Profile header

The test requirements are extracted from section 8.2 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].



| RQ8.1.2.1           | The ProfileHeader PE shall be used once and shall be the first PE of the Profile Package.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------|-------------|--------------------------------------------------------------------|------|-------------------------------------------------|------|-------------------------------------------------|------|--------------------------------------------------|-----------|---------------------------------------------------------------------------|---------|------------------------------------------------------------------------------------------|---------|------------------------------------------------------------------------------------------|------|-------------------------------------------------------------|----------|----------------------------------------------------------------|----------|----------------------------------------------------------------|------|---------------------------------------------------------------------|-----|---------------------------------|----------|--------------------------------------------------|--------|-----------------------------------------------|---------------|---------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.2.2           | The ServiceList type is used to indicate the services that shall be supported by the eUICC for the installation of a Profile. The type of the fields in the ServiceList shall be NULL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.3           | <p>The following list gives the features that the eUICC shall support in order to provide the associated service.</p> <table> <tr> <th>Service</th><th>Feature provided by the eUICC</th></tr> <tr> <td>contactless</td><td>support the SWP and HCI interfaces as well as the associated APIs.</td></tr> <tr> <td>usim</td><td>the USIM application as defined by 3GPP [USIM].</td></tr> <tr> <td>isim</td><td>the ISIM application as defined by 3GPP [ISIM].</td></tr> <tr> <td>csim</td><td>the CSIM application as defined by 3GPP2 [CSIM].</td></tr> <tr> <td>milennage</td><td>the milennage AKA authentication algorithm as defined by 3GPP [MILENAGE].</td></tr> <tr> <td>tuak128</td><td>the TUAK AKA authentication algorithm with 128 bit key length as defined by 3GPP [TUAK].</td></tr> <tr> <td>tuak256</td><td>the TUAK AKA authentication algorithm with 256 bit key length as defined by 3GPP [TUAK].</td></tr> <tr> <td>cave</td><td>the CAVE authentication algorithm as defined by TIA [CAVE].</td></tr> <tr> <td>gba-usim</td><td>support of GBA authentication context in the USIM application.</td></tr> <tr> <td>gba-isim</td><td>support of GBA authentication context in the ISIM application.</td></tr> <tr> <td>mbms</td><td>support of the MBMS authentication context in the USIM application.</td></tr> <tr> <td>eap</td><td>support of the UICC EAP client.</td></tr> <tr> <td>javacard</td><td>support of the Java Card TM runtime environment.</td></tr> <tr> <td>multos</td><td>support of the Multos TM runtime environment.</td></tr> <tr> <td>multiple-usim</td><td>support of multiple USIM instances – requires “usim” to be present in the list.</td></tr> <tr> <td>multiple-isim</td><td>support of multiple ISIM instances – requires “isim” to be present in the list.</td></tr> <tr> <td>multiple-csim</td><td>support of multiple CSIM instances – requires “csim” to be present in the list.</td></tr> <tr> <td>usim-test-algorithm</td><td>support of Test USIM Parameters for authentication test algorithm as defined by 3GPP [3GTEST]. Note: This is applicable from SA PP TS v2.1 onwards.</td></tr> <tr> <td>ber-tlv</td><td>support of the BER-TLV Elementary File type. Note: This is applicable from SA PP TS v2.1 onwards.</td></tr> <tr> <td>dfLink</td><td>support of DF Link feature. Note: This is applicable from SA PP TS v2.1 onwards.</td></tr> <tr> <td>cat-tp</td><td>If set any SD with SCP80 shall support CAT_TP (regardless if SCP80 keys are available or not). Connectivity parameters are provided by the OTA server in the initial push message. Note: This is applicable from SA PP TS v2.2 onwards.</td></tr> </table> | Service | Feature provided by the eUICC | contactless | support the SWP and HCI interfaces as well as the associated APIs. | usim | the USIM application as defined by 3GPP [USIM]. | isim | the ISIM application as defined by 3GPP [ISIM]. | csim | the CSIM application as defined by 3GPP2 [CSIM]. | milennage | the milennage AKA authentication algorithm as defined by 3GPP [MILENAGE]. | tuak128 | the TUAK AKA authentication algorithm with 128 bit key length as defined by 3GPP [TUAK]. | tuak256 | the TUAK AKA authentication algorithm with 256 bit key length as defined by 3GPP [TUAK]. | cave | the CAVE authentication algorithm as defined by TIA [CAVE]. | gba-usim | support of GBA authentication context in the USIM application. | gba-isim | support of GBA authentication context in the ISIM application. | mbms | support of the MBMS authentication context in the USIM application. | eap | support of the UICC EAP client. | javacard | support of the Java Card TM runtime environment. | multos | support of the Multos TM runtime environment. | multiple-usim | support of multiple USIM instances – requires “usim” to be present in the list. | multiple-isim | support of multiple ISIM instances – requires “isim” to be present in the list. | multiple-csim | support of multiple CSIM instances – requires “csim” to be present in the list. | usim-test-algorithm | support of Test USIM Parameters for authentication test algorithm as defined by 3GPP [3GTEST]. Note: This is applicable from SA PP TS v2.1 onwards. | ber-tlv | support of the BER-TLV Elementary File type. Note: This is applicable from SA PP TS v2.1 onwards. | dfLink | support of DF Link feature. Note: This is applicable from SA PP TS v2.1 onwards. | cat-tp | If set any SD with SCP80 shall support CAT_TP (regardless if SCP80 keys are available or not). Connectivity parameters are provided by the OTA server in the initial push message. Note: This is applicable from SA PP TS v2.2 onwards. |
| Service             | Feature provided by the eUICC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| contactless         | support the SWP and HCI interfaces as well as the associated APIs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| usim                | the USIM application as defined by 3GPP [USIM].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| isim                | the ISIM application as defined by 3GPP [ISIM].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| csim                | the CSIM application as defined by 3GPP2 [CSIM].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| milennage           | the milennage AKA authentication algorithm as defined by 3GPP [MILENAGE].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| tuak128             | the TUAK AKA authentication algorithm with 128 bit key length as defined by 3GPP [TUAK].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| tuak256             | the TUAK AKA authentication algorithm with 256 bit key length as defined by 3GPP [TUAK].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| cave                | the CAVE authentication algorithm as defined by TIA [CAVE].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| gba-usim            | support of GBA authentication context in the USIM application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| gba-isim            | support of GBA authentication context in the ISIM application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| mbms                | support of the MBMS authentication context in the USIM application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| eap                 | support of the UICC EAP client.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| javacard            | support of the Java Card TM runtime environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| multos              | support of the Multos TM runtime environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| multiple-usim       | support of multiple USIM instances – requires “usim” to be present in the list.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| multiple-isim       | support of multiple ISIM instances – requires “isim” to be present in the list.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| multiple-csim       | support of multiple CSIM instances – requires “csim” to be present in the list.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| usim-test-algorithm | support of Test USIM Parameters for authentication test algorithm as defined by 3GPP [3GTEST]. Note: This is applicable from SA PP TS v2.1 onwards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| ber-tlv             | support of the BER-TLV Elementary File type. Note: This is applicable from SA PP TS v2.1 onwards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| dfLink              | support of DF Link feature. Note: This is applicable from SA PP TS v2.1 onwards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| cat-tp              | If set any SD with SCP80 shall support CAT_TP (regardless if SCP80 keys are available or not). Connectivity parameters are provided by the OTA server in the initial push message. Note: This is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.3b          | When a service is present in the sequence and not supported or not known by the eUICC the installation of the Profile Package shall be aborted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.4           | The ProfileHeader shall contain the “major-version”. The type of the major-version shall be Uint8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.5           | When receiving the ProfileHeader, the eUICC shall check the major-version. If the version indicated by the Profile is not supported by the eUICC (e.g. if it is an earlier or an older version), the eUICC shall return an error “unsupported-profile-version” and stop the processing of the Profile.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.6           | The ProfileHeader shall contain the “minor-version”. The type of the minor-version shall be Uint8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.7           | The minor-version is only informative. It may indicate that the Profile contains elements that the eUICC will not be able to process if it supports an older version of the specification. In that case, these elements shall be ignored by the eUICC unless they are marked as mandatory in the PE header.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.8           | The ProfileHeader may contain the “profileType”. The type of the profileType shall be UTF8String. The “profileType” is a free optional text indicating for example, the name of the Profile issuer and the type of Profile.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.9           | The ProfileHeader shall contain the “iccid”. The type of iccid shall be OCTET STRING (SIZE (10)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.9a          | The “iccid” shall be encoded non-swapped as per ITU E.118 representation and padded with 'F' if less digits are used (Example:8947010000123456784F) (see NOTE 4).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.10          | The ProfileHeader may contain the “pol”. The type of the pol shall be OCTET STRING. The pol contains the policy rules within a Profile.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |
| RQ8.1.2.11          | If pol is not supplied in the Profile Package, its value shall be set to all 0 in the eUICC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |                               |             |                                                                    |      |                                                 |      |                                                 |      |                                                  |           |                                                                           |         |                                                                                          |         |                                                                                          |      |                                                             |          |                                                                |          |                                                                |      |                                                                     |     |                                 |          |                                                  |        |                                               |               |                                                                                 |               |                                                                                 |               |                                                                                 |                     |                                                                                                                                                     |         |                                                                                                   |        |                                                                                  |        |                                                                                                                                                                                                                                         |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.2.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The ProfileHeader shall contain the "eUICC-Mandatory-services". The type of the eUICC-Mandatory-services shall be ServiceList.                                                                                                                                                                                                                                                                                                                                                                                           |
| RQ8.1.2.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The ProfileHeader shall contain the "eUICC-Mandatory-GFSTEList".                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.2.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The "eUICC-Mandatory-GFSTEList" contains a list of OIDs identifying file system templates which shall be supported by the eUICC in order for the Profile to be correctly installed on the eUICC.                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.2.15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | This list may contain the OIDs associated to the file system template defined in "ANNEX A (Normative): File Structure Templates Definition" of this specification.                                                                                                                                                                                                                                                                                                                                                       |
| RQ8.1.2.16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The ProfileHeader may contain the "connectivityParameters". The "connectivityParameters" contains the connectivity parameters as defined in GSMA in [GS RPT], in table 52, not including '3A07' DGI.                                                                                                                                                                                                                                                                                                                     |
| RQ8.1.2.17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | When the Profile Package contains BER-TLV files, or DF links in a PE which is not mandatory and without indication in the ServicesList that these features shall be supported and the eUICC receiving this Profile Package does not support one of these features, the eUICC shall send a status code set to "feature-not-supported" without any "additional-information" and the installation shall continue without creating the BER-TLV file or the DF link. Note: This REQ is applicable from SA PP TS v2.1 onwards. |
| RQ8.1.2.18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | When the Profile Package contains BER-TLV files, or DF links in a PE which is mandatory and without indication in the ServicesList that these features shall be supported and the eUICC receiving this Profile Package does not support one of these features, the eUICC shall send a status code set to "feature-not-supported" without any "additional-information" and the installation of the Profile shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards.                                     |
| RQ8.1.2.19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | If a template OID present in the list is not supported by the eUICC the installation of the Profile Package shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards.                                                                                                                                                                                                                                                                                                                                   |
| RQ8.1.2.20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The ProfileHeader may contain the "eUICC-Mandatory-AIDs" which contains a SEQUENCE of aid (ApplicationIdentifier) and version (OCTET STRING with a size of 2) pairs. This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                                                                                                  |
| RQ8.1.2.21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | When an AID is present in the Profile header and not known by the eUICC, the installation of the Profile Package shall be aborted with the status code lib-not-supported. This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                                                                                             |
| RQ8.1.2.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | When the version is not compatible with the versions supported by the eUICC, the installation of the Profile Package shall also be aborted by the eUICC with the status code lib-not-supported. This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                                                                       |
| <p>NOTE 1: RQ8.1.2.7 is FFS.</p> <p>NOTE 2: RQ8.1.2.10 and RQ8.1.2.11 are not testable (there is no interoperable command to read the value).</p> <p>NOTE 3: RQ8.1.2.13 is implicitly tested everytime ProfileHeader is used.</p> <p>NOTE 4: REQ8.1.2.9a and RQ8.1.2.16 are out of scope of this specification.</p> <p>NOTE 5: RQ8.1.2.2, RQ8.1.2.4, RQ8.1.2.6, RQ8.1.2.8, RQ8.1.2.9, RQ8.1.2.10, RQ8.1.2.12, RQ8.1.2.13 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### 8.1.3 File system

The test requirements are extracted from section 8.3 and from Annex A of "eUICC Profile Package: Interoperable Format Technical Specification" [SA PP TS].

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.3.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Templates need to be created according to the specified settings.                                                                                                                                                                                                                             |
| RQ8.1.3.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Templates can be sent in any order considering the dependencies (e.g. some templates require that a NAA has already been created).                                                                                                                                                            |
| RQ8.1.3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Parameters which alter the default given in a template needs to result in the desired configuration; e.g. change of file size, access rule reference.                                                                                                                                         |
| RQ8.1.3.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | If a file within a template is specified as 'do not create' it must not be available within the created file system.                                                                                                                                                                          |
| RQ8.1.3.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | It shall be possible to mix templates with Generic FileSystem Commands.                                                                                                                                                                                                                       |
| RQ8.1.3.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | It shall be possible to create a complete profile by Generic FileSystem Commands without use of any templates.                                                                                                                                                                                |
| RQ8.1.3.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Using a template marked as mandated but which is not supported by the eUICC shall lead to an error.                                                                                                                                                                                           |
| RQ8.1.3.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The eUICC shall support any template it claims to support.                                                                                                                                                                                                                                    |
| RQ8.1.3.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | It may be possible to create multiple instances of the following templates: <ul style="list-style-type: none"> <li>- USIM</li> <li>- ISIM</li> <li>- CSIM</li> <li>- EAP-AKA</li> </ul>                                                                                                       |
| RQ8.1.3.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Templates shall always be created within the current context. E.g. the optional USIM EFs template shall be created in the currently selected application.                                                                                                                                     |
| RQ8.1.3.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The eUICC shall be able to create multiple instances of a file from a template by following the process described in figure 2 of [SA PP TS].                                                                                                                                                  |
| RQ8.1.3.11b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The profile package may create the file with a different File ID if provided in the fcp without limitations on the value.<br>This REQ is applicable from SA PP TS v2.2 onwards                                                                                                                |
| RQ8.1.3.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | It shall not be possible to create two files with the same file path irrespective of whether templates or a generic file system is used.                                                                                                                                                      |
| RQ8.1.3.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | VOID                                                                                                                                                                                                                                                                                          |
| RQ8.1.3.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The eUICC shall be able to handle the "template modification rules" described within the specification.                                                                                                                                                                                       |
| RQ8.1.3.15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | File content provided within the profile package shall be applied to the created file.                                                                                                                                                                                                        |
| RQ8.1.3.16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Within an optional template, files shall only be created if the respective TLV is explicitly included in the profile package.                                                                                                                                                                 |
| RQ8.1.3.17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | For mandatory file templates all files shall be created unless they are explicitly marked as "do not create".                                                                                                                                                                                 |
| RQ8.1.3.18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | For all files which are not fully defined in the template specification (open parameters like size) the respective parameters (except content) shall be included in the profile package.                                                                                                      |
| RQ8.1.3.18b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Any content not explicitly set within the profile package shall be personalis,ed with the default content (FF..FF). This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                        |
| RQ8.1.3.19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FCP of files which have been created may include proprietary information. These parameters shall be ignored when checking the settings of files which have been created.                                                                                                                      |
| RQ8.1.3.20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | VOID                                                                                                                                                                                                                                                                                          |
| RQ8.1.3.20a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The access conditions which have been configured shall apply for the respective files; e.g.:<br>Read Never implies that the file is not readable even if other PINs are verified;<br>in case PIN1 is specified for read it shall only be possible to read the file if PIN1 has been verified. |
| RQ8.1.3.21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The eUICC shall support access rule conditions according to the UICC specification ETSI TS 102 221 [102 221]; also supporting AND/OR conditions like PIN1    ADM1.                                                                                                                            |
| RQ8.1.3.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The eUICC shall apply all provided FCP parameters according to ETSI TS 102 221 [102 221].                                                                                                                                                                                                     |
| <p>NOTE 1: RQ8.1.3.1, RQ8.1.3.18 and RQ8.1.3.19 are out of scope of this specification.</p> <p>NOTE 2: Testing of RQ8.1.3.2, RQ8.1.3.7, RQ8.1.3.9, RQ8.1.3.12 is FFS.</p> <p>NOTE 3: RQ8.1.3.8 and RQ8.1.3.15 are implicitly tested in all test cases.</p> <p>NOTE 4: RQ8.1.3.18 is related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.</p> |                                                                                                                                                                                                                                                                                               |

#### 8.1.4 NAA(s)

The test requirements are extracted from section 8.4 of "eUICC Profile Package: Interoperable Format Technical Specification" [SA PP TS].

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.4.1   | The PE-AKAPParameters shall be tested with the USIM, ISIM and CSIM NAA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.4.2   | PE-AKAPParameters shall be tested using both options: milenage and TUAK.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RQ8.1.4.2b  | PE-AKAPParameters shall be tested using option usim-test-algorithm. Note: This REQ is applicable from SA PP TS v2.1 onwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| RQ8.1.4.3   | For milenage PE-AKAPParameters shall be tested with the following parameters:<br>key: 16 byte length<br>opc: 16 byte length<br>RES Length Options: 64bits<br>MAC-A, MAC-C Size: does not apply. To be set to 0 (64 bit)<br>CK and IK size: 128 bits<br>Rotation constants shall have a length of 5 bytes<br>xoringConstants shall have a length of 80 bytes.                                                                                                                                                                                                                                                          |
| RQ8.1.4.3b  | For TUAK, PE-AKAPParameters shall be tested with the following parameters:<br>key: 16 byte length, 32 byte length<br>opc: 32 byte length<br>RES Length Options: 32bits, 64bits, 128bits<br>MAC-A, MAC-S size: 64bits, 128bits, 256bits<br>CK, IK size: 128bits, 256bits                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.4.3c  | For usim-test-algorithm, PE-AKAPParameters shall be tested with the following parameters:<br>Key: 16 byte length. Note: This REQ is applicable from SA PP TS v2.1 onwards                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| RQ8.1.4.3d  | For usim-test-algorithm, PE-AKAPParameters shall be tested with the following parameters:<br>RES Length Options: 32bits, 64bits, 128bits<br>This REQ is applicable from SA PP TS v2.2 onwards                                                                                                                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.4.4   | For testing milenage the test vectors from 3GPP [MILENAGE TEST] shall be used: PE-AKAPParameters shall be initialised with the respective settings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RQ8.1.4.5   | For testing TUAK the test vectors from 3GPP [TUAK TEST] shall be used: PE-AKAPParameters shall be initialised with the respective settings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| RQ8.1.4.6   | Using Authenticate within USIM NAA in 2G Compatibility mode shall only work if service 38 within the UST is enabled.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RQ8.1.4.7   | Authenticate command shall only work if respective Application PIN for the NAA has been verified (e.g. PIN1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.4.8   | Sharing network credentials via the mapping function shall be tested between USIM NAAs, ISIM NAAs and USIM/ISIM. Same algorithmID, algorithmOptions, key, (T)opc, rotationConstants, xoringConstants and authCounterMax for both NAAs is to be anticipated. The following mapping permutations shall be tested:<br>- -Share sqnInit, sqnOptions, sqnDelta, sqnAgeLimit.<br>- -Share sqnOptions, sqnDelta, sqnAgeLimit.                                                                                                                                                                                                |
| RQ8.1.4.8b  | The following mapping permutation for the mappingOptions data element shall be tested:<br>- Share sqnOptions, sqnDelta, sqnAgeLimit and SQN array<br>Note: This REQ is applicable from SA PP TS v2.1 onwards                                                                                                                                                                                                                                                                                                                                                                                                          |
| RQ8.1.4.9   | DEFAULT values shall be verified by the relevant test to ensure that they are set correctly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RQ8.1.4.10  | It shall be tested if the DEFAULT values can be overwritten by the profile package.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RQ8.1.4.11  | Values for rotationConstants and xoringConstants shall only be applied in case milenage is used, otherwise ignored.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RQ8.1.4.11b | Value for numberOfKeccak shall only be applied in case TUAK is used, otherwise ignored.<br>Note: This REQ is applicable from SA PP TS v2.1 onwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RQ8.1.4.12  | SQN handling shall be tested with the available options:<br>- Authentication shall not work for blocked SQN when the wrap around option deactivated.<br>- If SQN value has reached the maximum value 07FFFFFFFF authentication shall still work (by disabled SQN verification) if the wrap around option is activated.<br>- If incoming SQN is out of range (depends on delta and age limit) the eUICC shall indicate the need for resynchronization – provided the authentication vector passes authentication.<br>- Authentication shall work if SQN is within the desired range (considering Delta and Age limit). |
| RQ8.1.4.13  | If a value is provided for authCounterMax it shall be tested. It defines the accumulated number of Authenticate Commands for all the NAA-s which share the counter over the complete life time of the Profile (independent from resets, profile de-/activation). It shall be provided once in a Profile Package. Once the actual number of Authenticate commands reaches the defined value the command should fail and return '6F00' as the respective error code.                                                                                                                                                    |
| RQ8.1.4.14  | The eUICC shall support the presence of a single PE-AKAPParameters object per NAA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RQ8.1.4.15  | PE-CSIMParameters may be provided in the context of ADF_CSIM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RQ8.1.4.16  | PE-CSIMParameters shall contain an authenticationKey of type OCTET STRING with a size of 8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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| RQ8.1.4.17  | PE-CSIMParameters may contain an ssd of type OCTET STRING with a size of 16                                                                                       |
| RQ8.1.4.18  | PE-CSIMParameters may contain a hrpdAccessAuthenticationData of type OCTET STRING with a size of 9 to 32 bytes                                                    |
| RQ8.1.4.18a | PE-CSIMParameters may contain a hrpdAccessAuthenticationData of type OCTET STRING with a size 2 to 32 bytes. This REQ is applicable from SA PP TS v2.2 onwards    |
| RQ8.1.4.19  | PE-CSIMParameters may contain a simpleIPAuthenticationData of type OCTET STRING with a size of 10 to 483 bytes                                                    |
| RQ8.1.4.19a | PE-CSIMParameters may contain a simpleIPAuthenticationData of type OCTET STRING with a size of 3 to 483 bytes. This REQ is applicable from SA PP TS v2.2 onwards  |
| RQ8.1.4.20  | PE-CSIMParameters may contain a mobileIPAuthenticationData of type OCTET STRING with a size of 19 to 957 bytes                                                    |
| RQ8.1.4.20a | PE-CSIMParameters may contain a mobileIPAuthenticationData of type OCTET STRING with a size of 12 to 957 bytes. This REQ is applicable from SA PP TS v2.2 onwards |

NOTE : Testing of RQ8.1.4.6, RQ8.1.4.8, RQ8.1.4.8b is FFS .

NOTE 2: RQ8.1.4.16 is not testable.

NOTE 3: RQ8.1.4.1 is tested with USIM and ISIM, but not tested with CSIM.

NOTE 4: RQ8.1.4.11 is related to the format of the profile package. This requirement is tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

### 8.1.5 PIN and PUK codes

The test requirements are extracted from section 8.5 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].



|                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| RQ8.1.5.1                                                                                                                                                                                                                                                                                                                                                                                       | Global PINs created by the PE-PINCodes shall be valid within the complete FileSystem.                                                                                                                                                                                                                                                                                                                                 |
| RQ8.1.5.1a                                                                                                                                                                                                                                                                                                                                                                                      | All the Global PINs referenced by a pinStatusTemplateDO shall be defined in the 'PIN Context' of the MF. This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                                                           |
| RQ8.1.5.2                                                                                                                                                                                                                                                                                                                                                                                       | Local PINs shall only be valid within the context (DF/ADF and sub DFs) where they are defined.                                                                                                                                                                                                                                                                                                                        |
| RQ8.1.5.2b                                                                                                                                                                                                                                                                                                                                                                                      | The ADF/DF where the Local PIN will be created is the first ADF or DF created by the previous PE-Template or the previous PE-Generic File Management.<br>This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                           |
| RQ8.1.5.2c                                                                                                                                                                                                                                                                                                                                                                                      | All the Local PINs referenced by a pinStatusTemplateDO shall either be defined in a parent ADF or DF or created in a following PE-PINCodes.<br>This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                     |
| RQ8.1.5.2d                                                                                                                                                                                                                                                                                                                                                                                      | If Local PINs referenced by a pinStatusTemplateDO is not created in a following PE-PINCodes. the error code pin-code-missing may be returned and in this case the installation of the Profile Package shall be aborted.<br>This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                         |
| RQ8.1.5.3                                                                                                                                                                                                                                                                                                                                                                                       | VOID                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RQ8.1.5.4                                                                                                                                                                                                                                                                                                                                                                                       | Local PINs shared shall share remaining attempts in all contexts where they are valid.                                                                                                                                                                                                                                                                                                                                |
| RQ8.1.5.5                                                                                                                                                                                                                                                                                                                                                                                       | It shall be possible to create Global PINs in the context of the MF. E.g. after creation of the MF or also after selection of the MF using Generic File System.                                                                                                                                                                                                                                                       |
| RQ8.1.5.6                                                                                                                                                                                                                                                                                                                                                                                       | VOID                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RQ8.1.5.7                                                                                                                                                                                                                                                                                                                                                                                       | It shall be possible to share one PUK for multiple PIN values.                                                                                                                                                                                                                                                                                                                                                        |
| RQ8.1.5.8                                                                                                                                                                                                                                                                                                                                                                                       | Blocked PINs cannot be verified via I/O, but applets with the respective access rights may execute the authorised commands (update, read, create, delete etc).                                                                                                                                                                                                                                                        |
| RQ8.1.5.9                                                                                                                                                                                                                                                                                                                                                                                       | Within the FCP of the ADF and the MF the eUICC has to indicate the status of the PINs/PUKs as specified within the template (e.g. remaining attempts, PINs initialised, PINs available, PIN activated/deactivated) provided that the settings have not been altered after profile installation.                                                                                                                       |
| RQ8.1.5.10                                                                                                                                                                                                                                                                                                                                                                                      | The eUICC needs to support the PIN attributes specified: <ul style="list-style-type: none"> <li>- PINs enabled: in this case the PIN shall be enabled.</li> <li>- PIN may be changed: PIN change allowed; otherwise not.</li> <li>- PIN state change not allowed: Means that status of the PIN may not be altered.</li> <li>- Disabled PIN may not be enabled.</li> <li>- Enabled PIN may not be disabled.</li> </ul> |
| RQ8.1.5.11                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to create all possible global PINs within the global PE-PINCodes.                                                                                                                                                                                                                                                                                                                                |
| RQ8.1.5.12                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to create all second Application PINs within one or more DFs.                                                                                                                                                                                                                                                                                                                                    |
| RQ8.1.5.13                                                                                                                                                                                                                                                                                                                                                                                      | Two local PINs which have been created separately in two DFs with the same second application PIN ID shall have a separate status; own remaining attempts; own verified status; own enabled/disable status; also different attributes may be applied for the two PINs.                                                                                                                                                |
| RQ8.1.5.14                                                                                                                                                                                                                                                                                                                                                                                      | PIN Values shall have a length of 8 bytes. Unused bytes are to be padded with FF..FF.                                                                                                                                                                                                                                                                                                                                 |
| RQ8.1.5.15                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to define any value for any PIN: Random Hex Values and also coded as string for user PINs (e.g. PIN 1234 > 31 32 33 34 FF FF FF FF).                                                                                                                                                                                                                                                             |
| RQ8.1.5.16                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to assign a PUK value for any PIN.                                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.5.16b                                                                                                                                                                                                                                                                                                                                                                                     | It shall be possible to assign any PUK value for any PIN.<br>This REQ is applicable from SA PP TS v2.2 onwards.                                                                                                                                                                                                                                                                                                       |
| RQ8.1.5.17                                                                                                                                                                                                                                                                                                                                                                                      | maxNumOfAttempts-retryNumLeft: It shall be possible to assign any value from 0...F for maxNumberOfAttempts and retryNumLeft independent from each other.                                                                                                                                                                                                                                                              |
| RQ8.1.5.18                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to create any PIN in enabled or disabled mode.                                                                                                                                                                                                                                                                                                                                                   |
| RQ8.1.5.19                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to create any PIN with "PIN state change not allowed" stated to define that a PIN status cannot be changed from enabled to disabled and vice versa.                                                                                                                                                                                                                                              |
| RQ8.1.5.20                                                                                                                                                                                                                                                                                                                                                                                      | It shall be possible to define any PIN with "PIN can be changed" set to allow changing the PIN value; if "PIN can be changed" is not set it shall not be possible to change the PIN.                                                                                                                                                                                                                                  |
| RQ8.1.5.21                                                                                                                                                                                                                                                                                                                                                                                      | It is allowed to define the same PINKeyReferenceValue in multiple directories (e.g. secondPINApp1 may be defined in the ISIM NAA and within the USIM NAA).<br>Provided they are not linked they shall be handled as two independent PIN values which also may reference different PUK references.                                                                                                                     |
| NOTE1: Testing of RQ8.1.5.10, RQ8.1.5.11, RQ8.1.5.12 is out of scope.                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NOTE2: Testing of RQ8.1.5.4, RQ8.1.5.13, RQ8.1.5.17, RQ8.1.5.21 is FFS.                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NOTE3: RQ8.1.5.15 is not testable.                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NOTE4: RQ8.1.5.14 is related to the format of the types used in the profile package. The ASN1 converter ensures compliance when the profile package is created.                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NOTE5: RQ8.1.5.2b, RQ8.1.5.5 are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible. |                                                                                                                                                                                                                                                                                                                                                                                                                       |

### **8.1.6 Security domains**

The test requirements are extracted from section 8.6 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|             |                                                                                                                                                                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.6.1   | The PE Security Domain shall consist of a PE header and an Application Instance object.                                                                                                                                                         |
| RQ8.1.6.2   | The values standardised for Supplementary SDs shall be used for the Application Instance object.                                                                                                                                                |
| RQ8.1.6.3   | The PE Security Domain may consist of a keylist and sdPersoData objects.                                                                                                                                                                        |
| RQ8.1.6.4   | The PE-SecurityDomain shall be used for every SD creation, starting from MNO-SD.                                                                                                                                                                |
| RQ8.1.6.5   | The MNO-SD shall be defined and created explicitly using "PE-SecurityDomain" within the Profile Package.                                                                                                                                        |
| RQ8.1.6.6   | The MNO-SD shall be created first before any other SD, before any RFM Parameters are set, or before any applets are created.                                                                                                                    |
| RQ8.1.6.7   | Since no package AID nor classAID is standardised for the MNO-SD, it MAY use the values defined for supplementary SD creation in section 3.3.1.1 of [GP CIC].                                                                                   |
| RQ8.1.6.8   | The first SD within the sequence of the Profile Package shall be categorised as the MNO-SD by definition.                                                                                                                                       |
| RQ8.1.6.9   | The MNO-SD shall be installed with the special MNO-SD privileges defined by the GSMA.                                                                                                                                                           |
| RQ8.1.6.10  | All subsequent following instances of SDs shall be installed like regular supplementary SDs as known from GlobalPlatform Card Specification [GP CS].                                                                                            |
| RQ8.1.6.11  | The keylist optionally present in the Security Domain PE shall be a sequence of key objects.                                                                                                                                                    |
| RQ8.1.6.12  | A key object shall contain a keyUsageQualifier, tag number [21] which shall be an OCTET STRING with SIZE of 1. Note: This REQ is applicable up to SA PP TS v2.0                                                                                 |
| RQ8.1.6.12b | A key object shall contain a keyUsageQualifier, tag number [21] which shall be an OCTET STRING with SIZE of 1 to 2. Note: This REQ is applicable from SA PP TS v2.1 onwards                                                                     |
| RQ8.1.6.13  | The keyAccess, tag number [22] shall be an OCTET STRING with SIZE of 1, DEFAULT 00.                                                                                                                                                             |
| RQ8.1.6.14  | A key object shall contain a keyIdentifier, tag number [2] which shall be an OCTET STRING with SIZE of 1.                                                                                                                                       |
| RQ8.1.6.15  | A key object shall contain a keyVersionNumber, tag number [3] which shall be an OCTET STRING with SIZE of 1.                                                                                                                                    |
| RQ8.1.6.16  | A key object shall contain a list of keyComponents.                                                                                                                                                                                             |
| RQ8.1.6.17  | A keyComponent shall contain a keyType, tag number [0], which shall be an OCTET STRING.                                                                                                                                                         |
| RQ8.1.6.18  | A keyComponent shall contain a keyData which shall be an OCTET STRING.                                                                                                                                                                          |
| RQ8.1.6.19  | VOID                                                                                                                                                                                                                                            |
| RQ8.1.6.20  | A key object may contain a keyCounterValue, tag number [5] which shall be an OCTET STRING.                                                                                                                                                      |
| RQ8.1.6.20a | If the keyCounterValue is present, it indicates the initial counter associated for that keyset.                                                                                                                                                 |
| RQ8.1.6.20b | If the keyCounterValue is absent, the initial counter value shall be set according to the default value of the related protocol (e.g. for SCP02 keyset the default value is '0000'h, for SCP03 it is '000000'h, for SCP80 it is '0000000000'h). |
| RQ8.1.6.21  | VOID                                                                                                                                                                                                                                            |
| RQ8.1.6.22  | Each key to be personalised shall be listed only once.                                                                                                                                                                                          |
| RQ8.1.6.23  | VOID                                                                                                                                                                                                                                            |
| RQ8.1.6.24  | VOID                                                                                                                                                                                                                                            |
| RQ8.1.6.25  | VOID                                                                                                                                                                                                                                            |
| RQ8.1.6.26  | Only keyTypes defined in GlobalPlatform Card Specification [GP CS], Table 11-16, may be part of the list of keyComponents.                                                                                                                      |
| RQ8.1.6.26b | Any key or key component with one of these key types (including ECC keys) shall be defined using KeyObject.                                                                                                                                     |
| RQ8.1.6.27  | Each keyComponent shall be specified only once per key (e.g. including the same keyType twice within one KeyObject will lead to an error).                                                                                                      |
| RQ8.1.6.28  | In case the sdPersoData is present it shall be a sequence of OCTET STRINGs each containing the data field of a STORE DATA command used to personalise the SD.                                                                                   |
| RQ8.1.6.29  | The content of the data field of the STORE DATA command shall not be encrypted and shall use DGI format.                                                                                                                                        |
| RQ8.1.6.30  | The complete DGI structure for the SD personalisation shall be sent in one complete byte array.                                                                                                                                                 |
| RQ8.1.6.31  | Each DGI shall be provided in its own sdPersoData record.                                                                                                                                                                                       |
| RQ8.1.6.32  | Only standardised DGIs, according to GlobalPlatform Card Specification [GP CS], shall be sent when addressing a SD.                                                                                                                             |
| RQ8.1.6.33  | Installation of the CASD, if required inside a Profile, shall use the same personalisation procedure as defined for SDs.                                                                                                                        |
| RQ8.1.6.34  | In case RAM and OTA HTTPs is added to a SD the settings can be configured according to GlobalPlatform Card Specification [GP CS] and ETSI specifications.                                                                                       |
| RQ8.1.6.35  | In case RAM is added to a SD the TAR values for RAM can be configured as follows:<br>- Bytes 13-15 of the SD instance AID.<br>- TAR List within SD install parameters.                                                                          |
| RQ8.1.6.36  | VOID                                                                                                                                                                                                                                            |



|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| RQ8.1.6.36a | The eUICC shall support settings for OTA HTTPs provided within the sdPersoData included in DGI '0070' using in tag '85' according to GlobalPlatform Amd B [GP AB] (Section 3.7.1 TLV: Security Domain Administration Session Parameters) in the PE-SecurityDomain structure of the respective security domain.                                                                                                                                                                            |
| RQ8.1.6.37  | If RAM is added to a SD the security level for RAM shall be defined by the MSL parameter of the SD installation parameters.                                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.6.38  | VOID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| RQ8.1.6.38a | If RAM is added to a SD, TAR values to the Security Domains as specified in TS 101 220 [101 220] should be assigned.                                                                                                                                                                                                                                                                                                                                                                      |
| RQ8.1.6.39  | The configuration of the PoR (Proof of Receipt) handling shall not be part of the Profile definition.                                                                                                                                                                                                                                                                                                                                                                                     |
| RQ8.1.6.40  | The eUICC shall follow the latest ETSI and 3GPP release to provide the necessary level of security.                                                                                                                                                                                                                                                                                                                                                                                       |
| RQ8.1.6.41  | There may be SSDs which belong to independent SD hierarchies with a self-extradited SSD as root SD.                                                                                                                                                                                                                                                                                                                                                                                       |
| RQ8.1.6.42  | The macLength shall be an UInt8 DEFAULT 8.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| RQ8.1.6.43  | If macLength is for AES KID keys, indicates the length of the MAC in bytes as defined in TS 102 226 [102 226].                                                                                                                                                                                                                                                                                                                                                                            |
| RQ8.1.6.44  | macLength shall be ignored for other key types than AES KID.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RQ8.1.6.45  | If keyType or any other KeyObject parameters are not supported by the eUICC, the error code feature-not-supported shall be returned and the installation of the Profile Package shall be aborted.                                                                                                                                                                                                                                                                                         |
| RQ8.1.6.46  | Parameters using TLV format may be included in DGI '0070' as defined by GlobalPlatform Card Specification [GP CS].                                                                                                                                                                                                                                                                                                                                                                        |
| RQ8.1.6.47  | keyUsageQualifier and keyAccess shall be ignored for SCP80 and SCP81 keys. Note: This REQ is applicable from SA PP TS v2.1 onwards.                                                                                                                                                                                                                                                                                                                                                       |
| RQ8.1.6.48  | ECC Curve Parameters shall be defined using sdPersoData. DGIs described in GlobalPlatform Card Specification [GP CS] section 11.11.4.2.2.1 shall be coded in immediately consecutive sdPersoData objects.                                                                                                                                                                                                                                                                                 |
| RQ8.1.6.49  | If keyType or any other KeyObject parameters are not supported by the Security Domain (Example: KeyObject not related to Secure Channel Protocol listed in the applicationSpecificParametersC9 or with the applicationPrivileges given in the ApplicationInstance of the Security domain), the error code feature-not-supported may be returned and the installation of the Profile Package may be aborted by the eUICC. Note: This REQ is applicable from SA PP TS v2.2 onwards.         |
| RQ8.1.6.50  | The PE Security Domain may consist of a cattpParameters object.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| RQ8.1.6.51  | A cattpParameters shall contain a cattpMaxSduSize which shall be UInt16.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RQ8.1.6.52  | A cattpParameters shall contain a cattpMaxPduSize which shall be UInt16.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RQ8.1.6.53  | Only the PE-SecurityDomain that instantiates the MNO-SD may include the cattpParameters parameter: this parameter is forbidden for the other Security Domains.                                                                                                                                                                                                                                                                                                                            |
| RQ8.1.6.54  | The PE Security Domain may consist of an openPersoData object.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| RQ8.1.6.55  | The openPersoData may consist of a restrictParameter object (see [GP CS] §11.5.2.3.7) which shall be an OCTET STRING.                                                                                                                                                                                                                                                                                                                                                                     |
| RQ8.1.6.56  | The openPersoData may consist of a contactlessProtocolParameters object (see [GP AC] §11.2) which shall be an OCTET STRING.                                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.6.56b | Only the following parameters are supported in contactlessProtocolParameters: <ul style="list-style-type: none"> <li>o 'Initial Contactless Activation State', (see [GP AC] §8.3).</li> <li>o 'Contactless protocol Type State', (see [GP AC] §11.2.4)</li> <li>o 'Protocol Data type A', (see [GP AC] §4.6)</li> <li>o 'Protocol Data type B', (see [GP AC] §4.7)</li> <li>o 'Protocol Data type F', (see [GP AC] §4.8)</li> <li>o 'Continuous Processing' (see [GP AC] §6.4)</li> </ul> |
| RQ8.1.6.57  | Only the PE-SecurityDomain that instantiates the MNO-SD may include the openPersoData parameter, this parameter is forbidden for the other Security Domains.                                                                                                                                                                                                                                                                                                                              |
| RQ8.1.6.58  | If no openPersoData parameters are present, default values apply as defined in the [GP CS] and [GP AC] specification.                                                                                                                                                                                                                                                                                                                                                                     |
| RQ8.1.6.59  | The profile openPersoData parameters shall apply only when the profile is enabled.                                                                                                                                                                                                                                                                                                                                                                                                        |
| RQ8.1.6.60  | If the eUICC doesn't support the Restrict parameter and this parameter is present in the Profile Package, the error code feature-not-supported shall be returned and the installation of the Profile Package shall be aborted by the eUICC.                                                                                                                                                                                                                                               |

NOTE 1: RQ8.1.6.9 is not tested in this specification. Its verification is under the scope of the GSMA.  
NOTE 2: Testing of RQ8.1.6.20, RQ8.1.6.33, RQ8.1.6.43, RQ8.1.6.44, RQ8.1.6.47, RQ8.1.6.50, RQ8.1.6.54, RQ8.1.6.55, RQ8.1.6.56, RQ8.1.6.56b, RQ8.1.6.57, RQ8.1.6.58, RQ8.1.6.59, RQ8.1.6.60 is FFS.  
NOTE 3: RQ8.1.6.20a, RQ8.1.6.20b, RQ8.1.6.39, RQ8.1.6.49, RQ8.1.6.53 are not testable.  
NOTE 4: RQ8.1.6.32 is not tested in this specification. Its verification is under the scope of GlobalPlatform.  
NOTE 5: RQ8.1.6.22, RQ8.1.6.40 are out of scope of this specification.  
NOTE 6: RQ8.1.6.1, RQ8.1.6.2, RQ8.1.6.11, RQ8.1.6.12, RQ8.1.6.12b, RQ8.1.6.13, RQ8.1.6.14, RQ8.1.6.15, RQ8.1.6.16, RQ8.1.6.17, RQ8.1.6.18, RQ8.1.6.28, RQ8.1.6.42, RQ8.1.6.51, RQ8.1.6.52 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.  
NOTE 7: RQ8.1.6.26, RQ8.1.6.29, RQ8.1.6.30, RQ8.1.6.31 are related to the format of the profile package. . These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

### 8.1.7 Application loading and installation

The test requirements are extracted from section 8.7 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|             |                                                                                                                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.7.1   | A library shall be loaded when only an ApplicationLoadPackage object is provided within one Application PE.                                                                                                                                                |
| RQ8.1.7.2   | A preloaded application shall be installed only when an ApplicationInstance object is provided within one Application PE.                                                                                                                                  |
| RQ8.1.7.3   | Multiple instances of the same application shall be installed when multiple ApplicationInstance objects are provided within one Application PE.                                                                                                            |
| RQ8.1.7.4   | An application shall be loaded providing an ApplicationLoadPackage object and installed via an ApplicationInstance.                                                                                                                                        |
| RQ8.1.7.5   | An application shall be installed when an ApplicationInstance object is provided within one Application PE.                                                                                                                                                |
| RQ8.1.7.6   | If PEHeader object is set to mandatory, profile installation shall fail if one of the subsequent elements cannot be executed (e.g. load fails because of API incompatibility, install fails because of duplicate TAR values ...).                          |
| RQ8.1.7.7   | If PEHeader object is not set to mandatory, profile installation shall continue with the next PE if one of the subsequent elements cannot be executed (e.g. load fails because of API incompatibility, install fails because of duplicate TAR values ...). |
| RQ8.1.7.8   | The loadPackageAID object shall be based on the GP2.2 Load Command according to GlobalPlatform Card Specification [GP CS].                                                                                                                                 |
| RQ8.1.7.9   | The loadPackageAID object is mandatory and shall be an ApplicationIdentifier.                                                                                                                                                                              |
| RQ8.1.7.10  | The securityDomainAID object shall be based on the GP2.2 Load Command according to GlobalPlatform Card Specification [GP CS].                                                                                                                              |
| RQ8.1.7.11  | The securityDomainAID object is optional and shall be an ApplicationIdentifier.                                                                                                                                                                            |
| RQ8.1.7.12  | The nonVolatileCodeLimitC6 object shall be based on the GP2.2 Load Command according to GlobalPlatform Card Specification [GP CS].                                                                                                                         |
| RQ8.1.7.13  | The nonVolatileCodeLimitC6 object is optional and it shall be an OCTET STRING.                                                                                                                                                                             |
| RQ8.1.7.14  | The volatileDataLimitC7 object shall be based on the GP2.2 Load Command according to GlobalPlatform Card Specification [GP CS].                                                                                                                            |
| RQ8.1.7.15  | The volatileDataLimitC7 object is optional and it shall be an OCTET STRING.                                                                                                                                                                                |
| RQ8.1.7.16  | The nonVolatileDataLimitC8 object shall be based on the GP2.2 Load Command according to GlobalPlatform Card Specification [GP CS].                                                                                                                         |
| RQ8.1.7.17  | The nonVolatileDataLimitC8 object is optional and it shall be an OCTET STRING.                                                                                                                                                                             |
| RQ8.1.7.18  | The hashValue object shall be based on the GP2.2 Load Command according to GlobalPlatform Card Specification [GP CS].                                                                                                                                      |
| RQ8.1.7.19  | The hashValue object is optional and it shall be an OCTET STRING.                                                                                                                                                                                          |
| RQ8.1.7.20  | The loadBlockObject object shall contain the complete load block.                                                                                                                                                                                          |
| RQ8.1.7.21  | The loadBlockObject object is mandatory and it shall be an OCTET STRING.                                                                                                                                                                                   |
| RQ8.1.7.22  | The coding of applicationLoadPackageAID object shall follow the coding defined for Install for Install defined by GlobalPlatform Card Specification [GP CS].                                                                                               |
| RQ8.1.7.23  | The applicationLoadPackageAID object is mandatory and shall be an ApplicationIdentifier.                                                                                                                                                                   |
| RQ8.1.7.24  | The coding of classAID object shall follow the coding defined for Install for Install defined by GlobalPlatform Card Specification [GP CS].                                                                                                                |
| RQ8.1.7.25  | The classAID object is mandatory and shall be an ApplicationIdentifier.                                                                                                                                                                                    |
| RQ8.1.7.26  | The coding of instanceAID object shall follow the coding defined for Install for Install defined by GlobalPlatform Card Specification [GP CS].                                                                                                             |
| RQ8.1.7.27  | The instanceAID object is mandatory and shall be an ApplicationIdentifier.                                                                                                                                                                                 |
| RQ8.1.7.28  | The extraditeSecurityDomainAID object shall have the same effect as the Install for Extradition command defined by GlobalPlatform Card Specification [GP CS].                                                                                              |
| RQ8.1.7.29  | The extraditeSecurityDomainAID object is optional and shall be an ApplicationIdentifier.                                                                                                                                                                   |
| RQ8.1.7.30  | If the extraditeSecurityDomainAID object value is not provided, the instance shall be associated to the MNO-SD by default.                                                                                                                                 |
| RQ8.1.7.31  | The coding of applicationPrivileges object shall follow the coding defined for Install for Install defined by GlobalPlatform Card Specification [GP CS].                                                                                                   |
| RQ8.1.7.32  | The applicationPrivileges object is mandatory and it shall be an OCTET STRING.                                                                                                                                                                             |
| RQ8.1.7.33  | The coding of lifeCycleState object shall follow the coding Life Cycle State defined within GlobalPlatform Card Specification [GP CS] (section 11.1.1 Life Cycle Coding).                                                                                  |
| RQ8.1.7.34  | VOID                                                                                                                                                                                                                                                       |
| RQ8.1.7.34a | The lifeCycleState object is optional for the Profile Package and it shall be an OCTET STRING. If not provided the default value INSTALLED AND SELECTABLE ('07'H) shall be assigned.                                                                       |
| RQ8.1.7.34b | If the lifeCycleState object is provided the provided value shall be assigned.                                                                                                                                                                             |
| RQ8.1.7.35  | The coding of applicationSpecificParametersC9 object shall follow the coding defined for Install for Install defined by GlobalPlatform Card Specification [GP CS].                                                                                         |
| RQ8.1.7.36  | The applicationSpecificParametersC9 object is mandatory and it shall be an OCTET STRING.                                                                                                                                                                   |

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| RQ8.1.7.37  | The coding of systemSpecificParameters object shall follow the coding defined for Install for Install defined by GlobalPlatform Card Specification [GP CS].                                                                                                                              |
| RQ8.1.7.38  | The systemSpecificParameters object is optional and it shall be an ApplicationSystemParameters.                                                                                                                                                                                          |
| RQ8.1.7.39  | The coding of applicationParameters object shall follow the coding defined in ETSI TS 102 226 [102 226].                                                                                                                                                                                 |
| RQ8.1.7.40  | The applicationParameters object is optional and it shall be an UICCApplicationParameters.                                                                                                                                                                                               |
| RQ8.1.7.41  | The applicationParameters can be used to define the access domain for an applet.                                                                                                                                                                                                         |
| RQ8.1.7.42  | The applicationParameters can be used to define the MSL (Minimum Security Level) for an applet or an RFM instance.                                                                                                                                                                       |
| RQ8.1.7.43  | The processData object is optional and it shall be a SEQUENCE OF OCTET STRING.                                                                                                                                                                                                           |
| RQ8.1.7.44  | The processData object octet string shall be directly sent to the respective application instance for processing through the "processData" method of the "Application" or "Personalization" interface of the application.                                                                |
| RQ8.1.7.45  | The processData object may contain all the bytes contained in a STORE DATA command (Including CLA,INS, P1, P2, L) if required by the application but encryption shall not be used.<br><br>Note: This test specification will consider this as mandatory otherwise it is not predictable. |
| RQ8.1.7.46  | The processData object shall contain data for the application and no decryption shall be performed by the respective SD.                                                                                                                                                                 |
| RQ8.1.7.47  | The volatileMemoryQuotaC7 is optional and it shall be an OCTET STRING.                                                                                                                                                                                                                   |
| RQ8.1.7.48  | The nonvolatileMemoryQuotaC8 is optional and it shall be an OCTET STRING.                                                                                                                                                                                                                |
| RQ8.1.7.49  | The globalServiceParameters is optional and it shall be an OCTET STRING.                                                                                                                                                                                                                 |
| RQ8.1.7.50  | The implicitSelectionParameter is optional and it shall be an OCTET STRING.                                                                                                                                                                                                              |
| RQ8.1.7.51  | The volatileReservedMemory is optional and it shall be an OCTET STRING.                                                                                                                                                                                                                  |
| RQ8.1.7.52  | The nonVolatileReservedMemory is optional and it shall be an OCTET STRING.                                                                                                                                                                                                               |
| RQ8.1.7.53  | The ts102226SIMFileAccessToolkitParameter is optional and it shall be an OCTET STRING.                                                                                                                                                                                                   |
| RQ8.1.7.54  | The ts102226AdditionalContactlessParameters is optional and it shall be a TS102226AdditionalContactlessParameters.                                                                                                                                                                       |
| RQ8.1.7.55  | The uiccToolkitApplicationSpecificParametersField is optional and it shall be an OCTET STRING.                                                                                                                                                                                           |
| RQ8.1.7.56  | The uiccAccessApplicationSpecificParametersField is optional and it shall be an OCTET STRING.                                                                                                                                                                                            |
| RQ8.1.7.57  | VOID                                                                                                                                                                                                                                                                                     |
| RQ8.1.7.58  | The uiccAdministrativeAccessApplicationSpecificParametersField is optional and it shall be an OCTET STRING.                                                                                                                                                                              |
| RQ8.1.7.59  | The protocolParameterData is mandatory and it shall be OCTET STRING.                                                                                                                                                                                                                     |
| RQ8.1.7.60  | The processData object shall be provided to the respective applet instance, with the supported processData method according to GlobalPlatform Card Specification [GP CS].                                                                                                                |
| RQ8.1.7.61  | The Application PE shall be used after the security domain to which the application instance is associated to is created by using PE-SecurityDomain.                                                                                                                                     |
| RQ8.1.7.62  | In case no value for the optional parameter securityDomainAID is provided, the package will be associated to the MNO-SD by default.                                                                                                                                                      |
| RQ8.1.7.63  | The contactlessProtocolParameters is optional and it shall be OCTET STRING.                                                                                                                                                                                                              |
| RQ8.1.7.64  | The contactlessProtocolParameters shall be coded according to Contactless Protocol Parameters Structure as defined in GlobalPlatform Amd. C [XXX].                                                                                                                                       |
| RQ8.1.7.65  | The userInteractionContactlessParameters is optional and it shall be OCTET STRING                                                                                                                                                                                                        |
| RQ8.1.7.66  | The userInteractionContactlessParameters shall be coded according to User Interaction Parameters Structure as defined in GlobalPlatform Amd. C [XXX].                                                                                                                                    |
| RQ8.1.7.67  | The protocolParameterData shall be encoded according to ETSI TS 102 226 [XXX].                                                                                                                                                                                                           |
| RQ8.1.7.68  | The whole PE should be discarded, if the processData object is provided in the PE, but the application does not implement the "processData" method. The eUICC may abort the Profile Package installation if it cannot recover the error.                                                 |
| RQ8.1.7.69  | An application (or SD) shall only be associated to an SD in Life Cycle State PERSONALIZED. Note: This REQ is applicable from SA PP TS v2.1 onwards                                                                                                                                       |
| RQ8.1.7.69b | If an application (or SD) is associated to an SD in Life Cycle State different from PERSONALIZED, the error code invalid-parameter shall be returned and the installation of the Profile Package shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards               |
| RQ8.1.7.70  | The cumulativeGrantedVolatileMemory is optional and it shall be OCTET STRING.                                                                                                                                                                                                            |
| RQ8.1.7.71  | The cumulativeGrantedVolatileMemory shall be coded according to Contactless Specific Parameters as defined in GlobalPlatform Amd. C [GP AC].                                                                                                                                             |
| RQ8.1.7.72  | The cumulativeGrantedNonVolatileMemory is optional and it shall be OCTET STRING.                                                                                                                                                                                                         |
| RQ8.1.7.73  | The cumulativeGrantedNonVolatileMemory shall be coded according to Contactless Specific Parameters as defined in GlobalPlatform Amd. C [GP AC].                                                                                                                                          |

NOTE1: Testing of RQ8.1.7.7, RQ8.1.7.18, RQ8.1.7.64, RQ8.1.7.67, RQ8.1.7.70, RQ8.1.7.71, RQ8.1.7.72, RQ8.1.7.73 is FFS.

NOTE2: RQ8.1.7.2, RQ8.1.7.68 are not testable.

NOTE3: RQ8.1.7.9, RQ8.1.7.19, RQ8.1.7.21, RQ8.1.7.23, RQ8.1.7.25, RQ8.1.7.27, RQ8.1.7.32, RQ8.1.7.36, RQ8.1.7.51, RQ8.1.7.52, RQ8.1.7.53, RQ8.1.7.54, RQ8.1.7.59 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.

NOTE4: RQ8.1.7.8, RQ8.1.7.10, RQ8.1.7.12, RQ8.1.7.14, RQ8.1.7.16, RQ8.1.7.20, RQ8.1.7.22, RQ8.1.7.24, RQ8.1.7.26, RQ8.1.7.31, RQ8.1.7.33, RQ8.1.7.35, RQ8.1.7.37, RQ8.1.7.39, RQ8.1.7.45, RQ8.1.7.46, RQ8.1.7.61, RQ8.1.7.64 and RQ8.1.7.66 are related to the format of the. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

### 8.1.8 RFM Parameters

The test requirements are extracted from section 8.8 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.8.1                                                                                                                                                                                                                                                                                                                                                                                           | RFM Parameters PE shall appear after PE containing the related SD.                                                                                                                     |
| RQ8.1.8.1b                                                                                                                                                                                                                                                                                                                                                                                          | RFM Parameters PE shall appear after PE containing the related ADF.                                                                                                                    |
| RQ8.1.8.2                                                                                                                                                                                                                                                                                                                                                                                           | RFM Parameters PE is optional and may be used several times.                                                                                                                           |
| RQ8.1.8.3                                                                                                                                                                                                                                                                                                                                                                                           | The securityDomainAID object is optional. If present an RFM instance shall be associated with the referenced SD. If not present, the RFM instance shall be associated with the MNO-SD. |
| RQ8.1.8.4                                                                                                                                                                                                                                                                                                                                                                                           | A RFM instance shall be addressable with given TAR values.                                                                                                                             |
| RQ8.1.8.5                                                                                                                                                                                                                                                                                                                                                                                           | A RFM instance shall be associated with at most one ADF.                                                                                                                               |
| RQ8.1.8.6                                                                                                                                                                                                                                                                                                                                                                                           | RFM Parameters PE shall contain PEHeader object.                                                                                                                                       |
| RQ8.1.8.7                                                                                                                                                                                                                                                                                                                                                                                           | If securityDomainAID is present is shall be ApplicationIdentifier type, tag 15.                                                                                                        |
| RQ8.1.8.8                                                                                                                                                                                                                                                                                                                                                                                           | RFM Parameters may contain tarList. If tarList is present it shall be a sequence of OCTET STRING of size 3, tag 0.                                                                     |
| RQ8.1.8.8a                                                                                                                                                                                                                                                                                                                                                                                          | tarList shall include at least one TAR if available.                                                                                                                                   |
| RQ8.1.8.8b                                                                                                                                                                                                                                                                                                                                                                                          | If tarList is not available the TAR value defined within bytes 13-15 of the instanceAID is used.                                                                                       |
| RQ8.1.8.9                                                                                                                                                                                                                                                                                                                                                                                           | RFM Parameters shall contain minimumSecurityLevel of OCTET STRING of size 1, tag 1.                                                                                                    |
| RQ8.1.8.10                                                                                                                                                                                                                                                                                                                                                                                          | The Minimum Security Level (MSL) for the RFM instance shall be interpreted according to ETSI TS 102 226.                                                                               |
| RQ8.1.8.11                                                                                                                                                                                                                                                                                                                                                                                          | RFM Parameters shall contain uiccAccessDomain of OCTET STRING of variable size.                                                                                                        |
| RQ8.1.8.12                                                                                                                                                                                                                                                                                                                                                                                          | RFM Parameters shall contain uiccAdminAccessDomain field of OCTET STRING of variable size.                                                                                             |
| RQ8.1.8.13                                                                                                                                                                                                                                                                                                                                                                                          | RFM Parameters may contain adfRFMAccess of ADFRFMAccess type.                                                                                                                          |
| RQ8.1.8.14                                                                                                                                                                                                                                                                                                                                                                                          | ADFRFMAccess object shall contain adfAID of ApplicationIdentifier type.                                                                                                                |
| RQ8.1.8.15                                                                                                                                                                                                                                                                                                                                                                                          | ADFRFMAccess object shall contain adfAccessDomain of OCTET STRING of variable size.                                                                                                    |
| RQ8.1.8.16                                                                                                                                                                                                                                                                                                                                                                                          | ADFRFMAccess object shall contain adfAdminAccessDomain of OCTET STRING of variable size.                                                                                               |
| RQ8.1.8.17                                                                                                                                                                                                                                                                                                                                                                                          | If adfRFMAccess is not provided, the RFM instance shall be linked only to the MF.                                                                                                      |
| RQ8.1.8.18                                                                                                                                                                                                                                                                                                                                                                                          | If adfRFMAccess is provided, corresponding ADF shall be selected by default in the context of an RFM script.                                                                           |
| RQ8.1.8.19                                                                                                                                                                                                                                                                                                                                                                                          | If adfRFMAccess is not provided, the MF shall be selected by default in the context of an RFM script.                                                                                  |
| RQ8.1.8.20                                                                                                                                                                                                                                                                                                                                                                                          | RFM Parameters PE shall contain instanceAID of ApplicationIdentifier type, tag 15.                                                                                                     |
| NOTE1: Testing of RQ8.1.8.5, RQ8.1.8.6, RQ8.1.8.8b, RQ8.1.8.10 is out of scope of this specification.                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                        |
| NOTE2: Testing of RQ8.1.8.3 is FFS.                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                        |
| NOTE3: RQ8.1.8.1 and RQ8.1.8.1b are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible . |                                                                                                                                                                                        |
| NOTE4: RQ8.1.8.7, RQ8.1.8.8, RQ8.1.8.8a, RQ8.1.8.9, RQ8.1.8.11, RQ8.1.8.12, RQ8.1.8.14, RQ8.1.8.15, RQ8.1.8.16 and RQ8.1.8.20 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.                                                              |                                                                                                                                                                                        |

### 8.1.9 Non standardised content

The test requirements are extracted from section 8.9 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|                                                                                             |                                                                                                                      |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| RQ8.1.9.1                                                                                   | The Profile Package can use as many PE-NonStandard profile elements as required.                                     |
| RQ8.1.9.2                                                                                   | PE-NonStandard shall contain a “nonstandard-header” object. The type of the “nonstandard-header” object is PEHeader. |
| RQ8.1.9.3                                                                                   | PE-NonStandard shall contain an “issuerID” object. The type of the issuerID shall be OBJECT IDENTIFIER.              |
| RQ8.1.9.4                                                                                   | PE-NonStandard shall contain “content” object. The type of the content shall be OCTET STRING.                        |
| Note; RQ8.1.9.1, RQ8.1.9.2, RQ8.1.9.3 and RQ8.1.9.4 are out of scope of this specification. |                                                                                                                      |

### 8.1.10 Profile Package end

The test requirements are extracted from section 8.10 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].

|            |                                                                                                    |
|------------|----------------------------------------------------------------------------------------------------|
| RQ8.1.10.1 | The PE-End shall contain an “end-header” object. The type of the “end-header” object is PE Header. |
| RQ8.1.10.2 | The support of PE-End is mandatory for eUICC.                                                      |
| RQ8.1.10.3 | The PE shall be used as the last element of the Profile Package.                                   |



**8.1.11 eUICC Response type**

The test requirements are extracted from section 8.11 and 9.5.2 of “eUICC Profile Package: Interoperable Format Technical Specification” [SA PP TS].



|              |                                                                                                                                                                                                                                                                                          |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.11.1   | EUICCResponse object shall contain peStatus field of SEQUENCE OF PESTatus type.                                                                                                                                                                                                          |
| RQ8.1.11.2   | EUICCResponse object may contain profileInstallationAborted field of NULL type.                                                                                                                                                                                                          |
| RQ8.1.11.2a  | When profileInstallationAborted is used, it shall be present in the last EUICCResponse sent by the eUICC.                                                                                                                                                                                |
| RQ8.1.11.3   | EUICCResponse object may contain statusMessage field of UTF8String type.                                                                                                                                                                                                                 |
| RQ8.1.11.4   | PEStatus object shall contain status field of INTEGER type.                                                                                                                                                                                                                              |
| RQ8.1.11.5   | PEStatus object may contain identification field of Uint15 type.                                                                                                                                                                                                                         |
| RQ8.1.11.6   | The identification field, if present, shall indicate the identification number of the PE triggering the error.                                                                                                                                                                           |
| RQ8.1.11.7   | VOID                                                                                                                                                                                                                                                                                     |
| RQ8.1.11.7a  | The identification field shall be present if EUICCResponse contains an error status except the following cases:<br>- error status is reported for Profile Header<br>- no identification field is provided in the PE Header                                                               |
| RQ8.1.11.8   | PEStatus object may contain additional-information field of Uint8 type.                                                                                                                                                                                                                  |
| RQ8.1.11.9   | EUICCResponse with ok status shall be sent at the end of the profile installation when the Profile has been processed successfully, and only if there is nothing to report.<br>Note: This REQ is applicable up to SA PP TS v2.1.                                                         |
| RQ8.1.11.9a  | In case the eUICC has not aborted the installation of the Profile Package after processing the PE-End, a EUICCResponse ending with a PESTatus containing the ok status code shall be sent.<br>Note: This REQ is applicable from SA PP TS v2.2 onwards.                                   |
| RQ8.1.11.10  | EUICCResponse with ok status shall not indicate any PE identification.                                                                                                                                                                                                                   |
| RQ8.1.11.11  | EUICCResponse with PE-not-supported status indicates that a specific PE is not supported by the eUICC.                                                                                                                                                                                   |
| RQ8.1.11.12  | EUICCResponse with PE-not-supported status shall include profileInstallationAborted tag if an unsupported PE is indicated as "mandated".                                                                                                                                                 |
| RQ8.1.11.12a | If the PE generating PE-not-supported status does not indicate "mandated" in the PE header this status is a warning status and the installation of the Profile shall be continued.                                                                                                       |
| RQ8.1.11.13  | EUICCResponse with memory-failure status indicates profile installation failure due to internal memory issue.                                                                                                                                                                            |
| RQ8.1.11.13a | If memory-failure is reported, the eUICC shall abort profile installation.                                                                                                                                                                                                               |
| RQ8.1.11.14  | EUICCResponse with bad-values status indicates that at least one value in the PE identified by its identification number is out of its acceptable value range.                                                                                                                           |
| RQ8.1.11.14a | In the case bad-values is reported, the eUICC may abort profile installation if it is not able to recover the error. Note: This REQ is applicable up to SA PP TS v2.0.                                                                                                                   |
| RQ8.1.11.14b | If the PE generating bad-values status indicates "mandated" in the PE header and the eUICC cannot apply a default value, this status is an error status and the processing of the Profile shall be aborted.<br>Note: This REQ is applicable for SA PP TS v2.1.                           |
| RQ8.1.11.14c | If the PE generating bad-values status does not indicate "mandated" in the PE header this status is a warning status and the installation of the Profile shall be continued.<br>Note: This REQ is applicable for SA PP TS v2.1.                                                          |
| RQ8.1.11.14d | If the PE generating bad-values status indicates "mandated" in the PE header this status is an error status and the processing of the Profile shall be aborted.<br>Note: This REQ is applicable from SA PP TS v2.2 onwards.                                                              |
| RQ8.1.11.14e | If the PE generating bad-values status does not indicate "mandated" in the PE header this status is a warning status and the installation of the Profile should be aborted.<br>Note: This REQ is applicable from SA PP TS v2.2 onwards.                                                  |
| RQ8.1.11.15  | EUICCResponse with not-enough-memory status indicates that eUICC does not have enough free memory to install the Profile.                                                                                                                                                                |
| RQ8.1.11.15a | If the eUICC runs out of memory during processing PE-MF, it shall abort profile installation.                                                                                                                                                                                            |
| RQ8.1.11.15b | If the eUICC runs out of memory during processing a PE with "mandated" flag set, it shall abort profile installation. Note: This REQ is applicable up to SA PP TS v2.0.                                                                                                                  |
| RQ8.1.11.15c | If eUICC does not have enough free memory to install the Profile the processing of the Profile shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards.                                                                                                                |
| RQ8.1.11.16  | EUICCResponse with invalid-request-format indicates that a structure in a PE is unknown or badly formatted, or that the order of the PEs is invalid.<br>Note: It is not required that the eUICC is able to detect and reject all invalid formats, or all the incorrect order of the PEs. |
| RQ8.1.11.16a | VOID (Note: combined with RQ8.1.1.16)                                                                                                                                                                                                                                                    |

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| RQ8.1.11.16b | <p>The eUICC shall abort profile installation if <code>invalid-request-format</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- PE-AKA-Parameters</li> <li>- PE-CSIM-Parameters</li> <li>- PE-PIN-Code</li> <li>- PE-PUK-Code</li> <li>- PE-Security-Domain</li> <li>- PE-RFM-Parameters</li> </ul> <p>For other PE-s the eUICC may abort profile installation in case <code>invalid-request-format</code> error is triggered and the eUICC is not able to recover the error. Note: This REQ is applicable up to SA PP TS v2.0.</p>                                                                                                                                                 |
| RQ8.1.11.16c | <p>The eUICC shall abort profile installation if <code>invalid-request-format</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- Profile Header</li> <li>- PE-AKA-Parameters</li> <li>- PE-CSIM-Parameters</li> <li>- PE-PIN-Code</li> <li>- PE-PUK-Code</li> <li>- PE-Security-Domain</li> <li>- PE-RFM-Parameters</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.1 onwards.</p>                                                                                                                                                                                                                                                                                       |
| RQ8.1.11.16d | <p>The eUICC may abort profile installation in case <code>invalid-request-format</code> error is triggered by any of following PEs and the eUICC is not able to recover the error by ignoring some non-mandatory parts of the Profile, or for any other reason:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- PE Application</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1 .</p>                                                                                                               |
| RQ8.1.11.16e | <p>The eUICC should abort profile installation in case <code>invalid-request-format</code> error is triggered by any of following PEs and the eUICC is not able to recover the error by ignoring some non-mandatory parts of the Profile, or for any other reason:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- EAP</li> <li>- Generic File Management</li> <li>- PE Application</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p> |
| RQ8.1.11.17  | <p>EUICCResponse with <code>invalid-parameter</code> indicates that a parameter in a PE description is not supported.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| RQ8.1.11.17a | <p>The eUICC shall abort profile installation if <code>invalid-parameter</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- PE-AKA-Parameters</li> <li>- PE-CSIM-Parameters</li> <li>- PE-PIN-Code</li> <li>- PE-PUK-Code</li> <li>- PE-Security-Domain</li> <li>- PE-RFM-Parameters</li> </ul> <p>For other PE-s the eUICC may abort profile installation if an invalid parameter is detected, and the eUICC is not able to recover the error.<br/>Note: This REQ is applicable up to SA PP TS v2.0.</p>                                                                                                            |
| RQ8.1.11.17b | <p>The <code>invalid-parameter</code> status code shall be used when the eUICC encounters an unknown tag inside a PE.<br/>Note: This REQ is applicable from SA PP TS v2.1.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RQ8.1.11.17c | <p>The eUICC shall abort profile installation if <code>invalid-parameter</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- Profile Header</li> <li>- PE-AKA-Parameters</li> <li>- PE-CSIM-Parameters</li> <li>- PE-PIN-Code</li> <li>- PE-PUK-Code</li> <li>- PE-Security-Domain</li> <li>- PE-RFM-Parameters</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.1 onwards.</p>                                                                                                                                                                                                                            |
| RQ8.1.11.17d | <p>The eUICC shall abort profile installation if <code>invalid-parameter</code> error is triggered by any of following PEs, and the PE triggering the error indicates "mandated" in the PE header and the eUICC cannot ignore the parameter which triggers the error:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- PE Application</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                          |
| RQ8.1.11.17e | <p>The eUICC shall abort profile installation if <code>invalid-parameter</code> error is triggered by any of following PEs, and the PE triggering the error indicates "mandated" in the PE header:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- EAP</li> <li>- Generic File Management</li> <li>- PE Application</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p> |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.11.17f | <p>The eUICC should abort profile installation and shall ignore the parameter if <code>invalid-parameter</code> error is triggered by any of following PEs, and the PE triggering the error does not indicate "mandated" in the PE header:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- EAP</li> <li>- Generic File Management</li> <li>- PE Application</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p> |
| RQ8.1.11.18  | <p>EUICCResponse with <code>runtime-not-supported</code> status indicates that an application present in a PE-Application requires a runtime environment that is not supported by the eUICC.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RQ8.1.11.18a | <p>If an unsupported runtime environment is requested by a PE with "mandated" flag set the eUICC shall abort profile installation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RQ8.1.11.18b | <p>If an unsupported runtime environment is requested by a PE without "mandated" flag, this is just a warning and the installation of the Profile shall continue and the application shall be ignored.</p> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.11.18c | <p>If an unsupported runtime environment is requested by a PE without "mandated" flag, the installation of the Profile should be aborted and the application shall be ignored.</p> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.11.19  | <p>EUICCResponse with <code>lib-not-supported</code> status indicates that a library required by an application present in a PE-Application is not available in the eUICC.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| RQ8.1.11.19a | <p>If a missing library is requested by a PE with "mandated" flag set the eUICC shall abort profile installation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| RQ8.1.11.19b | <p>If a missing library is requested by a PE without "mandated" flag set this is just a warning and the installation of the Profile shall continue and the application shall be ignored.</p> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| RQ8.1.11.19c | <p>If a missing library is requested by a PE without "mandated" flag set, the installation of the Profile should be aborted and the application shall be ignored.</p> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| RQ8.1.11.20  | <p>EUICCResponse with <code>template-not-supported</code> status indicates that the template indicated by the OBJECT IDENTIFIER in the templateID or in the eUICC-Mandatory-GFSTEList is not available in the eUICC (i.e. non-standard template or template version not supported).</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RQ8.1.11.20a | VOID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| RQ8.1.11.20b | <p>If the eUICC sends <code>template-not-supported</code> error indicating that one, or more of the file system templates identified in the Profile Header is not supported the eUICC shall abort profile installation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.11.20c | <p>If a file system template PE triggering the <code>template-not-supported</code> error has "mandated" flag set the eUICC shall abort profile installation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RQ8.1.11.20d | <p>The eUICC shall abort profile installation if <code>template-not-supported</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                                                                                                                                                                                                                                                                                                                                                                                              |
| RQ8.1.11.20e | <p>For the PE-s listed below if a PE triggering the <code>template-not-supported</code> error has "mandated" flag set, the eUICC shall abort profile installation:</p> <ul style="list-style-type: none"> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                                                                                                                                                                                                                                                                                      |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.11.20f | <p>For the PE-s listed below if a PE triggering the <code>template-not-supported</code> error has no “mandated” flag set, the installation of the Profile shall continue and the file system described by this PE shall not be created:</p> <ul style="list-style-type: none"> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                                          |
| RQ8.1.11.20g | <p>The eUICC shall abort profile installation if <code>template-not-supported</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- PE-MF</li> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- EAP</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                                                                                                                                                               |
| RQ8.1.11.20h | <p>For the PE-s listed below if a PE triggering the <code>template-not-supported</code> error has “mandated” flag set, the eUICC shall abort profile installation:</p> <ul style="list-style-type: none"> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                     |
| RQ8.1.11.20i | <p>For the PE-s listed below if a PE triggering the <code>template-not-supported</code> error has no “mandated” flag set, the installation of the Profile shall continue and the file system described by this PE shall not be created:</p> <ul style="list-style-type: none"> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards</p> |
| RQ8.1.11.21  | <p>EUICCResponse with <code>feature-not-supported</code> status indicates that a feature included in the PE, or in the ServicesList of the Profile Header is not supported by the eUICC.</p>                                                                                                                                                                                                                                                                                                                                       |
| RQ8.1.11.22  | <p><code>feature-not-supported</code> status shall be sent if Optional USIM EFs PE contains any of EF GBABP, EF MSK, EF MUK, EF GBANL and EF NAFKCA and respective services are not supported at the eUICC operating system level.</p> <p>In this case, PEStatus object shall contain additional-information field set to ‘1’ if GBA is not supported, to ‘2’ if MBMS if not supported and ‘3’ if both are not supported.</p>                                                                                                      |
| RQ8.1.11.22a | VOID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RQ8.1.11.22b | <p>The eUICC shall abort profile installation if the <code>feature-not-supported</code> error is triggered by Profile Header (the eUICC does not support a feature included in the ServiceList of the Profile Header).</p>                                                                                                                                                                                                                                                                                                         |
| RQ8.1.11.22c | <p>The eUICC shall abort profile installation if <code>feature-not-supported</code> error is triggered by any of following PEs:</p> <ul style="list-style-type: none"> <li>- PE-AKA Parameters</li> <li>- PE-CSIM Parameters</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.1 onwards.</p>                                                                                                                                                                                                                            |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.11.22d | <p>For the PE-s listed below if a PE triggering the <i>feature -not-supported</i> error has “mandated” flag set the eUICC shall abort profile installation:</p> <ul style="list-style-type: none"> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- PE Generic File Management</li> <li>- PE Security Domain</li> <li>- PE Application</li> <li>- PE RFM Parameters</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                                                          |
| RQ8.1.11.22e | <p>For the PE-s listed below if a PE triggering the <i>feature -not-supported</i> error has no “mandated” flag set the installation of the Profile shall continue and the feature shall be ignored:</p> <ul style="list-style-type: none"> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- PE Generic File Management</li> <li>- PE Security Domain</li> <li>- PE Application</li> <li>- PE RFM Parameters</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable for SA PP TS v2.1.</p>                                  |
| RQ8.1.11.22f | <p>For the PE-s listed below if a PE triggering the <i>feature -not-supported</i> error has “mandated” flag set the eUICC shall abort profile installation:</p> <ul style="list-style-type: none"> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- EAP</li> <li>- PE Generic File Management</li> <li>- PE Security Domain</li> <li>- PE Application</li> <li>- PE RFM Parameters</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ8.1.11.22g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>For the PE-s listed below if a PE triggering the <code>feature -not-supported</code> error has no "mandated" flag set the installation of the Profile shall continue and the feature shall be ignored:</p> <ul style="list-style-type: none"> <li>- DF-CD</li> <li>- DF-TELECOM</li> <li>- PE USIM</li> <li>- PE OPT USIM</li> <li>- DF-GSM-ACCESS</li> <li>- DF-PHONEBOOK</li> <li>- PE ISIM</li> <li>- PE OPT ISIM</li> <li>- PE CSIM</li> <li>- PE OPT CSIM</li> <li>- EAP</li> <li>- PE Generic File Management</li> <li>- PE Security Domain</li> <li>- PE Application</li> <li>- PE RFM Parameters</li> <li>- PE Non Standardized</li> </ul> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p> |
| RQ8.1.11.23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>EUICCResponse with <code>unsupported-profile-version</code> status indicates that the major version indicated in the Profile Header is not supported by the eUICC.,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| RQ8.1.11.23a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>EUICCResponse with <code>unsupported-profile-version</code> status is an error status and the processing of the Profile shall be aborted.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| RQ8.1.11.24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>VOID</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| RQ8.1.11.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>If the installation of the Profile is aborted EUICCResponse shall contain <code>profileInstallationAborted</code> tag.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| RQ8.1.11.26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>EUICCResponse with <code>pin-code-missing</code> indicates that at least one rule of "PE-PINCodes and pinStatusTemplateDO usage rules" is not satisfied. It is optional for the eUICC to support this status.</p> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RQ8.1.11.27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>EUICCResponse with <code>pin-code-missing</code> status is an error status and the processing of the Profile shall be aborted.</p> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RQ8.1.11.28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>PEStatus object may contain <code>offset</code> field of Uint31 type.</p> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RQ8.1.11.29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>The <code>offset</code> field can be used by the eUICC in order to indicate the part of the PE generating a specific status. This value gives the approximate number of bytes from the beginning of the PE to the element generating the status.</p> <p>Note: This REQ is applicable from SA PP TS v2.2 onwards.</p>                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>NOTE 1: RQ8.1.11.1 is implicitly tested everytime UICC response with PESTatus is sent.</p> <p>NOTE 2: Testing of RQ8.1.11.5, RQ8.1.11.6, RQ8.1.11.8, RQ8.1.11.11, RQ8.1.11.12, RQ8.1.11.12a, RQ8.1.11.14, RQ8.1.11.14a, RQ8.1.11.14b, RQ8.1.11.14c, RQ8.1.11.14d, RQ8.1.11.15a, RQ8.1.11.16b, RQ8.1.11.16c, RQ8.1.11.16d, RQ8.1.11.17a, RQ8.1.11.17, RQ8.1.11.17b, RQ8.1.11.17c, RQ8.1.11.18, RQ8.1.11.18a, RQ8.1.11.18b, RQ8.1.11.18c RQ8.1.11.19b, RQ8.1.11.19c, RQ8.1.11.20c, RQ8.1.11.20d, RQ8.1.11.20e, RQ8.1.11.20f, RQ8.1.11.20g, RQ8.1.11.20h, RQ8.1.11.20i, RQ8.1.11.22, RQ8.1.11.22c, RQ8.1.11.22d, RQ8.1.11.22f, RQ8.1.11.26, RQ8.1.11.27 is FFS.</p> <p>NOTE3: RQ8.1.11.3, RQ8.1.11.13, RQ8.1.11.13a, RQ8.1.11.14e, RQ8.1.11.16e, RQ8.1.11.17f are not testable.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 8.2 Test cases / scenarios

### 8.2.1 Check Profile Format

#### 8.2.1.1. VOID

#### 8.2.1.2. Installing profile with PE-USIM before PE-MF, eUICC reports error.

##### 8.2.1.2.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.1.2.2. *Initial Conditions*

None.

##### 8.2.1.2.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                                                                                                                                        | RQ                                                      |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                                                                                                                              | RQ8.1.1.16                                              |
| 2    | eUICC → T | eUICC responds with PESTatus(5) invalid-request-format and identification of USIM-by-Generic-File-Management-1, or with PESTatus different from (0) and identification of USIM-by-Generic-File-Management-1<br>The last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.16<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                                                                                                                   |                                                         |



### 8.2.1.3. Installing profile with PE-Application before PE-SecurityDomain, eUICC reports error.

#### 8.2.1.3.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-Application-1                  | 6.14.12.1  |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.1.3.2. *Initial Conditions*

None.

#### 8.2.1.3.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                                                                                                     | RQ                                                                   |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                            | RQ8.1.1.36<br>RQ8.1.1.36b                                            |
| 2    | eUICC → T | eUICC responds with PESTatus (5) invalid-request-format and identification of PE-Application-1, or with PESTatus different from (0) and identification of PE-Application-1. The last eUICC response contains profileInstallationAborted object. | RQ8.1.6.6<br>RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.16<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                                                                                |                                                                      |

#### 8.2.1.4. Installing profile with PE-RFM before PE-SecurityDomain, eUICC reports error.

##### 8.2.1.4.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-RFM-1                          | 6.14.13.1  |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.1.4.2. Initial Conditions

None.

##### 8.2.1.4.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                                                                        | RQ                                                                                |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                               | RQ8.1.1.37                                                                        |
| 2    | eUICC → T | eUICC responds with PESTatus (5) invalid-request-format and identification of PE-RFM-1, or with PESTatus different from (0) and identification of PE-RFM-1.<br>The last eUICC response contains profileInstallationAborted object. | RQ8.1.6.6<br>RQ8.1.8.1<br>RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.16<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                                                                   |                                                                                   |

## 8.2.2 Check Profile Header

### 8.2.2.1. Error when cat-tp in ServicesList and eUICC does not support CAT\_TP

#### 8.2.2.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-13                 | 6.14.1.13  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-RFM-2                          | 6.14.13.2  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.2.1.2. Initial Conditions

None.

#### 8.2.2.1.3. Test Procedure

| Step | Direction | Description                                                                                                                                                      | RQ                                                                                                         |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10.                                                                                                                          | RQ7.1.1.7<br>RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3b |
| 2    | eUICC → T | eUICC responds with PESTatus (10) feature-not-supported, or with PESTatus different from (0) the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.21<br>RQ8.1.11.22b<br>RQ8.1.11.25                                    |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                 |                                                                                                            |

### 8.2.2.2. Error when package in eUICC-Mandatory-AIDs is not known

#### 8.2.2.2.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-14                 | 6.14.1.14  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.2.2.2. Initial Conditions

None.

#### 8.2.2.2.3. Test Procedure

| Step | Direction | Description                                                                                                            | RQ                                                                                   |
|------|-----------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10.                                                                                | RQ7.1.1.7<br>RQ8.1.2.20<br>RQ8.1.2.21                                                |
| 2    | eUICC → T | eUICC responds with PESTatus (8) lib-not-supported the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.4<br>RQ8.1.11.7a<br>RQ8.1.11.19<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                       |                                                                                      |

### 8.2.2.3. Error when version in eUICC-Mandatory-AIDs is not supported

#### 8.2.2.3.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-15                 | 6.14.1.15  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.2.3.2. Initial Conditions**

None.

**8.2.2.3.3. Test Procedure**

| Step | Direction | Description                                                                                                            | RQ                                                                                   |
|------|-----------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10.                                                                                | RQ7.1.1.7<br>RQ8.1.2.20<br>RQ8.1.2.22                                                |
| 2    | eUICC → T | eUICC responds with PEStatus (8) lib-not-supported the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.4<br>RQ8.1.11.7a<br>RQ8.1.11.19<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                       |                                                                                      |

**8.2.2.4. No error when package and version in eUICC-Mandatory-AIDs is known and supported****8.2.2.4.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-16                 | 6.14.1.16  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.2.4.2. Initial Conditions**

None.

**8.2.2.4.3. Test Procedure**

| Step | Direction | Description                                                                                                                                            | RQ                                                     |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   | RQ7.1.1.7<br>RQ8.1.2.20                                |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package (see description in 6.11).                                                                                                      |                                                        |
| 4    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID'.                                           |                                                        |

|   |           |                                                                                                                                                                                                                                                                  |  |
|---|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"><li>• AID of application (#instanceAID)</li><li>• Life cycle state ('07'H) See Note</li><li>• Privileges (#applicationPrivileges)</li><li>• SCP Registry Data is present</li></ul> SW='9000'. |  |
|---|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

Futher requirements related to Profile Header are tested in 8.2.3 and 8.2.11.

### 8.2.3 Check File System

#### 8.2.3.1. Installing USIM files by generic file management

##### 8.2.3.1.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                           | REFERENCE  |
|----------------------------------------|------------|
| Profile-Header-1                       | 6.14.1.1   |
| MF-by-Generic-File-Management-1        | 6.14.2.1.2 |
| PE-PUKCodes-1                          | 6.14.3.1   |
| PE-PINCodes-1                          | 6.14.4.1   |
| DF-CD-by-Generic-File-Management-1     | 6.14.2.2.2 |
| DF-CUSTOM-by-Generic-File-Management-1 | 6.14.2.4.1 |
| USIM-by-Generic-File-Management-2      | 6.14.5.1.4 |
| PE-PINCodes-Local-PIN-1                | 6.14.8.1   |
| OPT-USIM-by-Generic-File-Management-1  | 6.14.5.2.2 |
| PE-AKAPParameters-1                    | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1             | 6.14.10.1  |
| PE-SecurityDomain-SSD-1                | 6.14.11.1  |
| PE-Application-1                       | 6.14.12.1  |
| PE-RFM-1                               | 6.14.13.1  |
| PE-RFM-2                               | 6.14.13.2  |
| PE-END-1                               | 6.14.14.1  |

##### 8.2.3.1.2. *Initial Conditions*

None.

##### 8.2.3.1.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                   | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                         | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13b<br>RQ8.1.1.14<br>RQ8.1.1.16<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br><br>RQ8.1.3.6<br>RQ8.1.3.15<br>RQ8.1.3.22<br>RQ8.1.3.21<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8RQ8<br>.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the MF-by-Generic-File-Management-1                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6    | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 7    | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the DF-CD-by-Generic-File-Management-1                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 8    | T ↔ eUICC | Select all files in DF CUSTOM and verify their FCPs.                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 9    | T ↔ eUICC | Read all files in DF CUSTOM and verify that the content is the same as defined in the DF-CUSTOM-by-Generic-File-Management-1                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10   | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 11   | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the USIM-by-Generic-File-Management-2                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



|    |           |                                                                                                                            |  |
|----|-----------|----------------------------------------------------------------------------------------------------------------------------|--|
| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs.                                                                        |  |
| 13 | T ↔ eUICC | Read all files in OPT USIM and verify that the content is the same as defined in the OPT-USIM-by-Generic-File-Management-1 |  |

### 8.2.3.2. Installing USIM files by template

#### 8.2.3.2.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-2           | 6.14.1.2   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-3      | 6.14.5.1.5 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.2.2. *Initial Conditions*

None.

#### 8.2.3.2.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                      | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted<br>objecteUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the PE-MF-by-Template-1 .                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6    | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7    | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-1                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 8    | T ↔ eUICC | Select all files in DF TELECOM and verify their FCPs.                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 9    | T ↔ eUICC | Read all files in DF TELECOM and verify that the content is the same as defined in the PE-TELECOM-by-Template-1                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10   | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|    |           |                                                                                                                                                                   |  |
|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 11 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-3.<br>EF EPSLOCI shall not be present. |  |
| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-1                |  |
| 13 | T ↔ eUICC | Read all files in OPT USIM and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-1                                                    |  |

### 8.2.3.3. Installing USIM files by template with OPT-USIM-2

#### 8.2.3.3.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-2           | 6.14.1.2   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-2      | 6.14.5.1.3 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-2  | 6.14.5.2.3 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.3.2. Initial Conditions

None.

#### 8.2.3.3.3. Test Procedure

| Step | Direction | Description                                                                                                                                                | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                      | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted<br>objecteUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the PE-MF-by-Template-1 .                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|    |           |                                                                                                                                                                   |  |
|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6  | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                                  |  |
| 7  | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-1                                                             |  |
| 8  | T ↔ eUICC | Select all files in DF TELECOM and verify their FCPs.                                                                                                             |  |
| 9  | T ↔ eUICC | Read all files in DF TELECOM and verify that the content is the same as defined in the PE-TELECOM-by-Template-1                                                   |  |
| 10 | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                               |  |
| 11 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-2.<br>EF EPSLOCI shall not be present. |  |
| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-2                |  |
| 13 | T ↔ eUICC | Read all files in OPT USIM and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-2                                                    |  |

#### 8.2.3.4. Installing USIM files by template with BER-TLV files in the ServicesList

##### 8.2.3.4.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-5           | 6.14.1.5   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-2   | 6.14.2.3.2 |
| PE-USIM-by-Template-4      | 6.14.5.1.6 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

##### 8.2.3.4.2. Initial Conditions

None.

##### 8.2.3.4.3. Test Procedure

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       | RQ8.1.1.6<br>RQ8.1.1.7<br><br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.5<br>RQ8.1.5.14<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br><br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted<br>object eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the PE-MF-by-Template-1                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6    | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 7    | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-1                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 8    | T ↔ eUICC | Select all files in DF TELECOM and verify their FCPs.                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 9    | T ↔ eUICC | Read all files in DF TELECOM and verify that the content is the same as defined in the PE-TELECOM-by-Template-2                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10   | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|    |           |                                                                                                                                                                 |  |
|----|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 11 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-4<br>EF EPSLOC shall not be present. |  |
| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-1              |  |
| 13 | T ↔ eUICC | Read all files in OPT USIM and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-1                                                  |  |

#### 8.2.3.5. Error when installing PE-USIM when eUICC does not support USIM

##### 8.2.3.5.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-RFM-2                          | 6.14.13.2  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.3.5.2. Initial Conditions

None.

##### 8.2.3.5.3. Test Procedure

| Step | Direction | Description                                                                                                                                                         | RQ                                                                                            |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10.                                                                                                                             | RQ7.1.1.7<br>RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br><br>RQ8.1.2.1<br>RQ8.1.2.3b |
| 2    | eUICC → T | eUICC responds with PESTatus (10) feature-not-supported, or with PESTatus different from (0)<br>the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.21<br>RQ8.1.11.22b<br>RQ8.1.11.25                       |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                    |                                                                                               |

**8.2.3.6.** Warning when installing USIM files by template with BER-TLV files in a non mandatory PE when eUICC does not support BER-TLV

**8.2.3.6.1.** *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-2           | 6.14.1.2   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-3   | 6.14.2.3.3 |
| PE-USIM-by-Template-4      | 6.14.5.1.6 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-AKAParameters-1         | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

**8.2.3.6.2.** *Initial Conditions*

None.

**8.2.3.6.3.** *Test Procedure*



| Step | Direction | Description                                                                                                                                                                                                         | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                                                               | RQ7.1.1.5<br><br>RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.5<br>RQ8.1.5.14<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br><br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3<br><br>RQ8.1.2.17 |
| 2    | eUICC → T | eUICC response contains a PESTatus (10) feature-not-supported and identification of PE-TELECOM-by-Template-3 and no additional-information object.<br>eUICC response contains no profileInstallationAborted object. | RQ8.1.11.5<br>RQ8.1.11.6<br>RQ8.1.11.21<br>RQ8.1.11.22e<br>RQ8.1.11.22g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the PE-MF-by-Template-1                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6    | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7    | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-1                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 8    | T ↔ eUICC | Select all files in DF TELECOM and verify their FCPs.<br>ef-ice-graphics, ef-mml and ef-mmdf shall not be present.                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|    |           |                                                                                                                                                                                             |  |
|----|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 9  | T ↔ eUICC | Read all files in DF TELECOM and verify that the content is the same as defined in the PE-TELECOM-by-Template-3 except ef-ice-graphics, ef-mml and ef-mmdf which files shall not be present |  |
| 10 | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                                                         |  |
| 11 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-4.<br>EF EPSLOC shall not be present.                            |  |
| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-1                                          |  |
| 13 | T ↔ eUICC | Read all files in OPT USIM and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-1                                                                              |  |

### 8.2.3.7. Warning when creating a DF with dfLink in a non mandatory PE when eUICC does not support dfLink.

#### 8.2.3.7.1. Test execution

The Profile Package is defined as follows:

| Test PE name                           | Reference  |
|----------------------------------------|------------|
| Profile-Header-2                       | 6.14.1.2   |
| PE-MF-by-Template-1                    | 6.14.2.1.1 |
| PE-PUKCodes-1                          | 6.14.3.1   |
| PE-PINCodes-1                          | 6.14.4.1   |
| PE-CD-by-Template-1                    | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1               | 6.14.2.3.3 |
| DF-CUSTOM-by-Generic-File-Management-2 | 6.14.2.4.2 |
| PE-USIM-by-Template-3                  | 6.14.5.1.5 |
| PE-PINCodes-Local-PIN-1                | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1              | 6.14.5.2.1 |
| PE-AKAPParameters-1                    | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1             | 6.14.10.1  |
| PE-SecurityDomain-SSD-1                | 6.14.11.1  |
| PE-Application-1                       | 6.14.12.1  |
| PE-RFM-1                               | 6.14.13.1  |
| PE-RFM-2                               | 6.14.13.2  |
| PE-END-1                               | 6.14.14.1  |

#### 8.2.3.7.2. Initial Conditions

None.

#### 8.2.3.7.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                                                                                  | RQ                                                                      |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10 .                                                                                                                                                                                                     | RQ7.1.1.5<br>RQ8.1.2.17<br>RQ8.1.3.5                                    |
| 2    | eUICC → T | eUICC response with PEStatus containing status (10) feature-not-supported and identification of DF-CUSTOM-by-Generic-File-Management-2 and no additional-information object.<br>eUICC response contains no profileInstallationAborted object | RQ8.1.11.5<br>RQ8.1.11.6<br>RQ8.1.11.21<br>RQ8.1.11.22e<br>RQ8.1.11.22g |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                    |                                                                         |
| 4    | T ↔ eUICC | Select all files in DF TELECOM and verify their FCPs.                                                                                                                                                                                        |                                                                         |

|   |           |                                                                                                                                                                   |  |
|---|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 5 | T ↔ eUICC | Read all files in DF TELECOM and verify that the content is the same as defined in the PE-TELECOM-by-Template-1                                                   |  |
| 6 | T ↔ eUICC | Select DF LINK (fileID '7FA1'), as defined in DF-CUSTOM-by-Generic-File-Management-2 and verify that it does not exist e.g. SW '6A82'.                            |  |
| 7 | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                               |  |
| 8 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-4.<br>EF EPSLOCI shall not be present. |  |

### 8.2.3.8. Creating a DF with dfLink when eUICC supports dfLink.

#### 8.2.3.8.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                           | Reference  |
|----------------------------------------|------------|
| Profile-Header-1                       | 6.14.1.1   |
| MF-by-Generic-File-Management-1        | 6.14.2.1.2 |
| PE-PUKCodes-1                          | 6.14.3.1   |
| PE-PINCodes-1                          | 6.14.4.1   |
| DF-CD-by-Generic-File-Management-1     | 6.14.2.2.2 |
| DF-CUSTOM-by-Generic-File-Management-3 | 6.14.2.4.3 |
| USIM-by-Generic-File-Management-1      | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1                | 6.14.8.1   |
| PE-AKAPParameters-1                    | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1             | 6.14.10.1  |
| PE-SecurityDomain-SSD-1                | 6.14.11.1  |
| PE-Application-1                       | 6.14.12.1  |
| PE-RFM-1                               | 6.14.13.1  |
| PE-RFM-2                               | 6.14.13.2  |
| PE-END-1                               | 6.14.14.1  |

#### 8.2.3.8.2. *Initial Conditions*

None.

#### 8.2.3.8.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10 .                                                                                                                    | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13b<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br><br>RQ8.1.3.6<br><br>RQ8.1.5.5<br>RQ8.1.5.14<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC response with PESTatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                  |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                          |
| 4    | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                          |
| 5    | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the DF-CD-by-Generic-File-Management-1.                                       |                                                                                                                                                                                                                                                                                                                                                                                          |
| 6    | T ↔ eUICC | Select DF LINK (fileID '7FA1') and verify its FCP, as defined in DF-CUSTOM-by-Generic-File-Management-3.                                                    |                                                                                                                                                                                                                                                                                                                                                                                          |
| 7    | T ↔ eUICC | Select all files in DF LINK (fileID '7FA1') as defined in the DF-CD-by-Generic-File-Management-1 and verify their FCP.                                      |                                                                                                                                                                                                                                                                                                                                                                                          |
| 8    | T ↔ eUICC | Read all files in DF LINK (fileID '7FA1') and verify that the content is the same as defined in the DF-CD-by-Generic-File-Management-1.                     |                                                                                                                                                                                                                                                                                                                                                                                          |

### 8.2.3.9. Creating a DF with dfLink when eUICC supports dfLink and dfLink is in ServicesList.

#### 8.2.3.9.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                           | Reference  |
|----------------------------------------|------------|
| Profile-Header-6                       | 6.14.1.6   |
| MF-by-Generic-File-Management-1        | 6.14.2.1.2 |
| PE-PUKCodes-1                          | 6.14.3.1   |
| PE-PINCodes-1                          | 6.14.4.1   |
| DF-CD-by-Generic-File-Management-1     | 6.14.2.2.2 |
| DF-CUSTOM-by-Generic-File-Management-3 | 6.14.2.4.3 |
| USIM-by-Generic-File-Management-1      | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1                | 6.14.8.1   |
| PE-AKAPParameters-1                    | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1             | 6.14.10.1  |
| PE-SecurityDomain-SSD-1                | 6.14.11.1  |
| PE-Application-1                       | 6.14.12.1  |
| PE-RFM-1                               | 6.14.13.1  |
| PE-RFM-2                               | 6.14.13.2  |
| PE-END-1                               | 6.14.14.1  |

#### 8.2.3.9.2. *Initial Conditions*

None.

#### 8.2.3.9.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10 .                                                                                                                    | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13b<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br><br>RQ8.1.3.6<br><br>RQ8.1.5.5<br>RQ8.1.5.14<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC response with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                   |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                          |
| 4    | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                          |
| 5    | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the DF-CD-by-Generic-File-Management-1.                                       |                                                                                                                                                                                                                                                                                                                                                                                          |
| 6    | T ↔ eUICC | Select DF LINK (fileID '7FA1') and verify its FCP, as defined in DF-CUSTOM-by-Generic-File-Management-3.                                                    |                                                                                                                                                                                                                                                                                                                                                                                          |
| 7    | T ↔ eUICC | Select all files in DF LINK (fileID '7FA1') as defined in the DF-CD-by-Generic-File-Management-1 and verify their FCP.                                      |                                                                                                                                                                                                                                                                                                                                                                                          |
| 8    | T ↔ eUICC | Read all files in DF LINK (fileID '7FA1') and verify that the content is the same as defined in the DF-CD-by-Generic-File-Management-1.                     |                                                                                                                                                                                                                                                                                                                                                                                          |

### 8.2.3.10. Installing CSIM files by template

#### 8.2.3.10.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-8           | 6.14.1.8   |
| PE-MF-by-Template-3        | 6.14.2.1.4 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CSIM-by-Template-1      | 6.14.7.1.1 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-CSIM-by-Template-1  | 6.14.7.2.1 |
| PE-CDMAParameters-1        | 6.14.9.4   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-CSIM                | 6.14.13.4  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.10.2. *Initial Conditions*

None.

#### 8.2.3.10.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.18<br>RQ8.1.1.23<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.10<br>RQ8.1.3.16<br><br>RQ8.1.4.15<br>RQ8.1.4.17<br>RQ8.1.4.18<br>RQ8.1.4.18a<br>RQ8.1.4.19<br>RQ8.1.4.19a<br>RQ8.1.4.20<br>RQ8.1.4.20a<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.8<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the PE-MF-by-Template-3.                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6    | T ↔ eUICC | Select all files in ADF CSIM and verify their FCPs.                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 7    | T ↔ eUICC | Read all files in ADF CSIM except the EF CST and verify that the content is the same as defined in the PE-CSIM-by-Template-1                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



|   |           |                                                                                                                                                    |  |
|---|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 8 | T ↔ eUICC | Select all files in OPT CSIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-CSIM-by-Template-1 |  |
| 9 | T ↔ eUICC | Read all files in OPT CSIM except the EF EST and verify that the content is the same as defined in the PE-OPT-CSIM-by-Template-1                   |  |

### 8.2.3.11. Installing ISIM files by template

#### 8.2.3.11.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-9           | 6.14.1.9   |
| PE-MF-by-Template-2        | 6.14.2.1.3 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-2      | 6.14.5.1.3 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-2  | 6.14.5.2.3 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-ISIM-by-Template-1      | 6.14.6.1.1 |
| PE-OPT-ISIM-by-Template-1  | 6.14.6.2.1 |
| PE-AKAPParameters-3        | 6.14.9.3   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-ISIM                | 6.14.13.3  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.11.2. *Initial Conditions*

None.

#### 8.2.3.11.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.17<br>RQ8.1.1.22<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.3<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.2<br>RQ8.1.8.8<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|    |           |                                                                                                                                                                   |  |
|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 4  | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                                      |  |
| 5  | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the PE-MF-by-Template-2.                                                |  |
| 6  | T ↔ eUICC | Select all files in DF CD and verify their FCPs.                                                                                                                  |  |
| 7  | T ↔ eUICC | Read all files in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-1                                                             |  |
| 8  | T ↔ eUICC | Select all files in DF TELECOM and verify their FCPs.                                                                                                             |  |
| 9  | T ↔ eUICC | Read all files in DF TELECOM and verify that the content is the same as defined in the PE-TELECOM-by-Template-1                                                   |  |
| 10 | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                               |  |
| 11 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-2.<br>EF EPSLOC1 shall not be present. |  |
| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-2                |  |
| 13 | T ↔ eUICC | Read all files in OPT USIM and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-2                                                    |  |
| 14 | T ↔ eUICC | Select all files in ADF ISIM and verify their FCPs.                                                                                                               |  |
| 15 | T ↔ eUICC | Read all files in ADF ISIM and verify that the content is the same as defined in the PE-ISIM-by-Template-1                                                        |  |
| 16 | T ↔ eUICC | Select all files in OPT ISIM and verify their FCPs<br>Only those files shall be present which are explicitly included in PE-OPT-ISIM-by-Template-1                |  |
| 17 | T ↔ eUICC | Read all files in OPT ISIM and verify that the content is the same as defined in the PE-OPT-ISIM-by-Template-1                                                    |  |

### 8.2.3.12. Installing USIM files by template without content

#### 8.2.3.12.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-2           | 6.14.1.2   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-2      | 6.14.5.1.3 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-3  | 6.14.5.2.4 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.12.2. Initial Conditions

None.

## 8.2.3.12.3. Test Procedure

| Step | Direction | Description                                                                                                                                                 | RQ                                       |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                          |
| 4    | T ↔ eUICC | Select EF GID1 and EF GID2 from OPT USIM and verify their FCPs.                                                                                             |                                          |
| 5    | T ↔ eUICC | Read EF GID1 and EF GID2 in OPT USIM and verify that EF GID1 and EF GID2 are created with content "FFFFFFFFFFFFFFFF"                                        | RQ8.1.3.18b                              |

8.2.3.13. Creating file instances with and without explicitly set file ID

## 8.2.3.13.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-2           | 6.14.1.2   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-2        | 6.14.2.2.3 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-3      | 6.14.5.1.5 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

## 8.2.3.13.2. Initial Conditions

None.

## 8.2.3.13.3. Test Procedure

| Step | Direction | Description                                                                                                                                                 | RQ                                       |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                          |

|   |           |                                                                                                                                                                                                                                         |                           |
|---|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 4 | T ↔ eUICC | Select the three instances of EF ICON in DF CD and verify their FCPs.<br>The file ID of the 2 <sup>nd</sup> instance of EF ICON shall be set to "6F41"<br>The file ID of the 3 <sup>rd</sup> instance of EF ICON shall be set to "6F80" | RQ8.1.3.11<br>RQ8.1.3.11b |
| 5 | T ↔ eUICC | Read the three instances of EF ICON in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-2                                                                                                              |                           |

#### 8.2.3.14. Error when installing PE-CSIM when eUICC does not support CSIM

##### 8.2.3.14.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-8           | 6.14.1.8   |
| PE-MF-by-Template-3        | 6.14.2.1.4 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CSIM-by-Template-1      | 6.14.7.1.1 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-CSIM-by-Template-1  | 6.14.7.2.1 |
| PE-CDMAParameters-1        | 6.14.9.4   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-CSIM                | 6.14.13.4  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

##### 8.2.3.14.2. Initial Conditions

None.

##### 8.2.3.14.3. Test Procedure

| Step | Direction | Description                                                                                                                                                         | RQ                                                                      |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package according to 6.10.                                                                                                                             | RQ7.1.1.7                                                               |
| 2    | eUICC → T | eUICC responds with PESTatus (10) feature-not-supported, or with PESTatus different from (0)<br>the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.21<br>RQ8.1.11.22b<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                    |                                                                         |

### 8.2.3.15. Installing GSM-ACCESS files by template

#### 8.2.3.15.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                | Reference  |
|-----------------------------|------------|
| Profile-Header-17           | 6.14.1.18  |
| PE-MF-by-Template-1         | 6.14.2.1.1 |
| PE-PUKCodes-1               | 6.14.3.1   |
| PE-PINCodes-1               | 6.14.4.1   |
| PE-CD-by-Template-1         | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1    | 6.14.2.3.1 |
| PE-USIM-by-Template-5       | 6.14.5.1.7 |
| PE-PINCodes-Local-PIN-1     | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1   | 6.14.5.2.1 |
| PE-GSM-ACCESS-by-Template-1 | 6.14.5.3.1 |
| PE-AKAPParameters-1         | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1  | 6.14.10.1  |
| PE-SecurityDomain-SSD-1     | 6.14.11.1  |
| PE-Application-1            | 6.14.12.1  |
| PE-RFM-1                    | 6.14.13.1  |
| PE-RFM-2                    | 6.14.13.2  |
| PE-END-1                    | 6.14.14.1  |

#### 8.2.3.15.2. *Initial Conditions*

None.

#### 8.2.3.15.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.20<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3<br>RQ8.1.2.4<br>RQ8.1.2.6<br>RQ8.1.2.8<br>RQ8.1.2.9<br>RQ8.1.2.12<br>RQ8.1.2.13<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4    | T → eUICC | Select the USIM application                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5    | T ↔ eUICC | Select all files in DF GSM ACCESS and verify their FCPs.                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|   |           |                                                                                                                       |  |
|---|-----------|-----------------------------------------------------------------------------------------------------------------------|--|
| 6 | T ↔ eUICC | Read all files in DF GSM ACCESS and verify that the content is the same as defined in the PE-GSM-ACCESS-by-Template-1 |  |
|---|-----------|-----------------------------------------------------------------------------------------------------------------------|--|

### 8.2.3.16. Installing USIM Phonebook files by template

#### 8.2.3.16.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-18          | 6.14.1.18  |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-3      | 6.14.5.1.5 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-Phonebook-by-Template-1 | 6.14.5.4.1 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.16.2. *Initial Conditions*

None.

#### 8.2.3.16.3. *Test Procedure*



| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.21<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3<br>RQ8.1.2.4<br>RQ8.1.2.6<br>RQ8.1.2.8<br>RQ8.1.2.9<br>RQ8.1.2.12<br>RQ8.1.2.13<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4    | T → eUICC | Select the USIM application                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5    | T ↔ eUICC | Select all files in DF Phonebook and verify their FCPs.                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6    | T ↔ eUICC | Read all files in DF Phonebook and verify that the content is the same as defined in the PE-Phonebook-by-Template-1.                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

### 8.2.3.17. Installing EAP files by template

#### 8.2.3.17.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-19          | 6.14.1.19  |
| PE-MF-by-Template-4        | 6.14.2.1.5 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-3      | 6.14.5.1.5 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-EAP-by-Template-1       | 6.14.2.5.1 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.3.17.2. *Initial Conditions*

None.

#### 8.2.3.17.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                 | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                       | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.14<br>RQ8.1.1.15<br>RQ8.1.1.16<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.28a<br>RQ8.1.1.29a<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3<br>RQ8.1.2.4<br>RQ8.1.2.6<br>RQ8.1.2.8<br>RQ8.1.2.9<br>RQ8.1.2.12<br>RQ8.1.2.13<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.4<br>RQ8.1.3.10<br>RQ8.1.3.11<br>RQ8.1.3.14<br>RQ8.1.3.16<br>RQ8.1.3.17<br><br>RQ8.1.5.1<br>RQ8.1.5.1a<br>RQ8.1.5.2c<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3<br>RQ8.1.1.40 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok<br>eUICC response contains no profileInstallationAborted object<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4    | T ↔ eUICC | Select all files in ADF USIM and verify their FCPs.                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|   |           |                                                                                                                                                                   |  |
|---|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 5 | T ↔ eUICC | Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-3.<br>EF EPSLOC1 shall not be present. |  |
| 6 | T ↔ eUICC | Select all files in DF EAP and verify their FCPs.                                                                                                                 |  |
| 7 | T ↔ eUICC | Read all files in DF EAP and verify that the content is the same as defined in the PE-EAP-by-Template-1                                                           |  |

## 8.2.4 Check NAA(s)

### 8.2.4.1. Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE

#### 8.2.4.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.4.1.2. Initial Conditions

None.

#### 8.2.4.1.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                | RQ                                                                          |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                      | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3<br>RQ8.1.4.4<br>RQ8.1.4.9<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                     | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                    |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                  |                                                                             |
| 4    | T → eUICC | Select the USIM application                                                                                                                                                |                                                                             |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                   |                                                                             |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'.<br>See Note1              |                                                                             |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.<br>See Note1 |                                                                             |

Note1: the input and output of AUTHENTICATE command is derived from [MILENAGE TEST]

### 8.2.4.2. Installing PE-AKAPParameters with TUAK and sending AUTHENTICATE

#### 8.2.4.2.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-7                  | 6.14.1.7   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-2               | 6.14.9.2   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.4.2.2. Initial Conditions

None.

#### 8.2.4.2.3. Test Procedure

| Step | Direction | Description                                                                                                                                                         | RQ                                                              |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                               | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3b<br>RQ8.1.4.5<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.              | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                        |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                           |                                                                 |
| 4    | T → eUICC | Select the USIM application                                                                                                                                         |                                                                 |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                            |                                                                 |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 424242424242424242424242424242 10 608E0F8A8145 FFFF F9A54E6AEAA8618D'.<br>See Note1         |                                                                 |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 04 657ACD64 10 D71A1E5C6CAFFE986A26F783E5C78BE1 10 BE849FA2564F869AECCE6F62D4337E72'.<br>SW = '9000'.<br>See Note1 |                                                                 |

Note1: the input and output of AUTHENTICATE command is derived from [TUAK TEST]

### 8.2.4.3. Installing PE-AKAPParameters with usim-test-algorithm and sending AUTHENTICATE

#### 8.2.4.3.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-10                 | 6.14.1.10  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-4               | 6.14.9.5   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.4.3.2. Initial Conditions

None.

#### 8.2.4.3.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                    | RQ                                                  |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                          | RQ8.1.4.1<br>RQ8.1.4.2b<br>RQ8.1.4.3c<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                         | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10            |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                      |                                                     |
| 4    | T → eUICC | Select the USIM application                                                                                                                                                    |                                                     |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                       |                                                     |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 C905EA893B1D3D7D626EB1E1EE37EC33 10 87D536D9BFC5DF1EC4EEC668FAB7E464'.                                 |                                                     |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 10 C904E88A3F183B7A6A67BBEAE23AE23C 10 04E88A3F183B7A6A67BBEAE23AE23CC9 10 E88A3F183B7A6A67BBEAE23AE23CC904'.<br>SW = '9000'. |                                                     |

#### 8.2.4.4. Installing PE-AKAParameters with TUAK with 256 bit key and restricted length and sending AUTHENTICATE

##### 8.2.4.4.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-11                 | 6.14.1.11  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-9                | 6.14.9.10  |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.4.4.2. Initial Conditions

None.

##### 8.2.4.4.3. Test Procedure

| Step | Direction | Description                                                                                                                                                          | RQ                                                                           |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3b<br>RQ8.1.4.5<br>RQ8.1.4.9<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.               | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                            |                                                                              |
| 4    | T → eUICC | Select the USIM application                                                                                                                                          |                                                                              |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                             |                                                                              |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 0123456789ABCDEF0123456789ABCDEF<br>10 4929D62245B5 ABCD D94900B0EE2B4C90'.                  |                                                                              |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 E9D749DC4EEA0035 10<br>A4CB6F6529AB17F8337F27BAA8234D47 10<br>2274155CCF4199D5E2ABCBF621907F90'.<br>SW = '9000'. |                                                                              |



#### 8.2.4.5. Installing PE-AKAPParameters with TUAK with 256 bit key and sending AUTHENTICATE

##### 8.2.4.5.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-11                 | 6.14.1.11  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-5               | 6.14.9.6   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.4.5.2. Initial Conditions

None.

##### 8.2.4.5.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                   | RQ                                                                           |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                         | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3b<br>RQ8.1.4.5<br>RQ8.1.4.9<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                        | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                     |                                                                              |
| 4    | T → eUICC | Select the USIM application                                                                                                                                                   |                                                                              |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                      |                                                                              |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 0123456789ABCDEF0123456789ABCDEF 18 4929D62245B5 ABCD C0B8C2D4148EC7AA5F1D78A97E4D1D58'.<br>See Note1 |                                                                              |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 E9D749DC4EEA0035 10 A4CB6F6529AB17F8337F27BAA8234D47 10 2274155CCF4199D5E2ABCBF621907F90'.<br>SW = '9000'.<br>See Note1   |                                                                              |

Note1: the input and output of AUTHENTICATE command is derived from [TUAK TEST]

#### 8.2.4.6. Installing PE-AKAParameters with TUAK with numberOfKeccak and restricted length sending AUTHENTICATE

##### 8.2.4.6.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-11                 | 6.14.1.11  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-10               | 6.14.9.11  |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.4.6.2. Initial Conditions

None.

##### 8.2.4.6.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                    | RQ                                                                                           |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                          | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3b<br>RQ8.1.4.5<br>RQ8.1.4.10<br>RQ8.1.4.11b<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                         | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                      |                                                                                              |
| 4    | T → eUICC | Select the USIM application                                                                                                                                                    |                                                                                              |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                       |                                                                                              |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 C570AAC68CDE651FB1E3088322498BEF 10 3DAFA03D2D0E 297D 0599A0B5F389484B'.                               |                                                                                              |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 10 AB548F680361E48D1239C74C51C20902 10 6708A1DD5FE63EAAC2884EF9F6E4B005 10 249EB1636FCBA040C4B5076F7645AACA'.<br>SW = '9000'. |                                                                                              |

#### 8.2.4.7. Installing PE-AKAPParameters with TUAK with numberOfKeccak and sending AUTHENTICATE

##### 8.2.4.7.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-11                 | 6.14.1.11  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-6               | 6.14.9.7   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.4.7.2. Initial Conditions

None.

##### 8.2.4.7.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                                                                                                                                    | RQ                                                                                           |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                                                                                                                                          | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3b<br>RQ8.1.4.5<br>RQ8.1.4.10<br>RQ8.1.4.11b<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                         | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                                                      |                                                                                              |
| 4    | T → eUICC | Select the USIM application                                                                                                                                                                                                                                                                    |                                                                                              |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                                                                                                                                       |                                                                                              |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 C570AAC68CDE651FB1E3088322498BEF 28 A2353A07FE09 297D 90D2289ED1CA1C3DBC2247BB480D431AC71D2E4A767 7F6E997CFDDB0CBAD88B7'.<br>See Note1                                                                                 |                                                                                              |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 20 D67E6E64590D22EECBA7324AFA4AF4460C93F01B2450 6D6E12047D789A94C867 20 EDE57EDFC57CDFFE1AAE75066A1B7479BBC3837438E 88D37A801CCCC9F972B89 20 48ED9299126E5057402FE01F9201CF25249F9C5C0ED2A FCF084755DAFF1D3999'.<br>SW = '9000'.<br>See Note1 |                                                                                              |

Note1: the input and output of AUTHENTICATE command is derived from [TUAK TEST]

## 8.2.4.8. Error when authCounterMax exceeded

## 8.2.4.8.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-7               | 6.14.9.8   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

## 8.2.4.8.2. Initial Conditions

None.

## 8.2.4.8.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                   | RQ                                                                                         |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                         | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3<br>RQ8.1.4.4<br>RQ8.1.4.12<br>RQ8.1.4.13<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                        | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                   |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                     |                                                                                            |
| 4    | T → eUICC | Select the USIM application                                                                                                                                                   |                                                                                            |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                      |                                                                                            |
| 6    | T → eUICC | Send 1 <sup>st</sup> AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'.<br>See Note1 |                                                                                            |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.<br>See Note1    |                                                                                            |
| 8    | T ↔ eUICC | Initialise eUICC according to 6.9                                                                                                                                             |                                                                                            |
| 9    |           | Repeat steps 4-7 above (2 <sup>nd</sup> AUTHENTICATE)                                                                                                                         |                                                                                            |

|    |           |                                                                                                                                                                                                                                                                                                            |  |
|----|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 10 | T → eUICC | Send 3 <sup>rd</sup> AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 000102030405060708090A0B0C0D0E0F'.                                                                                                                                             |  |
| 11 | eUICC → T | AUTHENTICATE command fails with error SW '9862' – Authentication error, incorrect MAC.                                                                                                                                                                                                                     |  |
| 12 | T ↔ eUICC | Disable Profile Package according to 6.12.                                                                                                                                                                                                                                                                 |  |
| 13 | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                                                                  |  |
| 14 |           | Repeat steps 4-7 above (4 <sup>th</sup> AUTHENTICATE)                                                                                                                                                                                                                                                      |  |
| 15 | T → eUICC | Send 5 <sup>th</sup> AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'.<br>See Note1                                                                                                                              |  |
| 16 | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.<br>See Note1<br>OR<br>AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded. In this case, skip to step 21.<br>See Note2 |  |
| 17 | T → eUICC | Send 6 <sup>th</sup> AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'.<br>See Note1                                                                                                                              |  |
| 18 | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.<br>See Note1<br>OR<br>AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded. In this case, skip to step 21.<br>See Note2 |  |
| 19 | T → eUICC | Send 7 <sup>th</sup> AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'.<br>See Note1                                                                                                                              |  |
| 20 | eUICC → T | AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded.<br>See Note2                                                                                                                                                                                                                    |  |
| 21 |           | Repeat steps 19-20 above                                                                                                                                                                                                                                                                                   |  |

Note1: the input and output of AUTHENTICATE command is derived from [MILENAGE TEST]

Note2: it is expected that the AUTHENTICATE error '6F00'h will first be returned on the 6th AUTHENTICATE, but first returning it on the 5th or 7th AUTHENTICATE commands is also accepted.

8.2.4.9. Test Milenage PIN verification and defined constants8.2.4.9.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-8                | 6.14.9.9   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

8.2.4.9.2. *Initial Conditions*

None.

8.2.4.9.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                   | RQ                                                                           |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                         | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3<br>RQ8.1.4.7<br>RQ8.1.4.11<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.        | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                     |                                                                              |
| 4    | T → eUICC | Select the USIM application                                                                                                                                   |                                                                              |
| 5    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = '10 9F7C8D021ACCF4DB213CCFF0C7F71A6A 10 5666690B8413 725C A9083CDB9EEA8D0D'.              |                                                                              |
| 6    | eUICC → T | AUTHENTICATE command fails with error SW '6982' – security status not satisfied                                                                               |                                                                              |
| 7    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                      |                                                                              |
| 8    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = ' 10 9F7C8D021ACCF4DB213CCFF0C7F71A6A 10 5666690B8413 725C A9083CDB9EEA8D0D.              |                                                                              |
| 9    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 DAA6DE20020E36BC 10 2D6B88BF7EFB89CC30B67B90C22AB1DF 10 7C74227B13E7E48AE472E14D974FD030'<br>SW = '9000'. |                                                                              |

8.2.4.10. Blocked SQN with wrap around deactivated

FFS

8.2.4.11. Testing SQN delta and age limit8.2.4.11.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-12               | 6.14.9.13  |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

8.2.4.11.2. *Initial Conditions*

None.

8.2.4.11.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                          | RQ                                                                                                      |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                | RQ8.1.4.1<br>RQ8.1.4.2<br>RQ8.1.4.3<br>RQ8.1.4.4<br>RQ8.1.4.9<br>RQ8.1.4.10<br>RQ8.1.4.12<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.               | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                            |                                                                                                         |
| 4    | T → eUICC | Select the USIM application                                                                                                                                          |                                                                                                         |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                             |                                                                                                         |
| 6    | T → eUICC | Send AUTHENTICATE command with SQN '0000000010 07':<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'. |                                                                                                         |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.        |                                                                                                         |

|    |           |                                                                                                                                                                                          |  |
|----|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 8  | T → eUICC | Send AUTHENTICATE command with SQN '0000000210 27' (exceeds delta):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669357 B9B9 94F171D3D1F4D089'.     |  |
| 9  | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DC 0E 451E8BECB43C 2C80AE0582AE3FC7'<br>SW = '9000'.                                                                                       |  |
| 10 | T → eUICC | Send AUTHENTICATE command with SQN '0000000210 07' (within delta):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669377 B9B9 137626880CBAA079'.      |  |
| 11 | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.                            |  |
| 12 | T → eUICC | Send AUTHENTICATE command with SQN '0000000110 06' (exceeds age limit):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659376 B9B9 B7B092F5DDBF4EE3'. |  |
| 13 | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DC 0E 451E8BEEB43C E685022180D8A2AB'<br>SW = '9000'.                                                                                       |  |
| 14 | T → eUICC | Send AUTHENTICATE command with SQN '0000000110 25' (within age limit):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659355 B9B9 1B6EFE265B816C4A'.  |  |
| 15 | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.                            |  |



8.2.4.12. Test usim-test-algorithm with 32 bit RES length8.2.4.12.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-10                 | 6.14.1.10  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-13              | 6.14.9.14  |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

8.2.4.12.2. *Initial Conditions*

None.

8.2.4.12.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                             | RQ                                                                |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                   | RQ8.1.4.1<br>RQ8.1.4.2b<br>RQ8.1.4.3c<br>RQ8.1.4.3d<br>RQ8.1.4.14 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.  | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                          |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                               |                                                                   |
| 4    | T → eUICC | Select the USIM application                                                                                                                             |                                                                   |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                |                                                                   |
| 6    | T → eUICC | Send AUTHENTICATE command with:<br>P1 = '00'<br>P2 = '81'<br>Data = ' 10 E8F9461ADE8CEFDB318B6756F6C62E66 10 1430A70B1996 DF1E E5126AFB1F2636C2'.       |                                                                   |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 04 E8F84419 10 F84419DA89E9DC39826D5DFACB2069E8 10 4419DA89 E9DC39826D5DFACB2069E8F8'.<br>SW = '9000'. |                                                                   |

### 8.2.4.13. Installing PE-CDMAPParameters and send COMPUTE ID AUTHENTICATE in Simple IP CHAP Mode

#### 8.2.4.13.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-8           | 6.14.1.8   |
| PE-MF-by-Template-3        | 6.14.2.1.4 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CSIM-by-Template-2      | 6.14.7.1.2 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-CSIM-by-Template-2  | 6.14.7.2.2 |
| PE-CDMAPParameters-1       | 6.14.9.4   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-CSIM                | 6.14.13.4  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

#### 8.2.4.13.2. Initial Conditions

None.

#### 8.2.4.13.3. Test Procedure

| Step | Direction | Description                                                                                                                                                   | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                         | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.18<br>RQ8.1.1.23<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3<br>RQ8.1.2.4<br>RQ8.1.2.6<br>RQ8.1.2.8<br>RQ8.1.2.9<br>RQ8.1.2.12<br>RQ8.1.2.13<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.10<br>RQ8.1.3.16<br><br>RQ8.1.4.15<br><br>RQ8.1.5.1<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3<br>RQ8.1.4.17<br>RQ8.1.4.18<br>RQ8.1.4.19<br>RQ8.1.4.20<br>RQ8.1.4.18a<br>RQ8.1.4.19a<br>RQ8.1.4.20a |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4    | T → eUICC | Select the CSIM application                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5    | T → eUICC | Send VERIFY PIN pinApp1                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|   |           |                                                                                                                                                                                  |  |
|---|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6 | T → eUICC | Send COMPUTE IP AUTHENTICATION command with:<br>P1 = '00' (CHAP Mode)<br>P2 = '00'<br>Data = '01 00 1122334455667788'<br><br>(Data = #CHAP_ID # NAI-Entry-Index #CHAP-Challenge) |  |
| 7 | eUICC → T | COMPUTE IP AUTHENTICATION command returns<br>CHAP-Response with:<br>Data = '984A6C6E7B8896628750C4930134F298'.<br>SW = '9000'.                                                   |  |

#### 8.2.4.14. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP HRPD Access Mode

##### 8.2.4.14.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-8           | 6.14.1.8   |
| PE-MF-by-Template-3        | 6.14.2.1.4 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CSIM-by-Template-2      | 6.14.7.1.2 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-CSIM-by-Template-2  | 6.14.7.2.2 |
| PE-CDMAParameters-1        | 6.14.9.4   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-CSIM                | 6.14.13.4  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

##### 8.2.4.14.2. *Initial Conditions*

None.

##### 8.2.4.14.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                   | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                         | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.18<br>RQ8.1.1.23<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3<br>RQ8.1.2.4<br>RQ8.1.2.6<br>RQ8.1.2.8<br>RQ8.1.2.9<br>RQ8.1.2.12<br>RQ8.1.2.13<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.10<br>RQ8.1.3.16<br><br>RQ8.1.4.15<br><br>RQ8.1.5.1<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3<br>RQ8.1.4.17<br>RQ8.1.4.18<br>RQ8.1.4.19<br>RQ8.1.4.20<br>RQ8.1.4.18a<br>RQ8.1.4.19a<br>RQ8.1.4.20a |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4    | T → eUICC | Select the CSIM application                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5    | T → eUICC | Send VERIFY PIN pinApp1                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|   |           |                                                                                                                                                               |  |
|---|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6 | T → eUICC | Send COMPUTE IP AUTHENTICATION command with:<br>P1 = '04' (HRPD Access)<br>P2 = '00'<br>Data = '01 1122334455667788'<br><br>(Data = #CHAP_ID #CHAP-Challenge) |  |
| 7 | eUICC → T | COMPUTE IP AUTHENTICATION command returns<br>CHAP-Response with:<br>Data = '984A6C6E7B8896628750C4930134F298'.<br>SW = '9000'.                                |  |

#### 8.2.4.15. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Mobile IP Mode

##### 8.2.4.15.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-8           | 6.14.1.8   |
| PE-MF-by-Template-3        | 6.14.2.1.4 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CSIM-by-Template-2      | 6.14.7.1.2 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-CSIM-by-Template-2  | 6.14.7.2.2 |
| PE-CDMAParameters-1        | 6.14.9.4   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-CSIM                | 6.14.13.4  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

##### 8.2.4.15.2. *Initial Conditions*

None.

##### 8.2.4.15.3. *Test Procedure*

| Step | Direction | Description                                                                                                                                                   | RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                         | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br>RQ8.1.1.12<br>RQ8.1.1.13a<br>RQ8.1.1.18<br>RQ8.1.1.23<br>RQ8.1.1.25<br>RQ8.1.1.26<br>RQ8.1.1.26b<br>RQ8.1.1.27<br>RQ8.1.1.33a<br>RQ8.1.1.34<br>RQ8.1.1.39<br><br>RQ8.1.2.1<br>RQ8.1.2.2<br>RQ8.1.2.3<br>RQ8.1.2.4<br>RQ8.1.2.6<br>RQ8.1.2.8<br>RQ8.1.2.9<br>RQ8.1.2.12<br>RQ8.1.2.13<br>RQ8.1.2.14<br>RQ8.1.2.15<br><br>RQ8.1.3.3<br>RQ8.1.3.10<br>RQ8.1.3.16<br><br>RQ8.1.4.15<br><br>RQ8.1.5.1<br>RQ8.1.5.5<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.8.1<br>RQ8.1.8.1b<br>RQ8.1.8.13<br><br>RQ8.1.10.1<br>RQ8.1.10.2<br>RQ8.1.10.3<br>RQ8.1.4.17<br>RQ8.1.4.18<br>RQ8.1.4.19<br>RQ8.1.4.20<br>RQ8.1.4.18a<br>RQ8.1.4.19a<br>RQ8.1.4.20a |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification object. | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4    | T → eUICC | Select the CSIM application                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5    | T → eUICC | Send VERIFY PIN pinApp1                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|    |           |                                                                                                                                                                                                              |  |
|----|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6  | T → eUICC | Send COMPUTE IP AUTHENTICATION command with:<br>P1 = '01' (MN-HA Authenticator)<br>P2 = '02'<br>Data = '00 0102030405060708090A0B0C'<br><br>(Data #NAI-Entry-Index #Registration-Data)                       |  |
| 7  | eUICC → T | COMPUTE IP AUTHENTICATION command returns MN-HA Authenticator with:<br>Data = 8E13D5D91948D237EE4AB1DF26605C47'.<br>SW = '9000'.                                                                             |  |
| 8  | T → eUICC | Send COMPUTE IP AUTHENTICATION command with:<br>P1 = '02' (MIP-RRQ Hash)<br>P2 = '02'<br>Data = '0102030405060708090A0B0C 1122334455667788'<br><br>(Data = #Preceding MIP-RRQ Data #MN-AAA Extension Header) |  |
| 9  | eUICC → T | COMPUTE IP AUTHENTICATION command returns :<br>SW = '9000'.                                                                                                                                                  |  |
| 10 | T → eUICC | Send COMPUTE IP AUTHENTICATION command with:<br>P1 = '03' (MN-AAA Authenticator)<br>P2 = '00'<br>Data = '00 11223344 55667788 99102030 40506070'<br><br>(Data = #NAI-Entry-Index #Challenge)                 |  |
| 11 | eUICC → T | COMPUTE IP AUTHENTICATION command returns MN-AAA Authenticator Response with:<br>Data = '5BD292B2EDAC3974E3B2F3CA539EA261'<br>SW = '9000'.                                                                   |  |

#### 8.2.4.16. Installing USIM and ISIM with sharing NAA parameters

##### 8.2.4.16.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-9           | 6.14.1.9   |
| PE-MF-by-Template-2        | 6.14.2.1.3 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-2      | 6.14.5.1.3 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-2  | 6.14.5.2.3 |
| PE-AKAPParameters-12       | 6.14.9.13  |
| PE-ISIM-by-Template-1      | 6.14.6.1.1 |
| PE-OPT-ISIM-by-Template-1  | 6.14.6.2.1 |
| PE-AKAPParameters-3        | 6.14.9.3   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-ISIM                | 6.14.13.3  |
| PE-END-1                   | 6.14.14.1  |

##### 8.2.4.16.2. *Initial Conditions*

None.



## 8.2.4.16.3. Test Procedure

| Step | Direction | Description                                                                                                                                                                              | RQ                                                 |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                                                    | RQ8.1.4.1<br>RQ8.1.4.8<br>RQ8.1.4.12<br>RQ8.1.4.13 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no PE Identification.                                                                                                    |                                                    |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                |                                                    |
| 4    | T → eUICC | Select the ISIM application                                                                                                                                                              |                                                    |
| 5    | T → eUICC | Send VERIFY PIN pinAppl1                                                                                                                                                                 |                                                    |
| 6    | T → eUICC | Send AUTHENTICATE command with SQN '0000000010 07':<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'.                     |                                                    |
| 7    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.                            |                                                    |
| 8    | T → eUICC | Send AUTHENTICATE command with SQN '0000000210 27' (exceeds delta):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669357 B9B9 94F171D3D1F4D089'.     |                                                    |
| 9    | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DC 0E 451E8BECB43C 2C80AE0582AE3FC7'<br>SW = '9000'.                                                                                       |                                                    |
| 10   | T → eUICC | Send AUTHENTICATE command with SQN '0000000210 07' (within delta):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669377 B9B9 137626880CBAA079'.      |                                                    |
| 11   | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'<br>SW = '9000'.                            |                                                    |
| 12   | T → eUICC | Send AUTHENTICATE command with SQN '0000000110 06' (exceeds age limit):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659376 B9B9 B7B092F5DDBF4EE3'. |                                                    |
| 13   | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DC 0E 451E8BEEB43C E685022180D8A2AB'<br>SW = '9000'.                                                                                       |                                                    |

|    |           |                                                                                                                                                                                       |  |
|----|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 14 | T → eUICC | Send AUTHENTICATE command with SQN '000000011025' (within age limit):<br>P1 = '00'<br>P2 = '81'<br>Data = '10 23553CBE9637A89D218AE64DAE47BF35 10AA689C659355 B9B9 1B6EFE265B816C4A'. |  |
| 15 | eUICC → T | AUTHENTICATE command returns with:<br>Data = 'DB 08 A54211D5E3BA50BF 10B40BA9A3C58B2A05BBF0D987B21BF8CB 10F769BCD751044604127672711C6D3441'<br>SW = '9000'.                           |  |

## 8.2.5 Check PIN and PUK codes

### 8.2.5.1. Installing PINs in enabled state

#### 8.2.5.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.5.1.2. Initial conditions

None.

#### 8.2.5.1.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                                          | RQ                                                                                    |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                 |                                                                                       |
| 2    | eUICC → T | eUICC responds with PStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                | RQ8.1.5.7<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                            |                                                                                       |
| 4    | T → eUICC | Send the following commands to RFM USIM using SCP80:<br>SELECT FILE with Data = '3F00'<br>and<br>SELECT FILE with Data = '7FFF'.                                                                                                                                     | RQ8.1.5.18                                                                            |
| 5    | eUICC → T | The second SELECT FILE command response contains an FCP with the PS_DO.<br>The value of the PS_DO (tag '90') shall indicate that adm1, PINAppl1 and secondPINAppl1 are enabled.<br>There shall be three key references:<br>'830101' and<br>'830181' and<br>'83010A'. | RQ8.1.5.9                                                                             |

### 8.2.5.2. Installing PINs in disabled state

#### 8.2.5.2.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-2                     | 6.14.4.2   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-3           | 6.14.8.3   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.5.2.2. *Initial conditions*

None.

#### 8.2.5.2.3. *Test procedure*

| Step | Direction | Description                                                                                                                                                                                                                                                                                | RQ                                                                                    |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                                       |                                                                                       |
| 2    | eUICC → T | eUICC responds with PStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                      | RQ8.1.5.7<br>RQ8.1.5.14<br>RQ8.1.5.16<br><br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                                                  |                                                                                       |
| 4    | T → eUICC | Send the following commands to RFM USIM using SCP80:<br>SELECT FILE with Data = '3F00'<br>and<br>SELECT FILE with Data = '7FFF'.                                                                                                                                                           | RQ8.1.5.18                                                                            |
| 5    | eUICC → T | The second SELECT FILE command response contains an FCP with the PS_DO.<br>The value of the PS_DO (tag '90') shall indicate that adm1 is enabled, PINAppl1 is disabled and secondPINAppl1 is disabled.<br>There shall be three key references:<br>'830101' and<br>'830181' and<br>'83010A' | RQ8.1.5.9                                                                             |

### 8.2.5.3. Installing different PINs with different PUKs

#### 8.2.5.3.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-3                     | 6.14.4.3   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-4           | 6.14.8.4   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.5.3.1. Initial conditions

None.

#### 8.2.5.3.2. Test procedure

| Step | Direction | Description                                                                                                                                           | RQ                        |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                  |                           |
| 2    | eUICC → T | eUICC responds with PStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.5.16b               |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                             |                           |
| 4    | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'                                                                                   |                           |
| 5    | eUICC → T | VERIFY PIN command returns SW '63 C2'                                                                                                                 |                           |
| 6    | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'                                                                                   |                           |
| 7    | eUICC → T | VERIFY PIN command returns SW '63 C1'                                                                                                                 |                           |
| 8    | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'                                                                                   |                           |
| 9    | eUICC → T | VERIFY PIN command returns SW '63 C0'                                                                                                                 |                           |
| 10   | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'                                                                                   |                           |
| 11   | eUICC → T | VERIFY PIN command returns SW '69 83'                                                                                                                 |                           |
| 12   | T → eUICC | Send UNBLOCK PIN command for pinAppl1 with Data = '31323334353637383131313131313131'                                                                  |                           |
| 13   | eUICC → T | UNBLOCK PIN command returns SW '90 00'                                                                                                                | RQ8.1.5.16<br>RQ8.1.5.16b |
| 14   | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'                                                                                   |                           |
| 15   | eUICC → T | VERIFY PIN command returns SW '90 00'                                                                                                                 | RQ8.1.5.16<br>RQ8.1.5.16b |
| 16   | T → eUICC | Select the USIM application                                                                                                                           |                           |
| 17   | T → eUICC | Send VERIFY PIN command for secondPINAppl1 with Data = '3131313131313131'                                                                             |                           |
| 18   | eUICC → T | VERIFY PIN command returns SW '63 C1'                                                                                                                 |                           |
| 19   | T → eUICC | Send VERIFY PIN command for secondPINAppl1 with Data = '3131313131313131'                                                                             |                           |

|    |           |                                                                                           |                           |
|----|-----------|-------------------------------------------------------------------------------------------|---------------------------|
| 20 | eUICC → T | VERIFY PIN command returns SW '63 C0'                                                     |                           |
| 21 | T → eUICC | Send VERIFY PIN command for secondPINApp1 with Data = '3131313131313131'                  |                           |
| 22 | eUICC → T | VERIFY PIN command returns SW '69 83'                                                     |                           |
| 23 | T → eUICC | Send UNBLOCK PIN command for secondPINApp1 with Data = '31323334353637383131313131313131' |                           |
| 24 | eUICC → T | UNBLOCK PIN command returns SW '90 00'                                                    | RQ8.1.5.16<br>RQ8.1.5.16b |
| 25 | T → eUICC | Send VERIFY PIN command for secondPINApp1 with Data = '3131313131313131'                  |                           |
| 26 | eUICC → T | VERIFY PIN command returns SW '90 00'                                                     | RQ8.1.5.16<br>RQ8.1.5.16b |

#### 8.2.5.4. Checking the access domain validity of an RFM instance in case of a blocked PIN

##### 8.2.5.4.1. Test execution

The Profile Package is defined as follows:

| Test PE name                           | Reference   |
|----------------------------------------|-------------|
| Profile-Header-1                       | 6.14.1.1    |
| MF-by-Generic-File-Management-1        | 6.14.2.1.2  |
| PE-PUKCodes-1                          | 6.14.3.1    |
| PE-PINCodes-1                          | 6.14.4.1    |
| DF-CUSTOM-by-Generic-File-Management-1 | 6.14.2.4.11 |
| USIM-by-Generic-File-Management-1      | 6.14.5.1.2  |
| PE-PINCodes-Local-PIN-1                | 6.14.8.1    |
| PE-AKAPParameters-1                    | 6.14.9.1    |
| PE-SecurityDomain-MNO-SD-1             | 6.14.10.1   |
| PE-SecurityDomain-SSD-1                | 6.14.11.1   |
| PE-Application-1                       | 6.14.12.1   |
| PE-RFM-2                               | 6.14.13.12  |
| PE-END-1                               | 6.14.14.1   |

##### 8.2.5.4.2. Initial conditions

None.

##### 8.2.5.4.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                          |
| 4    | T → eUICC | Send VERIFY PIN command for pinApp1 with Data = '3131313131313131'                                                                                     |                                          |
| 5    | eUICC → T | VERIFY PIN command returns SW '63 C2'                                                                                                                  |                                          |
| 6    | T → eUICC | Send VERIFY PIN command for pinApp1 with Data = '3131313131313131'                                                                                     |                                          |
| 7    | eUICC → T | VERIFY PIN command returns SW '63 C1'                                                                                                                  |                                          |
| 8    | T → eUICC | Send VERIFY PIN command for pinApp1 with Data = '3131313131313131'                                                                                     |                                          |
| 9    | eUICC → T | VERIFY PIN command returns SW '63 C0'                                                                                                                  |                                          |

|    |           |                                                                                                                                                                                              |           |
|----|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 10 | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'                                                                                                                          |           |
| 11 | eUICC → T | VERIFY PIN command returns SW '69 83'                                                                                                                                                        |           |
| 12 | T → eUICC | Send SELECT by FILE ID command with Data = '7FA0' (Custom DF); SELECT by FILE ID command with Data = '6F01' (EF1) and UPDATE BINARY with Data '998877665544' to the RFM instance using SCP80 |           |
| 13 | eUICC → T | The two SELECT by FILE ID and UPDATE BINARY commands succeed (SW '90 00')                                                                                                                    | RQ8.1.5.8 |
| 14 | T → eUICC | Send SELECT by FILE ID command with Data = '7FA0' (Custom DF); SELECT by FILE ID command with Data = '6F01' (EF1) and READ BINARY with Length = 06 to the RFM instance using SCP80           |           |
| 15 | eUICC → T | The two SELECT by FILE ID and READ BINARY commands succeed (SW '90 00') with response data containing the content of EF1 '998877665544'                                                      | RQ8.1.5.8 |

#### 8.2.5.5. Checking the PIN context of a Global PIN

##### 8.2.5.5.1. Test execution

The Profile Package is defined as follows:

| Test PE name               | Reference  |
|----------------------------|------------|
| Profile-Header-2           | 6.14.1.2   |
| PE-MF-by-Template-1        | 6.14.2.1.1 |
| PE-PUKCodes-1              | 6.14.3.1   |
| PE-PINCodes-1              | 6.14.4.1   |
| PE-CD-by-Template-1        | 6.14.2.2.1 |
| PE-TELECOM-by-Template-1   | 6.14.2.3.1 |
| PE-USIM-by-Template-3      | 6.14.5.1.5 |
| PE-PINCodes-Local-PIN-1    | 6.14.8.1   |
| PE-OPT-USIM-by-Template-1  | 6.14.5.2.1 |
| PE-AKAPParameters-1        | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1 | 6.14.10.1  |
| PE-SecurityDomain-SSD-1    | 6.14.11.1  |
| PE-Application-1           | 6.14.12.1  |
| PE-RFM-1                   | 6.14.13.1  |
| PE-RFM-2                   | 6.14.13.2  |
| PE-END-1                   | 6.14.14.1  |

##### 8.2.5.5.2. Initial conditions

None.

##### 8.2.5.5.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                          |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                          |

|    |           |                                                                                                                                           |                          |
|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 4  | T ↔ eUICC | Select ef launchpad from the df cd                                                                                                        |                          |
| 5  | T → eUICC | Send READ BINARY with Length = '05'                                                                                                       |                          |
| 6  | eUICC → T | READ BINARY returns SW '69 82'                                                                                                            | RQ8.1.5.1<br>RQ8.1.3.20a |
| 7  | T → eUICC | Send VERIFY PIN for PINAppl1 with Data '3132333435363738'                                                                                 |                          |
| 8  | eUICC → T | VERIFY PIN returns SW '90 00'                                                                                                             |                          |
| 9  | T → eUICC | Send READ BINARY with Length = '05'                                                                                                       |                          |
| 10 | eUICC → T | READ BINARY succeeds (SW '90 00') with response data containing the content of ef launchpad '1122334455'                                  | RQ8.1.5.1                |
| 11 | T ↔ eUICC | Select ef mlpl from the df mmss in df telecom                                                                                             |                          |
| 12 | T → eUICC | Send READ BINARY with Length = '18'                                                                                                       |                          |
| 13 | eUICC → T | READ BINARY succeeds (SW '90 00') with response data containing the content of ef mlpl '000102030405060708090A0B0C0D0E0F1011121314151617' | RQ8.1.5.1                |
| 14 | T ↔ eUICC | Select ef imsi from the adf usim                                                                                                          |                          |
| 15 | T → eUICC | Send READ BINARY with Length = '09'                                                                                                       |                          |
| 16 | eUICC → T | READ BINARY succeeds (SW '90 00') with response data containing the content of ef imsi '082943019134876765'                               | RQ8.1.5.1                |

#### 8.2.5.6. Checking the PIN context of a Local PIN

##### 8.2.5.6.1. Test execution

The Profile Package is defined as follows:

| Test PE name                            | Reference  |
|-----------------------------------------|------------|
| Profile-Header-1                        | 6.14.1.1   |
| MF-by-Generic-File-Management-1         | 6.14.2.1.2 |
| PE-PUKCodes-1                           | 6.14.3.1   |
| PE-PINCodes-1                           | 6.14.4.1   |
| ADF-CUSTOM-by-Generic-File-Management-1 | 6.14.2.4.4 |
| PE-PINCodes-Local-PIN-5                 | 6.14.8.5   |
| USIM-by-Generic-File-Management-1       | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1                 | 6.14.8.1   |
| PE-AKAPParameters-1                     | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1              | 6.14.10.1  |
| PE-SecurityDomain-SSD-1                 | 6.14.11.1  |
| PE-Application-1                        | 6.14.12.1  |
| PE-RFM-1                                | 6.14.13.11 |
| PE-END-1                                | 6.14.14.1  |

##### 8.2.5.6.2. Initial conditions

None.



## 8.2.5.6.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                          |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                          |
| 4    | T ↔ eUICC | Select ef1 (File ID '6F01') from the Custom DF (File ID '7FA1')                                                                                        |                                          |
| 5    | T → eUICC | Send UPDATE BINARY with Data '99887766554433221100'                                                                                                    |                                          |
| 6    | eUICC → T | UPDATE BINARY returns SW '69 82'                                                                                                                       | RQ8.1.5.2<br>RQ8.1.5.2b<br>RQ8.1.3.20a   |
| 7    | T → eUICC | Send VERIFY PIN for secondPINApp1 with Data '31323334FFFFFFFF'                                                                                         |                                          |
| 8    | eUICC → T | VERIFY PIN returns SW '90 00'                                                                                                                          |                                          |
| 9    | T → eUICC | Send UPDATE BINARY with Data '99887766554433221100'                                                                                                    |                                          |
| 10   | eUICC → T | UPDATE BINARY returns SW '90 00'                                                                                                                       | RQ8.1.5.2<br>RQ8.1.5.2b                  |
| 11   | T → eUICC | Send READ BINARY with Length = 0A                                                                                                                      |                                          |
| 12   | eUICC → T | READ BINARY succeeds (SW '90 00') with response data containing the content of EF1 '99887766554433221100'                                              | RQ8.1.5.2<br>RQ8.1.5.2b                  |

8.2.5.7. Checking the “PIN state change allowed” and “PIN state change not allowed” status

## 8.2.5.7.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

## 8.2.5.7.1. Initial conditions

None.

## 8.2.5.7.2. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                                                               | RQ                                       |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                                      |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                    | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                                                 |                                          |
| 4    | T → eUICC | Send the following commands to RFM instance using SCP80:<br>SELECT FILE with Data = '3F00'<br>and<br>SELECT FILE with Data = '7FFF'.                                                                                                                                                      |                                          |
| 5    | eUICC → T | The second SELECT FILE command response contains an FCP with the PS_DO.<br>The value of the PS_DO (tag '90') shall indicate that adm1 is enabled, PINAppl1 is enabled and secondPINAppl1 is enabled.<br>There shall be three key references:<br>'830101' and<br>'830181' and<br>'83010A'  |                                          |
| 6    | T → eUICC | Send DISABLE PIN command for pinAppl1 with Data = '3132333435363738' to the RFM instance using SCP80                                                                                                                                                                                      |                                          |
| 7    | eUICC → T | DISABLE PIN command returns SW '90 00'                                                                                                                                                                                                                                                    | RQ8.1.5.10<br>RQ8.1.5.19                 |
| 8    | T → eUICC | Send the following commands to RFM instance using SCP80:<br>SELECT FILE with Data = '3F00'<br>and<br>SELECT FILE with Data = '7FFF'.                                                                                                                                                      |                                          |
| 9    | eUICC → T | The second SELECT FILE command response contains an FCP with the PS_DO.<br>The value of the PS_DO (tag '90') shall indicate that adm1 is enabled, PINAppl1 is disabled and secondPINAppl1 is enabled.<br>There shall be three key references:<br>'830101' and<br>'830181' and<br>'83010A' | RQ8.1.5.10<br>RQ8.1.5.19                 |
| 10   | T → eUICC | Send DISABLE PIN command for secondPINAppl1 with Data = '3131313131313131' to the RFM instance using SCP80                                                                                                                                                                                |                                          |
| 11   | eUICC → T | DISABLE PIN command fails with SW error                                                                                                                                                                                                                                                   | RQ8.1.5.10<br>RQ8.1.5.19                 |
| 12   | T → eUICC | Send the following commands to RFM instance using SCP80:<br>SELECT FILE with Data = '3F00'<br>and<br>SELECT FILE with Data = '7FFF'.                                                                                                                                                      |                                          |

|    |           |                                                                                                                                                                                                                                                                                           |                          |
|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 13 | eUICC → T | The second SELECT FILE command response contains an FCP with the PS_DO.<br>The value of the PS_DO (tag '90') shall indicate that adm1 is enabled, PINAppl1 is disabled and secondPINAppl1 is enabled.<br>There shall be three key references:<br>'830101' and<br>'830181' and<br>'83010A' | RQ8.1.5.10<br>RQ8.1.5.19 |
|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|

#### 8.2.5.8. Checking the "PIN can be changed" and "PIN cannot be changed" status

##### 8.2.5.8.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.5.8.2. Initial conditions

None.

##### 8.2.5.8.3. Test procedure

| Step | Direction | Description                                                                                                                                           | RQ                                       |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                  |                                          |
| 2    | eUICC → T | eUICC responds with PStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                             |                                          |
| 4    | T → eUICC | Send CHANGE PIN command for pinAppl1 with Data = '313233343536373831313131313131' to the RFM instance using SCP80                                     |                                          |
| 5    | eUICC → T | CHANGE PIN command returns SW '90 00'                                                                                                                 | RQ8.1.5.10<br>RQ8.1.5.20                 |
| 6    | T → eUICC | Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131' to the RFM instance using SCP80                                                   |                                          |
| 7    | eUICC → T | VERIFY PIN command returns SW '90 00'                                                                                                                 | RQ8.1.5.10<br>RQ8.1.5.20                 |

|    |           |                                                                                                                              |                          |
|----|-----------|------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 8  | T → eUICC | Send CHANGE PIN command for secondPINApp1 with Data = '313131313131313131313132333435363738' to the RFM instance using SCP80 |                          |
| 9  | eUICC → T | CHANGE PIN command fails with SW error                                                                                       | RQ8.1.5.10<br>RQ8.1.5.20 |
| 10 | T → eUICC | Send VERIFY PIN command for secondPINApp1 with Data = '3132333435363738' to the RFM instance using SCP80                     |                          |
| 11 | eUICC → T | VERIFY PIN command returns SW '63 C1'                                                                                        | RQ8.1.5.10<br>RQ8.1.5.20 |

#### 8.2.5.9. Error when no consistency between pinStatusTemplateDO and PE PINCodes Local

##### 8.2.5.9.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-2           | 6.14.8.2   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.9.1   |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.5.9.2. Initial conditions

None

##### 8.2.5.9.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                | RQ                                       |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                       |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus(11) pin-code-missing and identification of USIM-by-Generic-File-Management-1, or PE-PINCodes-Local-PIN-2. The last eUICC response contains profileInstallationAborted object. | RQ8.1.5.2d<br>RQ8.1.11.26<br>RQ8.1.11.27 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.fail                                                                                                                                                              |                                          |

## 8.2.6 Check Security Domains

### 8.2.6.1. Check mandatory elements in PE Security Domain

This test shall check all the mandatory objects.

#### 8.2.6.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.6.1.2. Initial conditions

None.

#### 8.2.6.1.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                                                           | RQ                                                    |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                                  |                                                       |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                | RQ8.1.6.1<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                                             |                                                       |
| 4    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '80'<br>P2 = '02'<br>Data = '4F 00'.                                                                                                                                                                                       | RQ8.1.6.4<br>RQ8.1.6.5<br>RQ8.1.6.7<br>RQ8.1.7.34b    |
| 5    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of MNO-SD (#instanceAID)</li> <li>• Life cycle state (#lifeCycleState) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> |                                                       |

Note: a 2<sup>nd</sup> byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

### 8.2.6.2. Check key list in PE Security Domain

This test shall check if the optional key list object is correctly processed.

#### 8.2.6.2.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.6.2.2. Initial conditions

None

#### 8.2.6.2.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                                                 | RQ                                                                                           |
|------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                        | RQ8.1.6.1                                                                                    |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                      | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                                                   |                                                                                              |
| 4    | T → eUICC | Send GET DATA command to MNO-SD using SCP80 with<br>P1 = '00'<br>P2 = 'E0'.                                                                                                                                                                                                 | RQ8.1.6.3<br>RQ8.1.6.4<br>RQ8.1.6.5<br>RQ8.1.6.8<br>RQ8.1.6.10<br>RQ8.1.6.26                 |
| 5    | eUICC → T | GET DATA command responds with <ul style="list-style-type: none"> <li>key information data containing #keyIdentifier, #keyVersionNumber and #keyType.</li> <li>SW='9000'.</li> </ul>                                                                                        |                                                                                              |
| 6    | T → eUICC | Send GET_STATUS command using SCP80 to MNO-SD with<br>P1 = '80'<br>P2 = '02'<br>Data = '4F 00'.                                                                                                                                                                             | RQ8.1.6.4<br>RQ8.1.6.5<br>RQ8.1.6.7<br>RQ8.1.6.34<br>RQ8.1.6.35<br>RQ8.1.6.37<br>RQ8.1.6.38a |
| 7    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>AID of MNO-SD (#instanceAID)</li> <li>Life cycle state (#lifeCycleState) See Note</li> <li>Privileges (#applicationPrivileges)</li> <li>SCP Registry Data is present</li> <li>SW='9000'.</li> </ul> |                                                                                              |

Note: a 2<sup>nd</sup> byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

**8.2.6.3. Check number of keyComponent objects**

This test shall check if keyComponent is assigned just once per key.

**8.2.6.3.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-3        | 6.14.10.3  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.6.3.2. Initial conditions**

None

**8.2.6.3.3. Test procedure**

| Step | Direction | Description                                                                                                                    | RQ         |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------|------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according. To 6.10.                                                                          | RQ8.1.6.27 |
| 2    | eUICC → T | eUICC response shall contain at least one PEStatus different from ok (0) and the identification of PE-SecurityDomain-MNO-SD-3. |            |

**8.2.6.4. Check sdPersoData**

This test shall check if sdPersoData is processed.

**8.2.6.4.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-4        | 6.14.10.4  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.6.4.2. Initial conditions**

None

**8.2.6.4.3. Test procedure**

| Step | Direction | Description                                                                                                                                            | RQ                                                   |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                                      |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10             |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                                      |
| 4    | T → eUICC | Send GET DATA command to MNO-SD using SCP80 with<br>P1 = '00'<br>P2 = '42' (Issuer Identification Number).                                             | RQ8.1.6.29<br>RQ8.1.6.30<br>RQ8.1.6.31<br>RQ8.1.6.46 |
| 5    | eUICC → T | GET DATA command responds with <ul style="list-style-type: none"> <li>IIN out of #sdPersoData.</li> <li>SW='9000'.</li> </ul>                          |                                                      |
| 6    | T → eUICC | Send GET DATA command to MNO-SD using SCP80 with<br>P1 = '00'<br>P2 = '45' (Card Image Number).                                                        | RQ8.1.6.29<br>RQ8.1.6.30<br>RQ8.1.6.31               |
| 7    | eUICC → T | GET DATA command responds with <ul style="list-style-type: none"> <li>CIN out of #sdPersoData.</li> <li>SW='9000'.</li> </ul>                          |                                                      |



**8.2.6.5. Check OTA HTTPs Personalisation**

This test shall check if MNO\_SD is personalised with OTA HTTPs Data.

**8.2.6.5.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-5        | 6.14.10.5  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.6.5.2. Initial conditions**

None

**8.2.6.5.3. Test procedure**

| Step | Direction | Description                                                                                                                                                                       | RQ                                       |
|------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                              |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                            | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                         |                                          |
| 4    | T → eUICC | Send GET DATA command to MNO-SD using SCP80 with<br>P1 = '00'<br>P2 = '85'.                                                                                                       | RQ8.1.6.36a                              |
| 5    | eUICC → T | GET DATA command responds with <ul style="list-style-type: none"> <li>Security Domain Administration Session Parameters contained in #sdPersoData.</li> <li>SW='9000'.</li> </ul> |                                          |

**8.2.6.6. Check CASD Personalisation – Scenario #3**

This test checks if MNO is able to update the OTA Keys by performing Scenario#3.

**8.2.6.6.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-6        | 6.14.10.6  |
| PE-SecurityDomain-CASD-1          | 6.14.11.3  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

### 8.2.6.6.2. Initial conditions

None

### 8.2.6.6.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                    | RQ                                                                    |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                           | RQ8.1.6.1<br>RQ8.1.7.49                                               |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                         | RQ8.1.11.9a<br>RQ8.1.11.10<br>RQ8.1.6.26b<br>RQ8.1.6.33<br>RQ8.1.6.48 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                                                                                                      |                                                                       |
| 4    | T ↔ eUICC | Send GET DATA command to CASD using SCP80:<br>CLA = 80<br>INS = CA<br>P1 = 7F<br>P2 = 21<br>LE = 00                                                                                                                                            |                                                                       |
| 5    | eUICC → T | GET DATA command responds with<br>- 7F21 Tag shall contain the TLV CERTIFICATE including CASD public key<br>SW='9000'.                                                                                                                         |                                                                       |
| 6    | T → eUICC | Send STORE DATA command to MNO-SD using SCP80 with:<br>P1=89<br>P2 = 00<br>Data =<br>00 A6 1C<br>A6 1A<br>90 02 03 01<br>95 01 10<br>80 01 88<br>81 01 10<br>82 01 01<br>83 01 01<br>91 05 00 00 00 00 01<br>7F 49 {L} #SM_EPK_ECKA<br>LE = 00 |                                                                       |
| 7    | eUICC → T | STORE DATA command responds with<br>- RECEIPT (Tag 86)<br>- SW='9000'.                                                                                                                                                                         |                                                                       |

|   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 8 | T | <ul style="list-style-type: none"> <li>- Calculate ShS from SM_ESK_ECKA and PK_CASD_ECKA</li> <li>- Derive keyset from ShS and retrieve the new ENC, MAC and data ENC keys and the EXPECTED RECEIPT</li> <li>- Verify the RECEIPT returned in Step5 against the EXPECTED RECEIPT calculated (Receipt as defined in GlobalPlatform Card Specification v.2.2 Amendment E (Confidential Setup of Secure Channel Keys using ECKA).)</li> </ul> |  |
|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

#### 8.2.6.7. Check CASD Personalisation – Scenario #2B

This test checks if MNO is able to update the OTA Keys by performing Scenario#2B.

##### 8.2.6.7.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-CASD-2          | 6.14.11.6  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.6.7.2. Initial conditions

None

##### 8.2.6.7.3. Test procedure

| Step | Direction | Description                                                                                                            | RQ                                                     |
|------|-----------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                   | RQ8.1.6.1                                              |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no PE Identification.                                  | RQ8.1.11.9<br>RQ8.1.11.10<br>RQ8.1.6.26B<br>RQ8.1.6.48 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                              |                                                        |
| 4    | T ↔ eUICC | Send GET DATA command to CASD using SCP80:<br>CLA = 80<br>INS = CA<br>P1 = 7F<br>P2 = 21<br>LE = 00                    |                                                        |
| 5    | eUICC → T | GET DATA command responds with<br>- DGI 7F21 shall contain the TLV CERTIFICATE including CASD public key<br>SW='9000'. |                                                        |

|   |           |                                                                                                                                                                                                                                                                                                                                                                   |  |
|---|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6 | T → eUICC | <p>Send STORE DATA command to MNO-SD using SCP80 with:</p> <p>P1=88<br/>P2 = 00<br/>Data =</p> <pre> 00 A6 18     A6 16         90 01 04         95 01 10         80 01 88         81 01 10         83 01 01         91 05 00 00 00 00 01         80 10 80 {KEYS_ENCRYPTED}* </pre> <p>* {KEYS_ENCRYPTED} SHALL be encrypted with the <i>CASD_PUBLIC KEY</i>.</p> |  |
| 7 | eUICC → T | <p>1- Decrypt the response packet with the #MNO_SCP80_ENC_KEY</p> <p>2- Verify the cryptographic checksum using #MNO_SCP80_AUTH_KEY</p> <p>3- The response of STORE DATA is '9000'</p>                                                                                                                                                                            |  |

#### 8.2.6.8. Check installing an SSD under a self extradited SSD

##### 8.2.6.8.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-3           | 6.14.11.4  |
| PE-SecurityDomain-SSD-4           | 6.14.11.5  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.6.8.2. Initial conditions

None.

##### 8.2.6.8.3. Test procedure

| Step | Direction | Description                                                                                                                                                           | RQ                                                      |
|------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                  |                                                         |
| 2    | eUICC → T | <p>eUICC responds with PESTatus (0) ok.</p> <p>eUICC response contains no profileInstallationAborted object.</p> <p>eUICC response contains no PE Identification.</p> | <p>RQ8.1.11.9</p> <p>RQ8.1.11.9a</p> <p>RQ8.1.11.10</p> |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                             |                                                         |

|   |           |                                                                                                                                                                                                                                                                                      |            |
|---|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 4 | T → eUICC | Send GET STATUS command to SSD-3 using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 10<br>A00000055910100102736456616C7566'.                                                                                                                                                   | RQ8.1.6.41 |
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of SSD-4 (#instanceAID)</li> <li>• Life cycle state (#lifeCycleState) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> |            |

Note: a 2<sup>nd</sup> byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

#### 8.2.6.9. Check initial counter is default when keyCounterValue absent

##### 8.2.6.9.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.6.9.2. Initial conditions

None.

##### 8.2.6.9.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                                                           |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   | RQ8.1.6.1                                                                    |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                     |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                                                              |
| 4    | T → eUICC | Send GET DATA command to MNO-SD using SCP80 with<br>P1 = 00<br>P2 = 66<br>SPI = 1A 21<br>KIC = 00<br>KID = 12<br>Counter = 00 00 00 00 02.             | RQ8.1.6.3<br>RQ8.1.6.4<br>RQ8.1.6.5<br>RQ8.1.6.8<br>RQ8.1.6.10<br>RQ8.1.6.26 |

|   |           |                                                                                                                                            |                                                                                              |
|---|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 5 | eUICC → T | Status Code of SCP80 protocol = 03 (CNTR high)                                                                                             | RQ8.1.6.20b                                                                                  |
| 6 | T → eUICC | Send GET DATA command to MNO-SD using SCP80 with<br>P1 = 00<br>P2 = 66<br>SPI = 1A 21<br>KIC = 00<br>KID = 12<br>Counter = 00 00 00 00 01. | RQ8.1.6.4<br>RQ8.1.6.5<br>RQ8.1.6.7<br>RQ8.1.6.34<br>RQ8.1.6.35<br>RQ8.1.6.37<br>RQ8.1.6.38a |
| 7 | eUICC → T | Status Code of SCP80 protocol = 00 (PoR OK)                                                                                                | RQ8.1.6.20b                                                                                  |

#### 8.2.6.10. Error when installing KeyObject parameter not supported

##### 8.2.6.10.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-7        | 6.14.10.7  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.6.10.2. *Initial conditions*

None.

##### 8.2.6.10.3. *Test procedure*

| Step | Direction | Description                                                                                                                                                                                      | RQ                                                                                               |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                             | RQ8.1.6.1                                                                                        |
| 2    | eUICC → T | eUICC responds with PESTatus (10) feature-not-supported and identification of PE-SecurityDomain-MNO-SD-7PE-Application-4.<br>The last eUICC response contains profileInstallationAborted object. | RQ8.1.6.26B<br>RQ8.1.6.48<br>RQ8.1.6.45<br>RQ8.1.11.5<br>RQ8.1.11.6<br>RQ8.1.11.9<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11 shall fail                                                                                                                                              |                                                                                                  |

## 8.2.7 Check Application loading and installation

### 8.2.7.1. Check Application PE and mandatory elements in ApplicationInstance

#### 8.2.7.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.7.1.2. Initial conditions

None

#### 8.2.7.1.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                                                      | RQ                                                                                                                                                                                                                                                      |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                             | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br><br>RQ8.1.7.4<br>RQ8.1.7.5<br>RQ8.1.7.8<br>RQ8.1.7.20<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.30<br>RQ8.1.7.31<br>RQ8.1.7.34a<br>RQ8.1.7.35<br>RQ8.1.7.39<br>RQ8.1.7.55<br>RQ8.1.7.61<br>RQ8.1.7.69 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                           | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                |
| 3    | T ↔ eUICC | Enable Profile Package (see description in 6.11).                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                         |
| 4    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID'.                                                                                                                                                                     | RQ8.1.6.7                                                                                                                                                                                                                                               |
| 5    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of application (#instanceAID)</li> <li>• Life cycle state ('07'H) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> |                                                                                                                                                                                                                                                         |

|   |           |                                                                                                                                                                                                        |            |
|---|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 4 | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '20'<br>P2 = '02'<br>Data = '4F 08 #loadPackageAID'.                                                                                        | RQ8.1.7.62 |
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• Executable Load File AID (#loadPackageAID)</li> <li>• Executable Load File Life Cycle State</li> <li>• SW='9000'.</li> </ul> |            |

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

#### 8.2.7.2. Check all elements in ApplicationLoadPackage – taking size into account – PE application is mandatory

##### 8.2.7.2.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-2                  | 6.14.12.2  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.7.2.2. Initial conditions

None

##### 8.2.7.2.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                           | RQ                                                                                                                                            |
|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                  | RQ8.1.7.8<br>RQ8.1.7.10<br>RQ8.1.7.11RQ8.1.7.12<br>RQ8.1.7.13<br>RQ8.1.7.14<br>RQ8.1.7.15<br>RQ8.1.7.16<br>RQ8.1.7.17RQ8.1.7.20<br>RQ8.1.7.61 |
| 2    | eUICC → T | the eUICC responds with PESTatus (4) not-enough-memory and the identification of PE-Application-2, or with PESTatus different from (0) and identification of PE-Application-2.<br>the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.15<br>RQ8.1.11.15b<br>RQ8.1.11.15c<br>RQ8.1.11.25                                                       |
| 3    | T ↔ eUICC | enabling the Profile Package according to 6.11 fail.                                                                                                                                                                                                  |                                                                                                                                               |

#### 8.2.7.3. Check all elements in ApplicationInstance



**8.2.7.3.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-3                  | 6.14.12.3  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.7.3.2. Initial conditions**

None

**8.2.7.3.3. Test procedure**

| Step | Direction | Description                                                                                                                                                                                                                                                                                | RQ                                                                                                                                                                                                                                                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                                       | RQ8.1.7.4<br>RQ8.1.7.5<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.28<br>RQ8.1.7.29<br>RQ8.1.7.31<br><br>RQ8.1.7.35<br>RQ8.1.7.38<br>RQ8.1.7.39<br>RQ8.1.7.40<br>RQ8.1.7.41<br>RQ8.1.7.42<br>RQ8.1.7.48<br>RQ8.1.7.55<br>RQ8.1.7.56<br>RQ8.1.7.58<br>RQ8.1.7.61 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                     | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                 |
| 3    | T ↔ eUICC | Enable Profile Package (see description in 6.11).                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                          |
| 4    | T → eUICC | Send GET STATUS command to SSD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID'.                                                                                                                                                                                  | RQ8.1.6.7                                                                                                                                                                                                                                                                |
| 5    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of application (#instanceAID)</li> <li>• Life cycle state (#lifeCycleState) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> | RQ8.1.7.33                                                                                                                                                                                                                                                               |

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

**8.2.7.4. Error when loading an Application PE and bad library is provided**

**8.2.7.4.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-4                  | 6.14.12.4  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.7.4.2. Initial conditions**

None

**8.2.7.4.3. Test procedure**

| Step | Direction | Description                                                                                                                                                                                                                                    | RQ                                                                                                  |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                           | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br><br>RQ8.1.7.1<br>RQ8.1.7.6<br>RQ8.1.7.8<br>RQ8.1.7.61        |
| 2    | eUICC → T | eUICC response with PESTatus (8) lib-not-supported and the identification of PE-Application-4, or with PESTatus different from (0) and identification of PE-Application-4. the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.5<br>RQ8.1.11.6<br>RQ8.1.11.19<br>RQ8.1.11.19a<br>RQ8.1.11.25 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                                                                               |                                                                                                     |

**8.2.7.5. Check multiple ApplicationInstance****8.2.7.5.1. Test execution**

This test is executed only if multiple instances are supported

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-5                  | 6.14.12.5  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

### 8.2.7.5.2. Initial conditions

None

### 8.2.7.5.3. Test procedure

| Step | Direction | Description                                                                                                                                                                                                                                                                                              | RQ                                                                                                                                                                                |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                                                     | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br><br>RQ8.1.7.3<br>RQ8.1.7.8<br>RQ8.1.7.20<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.30<br>RQ8.1.7.31<br>RQ8.1.7.35<br>RQ8.1.7.61 |
| 2    | eUICC → T | eUICC response with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                                   | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                          |
| 3    | T → eUICC | Enable Profile Package (see description in 6.11).                                                                                                                                                                                                                                                        |                                                                                                                                                                                   |
| 4    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID' (first application).                                                                                                                                                                         | RQ8.1.6.7                                                                                                                                                                         |
| 5    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of the First Instance of application (#instanceAID)</li> <li>• Life cycle state ('07'H ) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul>  |                                                                                                                                                                                   |
| 6    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID' (second application).                                                                                                                                                                        | RQ8.1.6.7<br><br>RQ8.1.7.3                                                                                                                                                        |
| 7    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of the Second Instance of application (#instanceAID)</li> <li>• Life cycle state ('07'H ) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> |                                                                                                                                                                                   |

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

8.2.7.6. Check processData8.2.7.6.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-6                  | 6.14.12.6  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

8.2.7.6.2. *Initial conditions*

None

8.2.7.6.3. *Test procedure*

| Step | Direction | Description                                                                                                                                            | RQ                                                                                                                                                                                                                                                                                                                          |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br><br>RQ8.1.7.8<br>RQ8.1.7.20<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.30<br>RQ8.1.7.31<br>RQ8.1.7.34a<br>RQ8.1.7.35<br>RQ8.1.7.39<br>RQ8.1.7.40RQ8.1.7.41<br>RQ8.1.7.42<br>RQ8.1.7.43<br>RQ8.1.7.44<br>RQ8.1.7.45<br>RQ8.1.7.46<br>RQ8.1.7.55<br>RQ8.1.7.60<br>RQ8.1.7.61 |
| 2    | eUICC → T | eUICC response with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                                                    |
| 3    | T → eUICC | Enable Profile Package (see description in 6.11).                                                                                                      |                                                                                                                                                                                                                                                                                                                             |
| 4    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID'.                                           | RQ8.1.6.7                                                                                                                                                                                                                                                                                                                   |

|   |           |                                                                                                                                                                                                                                                                                    |  |
|---|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of application1 (#instanceAID)</li> <li>• Life cycle state ('07'H ) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> |  |
| 6 | T → eUICC | Send GET DATA command to TAR Application 6 using SCP80 with<br>P1 = '00'<br>P2 = '92'<br>Lc = '00'<br>Le = '00'.                                                                                                                                                                   |  |
| 7 | eUICC → T | GET DATA command responds with <ul style="list-style-type: none"> <li>• #processData information.</li> </ul>                                                                                                                                                                       |  |

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

#### 8.2.7.7. Error when loading Application PE and the lifecycle of SD is not PERSONALISED

##### 8.2.7.7.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-2           | 6.14.11.2  |
| PE-Application-3                  | 6.14.12.3  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.7.7.2. Initial conditions

None

##### 8.2.7.7.3. Test procedure

| Step | Direction | Description                                                                                                                                                           | RQ                                                                                                                 |
|------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                  | RQ8.1.7.69b                                                                                                        |
| 2    | eUICC → T | eUICC response with PESTatus (6) invalid-parameter and the identification of PE-Application-3.<br>the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.5<br>RQ8.1.11.6<br>RQ8.1.11.17d<br>RQ8.1.11.17e<br>RQ8.1.11.25<br>RQ8.1.7.61 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                      |                                                                                                                    |

8.2.7.8. Check all elements in ApplicationLoadPackage – taking size into account – PE application is not mandatory

8.2.7.8.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-7                  | 6.14.12.7  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

8.2.7.8.1. *Initial conditions*

None

8.2.7.8.2. *Test procedure*

| Step | Direction | Description                                                                                                                                                                                                                                        | RQ                                                                                                                                                    |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                               | RQ8.1.7.8<br>RQ8.1.7.10<br>RQ8.1.7.11<br>RQ8.1.7.12<br>RQ8.1.7.13<br>RQ8.1.7.14<br>RQ8.1.7.15<br>RQ8.1.7.16<br>RQ8.1.7.17<br>RQ8.1.7.20<br>RQ8.1.7.61 |
| 2    | eUICC → T | the eUICC responds with PESTatus (4) not-enough-memory and the identification of PE-Application-7, or with PESTatus different from (0) and identification of PE-Application-7. the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2<br>RQ8.1.11.2a<br>RQ8.1.11.15<br>RQ8.1.11.15c<br>RQ8.1.11.25                                                                               |
| 3    | T ↔ eUICC | enabling the Profile Package according to 6.11 fail.                                                                                                                                                                                               |                                                                                                                                                       |

### 8.2.7.9. Check all elements in ApplicationInstance when eUICC supports tag list '5C' with tag 'CF'

#### 8.2.7.9.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-3                  | 6.14.12.3  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.7.9.2. Initial conditions

None

#### 8.2.7.9.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                                                                                                                                                                                                                                                                               |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   | RQ8.1.7.4<br>RQ8.1.7.5<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.28<br>RQ8.1.7.29<br>RQ8.1.7.31<br>RQ8.1.7.35<br>RQ8.1.7.37<br>RQ8.1.7.38<br>RQ8.1.7.39<br>RQ8.1.7.40<br>RQ8.1.7.41<br>RQ8.1.7.42<br>RQ8.1.7.48<br>RQ8.1.7.50RQ8.1.7.55<br>RQ8.1.7.56<br>RQ8.1.7.58<br><br>RQ8.1.7.61 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                                                                                                                         |
| 3    | T ↔ eUICC | Enable Profile Package (see description in 6.11).                                                                                                      |                                                                                                                                                                                                                                                                                                  |
| 4    | T → eUICC | Send GET STATUS command to SSD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID 5C 05 4F 9F70 C5 CF'                           | RQ8.1.6.7                                                                                                                                                                                                                                                                                        |

|   |           |                                                                                                                                                                                                                                                                                                                                                                               |            |
|---|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of application (#instanceAID)</li> <li>• Life cycle state (#lifeCycleState) See Note_1</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present See Note_2</li> <li>• Implicit Selection Parameter (#implicitSelectionParameter)</li> <li>• SW='9000'.</li> </ul> | RQ8.1.7.33 |
|---|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

Note\_1: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

Note\_2: SCP Registry Data may not be present in the response

#### 8.2.7.10. Check loaded libraries within a PE-Application

##### 8.2.7.10.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-8                  | 6.14.12.8  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.7.10.2. *Initial conditions*

None

##### 8.2.7.10.3. *Test procedure*

| Step | Direction | Description                                                                                                                                            | RQ                                                                                          |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   | RQ8.1.1.6<br>RQ8.1.1.7<br>RQ8.1.1.9<br><br>RQ8.1.7.1<br>RQ8.1.7.6<br>RQ8.1.7.8<br>RQ8.1.7.9 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                    |
| 3    | T ↔ eUICC | Enable Profile Package (see description in 6.11).                                                                                                      |                                                                                             |
| 4    | T → eUICC | Send GET STATUS command to MNO-SD using SCP80 with<br>P1 = '10'<br>P2 = '02'<br>Data = '4F 08' #loadPackageAID                                         | RQ8.1.6.7                                                                                   |



|   |           |                                                                                                                                                                                                                                                         |           |
|---|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• Load Package AID (#loadPackageAID)</li> <li>• Life cycle state ('01') See Note</li> <li>• First Executable Module AID (A000000559101001112233)</li> </ul> Note2<br>SW='9000'. | RQ8.1.7.1 |
|---|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

Note2: This value is inside loabBlockObject and it corresponds to COMPONENT\_Applet (Tag 03) according to [JAVACARD VM].

#### 8.2.7.11. Check PE-Application installation when Memory Management is supported.

##### 8.2.7.11.1. *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-9                  | 6.14.12.9  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.7.11.2. *Initial conditions*

None

##### 8.2.7.11.3. *Test procedure*

| Step | Direction | Description                                          | RQ                                                                                                                                                                                                                                                                                 |
|------|-----------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10. | RQ8.1.7.4<br>RQ8.1.7.5<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.28<br>RQ8.1.7.29<br>RQ8.1.7.31<br>RQ8.1.7.35<br><br>RQ8.1.7.37<br>RQ8.1.7.38<br>RQ8.1.7.39<br>RQ8.1.7.40<br>RQ8.1.7.41<br>RQ8.1.7.42RQ8.1.7.47<br>RQ8.1.7.48<br>RQ8.1.7.50<br>RQ8.1.7.55<br>RQ8.1.7.58 |

|   |           |                                                                                                                                                                                                                                                                                            |                                          |
|---|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 2 | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification.                                                                                                                                     | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3 | T ↔ eUICC | Enable Profile Package (see description in 6.11).                                                                                                                                                                                                                                          |                                          |
| 4 | T → eUICC | Send GET STATUS command to SSD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID'                                                                                                                                                                                   | RQ8.1.6.7                                |
| 5 | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>• AID of application (#instanceAID)</li> <li>• Life cycle state (#lifeCycleState) See Note</li> <li>• Privileges (#applicationPrivileges)</li> <li>• SCP Registry Data is present</li> <li>• SW='9000'.</li> </ul> |                                          |

Note: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

**8.2.7.12.** Installing profile with contactless eUICC Mandatory service selected and userInteractionContactlessParameters. eUICC reports error.

**8.2.7.12.1.** *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-12                 | 6.14.1.12  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-10                 | 6.14.12.10 |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.7.12.2.** *Initial conditions*

None

**8.2.7.12.3.** *Test procedure*

| Step | Direction | Description                                                                                                                                                        | RQ                                                                                                                                                                                                               |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                               | RQ8.1.7.4<br>RQ8.1.7.5<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.28<br>RQ8.1.7.31<br>RQ8.1.7.35<br>RQ8.1.7.37<br>RQ8.1.7.39<br>RQ8.1.7.41<br>RQ8.1.7.42<br><br>RQ8.1.7.61<br>RQ8.1.7.65<br>RQ8.1.7.66 |
| 2    | eUICC → T | eUICC responds with PESTatus(10) feature-not-supported or with PESTatus different from (0).<br>The last eUICC response contains profileInstallationAborted object. | RQ8.1.11.21<br>RQ8.1.11.22b<br>RQ8.1.11.2<br>RQ8.1.11.2a                                                                                                                                                         |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                   |                                                                                                                                                                                                                  |

**8.2.7.13.** Check the contactlessProtocolParameters set inside the ApplicationInstance with contactless eUICC Mandatory service selected.

**8.2.7.13.1.** *Test execution*

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-12                 | 6.14.1.12  |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-11                 | 6.14.12.11 |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.7.13.2.** *Initial conditions*

None

**8.2.7.13.3.** *Test procedure*

| Step | Direction | Description                                                                                                                                                                                                                                                                                                          | RQ                                                                                                                                                                                                               |
|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                                                                 | RQ8.1.7.4<br>RQ8.1.7.5<br>RQ8.1.7.22<br>RQ8.1.7.24<br>RQ8.1.7.26<br>RQ8.1.7.28<br>RQ8.1.7.31<br>RQ8.1.7.35<br>RQ8.1.7.37<br>RQ8.1.7.39<br>RQ8.1.7.41<br>RQ8.1.7.42<br><br>RQ8.1.7.61<br>RQ8.1.7.63<br>RQ8.1.7.64 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted<br>eUICC response contains no PE Identification object.                                                                                                                                                                | RQ8.1.11.4<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10                                                                                                                                                           |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                  |
| 4    | T → eUICC | Send GET STATUS command to SSD using SCP80 with<br>P1 = '40'<br>P2 = '02'<br>Data = '4F 0C #instanceAID 5C 04 4F A9 87 88'                                                                                                                                                                                           | RQ8.1.6.7                                                                                                                                                                                                        |
| 5    | eUICC → T | GET STATUS command responds with <ul style="list-style-type: none"> <li>AID of application (#instanceAID)</li> <li>Contactless Protocol Parameters Profile ('A10490020002')</li> <li>Assigned Protocols for Implicit Selection ('828184')</li> <li>Initial Contactless Activation State ('00')</li> </ul> SW='9000'. | RQ8.1.7.63<br>RQ8.1.7.64                                                                                                                                                                                         |

## 8.2.8 Check RFM parameters

### 8.2.8.1. Installing PE-RFM with adfRFMAccess

#### 8.2.8.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.8.1.2. Initial conditions

None.

#### 8.2.8.1.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                          |
| 2    | eUICC → T | eUICC responds with PEStatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                          |
| 4    | T → eUICC | Send SELECT by FILE ID command to the RFM instance using SCP80 with Data = '2F00'.                                                                     |                                          |
| 5    | eUICC → T | SELECT command fails with an error SW '6A 82' - File not found                                                                                         | RQ8.1.8.18                               |
| 6    | T → eUICC | Send SELECT by FILE ID command with Data = '6F07' and READ BINARY with Length = 9 to the RFM instance using SCP80                                      |                                          |
| 7    | eUICC → T | SELECT by FILE ID and READ BINARY commands succeed (SW '90 00')                                                                                        | RQ8.1.8.18                               |

### 8.2.8.2. Installing PE-RFM without adfRFMAccess

#### 8.2.8.2.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-2                          | 6.14.13.2  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.8.2.2. Initial conditions

None.

#### 8.2.8.2.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                          |
| 4    | T → eUICC | Send SELECT by FILE ID command to the RFM instance using SCP80 with Data = '6F07'.                                                                     |                                          |
| 5    | eUICC → T | SELECT command fails with error SW '6A 82' - File not found ,or SW '69 85' – Condition of use is not satisfied.                                        | RQ8.1.8.17                               |
| 6    | T → eUICC | Send SELECT by FILE ID command to the RFM instance using SCP80 with Data = '2F00'.                                                                     |                                          |
| 7    | eUICC → T | SELECT command succeeds (SW '90 00')                                                                                                                   | RQ8.1.8.19                               |

### 8.2.8.3. Installing profile with two difference PE-RFMs

#### 8.2.8.3.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-RFM-2                          | 6.14.13.2  |
| PE-END-1                          | 6.14.14.1  |

#### 8.2.8.3.2. Initial conditions

None.

#### 8.2.8.3.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                       |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                          |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                          |
| 4    | T → eUICC | Send SELECT by FILE ID command to the RFM instance_1 (TAR value is B00000) using SCP80 with Data = '6F07'.                                             | RQ8.1.8.4                                |
| 5    | eUICC → T | SELECT command succeeds (SW '90 00')                                                                                                                   | RQ8.1.8.2                                |
| 6    | T → eUICC | Send SELECT by FILE ID command to the RFM instance_2 (TAR value is B00002) using SCP80 with Data = '2F00'.                                             | RQ8.1.8.4                                |
| 7    | eUICC → T | SELECT command succeeds (SW '90 00')                                                                                                                   | RQ8.1.8.2                                |

#### 8.2.8.4. Installing PE-RFM associated to SSD1

##### 8.2.8.4.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-1                  | 6.14.1.1   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAParameters-1                | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-SecurityDomain-SSD-1           | 6.14.11.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-3                          | 6.14.13.5  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.8.4.2. Initial conditions

None.

##### 8.2.8.4.3. Test procedure

| Step | Direction | Description                                                                                                                                            | RQ                                                    |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                   |                                                       |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification. | RQ8.1.8.3<br>RQ8.1.11.9<br>RQ8.1.11.9a<br>RQ8.1.11.10 |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                              |                                                       |
| 4    | T → eUICC | Send SELECT by FILE ID command to the RFM instance using SCP80 with the SCP80 parameters of SSD1 and with<br>Data = '2F00'.                            |                                                       |
| 5    | eUICC → T | SELECT command succeeds (SW '90 00')                                                                                                                   | RQ8.1.8.19                                            |



### 8.2.9 Check Non standardised content

#### 8.2.9.1. No error when installing non mandatory PE-NonStandard

##### 8.2.9.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                          | Reference  |
|---------------------------------------|------------|
| Profile-Header-1                      | 6.14.1.1   |
| PE-NonStandard-1                      | 6.14.15.1  |
| MF-by-Generic-File-Management-1       | 6.14.2.1.2 |
| PE-PUKCodes-1                         | 6.14.3.1   |
| PE-PINCodes-1                         | 6.14.4.1   |
| USIM-by-Generic-File-Management-2     | 6.14.5.1.4 |
| PE-PINCodes-Local-PIN-1               | 6.14.8.1   |
| OPT-USIM-by-Generic-File-Management-1 | 6.14.5.2.2 |
| PE-AKAPParameters-1                   | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1            | 6.14.10.1  |
| PE-SecurityDomain-SSD-1               | 6.14.11.1  |
| PE-Application-1                      | 6.14.12.1  |
| PE-RFM-1                              | 6.14.13.1  |
| PE-RFM-2                              | 6.14.13.2  |
| PE-END-1                              | 6.14.14.1  |

##### 8.2.9.1.2. Initial conditions

None.

##### 8.2.9.1.3. Test procedure

| Step | Direction | Description                                                                                                                                                   | RQ         |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10 .                                                                                                         | RQ8.1.1.38 |
| 2    | eUICC → T | eUICC responds with PESTatus (0) ok.<br>eUICC response contains no profileInstallationAborted object.<br>eUICC response contains no PE Identification object. |            |
| 3    | T ↔ eUICC | Enable Profile Package according to 6.11.                                                                                                                     |            |
| 4    | T ↔ eUICC | Select all files in MF except EF UMPC and verify their FCPs.                                                                                                  |            |
| 5    | T ↔ eUICC | Read all files in MF except EF UMPC and verify that the content is the same as defined in the MF-by-Generic-File-Management-1                                 |            |

### 8.2.10 Check Profile Package end

Requirements related to Profile Package end are tested in 8.2.3.

### 8.2.11 Check eUICC Response

#### 8.2.11.1. Check unsupported major version

##### 8.2.11.1.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-3                  | 6.14.1.3   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.11.1.1. Initial conditions

None

##### 8.2.11.1.2. Test procedure

| Step | Direction | Description                                                                                                                                                                     | RQ                          |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                            | RQ8.1.2.5                   |
| 2    | eUICC → T | eUICC response with PESTatus (31) unsupported-profile-version<br>eUICC response contains no identification object<br>eUICC response contains profileInstallationAborted object. | RQ8.1.11.23<br>RQ8.1.11.23a |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                |                             |

#### 8.2.11.2. Check unsupported template in Profile Header

##### 8.2.11.2.1. Test execution

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-4                  | 6.14.1.4   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

##### 8.2.11.2.2. Initial conditions

None

**8.2.11.2.3. Test procedure**

| Step | Direction | Description                                                                                                                                                                                                      | RQ                          |
|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                             | RQ8.1.2.19                  |
| 2    | eUICC → T | eUICC response with PESTatus (9) template-not-supported, or with PESTatus different from (0).<br>eUICC response contains no identification object.<br>eUICC response contains profileInstallationAborted object. | RQ8.1.11.20<br>RQ8.1.11.20b |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                                                 |                             |

**8.2.11.3. Check offset in eUICC Response with error****8.2.11.3.1. Test execution**

The Profile Package is defined as follows:

| Test PE name                      | Reference  |
|-----------------------------------|------------|
| Profile-Header-4                  | 6.14.1.4   |
| MF-by-Generic-File-Management-1   | 6.14.2.1.2 |
| PE-PUKCodes-1                     | 6.14.3.1   |
| PE-PINCodes-1                     | 6.14.4.1   |
| USIM-by-Generic-File-Management-1 | 6.14.5.1.2 |
| PE-PINCodes-Local-PIN-1           | 6.14.8.1   |
| PE-AKAPParameters-1               | 6.14.9.1   |
| PE-SecurityDomain-MNO-SD-1        | 6.14.10.1  |
| PE-Application-1                  | 6.14.12.1  |
| PE-RFM-1                          | 6.14.13.1  |
| PE-END-1                          | 6.14.14.1  |

**8.2.11.3.2. Initial conditions**

None

**8.2.11.3.3. Test procedure**

| Step | Direction | Description                                                                                                                                                                                                                                                         | RQ                         |
|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 1    | T → eUICC | Load Profile Package to the eUICC according to 6.10.                                                                                                                                                                                                                |                            |
| 2    | eUICC → T | eUICC response with PESTatus (9) template-not-supported, or with PESTatus different from (0), and offset with value between 51 and 58 inclusive.<br>eUICC response contains no identification object.<br>eUICC response contains profileInstallationAborted object. | RQ8.1.11.28<br>RQ8.1.11.29 |
| 3    | T ↔ eUICC | Enabling Profile Package according to 6.11 fail.                                                                                                                                                                                                                    |                            |

## 9. ANNEX A (Informative) : Java files

SIMalliance provides the .java and .cap files which are used in the PE Applications defined in this specification. These files will be available for download on SIMalliance website.

The .cap files are compiled to the APIs based on the versions of the following specifications:

-ETSI TS 102241 v6.12.0

-3GPP 31.130 v6.4.1

-Java Card API and Java Card Export File v1.2 for GlobalPlatform Card Specification v2.2

## 10. ANNEX B (Normative) : SFI values

The tables below contain the list of those files for which the related specification mandates the support of Short File Identifier and also defines a concrete SFI value.

### 10.1 ANNEX B1 (Normative) : SFI values in MF

| FID  | EF Name | SFI |
|------|---------|-----|
| 2F05 | EF PL   | 05  |
| 2F00 | EF DIR  | 1E  |
| 2F08 | EF UMPC | 08  |

### 10.2 ANNEX B2 (Normative) : SFI values in DF TELECOM

| FID  | EF Name     | SFI |
|------|-------------|-----|
| 4F20 | EF MLPL     | 01  |
| 4F21 | EF MSPL     | 02  |
| 4F22 | EF MMSSMODE | 03  |

### 10.3 ANNEX B3 (Normative) : SFI values in ADF USIM

| FID  | EF Name      | SFI |
|------|--------------|-----|
| 6F07 | EF IMSI      | 07  |
| 6F06 | EF ARR       | 17  |
| 6F08 | EF Keys      | 08  |
| 6F09 | EF KeysPS    | 09  |
| 6F31 | EF HPPLMN    | 12  |
| 6F38 | EF UST       | 04  |
| 6F56 | EF EST       | 05  |
| 6F5B | EF START-HFN | 0F  |
| 6F5C | EF THRESHOLD | 10  |
| 6F73 | EF PSLOC1    | 0C  |
| 6F78 | EF ACC       | 06  |
| 6F7B | EF FPLMN     | 0D  |
| 6F7E | EF LOC1      | 0B  |
| 6FAD | EF AD        | 03  |

|      |            |    |
|------|------------|----|
| 6FB7 | EF ECC     | 01 |
| 6FE3 | EF EPSLOCI | 1E |
| 6FE4 | EF EPSNSC  | 18 |

#### 10.4 ANNEX B4 (Normative) : SFI values in OPT USIM

| FID  | EF Name      | SFI |
|------|--------------|-----|
| 6F05 | EF LI        | 02  |
| 6F48 | EF CBMID     | 0E  |
| 6F60 | EF PLMNwAct  | 0A  |
| 6F61 | EF OPLMNwAcT | 11  |
| 6F62 | EF HPLMNwAcT | 13  |
| 6F4F | EF CCP2      | 16  |
| 6F80 | EF ICI       | 14  |
| 6F81 | EF OCI       | 15  |
| 6FC5 | EF PNN       | 19  |
| 6FC6 | EF OPL       | 1A  |
| 6FCD | EF SPDI      | 1B  |
| 6FD9 | EF EHPLMN    | 1D  |

#### 10.5 ANNEX B5 (Normative) : SFI values in ADF ISIM

| FID  | EF Name   | SFI |
|------|-----------|-----|
| 6F02 | EF IMPI   | 02  |
| 6F04 | EF IMPU   | 04  |
| 6F03 | EF Domain | 05  |
| 6F07 | EF IST    | 07  |
| 6FAD | EF AD     | 03  |
| 6F06 | EF ARR    | 06  |

#### 10.6 ANNEX B6 (Normative) : SFI values in ADF CSIM

| FID  | EF Name     | SFI |
|------|-------------|-----|
| 6F06 | EF ARR      | 17  |
| 6F22 | EF IMSI_M   | 04  |
| 6F23 | EF IMSI_T   | 05  |
| 6F24 | EF TMSI     | 06  |
| 6F28 | EF CDMAHOME | 0C  |
| 6F2A | EF SNREGI   | 0D  |
| 6F2C | EF ACCOLC   | 03  |
| 6F30 | EF PRL      | 07  |
| 6F32 | EF CSIM_ST  | 02  |

|      |       |    |
|------|-------|----|
| 6F3A | EF LI | 0A |
| 6F43 | EF AD | 01 |

## 10.7 ANNEX B7 (Normative) : SFI values in OPT CSIM

| FID  | EF Name  | SFI |
|------|----------|-----|
| 6F41 | EF SPN   | 08  |
| 6F47 | EF ECC   | 09  |
| 6F5A | EF EPRL  | 0E  |
| 6F6B | EF 3GCIK | 0B  |
| 6F75 | EF EST   | 0F  |
| 6F7C | EF ICI   | 10  |
| 6F7D | EF OCI   | 11  |
| 6F7F | EF CCP2  | 12  |

## 11. ANNEX C (Informative) : Document history

The table below indicates changes that have been incorporated into the present document since it was created by SIMalliance.

| Version | Date       | Brief Description of Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V1.0.   | 14/04/2016 | 1st Release of Document                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| V2.0.   | 06/07/2016 | <ul style="list-style-type: none"> <li>-Test PE-s are updated in Ch 6.12 to align to eUICC Profile Package: Interoperable Format Technical Specification v2.0; also new Test PE-s are added.</li> <li>-RQs are updated in Ch 7.1 and 8.1 to align to eUICC Profile Package: Interoperable Format Technical Specification v2.0; also new RQs are added.</li> <li>-Test cases are updated, especially new Test PE-s are referenced.</li> <li>-New test cases are added: 8.2.1.1; 8.2.1.8; 8.2.3.6.</li> <li>-References are updated, applicability table and related chapters are updated, Ch 6.7 is updated.</li> </ul>                                                                                                                                                                                                                                                                                                                                       |
| V2.1    | 17/05/2017 | <p>Major changes:</p> <ul style="list-style-type: none"> <li>-in Chapter 6.6 the General Initial Conditions are updated</li> <li>-Chapter 6.8 (Indications concerning support of features) is deleted</li> <li>-Chapter 6.14 Test PE description (Ch 6.12 in v2.0) is restructured and updated</li> <li>-in Chapter 7.1 and 8.1 the Test Requirements are updated to align to Technical Specification v2.1</li> <li>-Chapter 8.2 is restructured</li> <li>-the following new TC-es are added:               <ul style="list-style-type: none"> <li>8.2.3.3. Installing USIM files by template with OPT-USIM-2</li> <li>8.2.3.4. Installing USIM files by template with BER-TLV files in ServicesList.</li> <li>8.2.3.5. Error when installing PE-USIM when eUICC does not support USIM.</li> <li>8.2.3.6 Warning when installing USIM files by template with BER-TLV files in a non mandatory PE when eUICC does not support BER-TLV.</li> </ul> </li> </ul> |

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|--------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |            | <p>8.2.3.7. Warning when creating a DF with dfLink in a non mandatory PE when eUICC does not support dfLink.</p> <p>8.2.3.8. Creating a DF with dfLink when eUICC supports dfLink is added</p> <p>8.2.3.9. Creating a DF with dfLink when eUICC supports dfLink and dfLink in ServicesList is added</p> <p>8.2.3.10. Installing CSIM files by template is added</p> <p>8.2.3.11. Installing ISIM files by template is added</p> <p>8.2.4.1. Installing PE-AKAPParameters with MILENAGE and sending AUTHENTICATE is added</p> <p>8.2.4.2. Installing PE-AKAPParameters with TUAK and sending AUTHENTICATE is added</p> <p>8.2.5.1 Installing PINs in enabled state.</p> <p>8.2.5.2 Installing PINs in disabled state.</p> <p>8.2.7.7 Error when loading Application PE and the lifecycle of SD is not personalised</p> <p>8.2.7.8 Check all elements in ApplicationLoadPackage – taking size into account – PE application is not mandatory</p> <p>8.2.7.9 Check all elements in ApplicationInstance when eUICC supports tag list '5C' is added</p> <p>8.2.8.1 Installing PE-RFM with adfRFMAccess.</p> <p>8.2.8.2 Installing PE-RFM without adfRFMAccess.</p> <p>8.2.11.1 Check unsupported major version.</p> <p>8.2.11.2 Check unsupported template.</p> <p>-several TC-es are updated</p> <p>-TC 8.2.1.4 Installing profile without ProfileHeader PE is deleted</p> <p>-new Test PE-s are defined in Chapter 6.14</p> <p>-several Test PE-s are updated and renamed, one Test PE is deleted</p> <p>-DER codes are deleted from the Test PE descriptions</p> <p>-Annex A added</p> |
| V2.1.1 | 02/01/2018 | <p>Updates:</p> <p>-in Section 6.1 Item 19 is updated</p> <p>-in Section 6.2 in Table 2 the applicability of the following TC-es are changed:</p> <p>TC 8.2.3.6</p> <p>TC 8.2.7.2</p> <p>TC 8.2.7.8</p> <p>TC 8.2.7.9</p> <p>-a new subsection : 6.6.4 Specific rule for FCP verification is added</p> <p>-the following ASN1 files are updated:</p> <p>6.14.1.5. Profile-Header-5</p> <p>6.14.1.8. Profile-Header-8 (update is related to the M2M version only)</p> <p>6.14.2.2.1. PE-CD-by-Template-1</p> <p>6.14.2.2.2. DF-CD-by-Generic-File-Management-1</p> <p>6.14.2.3.1. PE-TELECOM-by-Template-1</p> <p>6.14.2.3.2. PE-TELECOM-by-Template-2</p> <p>6.14.2.3.3. PE-TELECOM-by-Template-3</p> <p>6.14.4.2. PE-PINCodes-2</p> <p>6.14.5.1.1. PE-USIM-by-Template-1</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|        |            | <p>6.14.5.1.2. USIM-by-Generic-File-Management-1</p> <p>6.14.5.1.3. PE-USIM-by-Template-2</p> <p>6.14.5.1.4. USIM-by-Generic-File-Management-2</p> <p>6.14.5.1.5. PE-USIM-by-Template-3</p> <p>6.14.5.1.6. PE-USIM-by-Template-4</p> <p>6.14.5.2.3. PE-OPT-USIM-by-Template-2</p> <p>6.14.6.1.1. PE-ISIM-by-Template-1</p> <p>6.14.7.1.1. PE-CSIM-by-Template-1</p> <p>6.14.7.2.1. PE-OPT-CSIM-by-Template-1</p> <p>6.14.8.1. PE-PINCodes-Local-PIN-1</p> <p>6.14.9.3. PE-AKAParameters-3</p> <p>6.14.10.5. PE-SecurityDomain-MNO-SD-5</p> <p>6.14.11.2. PE-SecurityDomain-SSD-2</p> <p>6.14.12.2. PE-Application-2</p> <p>6.14.12.3. PE-Application-3</p> <p>6.14.12.5. PE-Application-5</p> <p>6.14.12.6. PE-Application-6</p> <p>6.14.13.4. PE-RFM-CSIM</p> <p>-in Section 8.1.X RQ8.1.6.7 and REQ8.1.6.36a are updated to align to the Technical Specification</p> <p>-in Section 8.1.X RQ8.1.1.8, RQ8.1.7.7 RQ8.1.7.18 , RQ8.1.7.19 , RQ8.1.11.17 and RQ8.1.11.17b became "FFS"</p> <p>-the following TC-es are updated:</p> <p>8.2.3.1</p> <p>8.2.3.7</p> <p>8.2.3.10</p> <p>8.2.3.11</p> <p>8.2.3.2</p> <p>8.2.3.3</p> <p>8.2.3.4</p> <p>8.2.3.6</p> <p>8.2.4.1</p> <p>8.2.4.2</p> <p>8.2.6.1</p> <p>8.2.6.2</p> <p>8.2.6.5</p> <p>8.2.7.1</p> <p>8.2.7.2</p> <p>8.2.7.3</p> <p>8.2.7.5</p> <p>8.2.7.6</p> <p>8.2.7.8</p> <p>8.2.7.9</p> <p>-the referenced REQ list is updated in several TC-es: in Section 8.2.3 , in Section 8.2.6, in Section 8.2.7</p> |
| V2.1.2 | 13/07/2018 | <p>The following sections are updated:</p> <p>-in Section 3.1 Normative References two new references are added</p> <p>-in Section 4 Abbreviations is extended with the definition of SFI</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



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|      |                   | <p>-in Section 6.2 the applicability of TC 8.2.3.6 is updated</p> <p>-in Section 6.2 the applicability of TC 8.2.7.9 is updated</p> <p>-in Section 6.6.4 Specific rules for FCP verification has been restructured: the existing definition is moved under subsection 6.6.4.1 and a new subsection 6.6.4.2. Tag 'DO88' (SFI) is added</p> <p>-in Section 6.2 in Table 2 the applicability of the following TC-es are changed: 8.2.3.6 and 8.2.7.9</p> <p>-in Section 6.6.1.1. M2M Architecture one of the initial conditions have been updated to align to [GS RPAT] v3.2</p> <p>-in Section 8.1.7 Application loading and installation RQ8.1.7.47 is marked as FFS requirement</p> <p>-the referenced REQ list is updated in test cases 8.2.7.3 and 8.2.7.9</p> <p>The following new sections are added:</p> <p>-6.6.5 Specific rules for file content verification</p> <p>-Annex B (Normative) : SFI values</p> <p>The following test cases are updated</p> <p>-in Section 8.2.6.2.3. - Step 4 it is specified that the GET DATA command shall be sent using SCP80.</p> <p>-in Section 8.2.6.4.3. - Step 4 and Step 6 it is specified that the GET DATA command shall be sent using SCP80.</p> <p>-in Section 8.2.6.5.3. - Step 4 it is specified that the GET DATA command shall be sent using SCP80.</p> <p>The following Test PE-s are updated:</p> <p>-6.14.1.2. Profile-Header-2</p> <p>-6.14.1.2. Profile-Header-5</p> <p>-6.14.2.3.1. PE-TELECOM-by-Template-1</p> <p>-6.14.2.3.2. PE-TELECOM-by-Template-2</p> <p>-6.14.2.3.3. PE-TELECOM-by-Template-3</p> <p>-6.14.5.2.3. PE-OPT-USIM-by-Template-2</p> <p>-6.14.6.1.1. PE-ISIM-by-Template-1</p> <p>-6.14.7.1.1. PE-CSIM-by-Template-1</p> <p>-6.14.7.2.1. PE-OPT-CSIM-by-Template-1</p> <p>-6.14.12.3. PE-Application-3</p> <p>-6.14.12.7. PE-Application-7</p> |
| V2.2 | 2019.February 15. | <p>Major changes:</p> <p>-the following new test cases are added:</p> <p>8.2.2.1. Error when cat-tp in ServicesList and eUICC does not support CAT_TP</p> <p>8.2.2.2. Error when package in eUICC-Mandatory-AIDs is not known</p> <p>8.2.2.3. Error when version in eUICC-Mandatory-AIDs is not supported</p> <p>8.2.2.4. No error when package and version in eUICC-Mandatory-AIDs is known and supported</p> <p>8.2.3.12. Installing USIM files by template without content</p> <p>8.2.3.13. Creating file instances with and without explicitly set file ID</p> <p>8.2.3.14. Error when installing PE-CSIM when eUICC does not support CSIM</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|  |  | <p>8.2.3.15. Installing GSM-ACCESS files by template</p> <p>8.2.3.16. Installing USIM Phonebook files by template</p> <p>8.2.3.17. Installing EAP files by template</p> <p>8.2.4.3. Installing PE-AKAPParameters with usim-test-algorithm and sending AUTHENTICATE</p> <p>8.2.4.4. Installing PE-AKAPParameters with TUAK with 256 bit key and restricted length and sending AUTHENTICATE</p> <p>8.2.4.5. Installing PE-AKAPParameters with TUAK with 256 bit key and sending AUTHENTICATE</p> <p>8.2.4.6. Installing PE-AKAPParameters with TUAK with numberOfKeccak and restricted lengths and sending AUTHENTICATE</p> <p>8.2.4.7. Installing PE-AKAPParameters with TUAK with numberOfKeccak and sending AUTHENTICATE</p> <p>8.2.4.8. Error when authCounterMax exceeded</p> <p>8.2.4.9. Test Milenage PIN verification and defined constants</p> <p>8.2.4.10. Blocked SQN with wrap around deactivated (content is FFS)</p> <p>8.2.4.11. Testing SQN delta and age limit</p> <p>8.2.4.12. Test usim-test-algorithm with 32 bit RES length</p> <p>8.2.4.13. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP CHAP Mode</p> <p>8.2.4.14. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP HRPD Access Mode</p> <p>8.2.4.15. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Mobile IP Mode</p> <p>8.2.4.16. Installing USIM and ISIM with sharing NAA parameters</p> <p>8.2.5.3. Installing different PINs with different PUKs</p> <p>8.2.5.4. Checking the access domain validity of an RFM instance in case of a blocked PIN</p> <p>8.2.5.5. Checking the PIN context of a Global PIN</p> <p>8.2.5.6. Checking the PIN context of a Local PIN</p> <p>8.2.5.7. Checking the “PIN state change allowed” and “PIN state change not allowed” status</p> <p>8.2.5.8. Checking the “PIN can be changed” and “PIN cannot be changed” status</p> <p>8.2.5.9. Error when no consistency between pinStatusTemplateDO and PE PINCodes Local</p> <p>8.2.6.6. Check CASD Personalisation – Scenario #3</p> <p>8.2.6.7. Check CASD personalization – Scenario#2B</p> <p>8.2.6.8. Check installing an SSD under a self extradited SSD</p> <p>8.2.6.9. Check initial counter is default when keyCounterValue absent</p> <p>8.2.6.10. Error when installing KeyObject parameter not supported</p> <p>8.2.7.10. Check loaded libraries within a PE-Application</p> <p>8.2.7.11. Check PE-Application installation when Memory Management is supported.</p> <p>8.2.7.12. Installing profile with contactless eUICC Mandatory service selected and userInteractionContactlessParameters, eUICC reports error</p> |
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|        |             | <p>8.2.7.13. Check the contactlessProtocolParameters set inside the ApplicationInstance with contactless eUICC Mandatory service selected.</p> <p>8.2.8.4. Installing PE-RFM associated to SSD1</p> <p>8.2.9.1. No error when installing non mandatory PE-NonStandard</p> <p>8.2.11.3. Check offset in eUICC Response with error</p> <p>-the following test case is deleted:</p> <p>8.2.1.5. Installing profile with PE-USIM before PE-MF</p> <p>-in TC 8.2.3.10 Step 7 and 9 is updated (bugfix)</p> <p>-several test cases are updated to check that the eUICC response contains no profileInstallationAborted object when eUICC responds with PESTatus (0) ok</p> <p>-some requirements are added in some Test Sequences as tested requirements</p> <p>-several new Test PE-s are added in Section 6.14</p> <p>-some Test PE-s are updated</p> <p>-new Optional features are added in Table 1 (Section 6.1)</p> <p>-several new REQ-s are added and some existing REQ-s are updated in Section 7 and 8</p> <p>-Section 2 is updated</p> <p>-Section 3.1 is updated</p> <p>-Section 6.1 is updated : the support of O_JAVACARD is mandated</p> <p>-Section 6.6.4.2 is updated</p> <p>-new Section 6.6.4.4. is added with a clarification for file system checking by test tool</p> <p>-new Section 6.6.4.5 is added with a clarification for checking Tag '82' (File Descriptor)</p> <p>-new Section 6.6.6 is added with a clarification regarding possible returned status codes</p> <p>-new Section 6.6.7 is added about the usage of ISO interface</p> |
| V2.2.1 | 2019.04.10. | <p>The following new section is added:</p> <p>-Section 6.6.8 is about the handling of GET STATUS response</p> <p>The following Test PE-s are updated:</p> <p>-6.14.2.4.4. ADF-CUSTOM-by-Generic-File-Management-1 PE</p> <p>-6.14.7.1.1. PE-CSIM-by-Template-1</p> <p>-6.14.7.1.2. PE-CSIM-by-Template-2</p> <p>The following new Test PE is added:</p> <p>-6.14.8.5. PE-PINCodes-Local-PIN-5</p> <p>The following test cases are updated:</p> <p>-8.2.3.10. Installing CSIM files by template</p> <p>-8.2.3.14. Error when installing PE-CSIM when eUICC does not support CSIM</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|  |  | <ul style="list-style-type: none"><li>-8.2.4.13. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP CHAP Mode</li><li>-8.2.4.14. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP HRPD Access Mode</li><li>-8.2.4.15. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Mobile IP Mode</li><li>-8.2.5.6. Checking the PIN context of a Local PIN</li></ul> <p>The applicability of test case 8.2.5.6 is changed</p> |
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