TRUSTED CONNECTIVITY ALLIANCE

eUICC Profile Package: Interoperable Format Test Specification

Version 2.1.2

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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 only exceptions are test cases 8.2.4.1 and 8.2.4.2 which can be used only for non-soldered eUICCs.

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

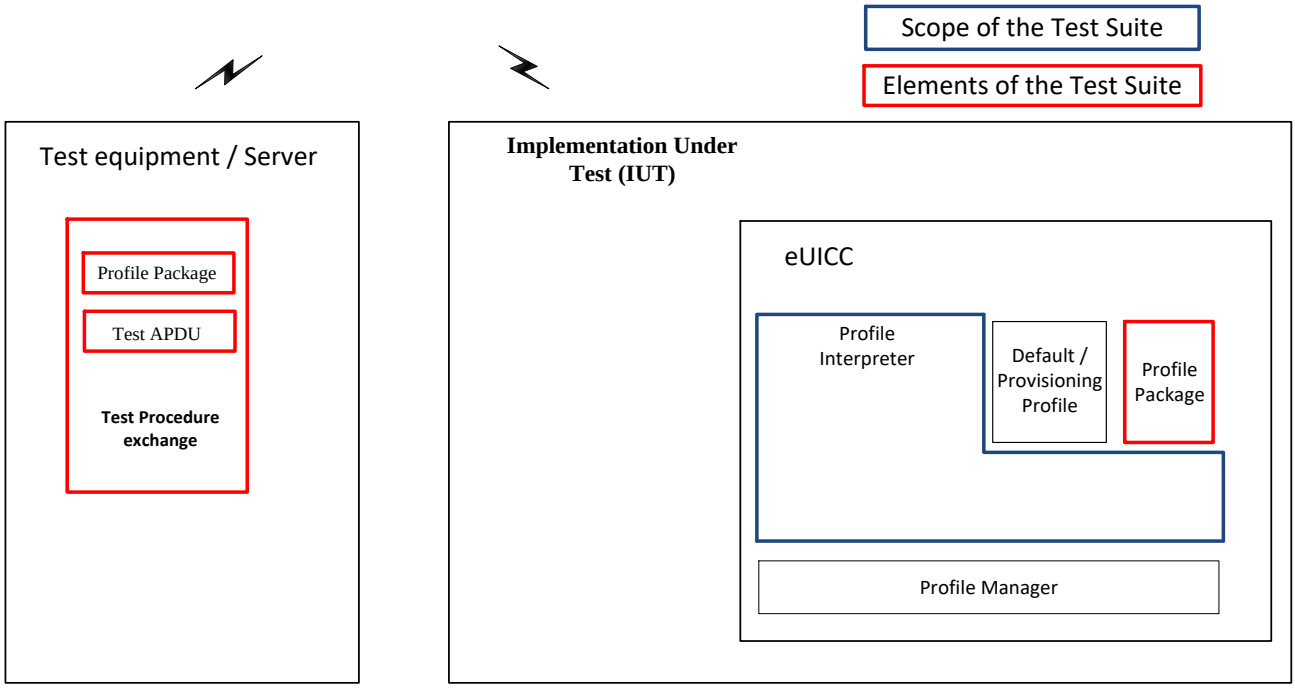

Figure 1: Scope of the testing

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.
- [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 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 SGP22]: GSMA RSP Technical Specification V2.1.
- [RFCTLS]: 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.

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

3.2 Informative References

For 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
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
POL	Policy Rules within the Profile
PUK	PIN Unblocking Key

RAM	Remote Application Management
RFM	Remote File Management
RQ	Requirement
SCP	Secure Channel Protocol
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	The eUICC is able to correctly load profiles with PE-USIM before PE-MF.		O_SUPPORT_PE_USIM_B EFORE PE_MF
25	The eUICC is able to correctly load profiles with PE-Application before PE-SecurityDomain.		O_SUPPORT_PE_APPLICA TION_BEFORE PE_SECURITYDOMAIN
26	The eUICC is able to correctly load profiles with PE-RFM before PE-SecurityDomain.		O_SUPPORT_PE_RFM_BE FORE PE_SECURITYDOMAIN
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_TEMPLATE
37	Support of PE OPT CSIM (OID: 2.23.143.1.2.11) creation by template.		O_PE_OPT_CSIM_BY_TEMPLATE
38	Support of PE ISIM (OID: 2.23.143.1.2.8) creation by template.		O_PE_ISIM_BY_TEMPLATE
39	Support of PE OPT ISIM (OID: 2.23.143.1.2.9) creation by template.		O_PE_OPT_ISIM_BY_TEMPLATE

Table 1: Options

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
	Profile Package Elements Definition tests		
	Check Profile Format		
8.2.1.1	VOID.		
8.2.1.2	Installing profile with PE-USIM before PE-MF, eUICC reports error.	C006	C006
8.2.1.3	Installing profile with PE-Application before PE-SecurityDomain, eUICC reports error.	C007	C007
8.2.1.4	Installing profile with PE-RFM before PE-SecurityDomain, eUICC reports error.	C008	C008
8.2.1.5	Installing profile with PE-USIM before PE-MF.	C011	C011
	Check File System		
8.2.3.1	Installing USIM files by generic file management.	C009	C009
8.2.3.2	Installing USIM files by template.	C010	C009
8.2.3.3	Installing USIM files by template with OPT-USIM-2.	C010	C009
8.2.3.4	Installing USIM files by template with BER-TLV files in ServicesList.	NA	C012
8.2.3.5	Error when installing PE-USIM when eUICC does not support USIM.	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
8.2.3.7	Warning when creating a DF with dfLink in a non mandatory PE when eUICC does not support dfLink.	NA	C015
8.2.3.8	Creating a DF with dfLink when eUICC supports dfLink.	C016	NA
8.2.3.9	Creating a DF with dfLink when eUICC supports dfLink and dfLink is in ServicesList.	NA	C016
8.2.3.10	Installing CSIM files by template.	C017	C018
8.2.3.11	Installing ISIM files by template.	C019	C020
	Check NAA(s)		
8.2.4.1	Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE	C009	C009
8.2.4.2	Installing PE-AKAParameters with TUAK and sending AUTHENTICATE	C021	C021

Test case	Test case title	Version 2.0	Version 2.1
	Check PIN and PUK codes		
8.2.5.1	Installing PINs in enabled state.	C009	C009
8.2.5.2	Installing PINs in disabled state.	C009	C009
	Check Security Domains		
8.2.6.1	Check mandatory elements in PE Security Domain.	C009	C009
8.2.6.2	Check key list in PE Security Domain.	C009	C009
8.2.6.3	Check number of keyComponent objects.	C009	C009
8.2.6.4	Check sdPersoData.	C009	C009
8.2.6.5	Check OTA HTTPs Personalisation.	C009	C009
	Check Application loading and installation		
8.2.7.1	Check Application PE and mandatory elements in ApplicationInstance.	C009	C009
8.2.7.2	Check all elements in ApplicationLoadPackage – taking size into account. – PE application is mandatory.	C004	C004
8.2.7.3	Check all elements in ApplicationInstance.	C009	C009
8.2.7.4	Error when loading an Application PEand bad library is provided.	C009	C009
8.2.7.5	Check multiple ApplicationInstance.	C009	C009
8.2.7.6	Check processData.	C009	C009
8.2.7.7	Error when loading Application PE and the lifecycle of SD is not PERSONALISED.	NA	C009
8.2.7.8	Check all elements in ApplicationLoadPackage – taking size into account – PE application is not mandatory.	NA	C004
8.2.7.9	Check all elements in ApplicationInstance when eUICC supports tag list ‘5C’ with tag 'CF'.	C014	C014
	Check RFM parameters		
8.2.8.1	Installing PE-RFM with adfRFMAccess.	C009	C009
8.2.8.2	Installing PE-RFM without adfRFMAccess.	C009	C009
8.2.8.3	Installing profile with two difference PE-RFMs	C009	C009
	Check eUICC Response		
8.2.11.1	Check unsupported major version.	M	M
8.2.11.2	Check unsupported template in Profile Header.	M	M

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	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SUPPORT_PE_USIM_BEFORE PE_MF SUPPORTED) THEN M ELSE N/A
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

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. • Y or y supported by the implementation; • N or n not supported by the implementation; • N/A, or n/a - no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status).
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:

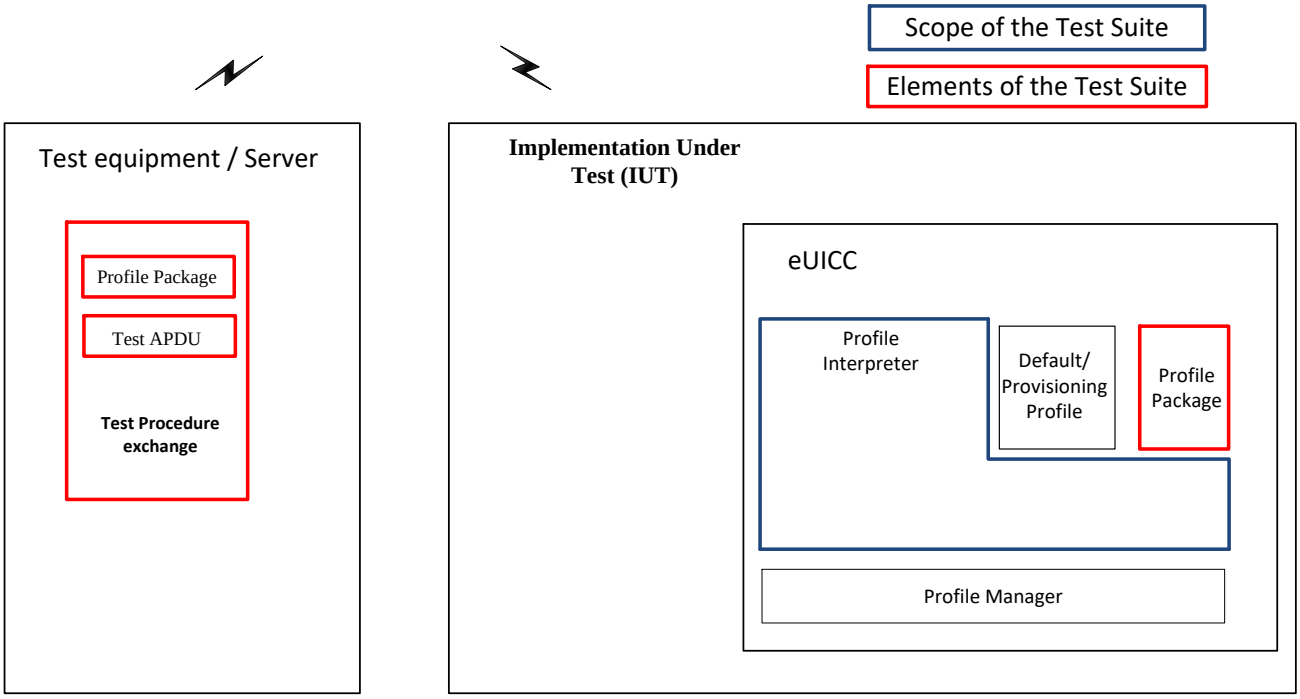

Figure 2: Test environment description

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
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. The ISD-R privileges shall be granted according to Annex C of [GS RPT]
The ECASD shall be installed and personalized by the EUM during the eUICC manufacturing with:. • PK.CI.ECDSA • SK.ECASD.ECKA • CERT.ECASD.ECKA for eUICC Authentication and key establishment • EID After eUICC manufacturing, the ECASD shall be in life-cycle state PERSONALIZED as defined in GlobalPlatform Card Specification [GP CS], section 5.3.
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.
According to [GS RPT]: • 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'. . • The ISD- R Executable Load File AID and the ISD-R Executable Module AID can be freely selected by the EUM. • The ISD-R application AID shall be 'A0 00 00 05 59 10 10 FF FF FF FF 89 00 00 01 00'. • The ECASD Executable Load File AID and the ECASD Executable Module AID can be freely selected by the EUM.
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].
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]
The following certificates shall be signed and issued by the CI: • Self-signed Root Certificate • EUM Certificates • SM-SR Certificates • SM-DP Certificates
The following certificates shall be signed and issued by the EUM: • eUICC Certificates

Initial state
The following certificate and key shall be stored in the eUICC: • The eUICC Certificate • The Root public key
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: • The PK.ECASD.ECKA used for ElGamal Elliptic Curves key agreement as defined in [GP AE] • The EID

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
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. The ISD-R privileges shall be set according to Annex A of [GS SGP22].
The ECASD shall be installed and personalized by the EUM during the eUICC manufacturing. • CERT.EUICC.ECDSA (NIST, or Brainpool ,or FRP256V1) • PK.EUICC.ECDSA • PK.CI.ECDSA. • CERT.EUM.ECDSA (NIST, or Brainpool, or FRP256V1) • eUICC Manufacturer's (EUMs) keyset for key/certificate renewal: ○ Renew eUICC's Private Key(s) and Certificate(s) ○ Renew EUM Certificate(s) ○ Renew CI public key(s) After eUICC manufacturing, the ECASD shall be in life-cycle state PERSONALIZED as defined in GlobalPlatform Card Specification [GP CS], section 5.3.
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.
According to [GS RPT]: • 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'. • The ISD- R Executable Load File AID and the ISD-R Executable Module AID can be freely selected by the EUM. • The ISD-R application AID shall be 'A0 00 00 05 59 10 10 FF FF FF FF 89 00 00 01 00'. • The ECASD Executable Load File AID and the ECASD Executable Module AID can be freely selected by the EUM.
The following certificates shall be signed and issued by the CI: • Self-signed Root Certificate • EUM Certificates • SM-DP+ Certificates

Initial state
The following certificates shall be signed and issued by the EUM: • eUICC Certificates

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:

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:
-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 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.

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.

6.6.5 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.

6.7 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 Initalisation 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: ‘A00000055910100102736456616C7565’ / ‘6C7565’.

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 1,
  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 1,
  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 1,
  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 1,
  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 1,
  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 1,
  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 1,
  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 1,
  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 1,
  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
}
```

6.14.2 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 :
'61184F10A0000000871002FF33FF0189000001005004555349 4DFFFFF
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 :
'800101A406830101950108800 15AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
```

```
    fillFileOffset : 27,
    fillFileContent :
'800103A4068301019501088001 58A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A4068301019501088001 4AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A4068301019501088001 58A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A4068301019501088001 02A4068301819501088001 58A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA4068301019501088001 40A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A4068301019501088001 5A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A4068301019501088001 48A40683010A950108'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 :
'8001019000800102A010A406830101950108A4068301029501088001 5
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 :
'61184F10A0000000871002FF33FF018900000100500455534 94D'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 :
'800101A406830101950108800 15AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A406830101950108800 14AA40683010A950108'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 : '800101A4068301019501088001 5A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A4068301019501088001 48A40683010A950108'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 :
'8001019000800102A010A406830101950108A4068301029501088001
58A40683010A950108'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 :
'61184F10A0000000871002FF33FF0189000001005004555349 4DFFFFF
FFFFFFFFFFFFFFFFFFFF'H,
-- ISIM AID: A0000000871004FF33FF018900000100
   fillFileContent :
'61184F10A0000000871004FF33FF0189000001005004495349 4DFFFFF
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 :
'8001019000800102A40683010195010880015 8A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A40683010195010880015 8A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A40683010195010880015 8A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A40683010195010880010 2A40683018195010880015 8A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA40683010195010880014 0A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A40683010195010880014 8A40683010A950108'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 :
'8001019000800102A010A406830101950108A4068301029501088000158A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A950108800158A40683010A950108'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 :
'61184F10A0000003431002FF33FF018900000100500443534944FFFFFFFFFFFFFFFFFFFFFF'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 :
'8001019000800102A40683010195010880015 8A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A40683010195010880015 8A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A40683010195010880015 8A40683010A950108840132A4068301
01950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A40683010195010880010 2A40683018195010880015 8A4068301
0A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA40683010195010880014 0A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A40683010195010880014 8A40683010A950108'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 :
'8001019000800102A010A406830101950108A4068301029501088001 58
A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A9501088001 58
A40683010A950108'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 :
'1122334455667788990011223344556611223344556677889900112233445566'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 : '800001020304050607080910111213 14'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 : '8000010203040506070809 0A0B0C0D0E'H,
  fillFileContent : '8000010203040506070809 0A0B0C0D0E'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-ccp1 {
  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 : '800001020304050607080910111213 14'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 : '8000010203040506070809 0A0B0C0D0E'H,
    fillFileContent : '8000010203040506070809 0A0B0C0D0E'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-ccp1 {
  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 : '800001020304050607080910111213 14'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 : '800001020304050607080 90A0B0C0D0E'H,
    fillFileContent : '800001020304050607080 90A0B0C0D0E'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-ccp1 {
  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
  }
}
```

6.14.2.4. CUSTOM

6.14.2.4.1. 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  - not needed
      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
     }
  }
 }
}
```

6.14.3 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,
      -- maxNumOfAttemps:9, retryNumLeft:9
      maxNumOfAttemps-retryNumLeft 153
    },
    {
      keyReference pukAppl2,
      pukValue '3132333435363738'H
    },
    {
      keyReference secondPUKAppl1,
      pukValue '3132333435363738'H,
      -- maxNumOfAttemps:8, retryNumLeft:8
      maxNumOfAttemps-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
    }
  }
}
```

6.14.5 USIM ADF

6.14.5.1. USIM

6.14.5.1.1. 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 : '220A040802000000000001000000000'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,
-- ues 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 4
  },
  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 : '220A040802000000000001004000000'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 EF UST which is defined bellow:

```
-- 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 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 : '220A140802080000000001004000000'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 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 : '220A140802080000040001004000000'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 6
  },
  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-cnl {
  },
  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-vgcss {
    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 : '1102030405060708091011121314151617'H,
    fillFileContent : '1202030405060708091011121314151617'H,
    fillFileContent : '1302030405060708091011121314151617'H,
    fillFileContent : '1402030405060708091011121314151617'H,
    fillFileContent : '1502030405060708091011121314151617'H,
    fillFileContent : '1602030405060708091011121314151617'H,
    fillFileContent : '1702030405060708091011121314151617'H,
    fillFileContent : '1802030405060708091011121314151617'H,
    fillFileContent : '1902030405060708091011121314151617'H,
    fillFileContent : '2002030405060708091011121314151617'H
  },
  ef-opl {
    fillFileContent :
'2102030405060708091011121314151617'H,
    fillFileContent :
'2202030405060708091011121314151617'H,
```

```
    fillFileContent :
'230203040506070809101112131415161723'H,
    fillFileContent :
'240203040506070809101112131415161724'H,
    fillFileContent :
'250203040506070809101112131415161725'H
  },
  ef-mbdn {
    fillFileContent :
'0102030405060708091011121314151617181920212223 24'H,
    fillFileContent :
'0202030405060708091011121314151617181920212223 02'H,
    fillFileContent :
'0302030405060708091011121314151617181920212223 03'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-ehplmnpi {
  },
  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 : '160203040506070809101112131415 16'H
  },
  ef-ufc {
  },
  ef-nasconfig {
    fillFileContent :
'18020304050607080910111213141516 17 18'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 :
'8010010203040506070809101112131415 16'H,
  fillFileContent :
'8110020203040506070809101112131415 16'H,
  fillFileContent :
'8110030203040506070809101112131415 16'H,
  fillFileContent :
'8010040203040506070809101112131415 16'H
  },
  ef-ips {
    fileDescriptor : {
      efFileSize '08'H
    }
  },
  ef-ipd {
    fileDescriptor : {
      fileDescriptor '42210004'H,
      efFileSize '10'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 'A0000000871004FF33FF018900000100'H,
        pinStatusTemplateDO '010A'H
     }
  },

  ef-impi {
    fileDescriptor : {
      fileDescriptor '4121'H,
      efFileSize '1F'H
    },
    -- 001010123456789@test.3gpp.com
    fillFileContent :
'801D3030313031303132333435363738394074657374 2E336770702E636F6D'H
    },

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

    fillFileContent :
'80167369703A75736572407465737 42E336770702E636F6D'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

6.14.6.1.2. 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-smsp {
  },
 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 '02820A'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-aloc {
    -- 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_PRMPT_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
  }
 }
```

6.14.8 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,
      maxNumOfAttemps-retryNumLeft 34
    }
  }
}
```

6.14.8.2. PE-PINCodes-Local-PIN-2

PE-PINCodes-Local-PIN-2

```
localPinValue ProfileElement ::= pinCodes : { -- Local CSIM
PIN
  pin-Header {
    mandated NULL,
    identification 72
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl2,
-- PIN = 1234
      pinValue '31323334FFFFFFFF'H,
      unblockingPINReference secondPUKAppl1,
      -- PIN is Enabled
      pinAttributes 1,
      -- maxNumOfAttemps:2, retryNumLeft:2
      maxNumOfAttemps-retryNumLeft 34
    }
  }
}
```

6.14.8.3 PE-PINCodes-Local-PIN-3

This PE contains a disabled secondPINAppl1.

PE-PINCodes-Local-PIN-3

```
localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 73
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl1,
      pinValue '3131313131313131'H,
      pinAttributes 4,
      maxNumOfAttemps-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:
'00000000000000000000000000000001000000000000000020000000000000040000000000000008'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 'abababababababababababababababab'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
51155353565115535356511553535651155353565109 0C8288829C828
882'H,

/*
Mobile IP SS Parameters:
- Value:
entry 00:
- MN-AAA-SS: 0x31323334353637383930313233343536
- MN-HA-SS: 0x30303131323233333434353536363737
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
535356511553535651155353565115535356511553535651155353565
0'H
}
```

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 'A0000001510000000'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
         '01000101000002020112O3B2010000'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,
      keyCompontents {
        {
          -- -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData  '112233445566778899101112131415l6'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,
      keyCompontents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '112233445566778899101112131415l6'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,
      keyCompontents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '112233445566778899101112131415 16'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
        '01000101000002020112 03B2010000'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,
      keyCompontents {
```

```
        {
          -- 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,
      keyCompontents {
        {
          -- 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,
      keyCompontents {
        {
          -- 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
        '01000101000002020112O3B2010000'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,
      keyCompontents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '112233445566778899101112131415l6'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,
      keyCompontents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '112233445566778899101112131415l6'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,
      keyCompontents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '112233445566778899101112131415l6'H
        }
      }
    }
```

```
  },
      -- IIN and CIN
  sdPersoData {
    '0070084206010203040506'H,
    '007008450606050403020 1'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
         '01000101000002020112 03B2010000'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,
      keyCompontents {
        {
          -- AES (16, 24 or 32 bytes long keys)
          keyType '88'H,
          keyData '11223344556677889901011121314 1516'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,
      keyCompontents {
        {
```

```
          -- 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,
      keyCompontents {
        {
          -- 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,
      keyCompontents {
        {
          -- PSK
          keyType '85'H,
          keyData
'F0C0FAAC0EF1364A3E5EB4229CF797A3752CD0C8277844576B3E05D50
5A03F21'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '40'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    }
  },
      -- HTTP Configuration according Amend.B
  sdPersoData {
'0070AE8581AB8424350702000003000002390205784709475340416555
54943433C03021F413E05217F000001850A0650534B494431024001897
78A096C6F63616C686F73748B582F2F73652D69642F6569642F3030363
3363835363030303030303030303030303030303030303030303737373
B2F2F61612D69642F6169642F413030303030303031382F34333444303
```

```
830393041304230433030303030308C102F67736D612F61646D696E616
7656E74'H
  }
}
```

6.14.11 PE-SecurityDomain (SSD)

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
'0100010100000202011 2036C756500'H
    }
  },
  keyList {
    {
      keyUsageQualifier '38'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier '34'H,
      -- keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '11223344556677881122334455667788'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '03'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          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
    }
  }
  }
```

6.14.12 PE-Application

6.14.12.1. PE-Application-1

PE-Application-1

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 201
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F002800220019004F000A000C0000007E0000000000000003010004002
803040107A00000006201010401l0A0000000090005FFFFFFFF8912000
000000107A00000006200010300OF010BA00000055910100111223300O
806001942800300FF00050400000033FFFF00300040800200810801080
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B071967041877017700207A02108D0006058E020007007A08000A00000
000000000000000050022000806800300010000006000001038003010
380030206000043068110000181090009000C000000080506040E0C041
9050B007E0100010000020000006800281080081000100120005000000
000010900080014002600000000070100300O1B0001000000000501003
3001F000B000000000801004000260001000000OFF0200430012000A0
000000000080012FFFF00120012001400120017FFFF011004B43105681
090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011l2233'H,
      instanceAID 'A00000055910100111223301'H,
      applicationPrivileges '000000'H,
```

```
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          -- TAR: 112233
          '0100010100000000311223300'H
      }
    }
  }
}
```

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
'010012DECAFFED010204000108A0000005591010010200 1F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A000000062010104011 0A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
122330008060019428003 00FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B071967041877017700207A02108D0006058E02000
7007A08000A0000000000000000000005002200080680030001000000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E010001000002000000068002810
800810001001200050000000001090008001400260000000007010030
0001B000100000000050100330 01F000B000000000801004000260000
100000000FF0200430012000A0000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B680063680020024
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011122 33'H,
      instanceAID 'A00000055910100211223301'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          '0100010100000000311223300'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
'010012DECAFFED010204000108A0000005591010010200 1F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A000000062010104011 0A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
122330008060019428003 00FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B0719670418770177002 07A02108D0006058E02000
7007A08000A0000000000000000000005002200080680030001000000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E0100010000020000000680028 10
800810001001200050000000001090008001400260000000007010030
0001B000100000000050100330 01F000B000000000801004000260000
100000000FF0200430012000A0000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B6800636800200241
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011122 33'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID '
A0000005591010010273645661 6C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {

         implicitSelectionParameter '41'H      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
'0100010100000000311223300'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
'010012DECAFFED010204000108A0000005591010010200 1F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A0100000620101040110A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
122330008060019428003 00FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B0719670418770177002 07A02108D0006058E02000
7007A08000A0000000000000000000005002200080680030001000000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E0100010000020000000680028 10
8008100010012000500000000010900080014002600000000070100 3
0001B000100000000050100330 01F000B000000000801004000260 00
100000000FF0200430012000A0000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B6800636800200241
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
'010012DECAFFED010204000108A0000005591010010200 1F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A0000000620101040110A0000000090005FFFFFFFF8
912000000000107A0000000620001030 00F010BA0000005591010011
1223300080600194280030 0FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B0719670418770177002 07A02108D0006058E02000
7007A08000A0000000000000000000005002200080680030001000000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E0100010000020000000680028 10
8008100010012000500000000010900080014002600000000070100 3
0001B000100000000050100330 01F000B0000000008010040002600 0
100000000FF0200430012000A0000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011 12233'H,
      instanceAID 'A0000005591010054 4556601'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
uiccToolkitApplicationSpecificParametersField
'0100010100000000311223300'H
      }
    },

    -- Second Instance
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011 12233'H,
      instanceAID 'A0000005591010054 4556602'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
uiccToolkitApplicationSpecificParametersField
'0100010100000000344556600'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
'010012DECAFFED010204000108A0000005591010010200 1F0012001F0
00F00440062001F0167000C002C000000E900020000000005010004004
405040107A000000062010104011 0A0000000090005FFFFFFFF8912000
000050106A00000015100050110A0000000871005FFFFFFFF891320000
0000107A00000006200010300 0F010BA0000005591010011122330018 0
6001F438003020002050500000080FFFF0040008D00DE8002008108010
882080109070167000210188C000218110100900B870018110100900B8
7017A04328F00033D8C00042E181D252904160461081B8B0005700C1B1
81D044116048B00061B8C00077A04220331188B000860037A198B00092
E1B04257500120001FFCA0009181B038C000A317008116D008D000B198
B000C3B191E08438B000D19081E08438B000E7A02301E046B071967041
8770177052303311D056B3E8D000F2E1B1B8E01001013AD01031B8E010
010148E050010063B18AD01038C000A318D001128041504AD01081E084
38E0400120E1504048E020012177A02108D0013058E020014007A07621
E084105412906191E08418D0015290716077D00166B3119160625026B0
559060159060119160625 10926B1C191606AD0003191606044125054 18
D00173B1504160503380478116A808D000B037806310332191E05418D0
0151100926B23AD0003256015AD0003191E0841AD00042505418D00173
27010116A888D000B7008116A888D000B1F7808000C000200000000000
0000200700500620018020000000200000106800300010000000600000
1038003010380030206000 0D20380030303800A010600012E068007010
3800A0703800A0903800A040683030001830100 06810F0001810400068
1100001810900068010040500000006801001090 02C00090E088B100E5
12F0607001F0516040E0C040907130904080819070905090 40E0807051
207280F0D1B09080B00E901000100000300030008800281088208FF0A0
0000080040002000000003201020000010032008100010034001500000
0000109001800360026000000000701004000550 03E000000000501008
00059000B000000000801008D003E004300000000FF0200D20034000A0
0000000090100DE0060004E00000000FF02012E003B003700000000001
8003200320034FFFF00340034003600340039003 2003B003E0040003E0
0420045FFFF0049FFFF004DFFFF003B0040005101B0011004B43101200
3B44002410140034410056830100568104005681090 06B4B444066800A
10B68006368002006B44B44'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011 2233'H,
      instanceAID 'A0000005591010011 1223306'H,
      applicationPrivileges '000000'H,

      applicationSpecificParametersC9 '00'H,
         applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          '0100010100000000311223300'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
'010012DECAFFED010204000108A0000005591010010200 1F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A0000000620101040110A0000000090005FFFFFFFF8
912000000000107A0000000620001030 00F010BA0000005591010011
122330008060019428003 00FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B071967041877017700207A02108D0006058E02000
7007A08000A0000000000000000000005002200080680030001000000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E0100010000020000000680028 10
8008100010012000500000000010900080014002600000000070100 3
0001B000100000000050100330 01F000B000000000801004000260 00
100000000FF0200430012000A0000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B680063680020024
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011122 33'H,
      instanceAID 'A00000055910100211223301'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          '0100010100000000311223300'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 'A0000000871002FF33FF018900000100'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 'A0000000871004FF33FF018900000100'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 'A0000003431002FF33FF018900000100'H,
    adfAccessDomain '00'H,
    adfAdminAccessDomain '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
  }
}
```

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: • PE identification number. • Optional flag indicating that the support of this PE is mandatory. • PE type. • PE length.
RQ7.1.1.4	If a feature described by a PE which is flagged as mandatory is not supported by the eUICC: • An error is reported to the Profile Creator. • The processing of the Profile Package is cancelled. • And all the PE already processed shall be discarded.
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 `invalid-parameter`
NOTE 1: RQ7.1.1.1, RQ7.1.1.2 and RQ7.1.1.3 are implicitly tested in test cases loading profiles NOTE 2: Testing of RQ7.1.1.4 is FFS. NOTE 3: RQ7.1.1.6 and RQ7.1.1.8 are out of the scope of this specification.	

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	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	PE-PINCodes shall only be provided once within each DF (ADF).
RQ8.1.1.28	VOID
RQ8.1.1.28a	If PE-AKAParameters 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-AKAParameters 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-AKAParameters is not allowed in the context of MF.
RQ8.1.1.31	PE-AKAParameters is not allowed in the context of SDs.
RQ8.1.1.32	PE-AKAParameters 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.

NOTE 1: RQ8.1.1.10 and RQ8.1.1.38 are not testable.
NOTE 2: VOID
NOTE 3: Requirements RQ8.1.1.1, RQ8.1.1.2, RQ8.1.1.3 and RQ8.1.1.5 are implicitly tested in test cases loading profiles.
NOTE 4: VOID
NOTE 5: VOID
NOTE 6: Testing of RQ8.1.1.30, RQ8.1.1.31 and RQ8.1.1.32 is FFS (not nominal tests).
NOTE 7: RQ8.1.1.35 is implicitly tested every time a PE-SecurityDomain is used in test cases.
NOTE 8: Testing of RQ8.1.1.8, RQ8.1.1.20, RQ8.1.1.21 and RQ8.1.1.24 is FFS.

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].

<table>
<tr><td>RQ8.1.2.1</td><td>The ProfileHeader PE shall be used once and shall be the first PE of the Profile Package.</td></tr>
<tr><td>RQ8.1.2.2</td><td>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.</td></tr>
<tr><td>RQ8.1.2.3</td><td>The following list gives the features that the eUICC shall support in order to provide the associated service.
<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>milenage</td><td>the milenage 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
usim-test-algorithm</td><td>support of multiple CSIM instances – requires “csim” to be present in the list.
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>
</table></td></tr>
<tr><td>RQ8.1.2.3b</td><td>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</td></tr>
<tr><td>RQ8.1.2.4</td><td>The ProfileHeader shall contain the “major-version”. The type of the major-version shall be Uint8.</td></tr>
<tr><td>RQ8.1.2.5</td><td>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.</td></tr>
<tr><td>RQ8.1.2.6</td><td>The ProfileHeader shall contain the “minor-version”. The type of the minor-version shall be Uint8.</td></tr>
<tr><td>RQ8.1.2.7</td><td>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.</td></tr>
<tr><td>RQ8.1.2.8</td><td>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.</td></tr>
<tr><td>RQ8.1.2.9</td><td>The ProfileHeader shall contain the “iccid”. The type of iccid shall be OCTET STRING (SIZE (10)).</td></tr>
<tr><td>RQ8.1.2.9a</td><td>The “iccid” shall be be encoded non-swapped as per ITU E.118 representation and padded with 'F' if less digits are used (Example:8947010000123456784F) (see NOTE 4).</td></tr>
<tr><td>RQ8.1.2.10</td><td>The ProfileHeader may contain the “pol”. The type of the pol shall be OCTET STRING. The pol contains the policy rules within a Profile.</td></tr>
<tr><td>RQ8.1.2.11</td><td>If pol is not supplied in the Profile Package, its value shall be set to all 0 in the eUICC.</td></tr>
<tr><td>RQ8.1.2.12</td><td>The ProfileHeader shall contain the “eUICC-Mandatory-services”. The type of the eUICC-Mandatory-services shall be ServiceList.</td></tr>
<tr><td>RQ8.1.2.13</td><td>The ProfileHeader shall contain the “eUICC-Mandatory-GFSTEList”.</td></tr>
</table>

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.
NOTE 1: RQ8.1.2.7 is FFS. NOTE 2: RQ8.1.2.10 and RQ8.1.2.11 are not testable (there is no interoperable command to read the value). NOTE 3: RQ8.1.2.13 is implicitly tested everytime ProfileHeader is used. NOTE 4: REQ8.1.2.9a and RQ8.1.2.16 are out of scope of this specification.	

8.1.3 File system

The test requirements are extracted from section 8.3 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: - USIM - ISIM - CSIM - EAP-AKA
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].
RQ8.1.3.12	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 shall be included in the profile package.
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.: Read Never implies that the file is not readable even if other PINs are verified; 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].
NOTE 1: RQ8.1.3.1, RQ8.1.3.18 and RQ8.1.3.19 are out of scope of this specification. NOTE 2: Testing of RQ8.1.3.2, RQ8.1.3.7, RQ8.1.3.9, RQ8.1.3.12 and RQ8.1.3.20a is FFS. NOTE 3: RQ8.1.3.8 and RQ8.1.3.15 are implicitly tested in all test cases.	

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-AKAParameters shall be tested with the USIM, ISIM and CSIM NAA.
RQ8.1.4.2	PE-AKAParameters shall be tested using both options: milenage and TUAK.
RQ8.1.4.2b	PE-AKAParameters 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-AKAParameters shall be tested with the following parameters: key: 16 byte length opc: 16 byte length RES Length Options: 64bits MAC-A, MAC-C Size: does not apply. To be set to 0 (64 bit) CK and IK size: 128 bits Rotation constants shall have a length of 5 bytes xoringConstants shall have a length of 80 bytes.
RQ8.1.4.3b	For TUAK, PE-AKAParameters shall be tested with the following parameters: key: 16 byte length, 32 byte length opc: 32 byte length RES Length Options: 32bits, 64bits, 128bits MAC-A, MAC-S size: 64bits, 128bits. 256bits CK, IK size: 128bits, 256bits
RQ8.1.4.3c	For usim-test-algorithm, PE-AKAParameters shall be tested with the following parameters: Key: 16 byte length. Note: This REQ is applicable from SA PP TS v2.1 onwards
RQ8.1.4.4	For testing milenage the test vectors from 3GPP [MILENAGE] shall be used: PE-AKAParameters shall be initialised with the respective settings.
RQ8.1.4.5	For testing TUAK the test vectors from 3GPP [TUAK] shall be used: PE-AKAParameters 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: - -Share sqnInit, sqnOptions, sqnDelta, sqnAgeLimit. - -Share sqnOptions, sqnDelta, sqnAgeLimit.
RQ8.1.4.8b	The following mapping permutation for the mappingOptions data element shall be tested: - Share sqnOptions, sqnDelta, sgnAgeLimit and SQN array 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; it shall also be checked that the DEFAULT values can be provided as well.
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. 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: - Authentication shall not work for blocked SQN when the wrap around option deactivated. - If SQN value has reached the maximum value 07FFFFFFFFFF authentication shall still work (by disabled SQN verification) if the wrap around option is activated. - 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. - 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-AKAParameters 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.
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
RQ8.1.4.19	PE-CSIMParameters may contain a simpleIPAuthenticationData of type OCTET STRING with a size of 10 to 483 bytes
RQ8.1.4.20	PE-CSIMParameters may contain a mobileIPAuthenticationData of type OCTET STRING with a size of 19 to 957 bytes
NOTE : Testing of RQ8.1.4.2b, RQ8.1.4.6 - RQ8.1.4.13 and RQ8.1.4.15- RQ8.1.4.20 is FFS .	

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].

RQ8.1.5.1	Global PINs created by the PE-PINCodes shall be valid within the complete FileSystem.
RQ8.1.5.2	Local PINs shall only be valid within the context (DF/ADF and sub DFs) where they are defined.
RQ8.1.5.3	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: - PINs enabled: in this case the PIN shall be enabled. - PIN may be changed: PIN change allowed; otherwise not. - PIN can be disabled: Means that status of the PIN may not be altered. - Disabled PIN may not be enabled. - Enabled PIN may not be disabled.
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.
RQ8.1.5.17	maxNumOfAttemps-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 can be disabled" 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.
NOTE1: Testing of RQ8.1.5.9, RQ8.1.5.10, RQ8.1.5.11, RQ8.1.5.12, RQ8.1.5.13 is out of scope. NOTE2: Testing of RQ8.1.5.2, RQ8.1.5.4, RQ8.1.5.8, RQ8.1.5.17, RQ8.1.5.19, RQ8.1.5.20 is FFS.NOTE3: RQ8.1.5.15 is not testable.	

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	A key object shall contain a keyAccess, tag number [22] which shall be an OCTET STRING with SIZE of 1.
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.
RQ8.1.6.27	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 be added to a SD the TAR values for RAM can be configured as follows: - Bytes 13-15 of the SD instance AID. - TAR List within SD install parameters.
RQ8.1.6.36	VOID
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	IfRAM 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	IfRAM 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	A keyComponent shall contain a macLength which 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.
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, RQ8.1.6.20a, RQ8.1.6.20b, RQ8.1.6.33, RQ8.1.6.41, RQ8.1.6.42, RQ8.1.6.43, RQ8.1.6.44 and RQ8.1.6.45 is FFS. NOTE 3: RQ8.1.6.39 is 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 and RQ8.1.6.47 are out of scope of this specification.	

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.

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. 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
NOTE1: Testing of RQ8.1.7.7, RQ8.1.7.18, RQ8.1.7.19, RQ8.1.7.33, RQ8.1.7.47, RQ8.1.7.49, RQ8.1.7.51, RQ8.1.7.52, RQ8.1.7.53, RQ8.1.7.54, RQ8.1.7.56, RQ8.1.7.59 , RQ8.1.7.61, RQ8.1.7.63, RQ8.1.7.64, RQ8.1.7.65, RQ8.1.7.66, RQ8.1.7.67 and RQ8.1.7.68 is FFS. NOTE2: RQ8.1.7.2 is not testable.	

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 and RQ8.1.8.7 is FFS.	

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: - error status is reported for Profile Header - 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.
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. Note: This REQ is applicable from SA PP TS v2.1 onwards.
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. Note: This REQ is applicable from SA PP TS v2.1 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 . 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)
RQ8.1.11.16b	The eUICC shall abort profile installation if invalid-request-format error is triggered by any of following PEs: - PE-AKA-Parameters - PE-CSIM-Parameters - PE-PIN-Code - PE-PUK-Code - PE-Security-Domain - PE-RFM-Parameters For other PE-s the eUICC may abort profile installation in case invalid-request-format 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.

RQ8.1.11.16c	The eUICC shall abort profile installation if invalid-request-format error is triggered by any of following PEs: - Profile Header - PE-AKA-Parameters - PE-CSIM-Parameters - PE-PIN-Code - PE-PUK-Code - PE-Security-Domain - PE-RFM-Parameters Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.11.16d	The eUICC may abort profile installation in case invalid-request-format 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: - PE-MF - DF-CD - DF-TELECOM - PE USIM - PE OPT USIM - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - PE Application - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.11.17	EUICCResponse with invalid-parameter indicates that a parameter in a PE description is not supported.
RQ8.1.11.17a	The eUICC shall abort profile installation if invalid-parameter error is triggered by any of following PEs: - PE-AKA-Parameters - PE-CSIM-Parameters - PE-PIN-Code - PE-PUK-Code - PE-Security-Domain - PE-RFM-Parameters 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. Note: This REQ is applicable up to SA PP TS v2.0.
RQ8.1.11.17b	The invalid-parameter status code shall be used when the eUICC encounters an unknown tag inside a PE. Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.17c	The eUICC shall abort profile installation if invalid-parameter error is triggered by any of following PEs: - Profile Header - PE-AKA-Parameters - PE-CSIM-Parameters - PE-PIN-Code - PE-PUK-Code - PE-Security-Domain - PE-RFM-Parameters Note: This REQ is applicable from SA PP TS v2.1.

RQ8.1.11.17d	The eUICC shall abort profile installation if invalid-parameter 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: - PE-MF - DF-CD - DF-TELECOM - PE USIM - PE OPT USIM - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - PE Application - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.11.18	EUICCResponse with runtime-not-supported status indicates that an application present in a PE-Application requires a runtime environment that is not supported by the eUICC.
RQ8.1.11.18a	If an unsupported runtime environment is requested by a PE with “mandated” flag set the eUICC shall abort profile installation.
RQ8.1.11.18b	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. Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.19	EUICCResponse with lib-not-supported status indicates that a library required by an application present in a PE-Application is not available in the eUICC.
RQ8.1.11.19a	If a missing library is requested by a PE with “mandated” flag set the eUICC shall abort profile installation.
RQ8.1.11.19b	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. Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.20	EUICCResponse with template-not-supported 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).
RQ8.1.11.20a	VOID
RQ8.1.11.20b	If the eUICC sends template-not-supported 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.
RQ8.1.11.20c	If a file system template PE triggering the template-not-supported error has “mandated” flag set the eUICC shall abort profile installation.
RQ8.1.11.20d	The eUICC shall abort profile installation if template-not-supported error is triggered by any of following PEs: - PE-MF - DF-CD - DF-TELECOM Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.20e	For the PE-s listed below if a PE triggering the template-not-supported error has “mandated” flag set, the eUICC shall abort profile installation: - PE USIM - PE OPT USIM - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.20f	For the PE-s listed below if a PE triggering the template-not-supported 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: - PE USIM - PE OPT USIM - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.21	EUICCResponse with feature-not-supported status indicates that a feature included in the PE, or in the ServicesList of the Profile Header is not supported by the eUICC.

RQ8.1.11.22	feature-not-supported 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. 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.
RQ8.1.11.22a	VOID
RQ8.1.11.22b	The eUICC shall abort profile installation if the feature-not-supported error is triggered by Profile Header (the eUICC does not support a feature included in the ServiceList of the Profile Header).
RQ8.1.11.22c	The eUICC shall abort profile installation if feature-not-supported error is triggered by any of following PEs: - PE-AKA Parameters - PE-CSIM Parameters Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.22d	For the PE-s listed below if a PE triggering the feature -not-supported error has "mandated" flag set the eUICC shall abort profile installation: - DF-CD - DF-TELECOM - PE USIM - PE OPT USIM - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - PE Generic File Management - PE Security Domain - PE Application - PE RFM Parameters - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.22e	For the PE-s listed below if a PE triggering the feature -not-supported error has no "mandated" flag set the installation of the Profile shall continue and the feature shall be ignored: - DF-CD - DF-TELECOM - PE USIM - PE OPT USIM - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - PE Generic File Management - PE Security Domain - PE Application - PE RFM Parameters - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.1.
RQ8.1.11.23	EUICCResponse with unsupported-profile-version status indicates that the major version indicated in the Profile Header is not supported by the eUICC.,
RQ8.1.11.23a	EUICCResponse with unsupported-profile-version status is an error status and the processing of the Profile shall be aborted.
RQ8.1.11.24	VOID
RQ8.1.11.25	If the installation of the Profile is aborted EUICCResponse shall contain profileInstallationAborted tag.
NOTE 1: RQ8.1.11.1 is implicitly tested everytime UICC response with PEStatus is sent. NOTE 2: Testing of RQ8.1.11.5, RQ8.1.11.6, RQ8.1.11.8, RQ8.1.11.11, RQ8.1.11.12, RQ8.1.11.14, RQ8.1.11.14a, 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, RQ8.1.11.20c, RQ8.1.11.22 is FFS. NOTE3: RQ8.1.11.3, RQ8.1.11.13 and RQ8.1.11.13a are not testable.	

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-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

8.2.1.2.2. 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 The last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.16 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-AKAParameters-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 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 RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.16 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. The last eUICC response contains profileInstallationAborted object.	RQ8.1.6.6 RQ8.1.8.1 RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.16 RQ8.1.11.25
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

8.2.1.5. Installing profile with PE-USIM before PE-MF.

8.2.1.5.1. 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-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

8.2.1.5.2. Initial Conditions

None.

8.2.1.5.3. 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 (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select all files in MF and verify their FCPs.	
5	T ↔ eUICC	Read all files in MF 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 ADF USIM and verify their FCPs.	
7	T ↔ eUICC	Read all files in ADF USIM and verify that the content is the same as defined in the USIM-by-Generic-File-Management-1	

8.2.1.6. Installing profile with PE-Application before PE-SecurityDomain, eUICC supports the installation.

FFS

8.2.1.7. Installing profile with PE-RFM before PE-SecurityDomain, eUICC supports the installation.

FFS

8.2.2 Check Profile Header

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-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

8.2.3.1.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13b RQ8.1.1.14 RQ8.1.1.16 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.3.6 RQ8.1.3.15 RQ8.1.3.22 RQ8.1.3.21 RQ8.1.5.1 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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-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

8.2.3.2.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13a RQ8.1.1.14 RQ8.1.1.15 RQ8.1.1.16 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.3.3 RQ8.1.3.4 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.3.17 RQ8.1.5.1 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted objecteUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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. EF EPSLOCI shall not be present.	
12	T ↔ eUICC	Select all files in OPT USIM and verify their FCPs 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-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

8.2.3.3.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13a RQ8.1.1.14 RQ8.1.1.15 RQ8.1.1.16 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.3.3 RQ8.1.3.4 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.3.17 RQ8.1.5.1 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1

			RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted objecteUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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. EF EPSLOCI shall not be present.	
12	T ↔ eUICC	Select all files in OPT USIM and verify their FCPs 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-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

8.2.3.4.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13a RQ8.1.1.14 RQ8.1.1.15 RQ8.1.1.16 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.3.3 RQ8.1.3.4 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.3.17 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted object eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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 EF EPSLOCI shall not be present.	
12	T ↔ eUICC	Select all files in OPT USIM and verify their FCPs 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-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

8.2.3.5.2. 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 RQ8.1.1.6 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.2.1 RQ8.1.2.2 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 RQ8.1.11.2a RQ8.1.11.21 RQ8.1.11.22b 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 RQ8.1.1.6 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13a RQ8.1.1.14 RQ8.1.1.15 RQ8.1.1.16 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.3.3 RQ8.1.3.4 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.3.17 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3 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. eUICC response contains no profileInstallationAborted object.	RQ8.1.11.21 RQ8.1.11.22e
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. 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. EF EPSLOCI shall not be present.	
12	T ↔ eUICC	Select all files in OPT USIM and verify their FCPs 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-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

8.2.3.7.2. 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 RQ8.1.2.17 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. eUICC response contains no profileInstallationAborted object	RQ8.1.11.21 RQ8.1.11.22e
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. 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-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

8.2.3.8.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13b RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.3.6 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC response with PEStatus (0) ok eUICC response contains no profileInstallationAborted object eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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-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

8.2.3.9.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13b RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.3.6 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC response with PEStatus (0) ok eUICC response contains no profileInstallationAborted object eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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-2	6.14.8.2
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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13a RQ8.1.1.18 RQ8.1.1.23 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.16 RQ8.1.5.1 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16 RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted objecteUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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 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 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 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-AKAParameters-1	6.14.9.1
PE-ISIM-by-Template-1	6.14.6.1.1
PE-OPT-ISIM-by-Template-1	6.14.6.1.2
PE-AKAParameters-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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.1.12 RQ8.1.1.13a RQ8.1.1.14 RQ8.1.1.15 RQ8.1.1.16 RQ8.1.1.17 RQ8.1.1.22 RQ8.1.1.25 RQ8.1.1.26 RQ8.1.1.26b RQ8.1.1.27 RQ8.1.1.28a RQ8.1.1.29a RQ8.1.1.33a RQ8.1.1.34 RQ8.1.1.39 RQ8.1.2.1 RQ8.1.2.2 RQ8.1.2.3 RQ8.1.2.4 RQ8.1.2.6 RQ8.1.2.8 RQ8.1.2.9 RQ8.1.2.12 RQ8.1.2.13 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.3.3 RQ8.1.3.4 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.3.17 RQ8.1.5.1 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.2 RQ8.1.8.8 RQ8.1.8.8a RQ8.1.8.9 RQ8.1.8.11 RQ8.1.8.12 RQ8.1.8.13 RQ8.1.8.14 RQ8.1.8.15 RQ8.1.8.16

			RQ8.1.8.20 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted objecteUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 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. EF EPSLOCI shall not be present.	
12	T ↔ eUICC	Select all files in OPT USIM and verify their FCPs 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 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	

8.2.4 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 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.4 RQ8.1.4.14
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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: P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'. See Note1	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD7510446041276727 11C6D3441' SW = '9000'. See Note1	

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

8.2.4.2. Installing PE-AKAParameters 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-AKAParameters-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 RQ8.1.4.2 RQ8.1.4.3b RQ8.1.4.5 RQ8.1.4.14
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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: P1 = '00' P2 = '81' Data = '10 42424242424242424242424242424242 10 608E0F8A8145 FFFF F9A54E6AEAA8618D'. See Note1	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 04 657ACD64 10 D71A1E5C6CAFFE986A26F783E5C78BE1 10 BE849FA2564F869AECEE6F62D4337E72'. SW = '9000'. See Note1	

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

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 PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.5.7 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.11.9 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: SELECT FILE with Data = '3F00' and 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. The value of the PS_DO (tag '90') shall indicate that adm1, PINAppl1 and secondPINAppl1 are enabled. There shall be three key references: '830101' and '830181' and '83010A'.	

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 PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.5.7 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.11.9 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: SELECT FILE with Data = ‘3F00’ and 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. The value of the PS_DO (tag ‘90’) shall indicate that adm1 is enabled, PINAppl1 is disabled and secondPINAppl1 is disabled. There shall be three key references: ‘830101’ and ‘830181’ and ‘83010A’	

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. eUICC response contains no PE Identification.	RQ8.1.6.1 RQ8.1.11.9 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 P1 = '80' P2 = '02' Data = '4F 00'.	RQ8.1.6.4 RQ8.1.6.5 RQ8.1.6.7 RQ8.1.7.34b
5	eUICC → T	GET STATUS command responds with • AID of MNO-SD (`#instanceAID`) • Life cycle state (`#lifeCyleState`) See Note • Privileges (`#applicationPrivileges`) • SCP Registry Data is present • SW='9000'.	

Note: If O_CONTACTLESS is supported a 2nd 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-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

8.2.6.2.2. 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. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '00' P2 = 'E0'.	RQ8.1.6.1 RQ8.1.6.2 RQ8.1.6.3 RQ8.1.6.4 RQ8.1.6.5 RQ8.1.6.8 RQ8.1.6.10 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 RQ8.1.6.26
5	eUICC → T	GET DATA command responds with • key information data containing `#keyIdentifier`, `#keyVersionNumber` and `#keyType`. • SW='9000'.	

6	T → eUICC	Send GET_STATUS command using SCP80 to MNO-SD with P1 = '80' P2= '02' Data = '4F 00'.	RQ8.1.6.4 RQ8.1.6.5 RQ8.1.6.7 RQ8.1.6.18 RQ8.1.6.34 RQ8.1.6.35 RQ8.1.6.37 RQ8.1.6.38a
7	eUICC → T	GET STATUS command responds with • AID of MNO-SD (`#instanceAID`) • Life cycle state (`#lifeCyleState`) See Note • Privileges (`#applicationPrivileges`) • SCP Registry Data is present • SW='9000'.	

Note: If O_CONTACTLESS is supported a 2nd 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-AKAParameters-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-AKAParameters-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.	RQ8.1.6.1
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '00' P2 = '42' (Issuer Identification Number).	RQ8.1.6.28 RQ8.1.6.29 RQ8.1.6.30 RQ8.1.6.31 RQ8.1.6.46
5	eUICC → T	GET DATA command responds with • IIN out of `#sdPersoData`. • SW='9000'.	
6	T → eUICC	Send GET DATA command to MNO-SD using SCP80 with P1 = '00' P2 = '45' (Card Image Number).	RQ8.1.6.28 RQ8.1.6.29 RQ8.1.6.30 RQ8.1.6.31
7	eUICC → T	GET DATA command responds with • CIN out of #sdPersoData. • SW='9000'.	

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-AKAParameters-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.	RQ8.1.6.1
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '00' P2 = '85'.	RQ8.1.6.36a
5	eUICC → T	GET DATA command responds with • Security Domain Administration Session Parameters contained in `#sdPersoData`. • SW='9000'.	

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-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

8.2.7.1.2. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.9 RQ8.1.7.20 RQ8.1.7.21 RQ8.1.7.22 RQ8.1.7.23 RQ8.1.7.24 RQ8.1.7.25 RQ8.1.7.26 RQ8.1.7.27 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.32 RQ8.1.7.34a RQ8.1.7.35 RQ8.1.7.36 RQ8.1.7.39 RQ8.1.7.55 RQ8.1.7.69
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = ‘40’ P2 = ‘02’ Data =’4F 0C #instanceAID’.	RQ8.1.6.7

5	eUICC → T	GET STATUS command responds with • AID of application (#instanceAID) • Life cycle state ('07'H) See Note • Privileges (#applicationPrivileges) • SCP Registry Data is present • SW='9000'.	
4	T → eUICC	Send GET STATUS command to MNO-SD using SCP80 with P1 = '20' P2 = '02' Data ='4F 08 #loadPackageAID'.	RQ8.1.7.62
5	eUICC → T	GET STATUS command responds with • Executable Load File AID (#loadPackageAID) • Executable Load File Life Cycle State • SW='9000'.	

Note: If O_CONTACTLESS is supported 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-AKAParameters-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 RQ8.1.7.9 RQ8.1.7.10 RQ8.1.7.11 RQ8.1.7.12 RQ8.1.7.13 RQ8.1.7.14 RQ8.1.7.15 RQ8.1.7.16 RQ8.1.7.17 RQ8.1.7.20 RQ8.1.7.21
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. the last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.15 RQ8.1.11.15b RQ8.1.11.15c 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-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-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 RQ8.1.7.5 RQ8.1.7.22 RQ8.1.7.23 RQ8.1.7.24 RQ8.1.7.25 RQ8.1.7.26 RQ8.1.7.27 RQ8.1.7.28 RQ8.1.7.29 RQ8.1.7.31 RQ8.1.7.32 - RQ8.1.7.35 RQ8.1.7.36 RQ8.1.7.38 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.48 RQ8.1.7.55 RQ8.1.7.58
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '40' P2 = '02' Data ='4F 0C #instanceAID'.	RQ8.1.6.7
5	eUICC → T	GET STATUS command responds with • AID of application (#instanceAID) • Life cycle state (#lifeCycleState) See Note • Privileges (#applicationPrivileges) • SCP Registry Data is present • SW='9000'.	

Note: If O_CONTACTLESS is supported 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.7.1 RQ8.1.7.6 RQ8.1.7.8 RQ8.1.7.9
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 RQ8.1.11.2a RQ8.1.11.19 RQ8.1.11.19a 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.7.3 RQ8.1.7.8 RQ8.1.7.9 RQ8.1.7.20 RQ8.1.7.21 RQ8.1.7.22 RQ8.1.7.23 RQ8.1.7.24 RQ8.1.7.25 RQ8.1.7.26 RQ8.1.7.27 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.32 RQ8.1.7.35 RQ8.1.7.36
2	eUICC → T	eUICC response with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '40' P2 = '02' Data ='4F 0C #instanceAID' (first application).	RQ8.1.6.7

5	eUICC → T	GET STATUS command responds with • AID of the First Instance of application (#instanceAID) • Life cycle state ('07'H) See Note • Privileges (#applicationPrivileges) • SCP Registry Data is present • SW='9000'.	
6	T → eUICC	Send GET STATUS command to MNO-SD using SCP80 with P1 = '40' P2 = '02' Data ='4F 0C #instanceAID' (second application).	RQ8.1.6.7 RQ8.1.7.3
7	eUICC → T	GET STATUS command responds with • AID of the Second Instance of application (#instanceAID) • Life cycle state ('07'H) See Note • Privileges (#applicationPrivileges) • SCP Registry Data is present • SW='9000'.	

Note: If O_CONTACTLESS is supported 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 processData

8.2.7.6.1. 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 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.7.8 RQ8.1.7.9 RQ8.1.7.20 RQ8.1.7.21 RQ8.1.7.22 RQ8.1.7.23 RQ8.1.7.24 RQ8.1.7.25 RQ8.1.7.26 RQ8.1.7.27 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.32 RQ8.1.7.34a RQ8.1.7.35 RQ8.1.7.36 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.43 RQ8.1.7.44 RQ8.1.7.45 RQ8.1.7.46 RQ8.1.7.55 RQ8.1.7.60
2	eUICC → T	eUICC response with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '40' P2 = '02' Data ='4F 0C #instanceAID'.	RQ8.1.6.7
5	eUICC → T	GET STATUS command responds with • AID of application1 (#instanceAID) • Life cycle state ('07'H) See Note • Privileges (#applicationPrivileges) • SCP Registry Data is present • SW='9000'.	
6	T → eUICC	Send GET DATA command to TAR Application 6 using SCP80 with P1 = '00' P2 = '92' Lc = '00' Le = '00'.	
7	eUICC → T	GET DATA command responds with • #processData information.	

Note: If O_CONTACTLESS is supported 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-AKAParameters-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

8.2.7.7.1. Initial conditions

None

8.2.7.7.2. 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. the last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.17d RQ8.1.11.25
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-AKAParameters-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 RQ8.1.7.9 RQ8.1.7.10 RQ8.1.7.11 RQ8.1.7.12 RQ8.1.7.13 RQ8.1.7.14 RQ8.1.7.15 RQ8.1.7.16 RQ8.1.7.17 RQ8.1.7.20 RQ8.1.7.21
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 RQ8.1.11.2a RQ8.1.11.15 RQ8.1.11.15c 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-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-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 RQ8.1.7.5 RQ8.1.7.22 RQ8.1.7.23 RQ8.1.7.24 RQ8.1.7.25 RQ8.1.7.26 RQ8.1.7.27 RQ8.1.7.28 RQ8.1.7.29 RQ8.1.7.31 RQ8.1.7.32 - RQ8.1.7.35 RQ8.1.7.36 RQ8.1.7.37 RQ8.1.7.38 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.48 RQ8.1.7.50 RQ8.1.7.55 RQ8.1.7.58
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no PE Identification.	RQ8.1.11.9 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 P1 = '40' P2 = '02' Data ='4F 0C #instanceAID 5C 05 4F 9F70 C5 CF'	RQ8.1.6.7

5	eUICC → T	GET STATUS command responds with • AID of application (#instanceAID) • Life cycle state (#lifeCycleState) See Note_1 • Privileges (#applicationPrivileges) • SCP Registry Data is present See Note_2 • Implicit Selection Parameter (#implicitSelectionParameter) • SW='9000'.	

Note_2: SCP Registry Data may not be present in the response
Note: If O_CONTACTLESS is supported a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

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. eUICC response contains no PE Identification.	RQ8.1.11.9 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. eUICC response contains no PE Identification.	RQ8.1.11.9 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. eUICC response contains no PE Identification.	RQ8.1.11.9 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

8.2.9 Check Non standardized content

Note:_Testing the requirements for the PEs with non standardized content is out of scope of this document.

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-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

8.2.11.1.1. 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 eUICC response contains no identification object eUICC response contains profileInstallationAborted object.	RQ8.1.11.23 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-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

8.2.11.2.2. 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). eUICC response contains no identification object. eUICC response contains profileInstallationAborted object.	RQ8.1.11.20 RQ8.1.11.20b
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 PSLOCI	0C
6F78	EF ACC	06
6F7B	EF FPLMN	0D
6F7E	EF LOCI	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	-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. -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. -Test cases are updated, especially new Test PE-s are referenced. -New test cases are added: 8.2.1.1; 8.2.1.8; 8.2.3.6. -References are updated, applicability table and related chapters are updated, Ch 6.7 is updated.
V2.1	17/05/2017	Major changes: -in Chapter 6.6 the General Initial Conditions are updated -Chapter 6.8 (Indications concerning support of features) is deleted -Chapter 6.14 Test PE description (Ch 6.12 in v2.0) is restructured and updated -in Chapter 7.1 and 8.1 the Test Requirements are updated to align to Technical Specification v2.1 -Chapter 8.2 is restructured -the following new TC-es are added: 8.2.3.3.Installing USIM files by template with OPT-USIM-2 8.2.3.4. Installing USIM files by template with BER-TLV files in ServicesList. 8.2.3.5. Error when installing PE-USIM when eUICC does not support USIM. 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.

		8.2.3.7. Warning when creating a DF with dfLink in a non mandatory PE when eUICC does not support dfLink. 8.2.3.8. Creating a DF with dfLink when eUICC supports dfLink is added 8.2.3.9. Creating a DF with dfLink when eUICC supports dfLink and dfLink in ServicesList is added 8.2.3.10. Installing CSIM files by template is added 8.2.3.11. Installing ISIM files by template is added 8.2.4.1. Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE is added 8.2.4.2. Installing PE-AKAParameters with TUAK and sending AUTHENTICATE is added 8.2.5.1 Installing PINs in enabled state. 8.2.5.2 Installing PINs in disabled state. 8.2.7.7 Error when loading Application PE and the lifecycle of SD is not personalised 8.2.7.8 Check all elements in ApplicationLoadPackage – taking size into account – PE application is not mandatory 8.2.7.9 Check all elements in ApplicationInstance when eUICC supports tag list '5C' is added 8.2.8.1 Installing PE-RFM with adfRFMAccess. 8.2.8.2 Installing PE-RFM without adfRFMAccess. 8.2.11.1 Check unsupported major version. 8.2.11.2 Check unsupported template. -several TC-es are updated -TC 8.2.1.4 Installing profile without ProfileHeader PE is deleted -new Test PE-s are defined in Chapter 6.14 -several Test PE-s are updated and renamed, one Test PE is deleted -DER codes are deleted from the Test PE descriptions -Annex A added
V2.1.1	02/01/2018	Updates: -in Section 6.1 Item 19 is updated -in Section 6.2 in Table 2 the applicability of the following TC-es are changed: TC 8.2.3.6 TC 8.2.7.2 TC 8.2.7.8 TC 8.2.7.9 -a new subsection : 6.6.4 Specific rule for FCP verification is added -the following ASN1 files are updated: 6.14.1.5. Profile-Header-5 6.14.1.8. Profile-Header-8 (update is related to the M2M version only) 6.14.2.2.1. PE-CD-by-Template-1 6.14.2.2.2. DF-CD-by-Generic-File-Management-1 6.14.2.3.1. PE-TELECOM-by-Template-1 6.14.2.3.2. PE-TELECOM-by-Template-2 6.14.2.3.3. PE-TELECOM-by-Template-3 6.14.4.2. PE-PINCodes-2 6.14.5.1.1. PE-USIM-by-Template-1

		6.14.5.1.2. USIM-by-Generic-File-Management-1 6.14.5.1.3. PE-USIM-by-Template-2 6.14.5.1.4. USIM-by-Generic-File-Management-2 6.14.5.1.5. PE-USIM-by-Template-3 6.14.5.1.6. PE-USIM-by-Template-4 6.14.5.2.3. PE-OPT-USIM-by-Template-2 6.14.6.1.1. PE-ISIM-by-Template-1 6.14.7.1.1. PE-CSIM-by-Template-1 6.14.7.2.1. PE-OPT-CSIM-by-Template-1 6.14.8.1. PE-PINCodes-Local-PIN-1 6.14.9.3. PE-AKAParameters-3 6.14.10.5. PE-SecurityDomain-MNO-SD-5 6.14.11.2. PE-SecurityDomain-SSD-2 6.14.12.2. PE-Application-2 6.14.12.3. PE-Application-3 6.14.12.5. PE-Application-5 6.14.12.6. PE-Application-6 6.14.13.4. PE-RFM-CSIM -in Section 8.1.X RQ8.1.6.7 and REQ8.1.6.36a are updated to align to the Technical Specification -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” -the following TC-es are updated: 8.2.3.1 8.2.3.7 8.2.3.10 8.2.3.11 8.2.3.2 8.2.3.3 8.2.3.4 8.2.3.6 8.2.4.1 8.2.4.2 8.2.6.1 8.2.6.2 8.2.6.5 8.2.7.1 8.2.7.2 8.2.7.3 8.2.7.5 8.2.7.6 8.2.7.8 8.2.7.9 -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
V2.1.2	13/07/2018	The following sections are updated: -in Section 3.1 Normative References two new references are added -in Section 4 Abbreviations is extended with the definition of SFI

		-in Section 6.2 the applicability of TC 8.2.3.6 is updated -in Section 6.2 the applicability of TC 8.2.7.9 is updated -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 -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 -in Section 6.6.1.1. M2M Architecture one of the initial conditions have been updated to aling to [GS RPAT] v3.2 -in Section 8.1.7 Application loading and installation RQ8.1.7.47 is marked as FFS requirement -the referenced REQ list is updated in test cases 8.2.7.3 and 8.2.7.9 The following new sections are added: -6.6.5 Specific rules for file content verification -Annex B (Normative) : SFI values The following test cases are updated -in Section 8.2.6.2.3. - Step 4 it is specified that the GET DATA command shall be sent using SCP80. -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. -in Section 8.2.6.5.3. - Step 4 it is specified that the GET DATA command shall be sent using SCP80. The following Test PE-s are updated: -6.14.1.2. Profile-Header-2 -6.14.1.2. Profile-Header-5 -6.14.2.3.1. PE-TELECOM-by-Template-1 -6.14.2.3.2. PE-TELECOM-by-Template-2 -6.14.2.3.3. PE-TELECOM-by-Template-3 -6.14.5.2.3. PE-OPT-USIM-by-Template-2 -6.14.6.1.1. PE-ISIM-by-Template-1 -6.14.7.1.1. PE-CSIM-by-Template-1 -6.14.7.2.1. PE-OPT-CSIM-by-Template-1 -6.14.12.3. PE-Application-3 -6.14.12.7. PE-Application-7