eUICC Profile Package: Interoperable Format Test Specification

Version 2.3

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1. Objective

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

2. Introduction

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

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

The elements within the scope of this test specification are described in the following figure:
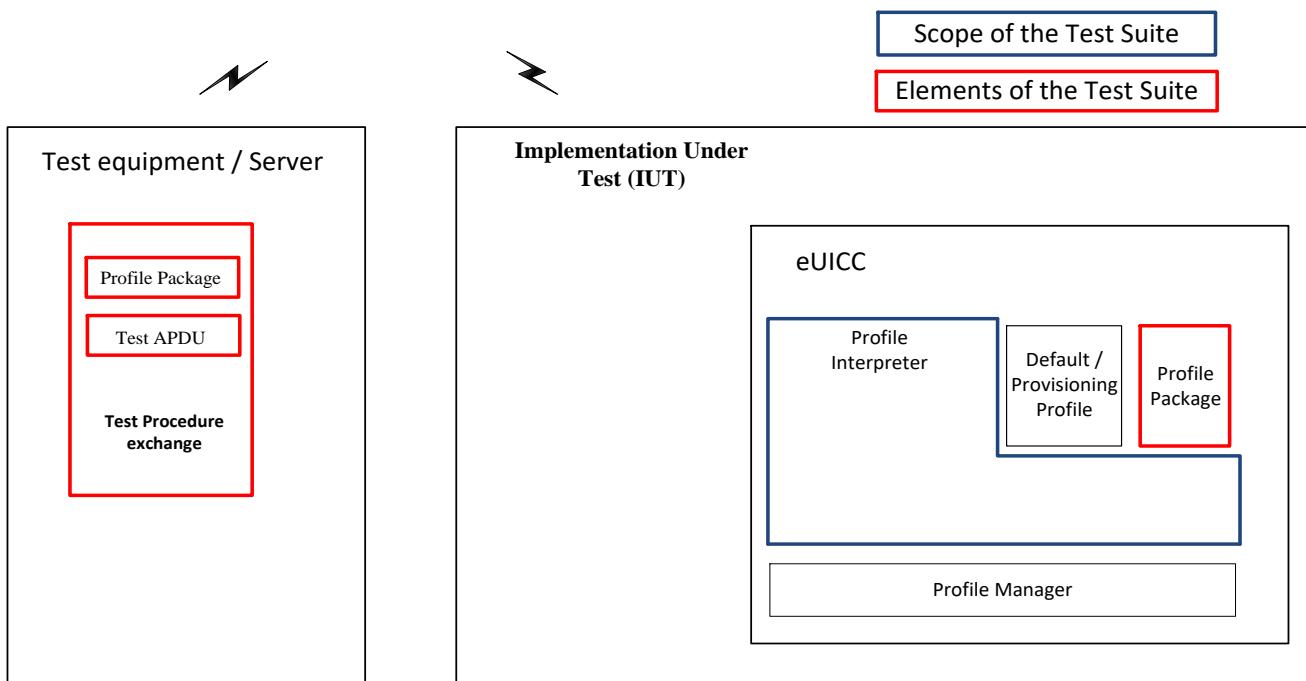
Figure 1**: Scope of the testing**

3. References

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

3.1 Normative References

- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.0.
- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.1.
- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.2.
- [SA PP TS]: SIMalliance eUICC Profile Package: Interoperable Format Technical Specification V2.3.1
- [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.
- [GS RPT]: GSMA Remote Provisioning Architecture for Embedded UICC Technical Specification V4.0, 25 February 2019.
- [GP AA]: Confidential Card Content Management Card Specification v2.3 – Amendment A V1.1.
- [GP AE]: GlobalPlatform Card Specification Amendment E v1.0.1.
- [GP SE]: GlobalPlatform Secure Element Configuration v1.0.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 3.1, 31 May 2016.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 3.2, 27 June 2017.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 3.3, 02. August 2018.
- [GS RPAT]: GSMA Remote Provisioning Architecture for Embedded UICC, Test Specification Version 4.0, 20. May 2019.
- [GS SGP22]: GSMA RSP Technical Specification V2.1.
- [GS SGP22]: GSMA RSP Technical Specification V2.2.1
- [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.
- [JAVACARD VM] Java Card 3 Platform Virtual Machine Specification, Classic Edition Version 3.0.4

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

3.2   Informative References

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

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

4. Abbreviations

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

PDU	Protocol Data Unit
POL	Policy Rules within the Profile
PUK	PIN Unblocking Key
RAM	Remote Application Management
RFM	Remote File Management
RQ	Requirement
SAIP	SIMAlliance Interoperable Profile
SCP	Secure Channel Protocol
SDU	Service Data Unit
SFI	Short File Identifier
SD	Security Domain
SP	Service Provider
SQN	Sequence Number
SSD	Supplementary Security Domain
SUCI	Subscription Concealed Identifier
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 and checked by the eUICC when it is present.		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_APPLICATION_BEFORE PE_SECURITYDOMAIN
23	The eUICC reports error status and aborts the installation when profile with PE-RFM before PE-SecurityDomain is loaded.		O_ERROR_FOR_PE_RFM_BEFORE PE_SECURITYDOMAIN
24	VOID		VOID
25	VOID		VOID
26	VOID		VOID
27 See Note1	Support of PE MF (OID: 2.23.143.1.2.1) creation by template.		O_ PE_MF_BY_TEMPLATE
28 See Note2	Support of PE USIM (OID: 2.23.143.1.2.4) creation by template.		O_ PE_USIM_BY_TEMPLATE
29 See Note2	Support of PE OPT USIM (OID: 2.23.143.1.2.5) creation by template.		O_ PE_OPT_USIM_BY_TEMPLATE
30 See Note1	Support of PE CD (OID: 2.23.143.1.2.2) creation by template.		O_PE_CD_BY_TEMPLATE
31 See Note1	Support of PE TELECOM (OID: 2.23.143.1.2.3) creation by template.		O_PE_TELECOM_BY_TEMPLATE
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 See Note2	Support of PE CSIM (OID: 2.23.143.1.2.10) creation by template.		O_PE_CSIM_BY_TEMPLATE
37 See Note2	Support of PE OPT CSIM (OID: 2.23.143.1.2.11) creation by template.		O_PE_OPT_CSIM_BY_TEMPLATE

38 See Note2	Support of PE ISIM (OID: 2.23.143.1.2.8) creation by template.		O_PE_ISIM_BY_TEMPLATE
39 See Note2	Support of PE OPT ISIM (OID: 2.23.143.1.2.9) creation by template.		O_PE_OPT_ISIM_BY_TEMPLATE
40	Support Memory Management acc to [GP CS]		O_MEMO_MANAGEMENT
41	Support of Scenario#3 with NIST P-256 as defined in [GP AE]		O_SCENARIO3_NIST
42	Support of usim-test-algorithm		O_USIM_TEST_ALGORITHM
43	Support of TUAK 256		O_TUAK_256
44	Support extended range of TUAK authentication parameter lengths from [SA PP TS] i.e. not restricted by [TS 133102]		O_EXTENDED_AUTH_PARAM_LEN
45	Support of CAT_TP		O_CAT_TP
46	Support offset in eUICC Response		O_RESP_OFFSET
47	The eUICC reports error status and aborts the installation when Local PINs referenced by a pinStatusTemplateDO is not created in a following PE-PINCodes		O_ERROR_LOCALPINCODE_MISSING
48	Support of services N°8 HRPD and N°14 3GPD-SIP and N°15 3GPD-MIP by CSIM.		O_CSIM_SERVICES_8_AND_14_AND_15
49 See Note2	Support of PE GSM-ACCESS (OID: 2.23.143.1.2.7) creation by template.		O_PE_GSMACCESS_BY_TEMPLATE
50 See Note2	Support of PE PHONEBOOK (OID: 2.23.143.1.2.6) creation by template.		O_PE_PHONEBOOK_BY_TEMPLATE
51	Support of AuthCounterMax with error '6F00'h		O_AUTH_MAX
52	Support of RSA Keys with length 1024		O_RSA_1024
53	Support of Scenario#2B as defined in [GP AA]		O_SCENARIO2B
54	Support of [SA PP TS] v2.0		O_V_20
55	Support of [SA PP TS] v2.1		O_V_21
56	Support of [SA PP TS] v2.2		O_V_22
57	Support of [SA PP TS] v2.3		O_V_23
58	Support of multiple-USIM.		O_MULTIPLE_USIM
59	Support of get-identity feature as defined in [SA PP TS]		O_GET_IDENTITY
60	Support of profile-a-x25519 feature as defined in [SA PP TS]		O_PROFILE_A
61	Support of profile-b-p256 feature as defined in [SA PP TS]		O_PROFILE_B
Note1: this feature is optional only for v2.0 implementations. For v2.1 implementations and onwards this feature shall be supported by the eUICC. Note2: this feature is optional only for v2.0 implementations. For v2.1 implementations and onwards this feature shall be supported by the eUICC if the related service is also supported (eg: O_ PE_OPT_USIM_BY_TEMPLATE is mandatory if the eUICC supports usim service)			

Table 1: Options

6.2   Applicability table

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

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2	Version 2.3.1
	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	C006	C006
8.2.1.3	Installing profile with PE-Application before PE-SecurityDomain, eUICC reports error.	C007	C007	C007	C007
8.2.1.4	Installing profile with PE-RFM before PE-SecurityDomain, eUICC reports error.	C008	C008	C008	C008
	Check Profile Header				
8.2.2.1	Error when cat-tp in ServicesList and eUICC does not support CAT_TP	NA	NA	C029	C029
8.2.2.2	Error when package in eUICC-Mandatory-AIDs is not known	NA	NA	C044	C044
8.2.2.3	Error when version in eUICC-Mandatory-AIDs is not supported	NA	NA	C044	C044
8.2.2.4	No error when package and version in eUICC-Mandatory AIDs is known and supported	NA	NA	C044	C044
	Check File System				
8.2.3.1	Installing USIM files by generic file management.	C009	C009	C009	C009
8.2.3.2	Installing USIM files by template.	C010	C009	C009	C009
8.2.3.3	Installing USIM files by template with OPT-USIM-2.	C010	C009	C009	C009
8.2.3.4	Installing USIM files by template with BER-TLV files in ServicesList.	NA	C012	C012	C012
8.2.3.5	Error when installing PE-USIM when eUICC does not support USIM.	C003	C003	C003	C003
8.2.3.6	Warning when installing USIM files by template with BER-TLV files in a non mandatory PE when eUICC does not support BER-TLV.	NA	C013	C013	C013
8.2.3.7	Warning when creating a DF with dfLink in a non mandatory PE when eUICC does not support dfLink.	NA	C015	C015	C015
8.2.3.8	Creating a DF with dfLink when eUICC supports dfLink.	C016	NA	NA	NA
8.2.3.9	Creating a DF with dfLink when eUICC supports dfLink and dfLink is in ServicesList.	NA	C016	C016	C016
8.2.3.10	Installing CSIM files by template.	C017	C018	C018	C018
8.2.3.11	Installing ISIM files by template.	C019	C020	C020	C020
8.2.3.12	Installing USIM files by template without content.	NA	NA	C009	C009
8.2.3.13	Creating file instances with and without explicitly set file ID.	NA	NA	C009	C009
8.2.3.14	Error when installing PE-CSIM when eUICC does not support CSIM.	C022	C022	C022	C022
8.2.3.15	Installing GSM-ACCESS files by template.	C034	C009	C009	C009
8.2.3.16	Installing USIM Phonebook files by template.	C035	C009	C009	C009
8.2.3.17	Installing EAP files by template	NA	NA	C036	C036

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2	Version 2.3.1
8.2.3.18	Error when installing USIM files by template with BER-TLV files in a mandatory PE when eUICC does not support BER-TLV	NA	C013	C013	C013
8.2.3.19	Installing USIM files by template using proprietaryEFInfo	NA	NA	NA	C009
8.2.3.20	Installing profile with multiple FileManagement elements	C009	C009	C009	C009
8.2.3.21	Installing multiple USIM by template.	C050	C051	C051	C051
Check NAA(s)					
8.2.4.1	Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE	C009	C009	C009	C009
8.2.4.2	Installing PE-AKAParameters with TUAK and sending AUTHENTICATE	C021	C021	C021	C021
8.2.4.3	Installing PE-AKAParameters with usim-test-algorithm and sending AUTHENTICATE	NA	C025	C025	C025
8.2.4.4	Installing PE-AKAParameters with TUAK with 256 bit key and restricted length and sending AUTHENTICATE	C026	C026	C026	C026
8.2.4.5	Installing PE-AKAParameters with TUAK with 256 bit key and sending AUTHENTICATE	C028	C028	C028	C028
8.2.4.6	Installing PE-AKAParameters with TUAK with numberOfKeccak and restricted length and sending AUTHENTICATE	NA	C026	C026	C026
8.2.4.7	Installing PE-AKAParameters with TUAK with numberOfKeccak and sending AUTHENTICATE	NA	C028	C028	C028
8.2.4.8	Error when authCounterMax exceeded	C037	C037	C037	C037
8.2.4.9	Test Milenage PIN verification and defined constants	C009	C009	C009	C009
8.2.4.10	Blocked SQN with wrap around deactivated	C009	C009	C009	C009
8.2.4.11	Testing SQN delta and age limit	C009	C009	C009	C009
8.2.4.12	Test usim-test-algorithm with 32 bit RES length	NA	NA	C025	C025
8.2.4.13	Installing PE-CDMAParameters and send COMPUTE IP AUTHENTICATE in Simple IP CHAP Mode	C032	C033	C033	C033
8.2.4.14	Installing PE-CDMAParameters and send COMPUTE IP AUTHENTICATE in HRPD Access Mode	C032	C033	C033	C033
8.2.4.15	Installing PE-CDMAParameters and send COMPUTE IP AUTHENTICATE in Mobile IP Mode	C032	C033	C033	C033
8.2.4.16	Installing USIM and ISIM with sharing NAA parameters	C019	C020	C020	C020
8.2.4.17	Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE in 2G mode	C043	C043	C043	C043
8.2.4.18	Installing USIM and ISIM with shared SQN array	NA	C020	C020	C020
8.2.4.19	Installing multiple PE-AKAParameters with MILENAGE and TUAK and sending AUTHENTICATE	C050	C051	C051	C051
Check PIN and PUK codes					
8.2.5.1	Installing PINs in enabled state.	C009	C009	C009	C009
8.2.5.2	Installing PINs in disabled state.	C009	C009	C009	C009
8.2.5.3	Installing different PINs with different PUKs	NA	NA	C009	C009
8.2.5.4	Checking the access domain validity of an RFM instance in case of a blocked PIN	C009	C009	C009	C009

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2	Version 2.3.1
8.2.5.5	Checking the PIN context of a Global PIN	C010	C009	C009	C009
8.2.5.6	Checking the PIN context of a Local PIN	NA	NA	C009	C009
8.2.5.7	Checking the "PIN state change allowed" and "PIN state change not allowed" status	C009	C009	C009	C009
8.2.5.8	Checking the "PIN can be changed" and "PIN cannot be changed" status	C009	C009	C009	C009
8.2.5.9	Error when no consistency between pinStatusTemplateDO and PE PINCodes Local	NA	NA	C031	C031
8.2.5.10	Checking Local PIN handling	NA	NA	C009	C009
8.2.5.11	Checking the PIN context of a Local PIN when sub DF is used	NA	NA	C009	C009
	Check Security Domains				
8.2.6.1	Check mandatory elements in PE Security Domain.	C009	C009	C009	C009
8.2.6.2	Check key list in PE Security Domain.	C009	C009	C009	C009
8.2.6.3	Check number of keyComponent objects.	C009	C009	C009	C009
8.2.6.4	Check sdPersoData.	C009	C009	C009	C009
8.2.6.5	Check OTA HTTPs Personalisation.	C009	C009	C009	C009
8.2.6.8	Check installing an SSD under a self extradited SSD	C009	C009	C009	C009
8.2.6.9	Check initial counter is default when keyCounterValue absent	C009	C009	C009	C009
8.2.6.10	Error when Installing KeyObject parameter not supported	C039	C039	C039	C039
	Check Application loading and installation				
8.2.7.1	Check Application PE and mandatory elements in ApplicationInstance.	C044	C044	C044	C044
8.2.7.2	Check all elements in ApplicationLoadPackage – taking size into account. – PE application is mandatory.	C004	C004	C004	C004
8.2.7.3	Check all elements in ApplicationInstance.	C044	C044	C044	C044
8.2.7.4	Error when loading an Application PEand bad library is provided.	C044	C044	C044	C044
8.2.7.5	Check multiple ApplicationInstance.	C044	C044	C044	C044
8.2.7.6	Check processData.	C044	C044	C044	C044
8.2.7.7	Error when loading Application PE and the lifecycle of SD is not PERSONALISED.	NA	C044	C044	C044
8.2.7.8	Check all elements in ApplicationLoadPackage – taking size into account – PE application is not mandatory.	NA	C004	C004	C004
8.2.7.9	Check all elements in ApplicationInstance when eUICC supports tag list '5C' with tag 'CF'.	C014	C014	C014	C014
8.2.7.10	Check loaded libraries within a PE-Application	C044	C044	C044	C044
8.2.7.11	Check PE-Application installation when Memory Management is supported	C023	C023	C023	C023
8.2.7.12	Installing profile with contactless eUICC Mandatory service selected and userInteractionContactlessParameters, eUICC reports error.	C027	C027	C027	C027
8.2.7.13	Check the contactlessProtocolParameters set inside the ApplicationInstance with contactless eUICC Mandatory service selected	C038	C038	C038	C038

Test case	Test case title	Version 2.0	Version 2.1	Version 2.2	Version 2.3.1
8.2.7.14	Check Application PE loaded using the SHA-1 algorithm for the "hashValue" related to the loadBlockObject	C042	C005	C005	C005
8.2.7.15	Check Application PE installed setting the Additional Contactless Parameters according to the ETSI TS 102.226	C049	C038	C038	C038
Check RFM parameters					
8.2.8.1	Installing PE-RFM with adfRFMAccess.	C009	C009	C009	C009
8.2.8.2	Installing PE-RFM without adfRFMAccess.	C009	C009	C009	C009
8.2.8.3	Installing profile with two difference PE-RFMs	C009	C009	C009	C009
8.2.8.4	Installing PE-RFM associated to SSD1	C009	C009	C009	C009
Check Non standardised content					
8.2.9.1	No error when installing non mandatory PE-NonStandard.	C009	C009	C009	C009
8.2.9.2	Error when installing mandatory PE-NonStandard	C009	C009	C009	C009
Check eUICC Response					
8.2.11.1	Check unsupported major version.	C009	C009	C009	C009
8.2.11.2	Check unsupported template in Profile Header.	C009	C009	C009	C009
8.2.11.3	Check offset in eUICC Response with error.	NA	NA	C030	C030
8.2.11.4	Check unknown tag in Profile Package	NA	NA	C009	C009
Check SUCI Calculation by USIM					
8.2.12.1	SUCI Calculation by default system application – Profile A	NA	NA	NA	C046
8.2.12.2	SUCI Calculation by default system application – Profile B	NA	NA	NA	C047
8.2.12.3	SUCI Calculation by default system application – Null Scheme	NA	NA	NA	C048

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_JAVACARD AND O_MEMORY_LIMIT SUPPORTED AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED) THEN M ELSE N/A
C005	IF (O_JAVACARD AND 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_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ERROR_FOR_PE_APPLICATION_BEFORE PE_SECURITYDOMAIN SUPPORTED) THEN M ELSE N/A
C008	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ERROR_FOR_PE_RFM_BEFORE PE_SECURITYDOMAIN SUPPORTED) THEN M ELSE N/A
C009	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED) THEN M ELSE N/A
C010	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ PE_MF_BY_TEMPLATE SUPPORTED AND O_ PE_USIM_BY_TEMPLATE SUPPORTED AND O_ PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C011	VOID
C012	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_BER_TLV SUPPORTED) THEN M ELSE N/A
C013	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_BER_TLV NOT SUPPORTED) THEN M ELSE N/A
C014	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SUPPORT_TAG_5C AND O_SUPPORT_TAG_CF) THEN M ELSE N/A
C015	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_DF_LINK NOT SUPPORTED) THEN M ELSE N/A
C016	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_DF_LINK SUPPORTED) THEN M ELSE N/A
C017	IF (O_CSIM SUPPORTED AND O_PE_CSIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_CSIM_BY_TEMPLATE SUPPORTED AND O_CAVE SUPPORTED) THEN M ELSE N/A
C018	IF (O_CSIM SUPPORTED AND O_CAVE SUPPORTED) THEN M ELSE N/A
C019	IF (O_USIM SUPPORTED AND O_ISIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_ISIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_ISIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C020	IF (O_USIM SUPPORTED AND O_ISIM SUPPORTED AND O_MILENAGE) THEN M ELSE N/A
C021	IF (O_USIM SUPPORTED AND O_TUAK_128 SUPPORTED) THEN M ELSE N/A
C022	IF O_CSIM NOT SUPPORTED THEN M ELSE N/A

Conditional item	Condition
C023	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_MEMO_MANAGEMENT SUPPORTED) THEN M ELSE N/A
C024	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SCENARIO3_NIST SUPPORTED) THEN M ELSE N/A
C025	IF (O_USIM SUPPORTED AND O_USIM_TEST_ALGORITHM SUPPORTED) THEN M ELSE N/A
C026	IF (O_USIM SUPPORTED AND O_TUAK_256 SUPPORTED) THEN M ELSE N/A
C027	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_CONTACTLESS NOT SUPPORTED) THEM M ELSE N/A
C028	IF (O_USIM SUPPORTED AND O_TUAK_256 SUPPORTED AND O_EXTENDED_AUTH_PARAM_LEN) THEN M ELSE N/A
C029	IF (O_USIM_SUPPORTED AND O_CAT_TP NOT SUPPORTED) THEN M ELSE N/A
C030	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_RESP_OFFSET) THEN M ELSE N/A
C031	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ERROR_LOCALPIN_CODE_MISSING SUPPORTED) THEN M ELSE N/A
C032	IF (O_CSIM SUPPORTED AND O_PE_CSIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_CSIM_BY_TEMPLATE SUPPORTED AND O_CAVE SUPPORTED AND O_CSIM_SERVICES_8_AND_14_AND_15) THEN M ELSE N/A
C033	IF (O_CSIM SUPPORTED AND O_CAVE SUPPORTED AND O_CSIM_SERVICES_8_AND_14_AND_15) THEN M ELSE N/A
C034	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ PE_MF_BY_TEMPLATE SUPPORTED AND O_ PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED AND O_PE_GSMACCESS_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C035	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ PE_MF_BY_TEMPLATE SUPPORTED AND O_ PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED AND O_PE_PHONEBOOK_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C036	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_EAP SUPPORTED) THEN M ELSE N/A
C037	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_AUTH_MAX SUPPORTED) THEN M ELSE N/A
C038	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_CONTACTLESS SUPPORTED) THEM M ELSE N/A
C039	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_RSA_1024 NOT SUPPORTED) THEN M ELSE N/A
C040	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_SCENARIO2B SUPPORTED AND O_RSA_1024 SUPPORTED) THEN M ELSE N/A

Conditional item	Condition
C041	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_PE_OPT_USIM_BY_TEMPLATE SUPPORTED AND O_PE_CD_BY_TEMPLATE SUPPORTED AND O_PE_TELECOM_BY_TEMPLATE SUPPORTED AND O_BER_TLV NOT SUPPORTED) THEN M ELSE N/A
C042	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED AND O_HASHVALUE SUPPORTED) THEN M ELSE N/A
C043	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_ PE_MF_BY_TEMPLATE SUPPORTED AND O_ PE_USIM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C044	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED) THEN M ELSE N/A
C045	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C046	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_GET_IDENTITY SUPPORTED AND O_PROFILE_A SUPPORTED) THEN M ELSE N/A
C047	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_GET_IDENTITY SUPPORTED AND O_PROFILE_B SUPPORTED) THEN M ELSE N/A
C048	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_GET_IDENTITY SUPPORTED) THEN M ELSE N/A
C049	IF (O_JAVACARD AND O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_CONTACTLESS SUPPORTED AND O_PE_MF_BY_TEMPLATE SUPPORTED AND O_PE_USIM_BY_TEMPLATE SUPPORTED) THEN M ELSE N/A
C050	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_TUAK_128 SUPPORTED AND O_MULTIPLE_USIM 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
C051	IF (O_USIM SUPPORTED AND O_MILENAGE SUPPORTED AND O_TUAK_128 SUPPORTED AND O_MULTIPLE_USIM 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:
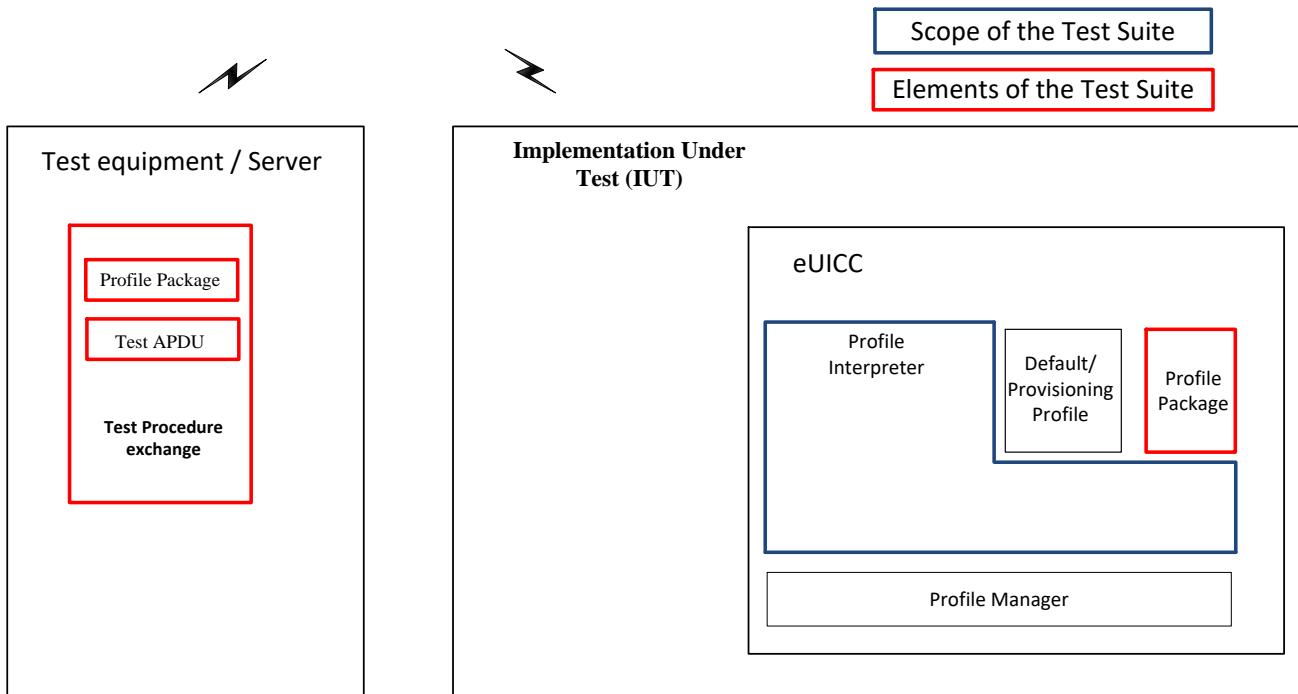
Figure 2**: Test environment description**

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
The following certificate and key shall be stored in the eUICC: • The eUICC Certificate • The Root public key

Initial state
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:
 	
    o Renew eUICC's Private Key(s) and Certificate(s)
    o Renew EUM Certificate(s)
    o 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
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 DO '88' (SFI)

Tag DO '88' from the returned FCP of an Elementary File shall be verified based on the definition in ETSI TS 102 221 Section 11.1.1.4.8. Specifically:

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

For implementiatons based on [SA PP TS] v2.0 and v2.1:
-if the SFI value is mandated in the respective file specification and it equals to bits b5 to b1 of the second byte of the file identifier: DO'88' can be absent, or can be present with the correct SFI value. The test tool shall check this. ANNEX B (Normative) : SFI values contains the lists of those files for which the related specification mandates the support of Short File Identifier and also defines a concrete SFI value.
-if the SFI value is mandated in the respective file specification and not equal to bits b5 to b1 of the second byte of the file identifier: DO'88' shall be present with the correct SFI value. The test tool shall check this. ANNEX B (Normative) : SFI values contains the lists of those files for which the related specification mandates the support of Short File Identifier and also defines a concrete SFI value.
-if the SFI is not supported according to the respective file specification: DO'88' shall be present with a length set to zero. The test tool shall check this.
-if the SFI is 'Optional' according to the respective file specification: the test tool shall not check the presence of DO '88'

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

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

-if the shortEFID has no value the DO'88' shall be present with a length set to zero. The test tool shall check this.

-if the shortEFID is present with a length of 1 byte the DO'88' can be absent (only if SFI equals to bits b5 to b1 of the second byte of the FID), or can be present with the correct SFI value. The test tool shall check this.

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

-if the shortEFID is not present in the createFCP structure of the EF the DO'88' can be absent, or can be present with the correct SFI value. The test tool shall check this.

-if the shortEFID is present in the createFCP structure of the EF but has no value the DO'88' shall be present with a length set to zero. The test tool shall check this.

-if the shortEFID is present in the createFCP structure of the EF with a length of 1 byte the DO'88' can be absent (only if SFI equals to bits b5 to b1 of the second byte of the FID), or can be present with the correct SFI value. The test tool shall check this.

6.6.4.3. Files created based on a PE Template

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

6.6.4.4. Verify that all the files are created

The test tool shall check that all the files specified in the specific file system PE are created.
The test tool shall allow other (eg: proprietary) files to be created, except:
-files tagged with "doNotCreate" in the PE
-files defined in Not created by default templates, but not listed in the PE.

6.6.4.5. Tag '82' (File Descriptor)

For any file created by PE template without fileDescriptor parameter present in the fileDescriptor structure the test tool shall check the File descriptor byte in the returned FCP considering the following specific rules:
-both Working EF and Internal EF shall be accepted when checking the File type for an elementary file (EF)

For implementiatons based on [SA PP TS] v2.0 , v2.1 and v2.2:
-the value of File accessibility shall not be checked for any file (EF, DF, or ADF)
For implementiatons based on [SA PP TS] v2.3 or later:
-the value of File accessibility shall be checked and the value shall be verified according to the definition in Annex A 9.1 of [SA PP TS] v2.3

6.6.4.6. Tag 'C6' (PIN Status Template DO)

For an MF/DF/ADF the PS Template DO returned in the FCP shall contain all those key reference values which are present in the "pinStatusTemplateDO" of this MF/DF/ADF in the profile and refer to a global (level 1) PIN, or a local (level 2) PIN. The test tool shall check this.
Note: see ETSI TS 102 221 for the definition of level 1 and level 2 PIN.
Any key reference value in the PS Template DO which is for an administrative key shall not be checked by the test tool.

Additionally the PS Template DO returned in the FCP may also contain some additional key reference values. It shall not cause a test case to be failed.

6.6.5 Specific rules for file content verification

6.6.5.1. <u>Files created based on a PE Template</u>

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. <u>Ber-tlv files created with content FF..FF</u>

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

6.6.6 Specific rules for checking the returned status

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

For those cases when warning status is expected:
<u>For implementiatons based on [SA PP TS] v2.0, or v2.1:</u>
-the eUICC may return an ok status after returning the warning status. This is allowed and it shall not cause the test case to be failed.

<u>For implementiatons based on [SA PP TS] v2.2, or later:</u>
-the eUICC shall return an ok status after returning the warning status. It shall be checked by the test tool.

6.6.7 ISO interface

The following APDU commands used during test execution have to be sent to the eUICC using the ISO interface:
AUTHENTICATE
VERIFY PIN
DISABLE PIN
CHANGE PIN
UNBLOCK PIN

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

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

6.7 Pass criterion

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

6.8 VOID

6.9 eUICC 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.
When creating the DER code for Test Case 8.2.11.4 at least the DF-CUSTOM-by-Generic-File-Management-4 shall be created using PEDefinitions V2.100_with_unknownTag.asn. The PEDefinitions V2.100_with_unknownTag.asn is available for download on the SIMalliance website.

The parameters below have been chosen to personalise the Profile:
- Profile type: "SIMalliance Profile Package".
- ICCID: '89019990001234567893'.
- IMSI: 234101943787656.
- IMPI: 001010123456789@test.3gpp.com
- IMPU: sip:user@test.3gpp.com
- UIM ID: '0102030405060708'
- MNO-SD AID / TAR value: 'A000000151000000' / 'B20100'.
- RFM application AID / TAR values: 'A00000055910100001' / 'B00000' , 'A00000055910100002' / 'B00002' and 'A00000055910100004' / 'B00140' and 'A00000055910100005' / 'B00150'
- Executable Load File AID for SD: 'A0000001515350'.
- Executable Module AID for SD: 'A000000151535041'.
- SSD AID / TAR values: 'A0000005591010010 2736456616C7565' / '6C7565' and 'A0000005591010010 2736456616C7566' / '6C7566'.

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

Two additional Access Rules are used in this specification:

Table 4: Additional Access Rules

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

6.14.1 Profile Header

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

6.14.1.3.   Profile-Header-3

It contains an unsupported major version.

Profile-Header-3

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

6.14.1.4.   Profile-Header-4

It contains an unsupported template.

Profile-Header-4

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  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 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage 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 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage 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 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    tuak128 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 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    csim NULL,
    cave 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 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    isim NULL,
    milenage NULL
  },
  eUICC-Mandatory-GFSTEList {
    { 2 23 143 1 2 1 }, --id-MF
    { 2 23 143 1 2 2 },  --id CD
    { 2 23 143 1 2 3 },  --id TELECOM
    { 2 23 143 1 2 4 },  --id-USIM
    { 2 23 143 1 2 5 },  --id-OPT-USIM
    { 2 23 143 1 2 8 },  --id-ISIM
    { 2 23 143 1 2 9 }   --id-OPT-ISIM
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.10.   Profile-Header-10

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

Profile-Header-10

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    usim-test-algorithm NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.11.   Profile-Header-11

It contains tuak256 in eUICC-Mandatory-services

Profile-Header-11

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    tuak256 NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.12.   Profile-Header-12

It contains contactless in eUICC-Mandatory-services

Profile-Header-12

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    contactless NULL,
    usim NULL,
    milenage NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
```

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

6.14.1.13.   Profile-Header-13

It contains cat-tp in eUICC-Mandatory-services

Profile-Header-13

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    cat-tp NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.14.   Profile-Header-14

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

Profile-Header-14

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H,
  eUICC-Mandatory-AIDs {
    {
      aid 'A0100000620101'H,
      version '0101'H
    }
  }
}
```

6.14.1.15.   Profile-Header-15

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

Profile-Header-15

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H,
  eUICC-Mandatory-AIDs {
    {
      aid 'A0000000620101'H,
      version '0904'H
    }
  }
}
```

6.14.1.16.   Profile-Header-16

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

Profile-Header-16

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H,
  eUICC-Mandatory-AIDs {
    {
      aid 'A0000000620101'H,
      version '0104'H
    },
    {
      aid 'A0000000620001'H,
      version '0100'H
    }
  }
}
```

6.14.1.17. Profile-Header-17

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

Profile-Header-17

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- CD-ID
    {2 23 143 1 2 2 },
    -- TELECOM-ID
    {2 23 143 1 2 3 },
    -- USIM-ID
    {2 23 143 1 2 4},
    -- OPT-USIM-ID
    {2 23 143 1 2 5},
    -- GSM-ACCESS-ID
    {2 23 143 1 2 7}
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.18. Profile-Header-18

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

Profile-Header-18

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

```
   -- PHONEBOOK-ID
   {2 23 143 1 2 6}
 },
 -- SMS parameters
 connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.19.   Profile-Header-19

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

Profile-Header-19

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- CD-ID
    {2 23 143 1 2 2 },
    -- TELECOM-ID
    {2 23 143 1 2 3},
    -- USIM-ID
    {2 23 143 1 2 4},
    -- OPT-USIM-ID
    {2 23 143 1 2 5},
    -- EAP- ID
    {2 23 143 1 2 12}
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.20.   Profile-Header-20

It has minor version '100' and contains the MF ID and CD ID and TELECOM ID and USIM ID and OPT-USIM ID in eUICC-Mandatory-GFSTEList.

Profile-Header-20

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 100,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage 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
}
```

6.14.1.21.   Profile-Header-21

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

Profile-Header-21

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

6.14.1.22.   Profile-Header-22

It contains contactless in eUICC-Mandatory-services and the MF ID and USIM ID in eUICC-Mandatory-GFSTEList.

Profile-Header-22

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

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

6.14.1.23.   Profile-Header-23

The content is identical to 6.14.1.2 Profile-Header-2 adding support of tuak128 and multiple-usim.

Profile-Header-23
```
headerValue ProfileElement ::= header : {
major-version 2,
minor-version 3,
profileType "SIMalliance Profile Package",
iccid '89019990001234567893'H,
eUICC-Mandatory-services {
usim NULL,
milenage NULL,
tuak128 NULL,
multiple-usim 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
}
```

6.14.1.24.   Profile-Header-24

It contains
-get-identity and profile-a-x25519 in eUICC-Mandatory-services list
-the MF ID, the TELECOM ID, the USIM ID, the OPT USIM ID, the DF 5GS ID and the DF SAIP ID in eUICC-Mandatory-GFSTEList.

Profile-Header-24
```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    get-identity NULL,
    profile-a-x25519 NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- 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},
    -- DF 5GS
    {2 23 143 1 2 13},
    -- DF SAIP
    {2 23 143 1 2 14}
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.25.   Profile-Header-25

It contains
-get-identity and profile-b-p256 in eUICC-Mandatory-services list
-the MF ID, the TELECOM ID, the USIM ID, the OPT USIM ID, the DF 5GS ID and the DF SAIP ID in eUICC-Mandatory-GFSTEList.

Profile-Header-25

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    get-identity NULL,
    profile-b-p256 NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- 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},
    -- DF 5GS
    {2 23 143 1 2 13},
    -- DF SAIP
    {2 23 143 1 2 14}
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.26.   Profile-Header-26

It contains
-get-identity in eUICC-Mandatory-services list
-the MF ID, the TELECOM ID, the USIM ID, the OPT USIM ID, the DF 5GS ID and the DF SAIP ID in eUICC-Mandatory-GFSTEList.

Profile-Header-26

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    get-identity NULL
  },
  eUICC-Mandatory-GFSTEList {
    -- MF-ID
    {2 23 143 1 2 1},
    -- 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},
    -- DF 5GS
    {2 23 143 1 2 13},
    -- DF SAIP
    {2 23 143 1 2 14}
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.1.27. Profile-Header-27

Same as Profile-Header-1 but contains javacard in eUICC-Mandatory-services.

Profile-Header-27

```
headerValue ProfileElement ::= header : {
  major-version 2,
  minor-version 3,
  profileType "SIMalliance Profile Package",
  iccid '89019990001234567893'H,
  eUICC-Mandatory-services {
    usim NULL,
    milenage NULL,
    javacard NULL
  },
  eUICC-Mandatory-GFSTEList {
  },
  -- SMS parameters
  connectivityParameters 'A0090607914486994211F0'H
}
```

6.14.2 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 :
'61184F10A0000000871002FF33FF018900000100500045553494DFFFFFF
FFFFFFFFFFFFFFFFFFFFFF'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 :
'800101A406830101950010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
```

```
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A40683018195010880015BA406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'80010190008001002A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'80010190008001002AF10A406830101950108A40683010A95010880015
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 :
'61184F10A0000000871002FF33FF018900000100050045553494D'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 :
'80010190000800102A406830101950108800158A40683010A950108'H,
   fillFileOffset : 10,
   fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
   fillFileOffset : 15,
   fillFileContent : '80015BA40683010A950108'H,
   fillFileOffset : 26,
   fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
   fillFileOffset : 16,
   fillFileContent :
'800103A40683010195010880158A40683010A950108'H,
   fillFileOffset : 15,
   fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
   fillFileOffset : 15,
   fillFileContent :
'800103A40683010195010880158A40683010A950108840132A406830
101950108'H,
   fillFileOffset : 4,
   fillFileContent :
'800101A40683010195010880102A40683018195010880158A4068301
0A950108'H,
   fillFileOffset : 4,
   fillFileContent :
'800101900080011AA40683010195010880140A40683010A950108'H,
```

```
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A40683010195010880014BA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|
PIN Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H,
-- create UMPC
      createFCP : {
        fileDescriptor '4121'H,
        fileID '2F08'H,
        securityAttributesReferenced '0A'H,
        efFileSize '05'H
      }
    }
  }
}
```

6.14.2.1.3. PE-MF-by-Template-2

It contains USIM AID and ISIM AID in EF DIR.

PE-MF-by-Template-2

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

```
  },
  ef-dir {
    fileDescriptor : {
-- Shareable Linear Fixed File
-- 4 records, record length: 38 bytes
      fileDescriptor '42210026'H,
      efFileSize '98'H
    },
-- USIM AID: A0000000871002FF33FF018900000100
    fillFileContent :
'61184F10A0000000871002FF33FF01890000010050045553494DFFFFF
FFFFFFFFFFFFFFFFFFFF'H,
-- ISIM AID: A0000000871004FF33FF018900000100
   fillFileContent :
'61184F10A0000000871004FF33FF01890000010050044953494DFFFFF
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 :
'800101A406830101950108800015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A406830101950108800014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A4068301
0A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A406830101950108800015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
```

```
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H
  }
}
```

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 :
'61184F10A0000003431002FF33FF0189000001005044353494DFFFFFFF
FFFFFFFFFFFFFFFFFF'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 :
'8001019000800102A40683010195010880015BA40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A40683010195010880015BA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A40683010195010880015BA40683010A950108840132A4068301
01950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A40683010195010880010A4068301B1950108800158A4068301
0A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA40683010195010880014A0A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '8001019000800158AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A95010880014297000'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A4068301019501088001484A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A40683010195010BA40683010295010880015B
A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A40683010195010BA40683010A9501088001B8
A40683010A950108'H
  }
}
```

6.14.2.1.5. PE-MF-by-Template-4

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

PE-MF-by-Template-4

```
mfVal ProfileElement ::= mf : {
  mf-header {
    mandated NULL,
    identification 17
  },
  templateID { 2 23 143 1 2 1 },
  mf {
    fileDescriptor : {
      pinStatusTemplateDO '01020A'H
    }
  },
  ef-pl {
    fileDescriptor : {
-- EF_PL modified to use Access Rule 15 within EF_ARR
      securityAttributesReferenced '0F'H
    }
  },
  ef-iccid {
    fileDescriptor : {
    -- use Access Rule 16 within EF_ARR
      securityAttributesReferenced '10'H
    },
-- swapped ICCID: 98109909002143658739
    fillFileContent : '98109909002143658739'H
  },
  ef-dir {
    fileDescriptor : {
-- Shareable Linear Fixed File
-- 4 records, record length: 46 bytes
      fileDescriptor '4221002E'H,
      efFileSize 'B8'H
    },
-- USIM AID: A0000000871002FF33FF018900000100
-- Application EAP Label: 4541502D414B41
    fillFileContent :
'612C4F10A0000000871002FF33FF01890000010050045553494D7312A
01080011781026D3582074541502D414B41'H
  },
  ef-arr {
    fileDescriptor : {
-- Shareable Linear Fixed File
-- 16 records, record length: 37 bytes
-- ARR created with content recommended in Annex A
(Section 9.9) of [SA PP TS] plus two additional records
for use with EF_PL and EF ICCID
      fileDescriptor '42210025'H,
      efFileSize '0250'H
    },
    fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A406830101950108800155AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
```

```
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A40683018195010880 0158A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA40683010195010 8800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|PIN
Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H
  }
}
```

It contains the AID of ADF-Custom in EF DIR.

MF-by-Generic-File-Management-2

```
altMFVal ProfileElement ::= genericFileManagement : {
  gfm-header {
    mandated NULL,
    identification 18
  },
  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 :
'61184F10A0000000871002FF33FF018900000100050045553494DFFFFF
FFFFFFFFFFFFFFFFFFFF'H,
-- AID of ADF_Custom: A000000600020002000001
      fillFileContent :
'61154F0BA000000600020002000001500643555544F4DFFFFFFFFFFF
FFFFFFFFFFFFFFFFFFFFFF'H,
-- create ARR
      createFCP : {
-- Shareable Linear Fixed File
-- 15 records, record length: 37 bytes
        fileDescriptor '42210025'H,
        fileID '2F06'H,
        securityAttributesReferenced '0A'H,
        efFileSize '0250'H
      },
    fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A40683010195010880015AA40683010A950108840132A406830
101950108'H,
```

```
     fillFileOffset : 4,
     fillFileContent :
'800101A406830101950108800102A406830181950108800158A406830
10A950108'H,
     fillFileOffset : 4,
     fillFileContent :
'8001019000080011AA406830101950108800140A40683010A950108'H,
     fillFileOffset : 10,
     fillFileContent : '800101900080015AA40683010A950108'H,
     fillFileOffset : 21,
     fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
     fillFileOffset : 16,
     fillFileContent : '800101A40683010195010880015A9700'H,
     fillFileOffset : 21,
     fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
     fillFileOffset : 15,
     fillFileContent : '80015EA40683010A950108'H,
     fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|
PIN Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
     fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
     fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H,
-- create UMPC
       createFCP : {
         fileDescriptor '4121'H,
         fileID '2F08'H,
         securityAttributesReferenced '0A'H,
         efFileSize '05'H
       }
     }
   }
}
```

6.14.2.1.7.   MF-by-Generic-File-Management-3

It has the same content as MF-by-Generic-File-Management-1, but it contains two FileManagement elements.

MF-by-Generic-File-Management-3

```
altMFVal ProfileElement ::= genericFileManagement : {
  gfm-header {
    mandated NULL,
    identification 19
  },
  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 :
'61184F10A0000000871002FF33FF018900000010050045553494D'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 :
'8001019000080102A40683010195010880015 8A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A40683010195010880015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A40683010195010880015 8A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A40683010195010880014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A40683010195010880015 8A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A40683010195010880102A40683018195010880015 8A406830
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
```

```
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A40683010195010880014BA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
-- Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|
PIN Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
-- Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H,
-- create UMPC
      createFCP : {
        fileDescriptor '4121'H,
        fileID '2F08'H,
        securityAttributesReferenced '0A'H,
        efFileSize '05'H
      }
    }
  }
}
```

6.14.2.1.8.   MF-by-Template-5

It contains two USIM AIDs in EF DIR.

PE-MF-by-Template-5

```
mfVal ProfileElement ::= mf : {
  mf-header {
    mandated NULL,
    identification 13
  },
  templateID { 2 23 143 1 2 1 },
  mf {
    fileDescriptor : {
      lcsi '05'H,
      pinStatusTemplateDO '01020A'H
    }
  },
  ef-pl {
    fileDescriptor : {
      lcsi '05'H,
      securityAttributesReferenced '0F'H
    }
  },
  ef-iccid {
    fileDescriptor : {
      lcsi '05'H,
      securityAttributesReferenced '10'H
    },
    fillFileContent : '98109909002143658739'H
```

```
  },
  ef-dir {
    fileDescriptor : {
      fileDescriptor '42210026'H,
      lcsi '05'H,
      efFileSize '98'H
    },
    fillFileContent :
'61184F10A0000000871002FF33FF018900000100500045553494DFFFFF
FFFFFFFFFFFFFFFFFFFF'H,
    fillFileContent :
'61184F10A0000000871002000000000000000020050045553494DFFFFF
FFFFFFFFFFFFFFFFFFFF'H
  },
  ef-arr {
    fileDescriptor : {
      fileDescriptor '42210025'H,
      lcsi '05'H,
      efFileSize '0250'H
    },
    fillFileContent :
'8001019000800102A406830101950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A406830101950108800015AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent :
'800101900080011A9700800140A40683010A950108'H,
    fillFileOffset : 16,
    fillFileContent :
'800103A406830101950108800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A406830101950108800014AA40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A406830101950108800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101A406830101950108800102A406830181950108800158A4068306
10A950108'H,
    fillFileOffset : 4,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A406830101950108800015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
```

```
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H
  }
}
```

6.14.2.2. DF-CD

6.14.2.2.1. PE-CD-by-Template-1

PE-CD-by-Template-1

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

  ef-launchpad {
    fileDescriptor : {
      securityAttributesReferenced '2F0602'H,
      efFileSize '05'H
    },
    fillFileContent : '1122334455'H
  },

  ef-icon {
    fileDescriptor : {
      securityAttributesReferenced '2F0602'H,
      efFileSize '10'H
    },
    fillFileContent : '11223344556677889900112233445566'H,
-- 2nd ef-icon with different file ID
    fileDescriptor : {
      fileID  '6F41'H,
      securityAttributesReferenced '2F0602'H,
      efFileSize '20'H
    },
    fillFileContent :
'11223344556677889900112233445566112233445566778899001122
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 :
'11223344556677889900112233445566112233445566778899001223
3445566'H
    }
  }
}
```

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

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

PE-CD-by-Template-2

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

  ef-launchpad {
    fileDescriptor : {
      securityAttributesReferenced '2F0602'H,
      efFileSize '05'H
    },
    fillFileContent : '1122334455'H
  },

  ef-icon {
    fileDescriptor : {
      securityAttributesReferenced '2F0602'H,
      efFileSize '10'H
    },
    fillFileContent : '11223344556677889900112233445566'H,
-- 2nd ef-icon without explicitly defined file ID
    fileDescriptor : {
      securityAttributesReferenced '2F0602'H,
      efFileSize '20'H
    },
    fillFileContent :
'11223344556677889900112233445566112233445566778899001122
3445566'H,
-- 3rd ef-icon with file ID out of range
    fileDescriptor : {
      fileID '6F80'H,
      securityAttributesReferenced '2F0602'H,
      efFileSize '20'H
    },
    fillFileContent :
'11223344556677889900112233445566112233445566778899001122
3445566'H
  }
}
```

6.14.2.3.   DF-TELECOM

6.14.2.3.1.   PE-TELECOM-by-Template-1

It contains no BER-TLV files.

PE-TELECOM-by-Template-1

```
teleValue ProfileElement ::= telecom : {
  telecom-header {
    mandated NULL,
    identification 31
  },
  templateID { 2 23 143 1 2 3 },
  df-telecom {
    fileDescriptor : {
      pinStatusTemplateDO '010A'H
    }
  },
  ef-arr {
    fileDescriptor : {
        linkPath '2F06'H
    }
  },
  ef-rma {
    fileDescriptor : {
      -- 2 record of 10 bytes
      fileDescriptor '4221000A'H,
      efFileSize '14'H
    },
    fillFileContent : '00010203040506070809'H,
    fillFileContent : '00010203040506070809'H
  },
  ef-sume {
    fileDescriptor : {
      efFileSize '10'H
    },
    fillFileContent : '850431323334'H
  },
  ef-ice-dn {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H
    }
  },
  ef-ice-ff {
    fileDescriptor : {
      -- 1 records of 32 bytes
      fileDescriptor '42210020'H,
      efFileSize '20'H
    }
  },
  ef-psismsc {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
```

```
        efFileSize '10'H
      },
      fillFileContent : '80000102030405060708091011121314'H
    },

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

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

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

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

```
    }
  },
  ef-aas {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H
    }
  },
  ef-gas {
    fileDescriptor : {
      -- 2 records of 8 bytes
      fileDescriptor '42210008'H,
      efFileSize '10'H
    }
  },
  ef-psc {
    fileDescriptor : {
      shortEFID '10'H
    }
  },
  ef-cc {
    fileDescriptor : {
      shortEFID '18'H
    }
  },
  ef-puid {
    fileDescriptor : {
      shortEFID '20'H
    }
  },
  ef-iap {
    fileDescriptor : {
      -- 2 records of 5 bytes
      fileDescriptor '42210005'H,
      efFileSize '0A'H,
      shortEFID  '28'H
    }
  },
  ef-adn {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H,
      shortEFID  '30'H
    }
  },
  ef-pbc {   -- record size = 2 bytes
    fileDescriptor : {
      efFileSize '10'H,
      shortEFID  '38'H
    }
  },
  ef-anr {
    fileDescriptor : {
      -- 1 record of 20 bytes
      fileDescriptor '42210014'H,
      efFileSize '14'H,
      shortEFID  '40'H
```

```
    }
  },
  ef-puri {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H,
      shortEFID  '48'H
    },
    fillFileContent : '80000102030405060708090A0B0C0D0E'H,
    fillFileContent : '80000102030405060708090A0B0C0D0E'H
  },
  ef-email {
    fileDescriptor : {
      -- 2 records of 20 bytes
      fileDescriptor '42210014'H,
      efFileSize '28'H,
      shortEFID '50'H
    }
  },
  ef-sne {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H,
      shortEFID  '58'H
    }
  },
  ef-uid {
    fileDescriptor : {
      -- 8 records of 2 bytes
        efFileSize '10'H,
      shortEFID  '60'H
    }
  },
  ef-grp {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H,
      shortEFID  '68'H
    }
  },
  ef-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 : '800001020304050607080910111121314'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 : '800001020304050607080900A0B0C0D0E'H,
    fillFileContent : '800001020304050607080900A0B0C0D0E'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 : '80000102030405060708091011121314'H
  },
```

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

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

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

```
    }
  },
  ef-aas {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H
    }
  },
  ef-gas {
    fileDescriptor : {
      -- 2 records of 8 bytes
      fileDescriptor '42210008'H,
      efFileSize '10'H
    }
  },
  ef-psc {
    fileDescriptor : {
      shortEFID '10'H
    }
  },
  ef-cc {
    fileDescriptor : {
      shortEFID '18'H
    }
  },
  ef-puid {
    fileDescriptor : {
      shortEFID '20'H
    }
  },
  ef-iap {
    fileDescriptor : {
      -- 2 records of 5 bytes
      fileDescriptor '42210005'H,
      efFileSize '0A'H,
      shortEFID  '28'H
    }
  },
  ef-adn {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H,
      shortEFID  '30'H
    }
  },
  ef-pbc {   -- record size = 2 bytes
    fileDescriptor : {
      efFileSize '10'H,
      shortEFID  '38'H
    }
  },
  ef-anr {
    fileDescriptor : {
      -- 1 record of 20 bytes
      fileDescriptor '42210014'H,
      efFileSize '14'H,
      shortEFID  '40'H
```

```
    }
  },
  ef-puri {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H,
      shortEFID  '48'H
    },
    fillFileContent : '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
  }
}
```

6.14.2.3.4.   PE-TELECOM-by-Template-4

It contains the same EF-s as PE-TELECOM-by-Template-1, but the pinStatusTemplateDO/ securityAttributesReferenced value is updated for some files with reference to LocalPIN1/rule including LocalPIN1.

PE-TELECOM-by-Template-4

```
teleValue ProfileElement ::= telecom : {
  telecom-header {
    mandated NULL,
    identification 34
  },
  templateID { 2 23 143 1 2 3 },
  df-telecom {
    fileDescriptor : {
      pinStatusTemplateDO '01810A'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 : {
      securityAttributesReferenced '08'H,
      efFileSize '10'H
    },
    fillFileContent : '850431323334'H
  },
  ef-ice-dn {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H
    }
  },
  ef-ice-ff {
    fileDescriptor : {
      -- 1 records of 32 bytes
      fileDescriptor '42210020'H,
      efFileSize '20'H
    }
  },
  ef-psismsc {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H
    },
    fillFileContent : '80000102030405060708091011121314'H
  },

  df-graphics {
    fileDescriptor : {
      pinStatusTemplateDO '01810A'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 : {
      effFileSize '10'H
    },
    fillFileContent : '000102030405060708090A0B0C0D0E0F'H
  },
  ef-icon {
    fileDescriptor : {
      securityAttributesReferenced '08'H,
      effFileSize '15'H
    },
    fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314'H
  },

  df-phonebook {
    fileDescriptor : {
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-pbr {
    fileDescriptor : {
      -- 3 records of 16 bytes
      fileDescriptor '42210010'H,
      effFileSize '30'H
    },
    fillFileContent : 'A808C0024F58C6024F90AA04C2024F38'H
  },
  ef-ext1 {
    fileDescriptor : {
    -- 2 records of 13 bytes
    -- Record size 0x0D defined in template
    --  fileDescriptor '4221000D'H,
      effFileSize '1A'H,
      shortEFID  '08'H
    }
  },
  ef-aas {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      effFileSize '10'H
    }
  },
  ef-gas {
    fileDescriptor : {
      -- 2 records of 8 bytes
      fileDescriptor '42210008'H,
      effFileSize '10'H
    }
  },
  ef-psc {
    fileDescriptor : {
      shortEFID '10'H
    }
  },
  ef-cc {
    fileDescriptor : {
```

```
        shortEFID '18'H
    }
  },
  ef-puid {
    fileDescriptor : {
      securityAttributesReferenced '08'H,
      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 '01810A'H
    }
  },

  ef-mlpl {
    fileDescriptor : {
      efFileSize '18'H
    },
    fillFileContent :
'000102030405060708090A0B0C0D0E0F1011121314151617'H
  },
  ef-mspl {
    fileDescriptor : {
      securityAttributesReferenced '08'H,
      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
      createFCP : {
        fileDescriptor '42210025'H,
        fileID '6F06'H,
        securityAttributesReferenced '0A'H,
        shortEFID 'B8'H,
        linkPath '2F06'H
      },

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

--   ef_2
    createFCP : {
      fileDescriptor '42210010'H, -- sharable lin.fixed EF,
record size 0x10
      fileID '6F02'H,
      securityAttributesReferenced '02'H, -- RD PIN1, UP
ADM1
      efFileSize '80'H,
      shortEFID ''H
    },
--   ef_3
    createFCP : {
```

```
      fileDescriptor '42210020'H, -- record size 0x20
      fileID '6F03'H,
      securityAttributesReferenced '05'H, -- RD PIN1, UP
PIN1
      efFileSize '60'H,
      shortEFID ''H
      }
  }
 }
}
```

6.14.2.4.2. DF-CUSTOM-by-Generic-File-Management-2

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

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

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

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

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

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

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

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

  fileManagementCMD {
  {
    -- no filePath, shall go under MF
    -- Link DF
      createFCP : {
        fileDescriptor '7821'H, -- sharable DF
        fileID '7FA1'H,
```

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

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

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

```
customDF  ProfileElement  ::=  genericFileManagement  :  {

  gfm-header {
    mandated NULL,
    identification 45
  },
  fileManagementCMD {
  {
    -- no filePath, shall go under MF
    -- Custom ADF
      createFCP : {
        fileDescriptor '7821'H, -- sharable ADF
        fileID '7FA1'H,
        dfName 'A000000600020002000001'H,
        securityAttributesReferenced '0E'H,
        pinStatusTemplateDO '01810A'H
      },
-- create ARR
      createFCP : {
-- Shareable Linear Fixed File
-- 15 records, record length: 37 bytes
        fileDescriptor '42210025'H,
        fileID '6F06'H,
        securityAttributesReferenced '0A'H,
        efFileSize '0250'H
      },
    fillFileContent :
'8001019000800102A4068301019501088800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101A4068301019501088000158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015BA40683010A950108'H,
    fillFileOffset : 26,
    fillFileContent : '800101900080015A9700'H,
    fillFileOffset : 27,
    fillFileContent :
'800103A4068301019501088800158A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800111A4068301019501088000148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent :
'800103A4068301019501088800158A40683010A950108840132A406830
101950108'H,
    fillFileOffset : 4,
-- Rule 8: [Read: Always][Update: second PIN Appl
1][Incr.: Never][Deactivate, Activate, Delete: ADM1]
```

```
    fillFileContent :
'8001019000800102A406830181950108800158A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent :
'800101900080011AA406830101950108800140A40683010A950108'H,
    fillFileOffset : 10,
    fillFileContent : '800101900080015AA40683010A950108'H,
    fillFileOffset : 21,
    fillFileContent :
'8001019000800118A40683010A9501088001429700'H,
    fillFileOffset : 16,
    fillFileContent : '800101A40683010195010880015A9700'H,
    fillFileOffset : 21,
    fillFileContent :
'800113A406830101950108800148A40683010A950108'H,
    fillFileOffset : 15,
    fillFileContent : '80015EA40683010A950108'H,
    fillFileOffset : 26,
```
-- *Rule 15: [Read: Always][Update/CreateEF: PIN Appl 1|*
PIN Appl 2][Deactivate, Activate, DeleteSelf: ADM1]
```
    fillFileContent :
'8001019000800102A010A406830101950108A40683010295010880015
8A40683010A950108'H,
```
-- *Rule 16: [Read: Always][Update/CreateEF: PIN Appl 1 &*
ADM 1][Deactivate, Activate, DeleteSelf: ADM1]
```
    fillFileContent :
'8001019000800102AF10A406830101950108A40683010A95010880015
8A40683010A950108'H,
 -- ef_1
    createFCP : {
      fileDescriptor '4121'H,   -- sharable binary EF
      fileID '6F01'H,
      securityAttributesReferenced '08'H, -- RD ALW, UP
Local PIN1
      efFileSize '0A'H,
      shortEFID ''H
    },
      fillFileContent : '00112233445566778899'H,
-- ef_2
    createFCP : {
      fileDescriptor '4121'H,   -- sharable binary EF
      fileID '6F02'H,
      securityAttributesReferenced '05'H, -- RD PIN1, UP
PIN1
      efFileSize '0A'H,
      shortEFID ''H
    },
      fillFileContent : '66778899AABBCCDDEEFF'H
  }
 }
}
```

6.14.2.4.5. DF-CUSTOM-by-Generic-File-Management-4

It contains an EF with unknownTag.

DF-CUSTOM-by-Generic-File-Management-4

```
customDF  ProfileElement  ::=  genericFileManagement  :  {
```

```
  gfm-header {
    mandated NULL,
    identification 46
  },

  fileManagementCMD {
  {
    -- no filePath, shall go under MF
    -- Custom DF
      createFCP : {
        fileDescriptor '7821'H, -- sharable (A)DF
        fileID '7FA2'H,
        securityAttributesReferenced '0E'H,
        pinStatusTemplateDO '010A'H
      },

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

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

--  ef_2
    createFCP : {
      fileDescriptor '42210010'H, -- sharable lin.fixed EF,
record size 0x10
      fileID '6F02'H,
      securityAttributesReferenced '02'H, -- RD PIN1, UP
ADM1
      efFileSize '80'H,
      shortEFID ''H,
      unknownTag 'ABC123'H
    }
  }
 }
}
```

6.14.2.5. DF-EAP

6.14.2.5.1. PE-EAP-by-Template-1

PE-EAP-by-Template-1

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

templateID { 2 23 143 1 2 12 },

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

  ef-eapkeys {
    fileDescriptor : {
      securityAttributesReferenced '6F0602'H,
      efFileSize '84'H
    },
    fillFileContent : '8040 39d45aea f4e30601 983e972b
6cfd46d1 c3637733 65690d09 cd44976b 525f47d3 a60a985e
955c53b0 90b2e4b7 3719196a 40254296 8fd14a88 8f46b9a7
886e4488 81 40 5949eab0 fff69d52 315c6c63 4fd14a7f
0d52023d 56f79698 fa6596ab eed4f93f bb48eb53 4d985414
ceed0d9a 8ed33c38 7c9dfdab 92ffbdf2 40fcecf6 5a2c93b9'H
        },
  ef-eapstatus {},

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

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

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

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

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

6.14.3   PE-PUKCodes

6.14.3.1.   PE-PUKCodes-1

PE-PUKCodes-1

```
pukVal ProfileElement ::= pukCodes : {
  -- PUK PE needs be right after the MF
  puk-Header {
    mandated NULL,
    identification 51
  },
  pukCodes {
    {
      keyReference pukAppl1,
      pukValue '3132333435363738'H,
      -- 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
    }
  }
}
```

6.14.4.3. PE-PINCodes-3

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

PE-PINCodes-3

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

6.14.5   USIM ADF

6.14.5.1. 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 : {
      efFileSize '0F'H  -- plus one byte
    },

    fillFileContent : '020A0408020000000000000000000000'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
  },
  ef-epsnsc {
    -- do not create EF EPSNSC
    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 :'020A040802000000000000000000'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 is not created to have the same configuration
as in PE_-USIM-by-Template-1


    }
  }
}
```

6.14.5.1.3. PE-USIM-by-Template-2

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

PE-USIM-by-Template-2

```
usimValue ProfileElement ::= usim : {
  usim-header {
    mandated NULL,
    identification 83
  },
  templateID { 2 23 143 1 2 4 },
  adf-usim {
     fileDescriptor : {
        fileID '7FF1'H,
        dfName 'A0000000871002FF33FF018900000100'H,
        pinStatusTemplateDO '01810A'H
     }
  },
  ef-imsi {
    -- numerical format: 234101943787656
    fillFileContent : '082943019134876765'H
  },
  ef-arr {
    fileDescriptor : {
         linkPath '2F06'H
    }
   },
```

```
  ef-ust {
    fileDescriptor : {
      efFileSize '0F'H  -- plus one byte
    },

    fillFileContent : '020A0408020000000000004000000'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
  },
  ef-epsnsc {
    -- do not create EF EPSNSC
    doNotCreate : NULL
  }

}
```

6.14.5.1.4. USIM-by-Generic-File-Management-2

The content is identical to 6.14.5.1.2 USIM-by-Generic-File-Management-1, except:
- the value of identification field which equals 84
- EF UST which is defined below:

```
  -- EF_UST
      createFCP : {
        fileDescriptor '4121'H,
        fileID '6F38'H,
        securityAttributesReferenced '02'H,
        efFileSize '0E'H,
        shortEFID '20'H
      },
      -- provide UST settings
      -- including EF Ext5
      fillFileContent : '020A140802080000000000000000'H,
```

6.14.5.1.5. PE-USIM-by-Template-3

The content is identical to 6.14.5.1.1 PE-USIM-by-Template-1, except:
- the value of identification field which equals 85

- the content of EF UST, which is defined below:

```
ef-ust {
  fileDescriptor : {
    efFileSize '0F'H  -- plus one byte
  },
  -- including EF Ext 5, EF PSISMSC
  fillFileContent : '020A1408020800000000000004000000'H
}
```

6.14.5.1.6.   PE-USIM-by-Template-4

The content is identical to 6.14.5.1.1 PE-USIM-by-Template-1, except:
- the value of identification field which equals 86
 the content of EF UST, which is defined below:

```
ef-ust {
  fileDescriptor : {
    efFileSize '0F'H  -- plus one byte
  },
  -- including EF Ext 5, EF PSISMSC, ber tlv
  fillFileContent : '020A1408020800000400000 4000000'H
}
```

6.14.5.1.7.   PE-USIM-by-Template-5

The content is identical to 6.14.5.1.1 PE-USIM-by-Template-1, except:
- the value of identification field which equals 87
- the content of EF UST, which is defined below:

```
ef-ust {
  fileDescriptor : {
    efFileSize '0F'H  -- plus one byte
  },
  --  including  GSM  Access,  CPBCCH  Information  and
  Investigation Scan
  fillFileContent : '020A140CC208000000000004000000'H
}
```

6.14.5.1.8. PE-USIM-by-Template-6

PE-USIM-by-Template-6

```
usimValue ProfileElement ::= usim : {
  usim-header {
    mandated NULL,
    identification 88
  },
  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 {
    fillFileContent : '020A0408020000000000010000000'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 {
    fileDescriptor : {
       proprietaryEFInfo {
          specialFileInformation '80'H
       }
    }
  }
}
```

6.14.5.1.9. PE-USIM-by-Template-7

The content is identical to 6.14.5.1.5 PE-USIM-by-Template-3, except the content of adf usim

PE-USIM-by-Template-7

```
usimValue ProfileElement ::= usim : {
  usim-header {
    mandated NULL,
    identification 89
  },
  templateID { 2 23 143 1 2 4 },
  adf-usim {
    fileDescriptor : {
      fileID '7FF2'H,
      dfName 'A0000000871002000000000000000200'H,
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-imsi {
    fillFileContent : '082943019134876765'H
  },
  ef-arr {
    fileDescriptor : {
      linkPath '2F06'H
    }
  },
  ef-ust {
    fileDescriptor : {
      efFileSize '0F'H
    },
    fillFileContent : '020A140802080000000000004000000'H
  },
  ef-spn {
    fillFileContent : '0253494D616C6C69616E6365'H
  },
  ef-est {
    fillFileContent : '00'H
  },
  ef-acc {
    fillFileContent : '0040'H
  },
  ef-ecc {
    fillFileContent : '19F1FF01'H
  },
  ef-epsloci {
    doNotCreate : NULL
  },
  ef-epsnsc {
    doNotCreate : NULL
  }
}
```

6.14.5.1.10. PE-USIM-by-Template-8

It contains ef ust with service 124 and 125 are for SUCI.

PE-USIM-by-Template-8

```
usimValue ProfileElement ::= usim : {
  usim-header {
    mandated NULL,
    identification 90
  },
  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 : {
         efFileSize '11'H
    },
    -- service 124 and 125 are activated for SUCI
    fillFileContent :
'020A04080200000000000000000000001800'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
  },
  ef-epsnsc {
    -- do not create EF EPSNSC
    doNotCreate : NULL
```

```
  }
}
```

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 '42210010'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 '42210010'H,
        fileID '6FF2'H,
        securityAttributesReferenced '03'H,
        efFileSize '10'H,
        shortEFID ''H
        }
    }
   }
}
```

6.14.5.2.3.   *PE-OPT-USIM-by-Template-2*

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

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

  ef-li {
  },
  ef-acmax {
  },
  ef-acm {
  },
  ef-gid1 {
    fillFileContent : '0102030405060708'H
  },
  ef-gid2 {
    fillFileContent : '0203040506070809'H
  },
  ef-msisdn {
  },
  ef-puct {
  },
  ef-cbmi {
  },
  ef-cbmid {
  },
  ef-sdn {
  },
  ef-ext2 {
```

```
  },
  ef-ext3 {
  },
  ef-cbmir {
  },
  ef-plmnwact {
  },
  ef-oplmnwact {
  },
  ef-hplmnwact {
  },
  ef-dck {
  },
  ef-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 :
'010203040506070809101112131415161718 1920'H
  },
  ef-vgcss {
    fillFileContent : '11121314151617'H
  },
  ef-vbs {
    fillFileContent :
'11121314151617181920001020304050607080910'H
  },
  ef-vbss {
    fillFileContent : '02030405060708'H
  },
  ef-emlpp {
    fillFileContent : '0405'H
  },
  ef-aaem {
  },
  ef-hiddenkey {
  },
  ef-pnn {
```

```
      fillFileContent : '110203040506070809101112131415111'H,
      fillFileContent : '120203040506070809101112131415112'H,
      fillFileContent : '130203040506070809101112131415113'H,
      fillFileContent : '140203040506070809101112131415114'H,
      fillFileContent : '150203040506070809101112131415115'H,
      fillFileContent : '160203040506070809101112131415116'H,
      fillFileContent : '170203040506070809101112131415117'H,
      fillFileContent : '180203040506070809101112131415118'H,
      fillFileContent : '190203040506070809101112131415119'H,
      fillFileContent : '200203040506070809101112131415120'H
    },
   ef-opl {
      fillFileContent :
'21020304050607080910111213141516 1721'H,
      fillFileContent :
'22020304050607080910111213141516 1722'H,
      fillFileContent :
'23020304050607080910111213141516 1723'H,
      fillFileContent :
'24020304050607080910111213141516 1724'H,
      fillFileContent :
'25020304050607080910111213141516 1725'H
    },
   ef-mbdn {
      fillFileContent :
'010203040506070809101112131415161718192021222324'H,
      fillFileContent :
'020203040506070809101112131415161718192021222302'H,
      fillFileContent :
'030203040506070809101112131415161718192021222303'H
      },
   ef-ext6 {
    },
   ef-mbi {
      fillFileContent : '1102030411'H,
      fillFileContent : '2202030422'H,
      fillFileContent : '3302030433'H,
      fillFileContent : '4402030444'H,
      fillFileContent : '5502030455'H,
      fillFileContent : '6602030466'H,
      fillFileContent : '7702030477'H,
      fillFileContent : '8802030488'H,
      fillFileContent : '9902030499'H,
      fillFileContent : '0002030411'H
    },
   ef-mwis {
    },
   ef-cfis {
    },
   ef-ext7 {
    },
   ef-spdi {
      fileDescriptor : {
        efFileSize '07'H
      },
      fillFileContent : 'A3058003FFFFFF'H

    },
   ef-mmsn {
    },
```

```
ef-ext8 {
},
ef-mmsicp {
},
ef-mmsup {
  fileDescriptor : {
    fileDescriptor '42210040'H,
    efFileSize '40'H
  }
},
ef-mmsucp {
},
ef-nia {
},
ef-vgcsca {
  fileDescriptor : {
    efFileSize '08'H
  }
},
ef-vbsca {
  fileDescriptor : {
    efFileSize '06'H
  }
},
-- ef-gbabp not included
-- ef-msk   not included
-- ef-muk   not included

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

ef-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 :
'1802030405060708091011121314151617 18'H
    },
  ef-uicciari {
    fileDescriptor : {
      fileDescriptor '42210014'H,
      efFileSize '14'H
    },
  fillFileContent :
'20020304050607080910111213141516171 8192 0'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 '42210010'H,
      efFileSize '10'H
    }
```

```
    }
}
```

6.14.5.2.4. PE-OPT-USIM-by-Template-3

The content is identical to PE-OPT-USIM-by-Template-2 as defined in 6.14.5.2.3, except:
- the value of identification field which equals 94
 the content of EF GID1 and EF-GID2, which are defined below:

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

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

6.14.5.2.5. PE-OPT-USIM-by-Template-4

PE-OPT-USIM(by-Template)-4

```
optusimValue ProfileElement ::= opt-usim : {
  optusim-header {
    mandated NULL,
    identification 95
  },
  templateID { 2 23 143 1 2 5 },
    ef-li {
  },
    ef-gid1 {
     fillFileContent : '00'H
  },
    ef-gid2 {
     fillFileContent : '00'H
  },
  ef-msisdn {
   },
  ef-ext5 {
   },
  ef-ipd {
    fileDescriptor : {
      fileDescriptor '42210010'H,
      efFileSize '10'H
      }
    }
}
```

6.14.5.3. DF-GSM_ACCESS

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

PE-GSM-ACCESS-by-Template-1

```
gsmAccessValue ProfileElement ::= gsm-access : {
  gsm-access-header {
    mandated NULL,
    identification 221
  },
```

```
    templateID { 2 23 143 1 2 7 },
    df-gsm-access {
        fileDescriptor : {
            pinStatusTemplateDO '01810A'H
        }
    },
    ef-kc {
    },
    ef-kcgprs {
    },
    ef-cpbcch {
    },
    ef-invscan {
    }
}
```

6.14.5.4.   DF-Phonebook

6.14.5.4.1.   PE-Phonebook-by-Template-1

PE-Phonebook-by-Template-1

```
phonebookValue ProfileElement ::= phonebook : {
  phonebook-header {
    mandated NULL,
    identification 231
  },
  templateID { 2 23 143 1 2 6 },
  df-phonebook {
      fileDescriptor : {
          pinStatusTemplateDO '01810A'H
      }
  },
  ef-pbr {
      fileDescriptor : {
      -- 3 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '30'H
    },
    fillFileContent : 'A808C0024F58c6024F90AA04C2024F38'H
  },
  ef-ext1 {
    fileDescriptor : {
    -- 2 records of 13 bytes
    -- Record size 0x0D defined in template
    -- fileDescriptor '4221000D'H,
      efFileSize '1A'H,
      shortEFID '08'H
    }
  },
  ef-aas {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H
    }
  },
```

```
ef-gas {
  fileDescriptor : {
    -- 2 records of 8 bytes
    fileDescriptor '42210008'H,
    efFileSize '10'H
  }
},
ef-psc {
  fileDescriptor : {
    shortEFID '10'H
  }
},
ef-cc {
  fileDescriptor : {
    shortEFID '18'H
  }
},
ef-puid {
  fileDescriptor : {
    shortEFID '20'H
  }
},
ef-iap {
  fileDescriptor : {
    -- 2 records of 5 bytes
    fileDescriptor '42210005'H,
    efFileSize '0A'H,
    shortEFID '28'H
  }
},
ef-adn {
  fileDescriptor : {
    -- 2 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '20'H,
    shortEFID '30'H
  }
},
ef-pbc {
  fileDescriptor : {
    efFileSize '10'H,
    shortEFID '38'H
  }
},
ef-anr {
  fileDescriptor : {
    -- 1 record of 20 bytes
    fileDescriptor '42210014'H,
    efFileSize '14'H,
    shortEFID '40'H
  }
},
ef-puri {
  fileDescriptor : {
    -- 2 records of 16 bytes
    fileDescriptor '42210010'H,
    efFileSize '20'H,
    shortEFID '48'H
  },
```

```
      fillFileContent : '80000102030405060708090A0B0C0D0F'H,
      fillFileContent : '80000102030405060708090A0B0C0D0F'H
  },
  ef-email {
    fileDescriptor : {
      -- 2 records of 20 bytes
      fileDescriptor '42210014'H,
      efFileSize '28'H,
      shortEFID '50'H
    }
  },
  ef-sne {
    fileDescriptor : {
      -- 1 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '10'H,
      shortEFID '58'H
    }
  },
  ef-uid {
    fileDescriptor : {
      -- 8 records of 2 bytes
        efFileSize '10'H,
      shortEFID '60'H
    }
  },
  ef-grp {
    fileDescriptor : {
      -- 2 records of 16 bytes
      fileDescriptor '42210010'H,
      efFileSize '20'H,
      shortEFID '68'H
    }
  },
  ef-ccp1 {
    fileDescriptor : {
      -- 4 records of 8 bytes
      fileDescriptor '42210008'H,
      efFileSize '20'H,
      shortEFID '70'H
    }
  }
}
```

6.14.5.5. DF-5GS

6.14.5.5.1. PE-5GS-by-Template-1

PE-5GS-by-Template-1

```
df5GSValue ProfileElement ::= df-5gs : {
  df-5gs-header {
    mandated NULL,
    identification 241
  },
  templateID {2 23 143 1 2 13},
  df-df-5gs {
```

```
    fileDescriptor : {
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-5gs3gpploci {
    fillFileContent :
'FFFFFFFFFFFFFFFFFFFFFFFFFFFF42F61800000001'H
  },
  ef-5gsn3gpploci {
    fillFileContent :
'FFFFFFFFFFFFFFFFFFFFFFFFFFFF42F61800000001'H
  },
  ef-5gs3gppnsc {
  },
  ef-5gsn3gppnsc {
  },
  ef-5gauthkeys {
  },
  ef-uac-aic {
    fillFileContent : 'FFFFFFFF'H
  },
  ef-opl5g {
    fileDescriptor : {
     efFileSize  '32'H -- 50 bytes
    }
  },
  ef-nsi {
    fileDescriptor : {
      efFileSize  '14'H -- 20 bytes
    },
    fillFileContent :
'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF'H
  },
  ef-routing-indicator {
  }
}
```

6.14.5.6.   DF-SAIP

6.14.5.6.1.   PE-SAIP-by-Template-1

In this PE the ef-suci-calc-info-usim contains reference to Profile A protection scheme.

Home Network Private Key	ECC private key: 'c53c22208b61860b06c62e5406a7b330c2b577aa5558981510d128247d38bd1d'
Home Network Public Key	ECC public key: '5a8d38864820197c3394b92613b20b91633cbd897119273bf8e4a6f4eec0a650'

PE-SAIP-by-Template-1

```
dfSAIPValue ProfileElement ::= df-saip : {
  df-saip-header {
    mandated NULL,
    identification 261
  },
  templateID {2 23 143 1 2 14},
  df-df-saip {
    fileDescriptor : {
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-suci-calc-info-usim {
    fileDescriptor : {
      efFileSize '2B'H -- 43 bytes
    },
    fillFileContent :
'A0020101A12580010181205A8D38864820197C3394B92613B20B91633
CBD897119273BF8E4A6F4EEC0A650'H
  }
}
```

6.14.5.6.2.   *PE-SAIP-by-Template-2*

In this PE the ef-suci-calc-info-usim contains reference to Profile B protection scheme.

Home Network Private Key	ECC private key: 'F1AB1074477EBCC7F554EA1C5FC368B1616730155E0041AC447D6301975FECDA'
Home Network Public Key	ECC public key: '0472DA71976234CE833A6907425867B82E074D44EF907DFB4B3E21C1C2256EBCD15 A7DED52FCBB097A4ED250E036C7B9C8C7004C4EEDC4F068CD7BF8D3F900E3B4'

PE-SAIP-by-Template-2

```
dfSAIPValue ProfileElement ::= df-saip : {
  df-saip-header {
    mandated NULL,
    identification 262
  },
  templateID {2 23 143 1 2 14},
  df-df-saip {
    fileDescriptor : {
      pinStatusTemplateDO '01810A'H
    }
  },
  ef-suci-calc-info-usim {
    fileDescriptor : {
      efFileSize '4C'H -- 76 bytes
    },
    fillFileContent :
'A0020201A14680010181410472DA71976234CE833A6907425867B82E0
```

```
74D44EF907DFB4B3E21C1C2256EBCD15A7DED52FCBB097A4ED250E036C
7B9C8C7004C4EEDC4F068CD7BF8D3F900E3B4 'H
  }
}
```

6.14.5.6.3. PE-SAIP-by-Template-3

In this PE the ef-suci-calc-info-usim contains reference to null protection scheme.

PE-SAIP-by-Template-3

```
dfSAIPValue ProfileElement ::= df-saip : {
  df-saip-header {
    mandated NULL,
    identification 263
  },
  templateID {2 23 143 1 2 14},
  df-df-saip {
     fileDescriptor : {
       pinStatusTemplateDO '01810A'H
     }
  },
  ef-suci-calc-info-usim {
     fileDescriptor : {
       efFileSize '04'H -- 4 bytes
     },
     fillFileContent : 'A0020000'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 :
'801D30303130313031323334353637383940746573742E336770702E6
36F6D'H
    },

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

    fillFileContent :
'80167369703A757365724074657473742E336770702E636F6D'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
    }
  }
}
```

<h3>6.14.6.2.   OPT-ISIM</h3>

<h4>6.14.6.2.1.   PE-OPT-ISIM-by-Template-1</h4>

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 '01810A'H
     }
  },
  ef-arr {
    fileDescriptor : {
         linkPath '2F06'H
    }
   },
  ef-call-count {},
      ef-imsi-m {},
      ef-imsi-t {},
      ef-tmsi {},
```

```
        ef-ah {},
  ef-aop {
    -- Analog Operational Parameters 1 byte
    fillFileContent : '01'H
  },
  ef-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
  }
}
```

6.14.7.1.2. PE-CSIM-by-Template-2

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

PE-CSIM-by-Template-2

```
csimValue ProfileElement ::= csim : {
  csim-header {
    mandated NULL,
    identification 122
  },
  templateID { 2 23 143 1 2 10},
  adf-csim {
     fileDescriptor : {
        fileID '7F88'H,
        dfName 'A0000003431002FF33FF018900000100'H,
        pinStatusTemplateDO '01810A'H
     }
  },
  ef-arr {
    fileDescriptor : {
        linkPath '2F06'H
    }
   },
  ef-call-count {},
      ef-imsi-m {},
      ef-imsi-t {},
      ef-tmsi {},
      ef-ah {},
  ef-aop {
    -- Analog Operational Parameters 1 byte
    fillFileContent : '01'H
  },
  ef-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 : '806C00000000'H
  },
ef-spc {},
ef-otapaspc {},

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

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

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

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

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

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

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

PE-OPT-CSIM-by-Template-2

```
optcsimValue ProfileElement ::= opt-csim : {
  optcsim-header {
    mandated NULL,
    identification 132
  },
  templateID { 2 23 143 1 2 11},
  ef-me3gpdopc {
```

```
  },
  ef-3gpdopm {
  -- This EF stores the 3GPD  Operation Mode Parameter
Block Specified by Operator
       fillFileContent : '01'H
  },
  ef-sipcap {
  -- This EF stores the SimpleIP Capability Parameters
Block Specified by Operator
       fillFileContent : '14886000'H
  },
  ef-mipcap{
  -- This EF stores the MobileIP Capability Parameter
Block Specified by Operator
       fillFileContent : '1488404200'H
  },
  ef-sipupp {
       fileDescriptor : {
        efFileSize '1B'H
        },
       -- SimpleIP user profile parameter Block Specified
by Operator
       fillFileContent : '1A
1107353339353337353440 6D796F70657261746F722E636F6D30'H
  },
  ef-mipupp {
       fileDescriptor : {
        efFileSize '31'H
        },
       -- MobileIP User Profile Parameter Block Specified
by Operator
       fillFileContent : '30
F03101735333393533373534406D796F70657261746F722E636F6D00000
00000000000000000000C000000000600000000'H
  },
  ef-sipsp{
  -- 1 byte SimpleIP Status parameter block. The mobile
station shall set this field to the active SimpleIP NAI
entry index Specified by Operator
       fillFileContent : '00'H
  },
  ef-mipsp{
  -- This EF stores the MobileIP Status  Parameters Block
Specified by Operator
       fillFileContent : '10'H
  },
  ef-sippapss {
  -- This EF stores the SimpleIP PAP SS Parameter Block
Specified by Operator
       fileDescriptor : {
        efFileSize '13'H
        },
       fillFileContent : '12
1080800000000000000000000000000000000078'H
  },
  ef-hrpdcap{
```

```
  -- This EF stores the HRPD Access Authentication
Capability Parameters Specified by Operator
      fileDescriptor : {
       efFileSize '03'H
       },
      fillFileContent : '488080'H
  },
  ef-hrpdupp{
  -- This EF stores the HRPD Access Authentication User
Profile Parameters Specified by Operator
      fileDescriptor : {
       efFileSize '1A'H
       },
      fillFileContent : '19
173533393533373534406D796F70657261746F722E636F6D 10'H
  },
  ef-atc{
  -- Access Terminal ClassSpecified by Operator
      fillFileContent : '01'H
  },
  ef-est {
    fileDescriptor : {
      efFileSize '02'H
    },
    fillFileContent : '806C'H
  }
 }
```

6.14.8 PE-PINCodes (Local PIN)

6.14.8.1. PE-PINCodes-Local-PIN-1

PE-PINCodes-Local-PIN-1

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

6.14.8.2. PE-PINCodes-Local-PIN-2

PE-PINCodes-Local-PIN-2

```
localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 72
  },
  pinCodes pinconfig : {
    {
      keyReference 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
    }
  }
}
```

6.14.8.4. PE-PINCodes-Local-PIN-4

PE-PINCodes-Local-PIN-4

```
localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 74
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl1,
-- PIN = 1234
```

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

6.14.8.5. PE-PINCodes-Local-PIN-5

PE-PINCodes-Local-PIN-5
```
localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 75
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl1,
      pinValue '31323334FFFFFFFF'H,
      pinAttributes 1,
      maxNumOfAttemps-retryNumLeft 34
    }
  }
}
```

6.14.8.6. PE-PINCodes-Local-PIN-6

It contains maxNumOfAttemps-retryNumLeft with different values: maxNumOfAttemps is 3 and retryNumLeft is 2.

PE-PINCodes-Local-PIN-6
```
localPinValue ProfileElement ::= pinCodes : {
  pin-Header {
    mandated NULL,
    identification 76
  },
  pinCodes pinconfig : {
    {
      keyReference secondPINAppl1,
      pinValue '31323334FFFFFFFF'H,
      pinAttributes 1,
      maxNumOfAttemps-retryNumLeft 50
    }
  }
}
```

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:
'0000000000000000000000000000000100000000000000002000000000
000000400000000000000008'H,
      authCounterMax '010203'H
   },
      sqnOptions '0E'H     -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
-- sqnDelta   uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.2. PE-AKAParameters-2

This PE contains parameters for AKA authentication algorithm: TUAK.

PE-AKAParameters-2

```
akaTUAK ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 142
      },
   algoConfiguration algoParameter : {
      algorithmID tuak,
      algorithmOptions '00'H,      -- RES 32 bits, MAC 64
bits, CK and IK 128 bits
      key '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:
0x434841504348415043484150434841 50
    hrpdAccessAuthenticationData
'821A420A821A420A821A420A821A420A80'H,
/*
Simple IP CHAP SS Parameters:
- Value:
entry 00: 0x434841504348415043484150434841 50
*/
    simpleIPAuthenticationData
'10821A420A821A420A821A420A821A420A80'H,


/*
Mobile IP SS Parameters:
- Value:
entry 00:
- MN-AAA-SS: 0x3132333435363738393031323334 3536
- MN-HA-SS: 0x3030313132323333343435353636 3737
*/
```

```
    mobileIPAuthenticationData
'1081899199A1A9B1B9C1C981899199A1A9B40C0C0C4C4C8C8CCCCD0D0
D4D4D8D8DCDC0'H
}
```

6.14.9.5. PE-AKAParameters-4

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

PE-AKAParameters-4

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

6.14.9.6. PE-AKAParameters-5

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

PE-AKAParameters-5

```
akaTUAK ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 145
      },
   algoConfiguration algoParameter : {
      algorithmID tuak,
      algorithmOptions '09'H,      -- RES 64 bits, MAC 128
bits, CK and IK 128 bits
      key
'fffefdfcfbfaf9f8f7f6f5f4f3f2f1f0efeeedecebeae9e8e7e6e5e4e
3e2e1e0'H,
      opc
'305425427e18c503c8a4b294ea72c95d0c36c6c6b29d0c65de5974d59
77f8524'H,
--    rotationConstants ignored for TUAK,
--    xoringConstants ignored for TUAK,
      authCounterMax '010203'H
   },
      sqnOptions '0E'H      -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
-- sqnDelta   uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.7. PE-AKAParameters-6

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

```
PE-AKAParameters-6
akaTUAK ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 146
      },
   algoConfiguration algoParameter : {
      algorithmID tuak,
      algorithmOptions '53'H,      -- RES 256 bits, MAC
256 bits, CK and IK 256 bits
      key
'1574ca56881d05c189c82880f789c9cd4244955f4426aa2b69c29f157
70e5aa5'H,
      opc
'b04a66f26c62fcd6c82de22a179ab65506ecf47f56245cd149966cfa9
cec7a51'H,
--    rotationConstants ignored for TUAK,
--    xoringConstants ignored for TUAK,
      authCounterMax '010203'H,
      numberOfKeccak 2
   },
      sqnOptions '0E'H     -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
-- sqnDelta   uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.8. PE-AKAParameters-7

This PE contains parameters for AKA authentication algorithm: MILENAGE. Parameter authCounterMax is set to 5 and SQN checking is disabled (by setting SQN wrap around).

```
PE-AKAParameters-7
akaMilenage ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 147
      },
   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:
'0000000000000000000000000000010000000000000002000000000
000004000000000000008'H,
      authCounterMax '000005'H
   },
   sqnOptions '0C'H,      -- Anonymity key used, SQN wrap
around allowed, SQN Delta and SQN Age Limit are not used
-- sqnDelta   uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
```

```
   sqnInit { '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H,
'07FFFFFFFFFF'H, '07FFFFFFFFFF'H, '07FFFFFFFFFF'H }
}
```

6.14.9.9.   PE-AKAParameters-8

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

PE-AKAParameters-8
```
akaMilenage ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 148
      },
   algoConfiguration algoParameter : {
      algorithmID milenage,
      algorithmOptions '01'H,     -- RES and MAC 64 bits,
CK and IK 128 bits
      key 'FEC86BA6EB707ED08905757B1BB44B8F'H,
      opc '1006020F0A478BF6B699F15C062E42B3'H,
      rotationConstants '4307203154'H,
      xoringConstants
'A00000000000000000000000055000000000B00000000000000000000004
40000000000C000000000000000000003300000000000000D000000000000
0000022000000000000000E000000000000000011000000'H
   },
   sqnOptions '0C'H -- Anonymity key used, SQN wrap around
allowed, SQN Delta and SQN Age Limit are not used
-- sqnDelta    uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.10.   PE-AKAParameters-9

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

PE-AKAParameters-9
```
akaTUAK ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 149
      },
   algoConfiguration algoParameter : {
      algorithmID tuak,
      algorithmOptions '01'H,     -- RES and MAC 64 bits,
CK and IK 128 bits
```

```
      key
'fffefdfcfbfaf9f8f7f6f5f4f3f2f1f0efeeedecebeae9e8e7e6e5e4e
3e2e1e0'H,
      opc
'305425427e18c503c8a4b294ea72c95d0c36c6c6b29d0c65de5974d59
77f8524'H,
--    rotationConstants ignored for TUAK,
--    xoringConstants ignored for TUAK,
      authCounterMax '010203'H
   },
      sqnOptions '0E'H     -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
-- sqnDelta   uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.11.   PE-AKAParameters-10

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

PE-AKAParameters-10

```
akaTUAK ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 150
      },
   algoConfiguration algoParameter : {
      algorithmID tuak,
      algorithmOptions '02'H,      -- RES 128 bits, MAC 64
bits, CK and IK 128 bits
      key '
1574ca56881d05c189c82880f789c9cd4244955f4426aa2b69c29f1577
0e5aa5'H,
      opc '
b04a66f26c62fcd6c82de22a179ab65506ecf47f56245cd149966cfa9c
ec7a51'H,
--    rotationConstants ignored for TUAK,
--    xoringConstants ignored for TUAK,
      authCounterMax '010203'H,
       numberOfKeccak 2

   },
      sqnOptions '0E'H     -- Anonymity key used, SQN wrap
around not allowed, SQN Delta and SQN Age Limit are not
used
-- sqnDelta   uses default: '000010000000'H
-- sqnAgeLimit  uses default: '000010000000'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.12.   PE-AKAParameters-11

This PE contains parameters for AKA authentication algorithm: MILENAGE. SQN wrap around deactivated.

PE-AKAParameters-11

```
akaMilenage ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 152
      },
   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:
'0000000000000000000000000000010000000000000002000000000
000004000000000000000008'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 { '07FFFFFFFF00'H, '07FFFFFFFF01'H,
'07FFFFFFFF02'H, '07FFFFFFFF03'H, '07FFFFFFFF04'H,
'07FFFFFFFF05'H, '07FFFFFFFF06'H, '07FFFFFFFF07'H,
'07FFFFFFFF08'H, '07FFFFFFFF09'H, '07FFFFFFFF0A'H,
'07FFFFFFFF0B'H, '07FFFFFFFF0C'H, '07FFFFFFFF0D'H,
'07FFFFFFFF0E'H, '07FFFFFFFF0F'H, '07FFFFFFFF10'H,
'07FFFFFFFF11'H, '07FFFFFFFF12'H, '07FFFFFFFF13'H,
'07FFFFFFFF14'H, '07FFFFFFFF15'H, '07FFFFFFFF16'H,
'07FFFFFFFF17'H, '07FFFFFFFF18'H, '07FFFFFFFF19'H,
'07FFFFFFFF1A'H, '07FFFFFFFF1B'H, '07FFFFFFFF1C'H,
'07FFFFFFFF1D'H, '07FFFFFFFF1E'H, '07FFFFFFFF1F'H }
}
```

6.14.9.13. PE-AKAParameters-12

This PE contains parameters for AKA authentication algorithm: MILENAGE. SQN delta and age limit set.

PE-AKAParameters-12

```
akaMilenage ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 153
      },
   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:
'0000000000000000000000000000010000000000000002000000000
000004000000000000000008'H,
      authCounterMax '001000'H
   },
-- sqnOptions uses default: '02'H Anonymity key used, SQN
wrap around not allowed, SQN Delta and SQN Age Limit are
used
   sqnDelta '000000001000'H,
```

```
    sqnAgeLimit '000000000800'H
-- sqnInit:     uses default: all bytes zero
}
```

6.14.9.14. PE-AKAParameters-13

This PE contains parameters for AKA authentication algorithm: usim-test-algorithm with 32 bit RES length.

PE-AKAParameters-13

```
akaTestAlg ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 154
      },
   algoConfiguration algoParameter : {
      algorithmID usim-test-algorithm,
      algorithmOptions '00'H,       -- RES 32 bits, MAC 64
bits, CK and IK 128 bits
      key '000102030405060708090A0B0C0D0E0F'H,
      opc '00'H -- ignored for usim-test-algorithm
--    rotationConstants ignored for usim-test-slgorithm,
--    xoringConstants ignored for usim-test-slgorithm,
--    authCounterMax ignored for usim-test-slgorithm
   }
-- sqnOptions ignored for usim-test-algorithm
-- sqnDelta ignored for usim-test-algorithm
-- sqnAgeLimit ignored for usim-test-algorithm
-- sqnInit: ignored for usim-test-algorithm
}
```

6.14.9.15. PE-AKAParameters-14

This PE contains AKA parameters mapped to NAA USIM, including SQN array.

PE-AKAParameters-14

```
usimMappedAKA ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 155
   },
   algoConfiguration mappingParameter : {
      -- share sqnOptions, sqnDelta, sqnAgeLimit and SQN
array
      mappingOptions  '06'H,
      mappingSource 'A0000000871002FF33FF018900000100'H --
USIM
   }
-- sqnOptions  shared,
-- sqnDelta    shared
-- sqnAgeLimit shared
-- sqnInit     shared as part of SQN array
}
```

6.14.9.16. PE-AKAParameters-15

This PE contains parameters for AKA authentication algorithm TUAK without authCounterMax.

PE-AKAParameters-15

```
akaTUAK ProfileElement ::= akaParameter : {
   aka-header {
      mandated NULL,
      identification 156
      },
   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
```

```
   },
      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
}
```

6.14.10   PE-SecurityDomain (MNO SD)

6.14.10.1.   PE-SecurityDomain-MNO-SD-1

Default PE-SecurityDomain for MNO-SD.

PE-SecurityDomain-MNO-SD-1

```
mnoSdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 161
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A000000151000000'H,
    applicationPrivileges '82DC00'H,
    -- Secured
    lifeCycleState '0F'H,
    -- SCP80 supported acc. UICC Config., extradition
supported
    applicationSpecificParametersC9
'810280008201F08701F0'H,
    -- other parameters may be necessary
    applicationParameters {
      -- TAR: B20100, MSL: 12
    uiccToolkitApplicationSpecificParametersField
        '010001010000202011203B2010000'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
        }
      }
    },
    {
      -- 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 '1122334455667788991011121314151 6'H
          }
        }
      }
    }
  }
}
```

6.14.10.2. VOID

6.14.10.3. PE-SecurityDomain-MNO-SD-3

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

PE-SecurityDomain-MNO-SD-3

```
mnoSdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 163
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A000000151000000'H,
    applicationPrivileges '82DC00'H,
    -- Secured
    lifeCycleState '0F'H,
    -- SCP80 supported acc. UICC Config. , extradition
supported
    applicationSpecificParametersC9
'810280008201F08701F0'H,
    -- other parameters may be necessary
    applicationParameters {
      -- TAR: B20100, MSL: 12
    uiccToolkitApplicationSpecificParametersField
        '0100010100000202011203B2010000'H
    }
  },
  keyList {
    {
      -- C-ENC + R-ENC
      keyUsageQualifier '38'H,
      -- may be used by SD and application
      keyAccess '00'H,
      -- ENC key
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      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
          '010001010000020201120 3B2010000'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
        }
      }
    },
    {
        -- 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
        }
      }
    }
  },
      -- IIN and CIN
  sdPersoData {
```

```
    '0070084206010203040506'H,
    '0070084506060504030201'H
  }
}
```

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
        '010001010000020201120 3B2010000'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
        }
      }
    },
    {
      -- 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 {
'0070AE8581AB8424350702000003000002390205784709475334D41655
54943433C03021F413E05217F000001850A0650534B494431024001897
78A096C6F63616C686F73748B582F2F73652D69642F6569642F3030363
336383536303030303030303030303030303030303030303030303737373
B2F2F61612D69642F6169642F41303030303030303031382F34333444303
830393041304230433030303030308C102F67736D612F61646D696E616
7656E74'H
  }
}
```

6.14.10.6. <u>VOID</u>

6.14.10.7. PE-SecurityDomain-MNO-SD-7

MNO SD with following RSA Keys:

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

PE-SecurityDomain-MNOSD-7

```
value1 ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 167
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A000000151000000'H,
    applicationPrivileges '82DC00'H,
    lifeCycleState '0F'H,
    applicationSpecificParametersC9
'810280008201F08701F0'H,
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
'010001010000020201203B2010000'H
    }
  },
  keyList {
    {
      keyUsageQualifier '38'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '112233445566778899101112131415 16'H
        }
      }
    },
    {
      keyUsageQualifier '34'H,
      keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '03'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '11223344556677889910111213141516'H
        }
      }
    },
    {
      keyUsageQualifier '4C'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '74'H,
      keyCompontents {
        {
          keyType 'A1'H,
          keyData
'F51A5B456A37C84317B9F84099975BF1FEC17AF3AE31BC6158D92DDFE
1A48B636BF4C2BEAA2002420D2B01F8E3A5DC00E501B93766982573111
7CB4AF81ED759B23298C59852CA1ECB159F261221408E428B16A24E15D
AD384E5B770A3F3E5B291390062464D88CC9B13AA0ECF305C285E2104F
91A4C8DF2FE42EFB4F93C94E7'H
        },
        {
          keyType 'A0'H,
          keyData '010001'H
```

```
            }
          }
        },
        {
          keyUsageQualifier '4C'H,
          keyAccess '00'H,
          keyIdentifier '03'H,
          keyVersionNumber '74'H,
          keyCompontents {
            {
              keyType 'A4'H,
              keyData
'F634C80DC443C65EAFB07A08EE6B6A38D4E384A93BA4D8F61510DDFD4
69D49771315F2C83A35732CF18411F39DBAD135DD3E77FC0E8BF9AA55A
B918C200B1293'H
            },
            {
              keyType 'A5'H,
              keyData
'FEDA572B1BFB2A7DC6CB3149515D1547280435639340E1F345F8906F0
44DB862A60280DB6823A9629FD760692CADB0F493DCC66821FB3847147
C44F054D7C4DD'H
            },
            {
              keyType 'A6'H,
              keyData
'57ADD3EBD94B583891F62350B28D834F4D6159369E9DF78C785BDD907
EDD22E673647D3ABB7B8DB5057C34E3D272237355BD8988FAF3813087E
86A5DD97FFF7F'H
            },
            {
              keyType 'A7'H,
              keyData
'0A1C02B6E5FF2E6F06E1C53106B12C6C66F96CA2124BE388BF36B116C
C467B14C398DC1E329DAD3C0432BB15F8BD0A081F2C887AB612334F363
354479FAD34B7'H
            },
            {
              keyType 'A8'H,
              keyData
'DB299B02B89A632D2CD2BA7CC99A99DCCA5DEC27C88F688013B1314C3
7503AFBA2B5CE686083227C6CE703C30EA803E0207420AF96617B412D2
DBCFF4C870D85'H
            }
          }
        }
      }
    }
  }
}
```

6.14.11   PE-SecurityDomain (SSD, CASD)

6.14.11.1.   PE-SecurityDomain-SSD-1

PE-SecurityDomain-SSD-1

```
ssdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 171
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A00000055910100102736456616C7565'H,
    applicationPrivileges '808000'H,
    lifeCycleState '0F'H,
    applicationSpecificParametersC9 '810280008201F0'H,
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
'010001010000002020112036C756500'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
'0100010100000202011203 6C756500'H
    }
  }
}
```

6.14.11.3.   VOID

6.14.11.4.   PE-SecurityDomain-SSD-3

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

PE-SecurityDomain-SSD-3

```
ssdValue ProfileElement ::= securityDomain : {
  sd-Header {
    mandated NULL,
    identification 174
  },
  instance {
    applicationLoadPackageAID 'A0000001515350'H,
    classAID 'A000000151535041'H,
    instanceAID 'A00000055910100102736456616C7565'H,
    extraditeSecurityDomainAID
'A00000055910100102736456616C7565'H,
    applicationPrivileges '808000'H,
    lifeCycleState '0F'H,
    applicationSpecificParametersC9 '810280008201F0'H,
    applicationParameters {
      uiccToolkitApplicationSpecificParametersField
'010001010000002020112036C756500'H
    }
  },
  keyList {
    {
      keyUsageQualifier '38'H,
      keyAccess '00'H,
      keyIdentifier '01'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '1122334455667788112233445567788'H
        }
      }
    },
    {
      keyUsageQualifier '34'H,
      -- keyAccess '00'H,
      keyIdentifier '02'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '1122334455667788112233445567788'H
        }
      }
    },
    {
      keyUsageQualifier 'C8'H,
      keyAccess '00'H,
      keyIdentifier '03'H,
      keyVersionNumber '01'H,
      keyCompontents {
        {
          keyType '88'H,
          keyData '1122334455667788112233445567788'H
        }
      }
    }
  }
}
```

6.14.11.5. PE-SecurityDomain-SSD-4

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

PE-SecurityDomain-SSD-4

```
ssdValue ProfileElement ::= securityDomain : {
  sd-Header {
```

```
      mandated NULL,
      identification 175
   },
   instance {
      applicationLoadPackageAID 'A0000001515350'H,
      classAID 'A000000151535041'H,
      instanceAID 'A00000055910100102736456616C7566'H,
      extraditeSecurityDomainAID
'A00000055910100102736456616C7565'H,
      applicationPrivileges '808000'H,
      lifeCycleState '0F'H,
      applicationSpecificParametersC9 '810280008201F0'H,
      applicationParameters {
         uiccToolkitApplicationSpecificParametersField
'010001010000002020112036C756600'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
            }
         }
      }
   }
}
```

6.14.11.6.   VOID

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
00F002800220019004F000A000C0000007E000000000000003010004002
803040107A0000000620101000110A0000000090005FFFFFFFF8912000
000000107A0000000620001030000F010BA0000000559101001112233000
806001942800300FF00050400000033FFFF00300040800200810801080
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B071967041877017700207A02108D0006058E020007007A08000A00000
0000000000000000000500220008068003000100000006000001038003010
3800302060000430681100001810900090000C000000080506040E0C041
9050B007E01000100000200000006800281080081000100120005000000
00001090008001400260000000007010030001B000100000000501003
3001F000B000000000080100400026000100000000FF0200430012000A0
000000000080012FFFF0012001200140012001 7FFFF011004B43105681
090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011112233'H,
      instanceAID 'A00000055910100111223301'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          -- TAR: 112233
          '010001010000000000311223300'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
'010012DECAFFED010204000108A00000055910100102001F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A000000620101000110A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
12233000806001942800300FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B071967041877017700207A02108D0006058E02000
7007A08000A00000000000000000000000005002200806803000100000
006000001038003010380030206000043068110000181090009000C0
00000080506040E0C0419050B007E0100010000020000000680028100
8008100010012000500000000001090008001400260000000007010030
0001B00010000000005010033001F000B0000000000801004000260000
100000000FF0200430012000A0000000000080012FFFF001200120010
1400120017FFFF011004B43105681090066800A10B680063680020024
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A0000005591010022112233301'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          '010001010000000000311223300'H
      }
    }
  }
}
```

6.14.12.3. PE-Application-3

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

PE-APPLICATION-3

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 203
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A000000062010100011 0A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
1223300080600194280030 0FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B07196704187701770020 7A02108D0006058E02000
7007A08000A00000000000000000000000 5002200080680030001000 00
006000001038003010380030206000043068110000181090009000C0
00000080506040E0C0419050B007E01000100000 2000000068002810
8008100010012000500000000010900080014 0026000000000701003
0001B00010000000005010033001F000B0000000000801004000 26000
100000000FF0200430012000A0000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B68006368002002 4
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A0000005591010011 12233'H,
      instanceAID 'A0000005591010011 3223301'H,
      extraditeSecurityDomainAID '
A0000005591010100102736456616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {

        implicitSelectionParameter '41'H      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
'010001010000000000311223300'H,
      uiccAccessApplicationSpecificParametersField
'00010000'H,
uiccAdministrativeAccessApplicationSpecificParametersFie
ld '00010000'H
      }
    }
  }
}
```

6.14.12.4. PE-Application-4

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

PE-APPLICATION-4

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 204
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file based on the applet1 with AID
modified in the LoadBlockObject to use a non-existing
library. The AID of javacard.framework was changed from
"A0 00 00 00 62 01 01" to "A0 10 00 00 62 01 01".
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A010000062010100011 0A00000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
122330008060019428003000FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B07196704187701770020 7A02108D0006058E02000
7007A08000A000000000000000000000050022000806 8003000100000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E0100010000020000000068002810
8008100010012000500000000001 09000800140026000000000070100 3
0001B0001000000000050100 33001F000B00000000080100400026000
100000000FF0200430012000A00000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B680063680020024
1'H
  }
}
```

6.14.12.5. PE-Application-5

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

PE-APPLICATION-5

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 205
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A000000062010100011 0A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
1223300080600194280 0300FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B071967041877017700207A02108D0006058E02000
7007A08000A0000000000000000000000500220008068003000100000
006000001038003010380030206000043068110000181090009000C0
00000080506040E0C0419050B007E010001000002000000068002810
800810001001200050000000001090008001400260000000007010 03
0001B0001000000005010033001F000B000000000801004000260 00
100000000FF0200430012000A00000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B6800636800 20024
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100544556601'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
uiccToolkitApplicationSpecificParametersField
'010001010000000000311223300'H
      }
    },

    -- Second Instance
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100544556602'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
uiccToolkitApplicationSpecificParametersField
'010001010000000000344556600'H
}
    }
  }
}
```

6.14.12.6. PE-Application-6

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

PE-APPLICATION-6

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 206
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet2
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F00440062001F0161000C002C000000E900020000000005010004004
405040107A0000000620101000110A0000000090005FFFFFFFF8912000
000020106A00000015100010110A0000000871005FFFFFFFF891320000
0000107A000000062000103000F010BA00000055910100111223300180
6001F438003020002050500000080FFFF0040008D00DE8002008108010
8820801090701610002101888C000218110100900B870018110100900B8
7017A04328F00033D8C00042E181D252904160461081B8B0005700C1B1
81D044116048B00061B8C00077A04220331188B000860037A198B00092
E1B04257500120001FFCA0009181B038C000A317008116D008D000B198
B000C3B191E08438B000D19081E08438B000E7A02301E046B071967041
8770177052303311D056B3E8D000F2E1B1B8E01001013AD01031B8E010
010148E050010063B18AD01038C000A318D001128041504AD01081E084
38E0400120E1504048E020012177A02108D0013058E020014007A07621
E084105412906191E08418D0015290716077D00166B2B19160625026B0
55906015906011916062510926B16191606AD00031916060441250541 8
D00173B0378116A808D000B037806310332191E05418D00151100926B2
3AD0003256015AD0003191E0841AD00042505418D0017327010116A888
D000B7008116A888D000B1F7808000C00020000000000000000020070050
06200180200000002000001068003000100000006000001038003010 38
00302060000D20380030303800A01060001280680070103800A0703800
A0903800A040683030001830100068010F000181040006811 0000181090
00680100405000000680100109002C00090E088B100E51290607001F0
516040E0C040907130904080819070905090 40E080705120728090D1B0
9080B00E9010001000003000300880028108 8208FF0A00000080004000
20000000032010200000010032008100010034001500000000010900180
0360026000000007010040005 5003E0000000005010080005 9000B000
000000801008D003E004300000000FF0200D20034000A0000000009010
0DE006000480000000FF020128003B003700000000001800320032003
4FFFF00340034003600340039003 2003B003E0040003E00420045FFFF0
049FFFF004DFFFF003B0040005101B0011004B431012003B4400241014
0034410056830100568104005681 09006B4B444066800A10B680063680
02006B44B44'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A00000055910100111112233'H,
      instanceAID 'A0000005591010011122 3306'H,
      applicationPrivileges '000000'H,

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

```
        '80E2880009007006920411223344'H
        }
      }
    }
}
```

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

PE-APPLICATION-7

```
appletValue ProfileElement ::= application : {
  app-Header {
    identification 207
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    securityDomainAID 'A000000151000000'H,
    nonVolatileCodeLimitC6 '0000'H,
    volatileDataLimitC7 '7FFF'H,
    nonVolatileDataLimitC8 '0000'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A0000000620101000110A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
1223300080600194280030FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B071967041877017700207A02108D0006058E02000
7007A08000A00000000000000000000000500220008068003000100000
0060000010380030103800302060000430681100001810900090000C0
00000080506040E0C0419050B007E0100010000020000000680028108
00810001001200050000000001090000800140026000000000701003
0001B00010000000005010033001F000B000000000008010040002600
0100000000FF0200430012000A00000000000080012FFFF0012001200
1400120017FFFF011004B431056810900668000A10B680063680020024
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A00000055910100111223'H,
      instanceAID 'A000000559101002112233'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
          '0100010100000000001311223300'H
      }
    }
  }
}
```

PE-Application with loadBlockObject only.

PE-APPLICATION-8

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 208
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
```

```
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F002800220019004F000A000C0000007E00000000000003010004002
803040107A00000006201010001110A0000000090005FFFFFFFF8912000
000000107A000000062000103000F010BA000000559101001112233000
806001942800300FF00050400000033FFFF0030004080020081080108 0
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B071967041877017700207A02108D0006058E020007007A08000A00000
00000000000000005002200080680030001000000060000010380030 10
3800302060000430681100001810900090000C000000080506040E0C041
9050B007E010001000002000000068002810800810001001 2000500000
000010900080014002600000000007010030001B0001000000000501003
3001F000B0000000008010040002600010000000 0FF0200430012000A0
0000000000080012FFFF00120012001400120017FFFF011004B43105681
090066800A10B6800636800200241'H
  }
}
```

6.14.12.9.   PE-Application-9

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

<table>
<tr><td>PE-APPLICATION-9</td></tr>
</table>

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 209
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001
F000F002800220019004F000A000C0000007E0000000000000301000
4002803040107A0000000620101000110A0000000090005FFFFFFFF8
912000000000107A000000062000103000F010BA0000005591010011
1223300080600194280030FF00050400000033FFFF0030004080020
08108010807004F000110188C00007A04328F00013D8C00022E181D2
52904160461081B8B0003700C1B181D044116048B00041B8C00057A0
0207A02301E046B071967041877017700207A02108D0006058E02000
7007A08000A0000000000000000000000050022000806800300010000
00600000103800301038003020600004306811000181090009000C0
00000080506040E0C0419050B007E010001000002000000068002810
8008100010012000500000000010900080014002600000000070100 3
0001B00010000000005010033001F000B000000000080100400026000
100000000FF0200430012000A00000000000080012FFFF00120012001
400120017FFFF011004B43105681090066800A10B680063680020024
1'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A0000005591010011 3223301'H,
      extraditeSecurityDomainAID '
A0000005591010010 2736456616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {
         volatileMemoryQuotaC7 '0200'H,
         nonVolatileMemoryQuotaC8 '0200'H
      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
'0100010 1000000000311223300'H,
      uiccAccessApplicationSpecificParametersField
'00010000'H,
uiccAdministrativeAccessApplicationSpecificParametersFie
ld '00010000'H
      }
    }
  }
}
```

6.14.12.10.   PE-Application-10

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

PE-APPLICATION-10

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 210
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F002800220019004F000A000C0000007E0000000000000003010004002
803040107A000000062010100011110A0000000090005FFFFFFFF8912000
000000107A000000062000103000F010BA00000055910100111223300 0
806001942800300FF00050400000033FFFF0030004080020081080108 0
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B0719670418770177002007A02108D0006058E020007007A08000A00000
0000000000000000050022000806800300010000006000001038003010
38003020600004306811000018109000900C000000080506040E0C041
9050B007E0100010000020000000680028108008100010012000500000
000010900080014002600000000007010030001B0001000000000501003
3001F000B00000000008010040002600010000000FF0200430012000A0
000000000080012FFFF0012001200140012001 7FFFF011004B43105681
090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID
'A000000559101001027364566C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {
          implicitSelectionParameter '41'H,
                userInteractionContactlessParameters
'7F20395F5004AABBCCDD6D285F44200123456789ABCDEF0123456789A
BCDEF0123456789ABCDEF0123456789ABCDEF67035301015F450501435
2454CA620DDAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAABB8701FA880101'H
      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
'01000101000000000311223300'H,
      uiccAccessApplicationSpecificParametersField
'00010000'H,
uiccAdministrativeAccessApplicationSpecificParametersField
'00010000'H
      }
    }
  }
}
```

6.14.12.11.　PE-Application-11

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

PE-APPLICATION-11

```
appletValue ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 211
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
      -- Java file for the applet1
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F002800220019004F000A000C0000007E000000000000003010004002
803040107A0000000620101000110A0000000090005FFFFFFFF8912000
000000107A000000062000103000F010BA00000055910100111122330000
806001942800300FF00050400000033FFFF0030000408002000810801080
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B071967041877017700207A02108D0006058E020007007A08000A00000
00000000000000000000500220008068000300010000000600000010380030100
38003020600004306811000018109000900000C000000080506040E0C041
9050B007E01000100000200000006800281080081000100012000500000
000010900080014002600000000007010030001B0001000000000501003
3001F000B000000000080100400002600010000000000FF0200430012000A0
000000000080012FFFF001200120014001200017FFFF011004B43105681
090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A000000559101001112233'H,
      instanceAID 'A00000055910100113223301'H,
      extraditeSecurityDomainAID
'A0000005591010010273645616C7565'H,
      applicationPrivileges '000000'H,
      applicationSpecificParametersC9 '00'H,
      systemSpecificParameters {
          implicitSelectionParameter '41'H,
          contactlessProtocolParameters '
8101008003828184A206A10490020002'H
      },
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
'010001010000000000311223300'H,
      uiccAccessApplicationSpecificParametersField
'00010000'H,
uiccAdministrativeAccessApplicationSpecificParametersField
'00010000'H
      }
    }
  }
}
```

6.14.12.12. PE-Application-12

Compared to PE-Application-1 defined in 6.14.12.1 this PE Application contains the hash of the Load File Data Block calculated with SHA-1.

```
                    PE- Application-12
value1 ProfileElement ::= application : {
  app-Header {
    mandated NULL,
    identification 212
  },
  loadBlock {
    loadPackageAID 'A000000559101001'H,
    hashValue 'D6349C09E6A7C93D81F6E2D439D466774747E9A0'H,
    loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F002800220019004F000A000C0000007E000000000000003010004002
803040107A0000000620101000110A0000000090005FFFFFFFF8912000
000000107A000000062000103000F010BA00000055910100111223300 0
806001942800300FF00050400000033FFFF0030004080020081080108 0
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B071967041877017700207A02108D0006058E020007007A08000A00000
00000000000000000050022000806800300010000006000001038003010
3800302060000043068110000181090009000C000000080506040E0C041
9050B007E0100010000020000000068002810800810001001200050000 0
000010900080014002600000000007010030001B0001000000000501003
3001F000B0000000008010040002600010000000FF0200430012000A0
000000000080012FFFF0012001200140012017FFFF011004B43105681
090066800A10B6800636800200241'H
  },
  instanceList {
    {
      applicationLoadPackageAID 'A000000559101001'H,
      classAID 'A00000055910100111122333'H,
      instanceAID 'A0000005591010011122330'H,
      applicationPrivileges '000000'H,
      lifeCycleState '07'H,
      applicationSpecificParametersC9 '00'H,
      applicationParameters {
        uiccToolkitApplicationSpecificParametersField
'010001010000000000311223300'H
      }
    }
  }
}
```

6.14.12.13. PE-Application-13

Compared to PE-Application-1 defined in 6.14.12.1 this PE Application contains the *ts102226AdditionalContactlessParameters* (systemSpecificParameters).

```
                    PE- Application-13
value1 ProfileElement ::= application : {
  app-Header {
    mandated NULL,
```

```
     identification 213
  },
  loadBlock {
     loadPackageAID 'A000000559101001'H,
     loadBlockObject
'010012DECAFFED010204000108A00000055910100102001F0012001F0
00F002800220019004F000A000C0000007E0000000000000003010004002
803040107A0000000620101000110A0000000090005FFFFFFFF8912000
000000107A000000062000103000F010BA0000000559101001112233000
806001942800300FF00050400000033FFFF0030004080020081080108 0
7004F000110188C00007A04328F00013D8C00022E181D2529041604610
81B8B0003700C1B181D044116048B00041B8C00057A00207A02301E046
B071967041877017700207A02108D0006058E020007007A08000A00000
00000000000000000050022000806800300010000000600000103800301 0
380030206000043068110000181090009000C000000080506040E0C041
9050B007E01000100000200000006800281080081000100120005000 00
000010900080014002600000000007010030001B000100000000050100 3
3001F000B000000000080100400026000100000000FF0200430012000A0
000000000080012FFFF001200120014001200 17FFFF011004B43105681
090066800A10B6800636800200241'H
  },
  instanceList {
     {
       applicationLoadPackageAID 'A000000559101001'H,
       classAID 'A000000559101001112233'H,
       instanceAID 'A00000055910100E11223301'H,
       applicationPrivileges '000000'H,
       lifeCycleState '07'H,
       applicationSpecificParametersC9 '00'H,
       systemSpecificParameters {
         implicitSelectionParameter '41'H,
         ts102226AdditionalContactlessParameters {
           protocolParameterData '86010087020000'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
  }
}
```

6.14.13.5.   PE-RFM-3

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

PE-RFM-3

```
rfmValue ProfileElement ::= rfm : {
  rfm-header {
    mandated NULL,
    identification 185
  },
  instanceAID 'A00000055910100002'H,
  securityDomainAID 'A0000005591010010273645666416C7565'H,
  tarList {
    'B00003'H
  },
  minimumSecurityLevel '12'H,
  uiccAccessDomain '00'H,
```

```
    uiccAdminAccessDomain '00'H
}
```

6.14.13.6.   PE-RFM-4

The RFM instance is associated to USIM ADF 6.14.5.1.9 PE-USIM-by-Template-7.

<div style="text-align:center">

PE-RFM-4

</div>

```
value1 ProfileElement ::= rfm : {
  rfm-header {
    mandated NULL,
    identification 184
  },
  instanceAID 'A00000055910100003'H,
  tarList {
    'B00001'H
  },
  minimumSecurityLevel '12'H,
  uiccAccessDomain '00'H,
  uiccAdminAccessDomain '00'H,
  adfRFMAccess {
    adfAID 'A0000000871002000000000000000200'H,
    adfAccessDomain '00'H,
    adfAdminAccessDomain '00'H
  }
}
```

6.14.14   PE-End

6.14.14.1.   PE-END-1

<div style="text-align:center">

PE-END-1

</div>

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

6.14.15   PE-NonStandard

6.14.15.1.   PE-NonStandard-1

This PE is not mandated.

<div style="text-align:center">

PE-NonStandard-1

</div>

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

6.14.15.2. PE-NonStandard-2

This PE is mandated.

PE-NonStandard-2

```
nonStdValue ProfileElement ::= nonStandard : {
  nonStandard-header {
    mandated NULL,
    identification 251
  },
  issuerID { 2 999 1 },
  content '0102030405060708090A0B0C0D0E0F'H
}
```

7. Profile Package General Structure

7.1 Test requirements

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

RQ7.1.1.1	Each PE is described and can be processed by the eUICC independently from the others.
RQ7.1.1.2	An identification number shall be associated to every PE.
RQ7.1.1.3	A PE starts with a header containing the following information: • 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: RQ7.1.1.2 and RQ7.1.1.3 are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible. NOTE 2: VOID NOTE 3: RQ7.1.1.6 is out of the scope of this specification. NOTE 4: RQ7.1.1.1 and the last bullet point of RQ7.1.1.4 is not testable	

7.2 Test cases / scenarios

RQ7.1.1.5 is tested in Chapter 8.2.3.

8. Profile Package Elements Definition

8.1 Test requirements

8.1.1 Common types

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

RQ8.1.1.1	The Profile Package shall respect the size constraints 0 to 255 for the basic integer type Uint8.
RQ8.1.1.2	The Profile Package shall respect the size constraints 0 to 32267 for the basic integer type Uint15.
RQ8.1.1.3	The Profile Package shall respect the size constraints 0 to 65535 for the basic integer type Uint16.
RQ8.1.1.4	VOID
RQ8.1.1.5	The Application Identifier (AID) shall be an OCTET STRING with the size of 5 to 16 bytes.
RQ8.1.1.6	The PE Header shall be present at the beginning of all PE-s described in this specification.
RQ8.1.1.7	The PE Header may consist of an optional "mandated" field. The type of the mandated field shall be NULL.
RQ8.1.1.8	If the mandated field is set the support of this PE is mandatory for the installation of this Profile. If the eUICC does not support the following PE, it shall abort the processing of the Profile and return an error to the sender of the Profile.
RQ8.1.1.9	The PE Header shall consist of an "identification" field. The type of the identification field shall be Uint15.
RQ8.1.1.10	The identification field is used to uniquely identify the PE within a Profile. It will be used for error reporting to the sender of the Profile.
RQ8.1.1.11	VOID
RQ8.1.1.12	The ProfileHeader shall be the first element and provided once within a profile download only.
RQ8.1.1.13	VOID
RQ8.1.1.13a	The PE MF may be provided once as the first element of the file system creation after the ProfileHeader PE.
RQ8.1.1.13b	If PE MF is not used, the MF shall be created as the first element of the file system using the PE Generic File Management.
RQ8.1.1.14	The PE-CD is optional and shall come after the creation of the MF.
RQ8.1.1.15	The PE-TELECOM is optional and shall come after the creation of the MF.
RQ8.1.1.16	The PE-USIM is optional and shall come after the creation of the MF.
RQ8.1.1.17	The PE-ISIM is optional and shall come after the creation of the MF.
RQ8.1.1.18	The PE-CSIM is optional and shall come after the creation of the MF.
RQ8.1.1.19	The PE-OPT-USIM is optional and shall come after the PE-USIM.
RQ8.1.1.20	The PE-GSM-ACCESS is optional and shall come after the PE-USIM.
RQ8.1.1.21	The PE-PHONENOOK is optional and shall come after the PE-USIM.
RQ8.1.1.22	The PE-OPT-ISIM is optional and shall come after the PE-ISIM.
RQ8.1.1.23	The PE-OPT-CSIM is optional and shall come after the PE-CSIM.
RQ8.1.1.24	When using PE-GenericFileManagement the dependencies within the file system creation need to be considered.
RQ8.1.1.25	PE-PINCodes shall be created in the context according to their scope.
RQ8.1.1.26	Global PINs (Application PINs according to ETSI TS 102 221) shall be provided once in the context of the creation of the MF of the UICC.
RQ8.1.1.26b	Local PINs may be provided once in the context of the creation of a DF or ADF.
RQ8.1.1.27	Only a single PE-PINCodes is allowed in the context of the MF, or in the context of a DF (ADF).
RQ8.1.1.28	VOID
RQ8.1.1.28a	If PE-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.
RQ8.1.1.40	PE-EAP is optional and shall come after creation of the ADF that supports the EAP feature.

RQ8.1.1.41	PE-DF-5GS is optional and shall come after PE-USIM
RQ8.1.1.42	PE-DF-SAIP is optional and shall come after PE-USIM

NOTE 1: RQ8.1.1.1, RQ8.1.1.2, RQ8.1.1.3, RQ8.1.1.5, RQ8.1.1.6, RQ8.1.1.7 and RQ8.1.1.9 are not testable.   NOTE 2: VOID   NOTE 3:VOID   NOTE 4: VOID   NOTE 5: VOID   NOTE 6: Testing of RQ8.1.1.30, RQ8.1.1.31 and RQ8.1.1.32 are out of scope.   NOTE 7:VOID   NOTE 8: VOID   NOTE 9: RQ8.1.1.29a is tested only with one PE-AKAParameters provided for the NAA.   NOTE 10: RQ8.1.1.12, RQ8.1.1.13a, RQ8.1.1.13b, RQ8.1.1.14, RQ8.1.1.15, RQ8.1.1.17, RQ8.1.1.18, RQ8.1.1.19, RQ8.1.1.22, RQ8.1.1.23, RQ8.1.1.24, RQ8.1.1.26, RQ8.1.1.26b, RQ8.1.1.27, RQ8.1.1.28a, RQ8.1.1.33a, RQ8.1.1.35, RQ8.1.1.39, RQ8.1.1.40, RQ8.1.1.41, RQ8.1.1.42 are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.   NOTE 11: RQ8.1.1.38 is only partially testable.

8.1.2   Profile header

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

RQ8.1.2.1	The ProfileHeader PE shall be used once and shall be the first PE of the Profile Package.
RQ8.1.2.2	The ServiceList type is used to indicate the services that shall be supported by the eUICC for the installation of a Profile. The type of the fields in the ServiceList shall be NULL.
RQ8.1.2.3	The following list gives the features that the eUICC shall support in order to provide the associated service.

Service	Feature provided by the eUICC
contactless	support the SWP and HCI interfaces as well as the associated APIs.
usim	the USIM application as defined by 3GPP [USIM].
isim	the ISIM application as defined by 3GPP [ISIM].
csim	the CSIM application as defined by 3GPP2 [CSIM].
milenage	the milenage AKA authentication algorithm as defined by 3GPP [MILENAGE].
tuak128	the TUAK AKA authentication algorithm with 128 bit key length as defined by 3GPP [TUAK].
tuak256	the TUAK AKA authentication algorithm with 256 bit key length as defined by 3GPP [TUAK].
cave	the CAVE authentication algorithm as defined by TIA [CAVE].
gba-usim	support of GBA authentication context in the USIM application.
gba-isim	support of GBA authentication context in the ISIM application.
mbms	support of the MBMS authentication context in the USIM application.
eap	support of the UICC EAP client.
javacard	support of the Java Card TM runtime environment.
multos	support of the Multos TM runtime environment.
multiple-usim	support of multiple USIM instances – requires "usim" to be present in the list.
multiple-isim	support of multiple ISIM instances – requires "isim" to be present in the list.
multiple-csim	support of multiple CSIM instances – requires "csim" to be present in the list.
usim-test-algorithm	support of Test USIM Parameters for authentication test algorithm as defined by 3GPP [3GTEST]. Note: This is applicable from SA PP TS v2.1 onwards.
ber-tlv	support of the BER-TLV Elementary File type. Note: This is applicable from SA PP TS v2.1 onwards.
dfLink	support of DF Link feature. Note: This is applicable from SA PP TS v2.1 onwards.
cat-tp	If set any SD with SCP80 shall support CAT_TP (regardless if SCP80 keys are available or not). Connectivity parameters are provided by the OTA server in the initial push message. Note: This is applicable from SA PP TS v2.2 onwards.
get-identity	support of the GET IDENTITY as defined in ETSI [102 221] and the associated interface for SUCI derivation defined in 3GPP [31.130] At least one implementation of the ECIES profile A or profile B as described in 3GPP [33.501] shall be supported by the eUICC when this function is supported. The Null-scheme shall be supported in addition of the ECIES scheme.
profile-a-x25519	implementation of the ECIES Profile A as described in 3GPP [33.501]
profile-b-p256	implementation of the ECIES Profile B as described in 3GPP [33.501]

RQ8.1.2.3b	When a service is present in the sequence and not supported or not known by the eUICC the installation of the Profile Package shall be aborted
RQ8.1.2.4	The ProfileHeader shall contain the "major-version". The type of the major-version shall be Uint8.
RQ8.1.2.5	When receiving the ProfileHeader, the eUICC shall check the major-version. If the version indicated by the Profile is not supported by the eUICC (e.g. if it is an earlier or an older version), the eUICC shall return an error "unsupported-profile-version" and stop the processing of the Profile.
RQ8.1.2.6	The ProfileHeader shall contain the "minor-version". The type of the minor-version shall be Uint8.
RQ8.1.2.7	The minor-version is only informative. It may indicate that the Profile contains elements that the eUICC will not be able to process if it supports an older version of the specification. In that case, these elements shall be ignored by the eUICC unless they are marked as mandatory in the PE header.

RQ8.1.2.8	The ProfileHeader may contain the "profileType". The type of the profileType shall be UTF8String. The "profileType" is a free optional text indicating for example, the name of the Profile issuer and the type of Profile.
RQ8.1.2.9	The ProfileHeader shall contain the "iccid". The type of iccid shall be OCTET STRING (SIZE (10)).
RQ8.1.2.9a	The "iccid" shall be be encoded non-swapped as per ITU E.118 representation and padded with 'F' if less digits are used (Example:8947010000123456784F) (see NOTE 4).
RQ8.1.2.10	The ProfileHeader may contain the "pol". The type of the pol shall be OCTET STRING. The pol contains the policy rules within a Profile.
RQ8.1.2.11	If pol is not supplied in the Profile Package, its value shall be set to all 0 in the eUICC.
RQ8.1.2.12	The ProfileHeader shall contain the "eUICC-Mandatory-services". The type of the eUICC-Mandatory-services shall be ServiceList.
RQ8.1.2.13	The ProfileHeader shall contain the "eUICC-Mandatory-GFSTEList".
RQ8.1.2.14	The "eUICC-Mandatory-GFSTEList" contains a list of OIDs identifying file system templates which shall be supported by the eUICC in order for the Profile to be correctly installed on the eUICC.
RQ8.1.2.15	This list may contain the OIDs associated to the file system template defined in "ANNEX A (Normative): File Structure Templates Definition" of this specification.
RQ8.1.2.16	The ProfileHeader may contain the "connectivityParameters". The "connectivityParameters" contains the connectivity parameters as defined in GSMA in [GS RPT], in table 52, not including '3A07' DGI.
RQ8.1.2.17	When the Profile Package contains BER-TLV files, or DF links in a PE which is not mandatory and without indication in the ServicesList that these features shall be supported and the eUICC receiving this Profile Package does not support one of these features, the eUICC shall send a status code set to "feature-not-supported" without any "additional-information" and the installation shall continue without creating the BER-TLV file or the DF link. Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.2.18	When the Profile Package contains BER-TLV files, or DF links in a PE which is mandatory and without indication in the ServicesList that these features shall be supported and the eUICC receiving this Profile Package does not support one of these features, the eUICC shall send a status code set to "feature-not-supported" without any "additional-information" and the installation of the Profile shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.2.19	If a template OID present in the list is not supported by the eUICC the installation of the Profile Package shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.2.20	The ProfileHeader may contain the "eUICC-Mandatory-AIDs" which contains a SEQUENCE of aid (ApplicationIdentifier) and version (OCTET STRING with a size of 2) pairs. This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.2.21	When an AID is present in the Profile header and not known by the eUICC, the installation of the Profile Package shall be aborted with the status code lib-not-supported. This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.2.22	When the version is not compatible with the versions supported by the eUICC, the installation of the Profile Package shall also be aborted by the eUICC with the status code lib-not-supported. This REQ is applicable from SA PP TS v2.2 onwards.
NOTE 1:VOID 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. NOTE 5: RQ8.1.2.2, RQ8.1.2.4, RQ8.1.2.6, RQ8.1.2.8, RQ8.1.2.9, RQ8.1.2.10, RQ8.1.2.12, RQ8.1.2.13 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.	

8.1.3   File system

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

RQ8.1.3.1	Templates need to be created according to the specified settings.
RQ8.1.3.2	Templates can be sent in any order considering the dependencies (e.g. some templates require that a NAA has already been created).
RQ8.1.3.3	Parameters which alter the default given in a template needs to result in the desired configuration; e.g. change of file size, access rule reference.
RQ8.1.3.4	If a file within a template is specified as 'do not create' it must not be available within the created file system.
RQ8.1.3.5	It shall be possible to mix templates with Generic FileSystem Commands.
RQ8.1.3.6	It shall be possible to create a complete profile by Generic FileSystem Commands without use of any templates.
RQ8.1.3.7	Using a template marked as mandated but which is not supported by the eUICC shall lead to an error.
RQ8.1.3.8	The eUICC shall support any template it claims to support.

RQ8.1.3.9	It may be possible to create multiple instances of the following templates:
	  - 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].
RQ8.1.3.11b	The profile package may create the file with a different File ID if provided in the fcp without limitations on the value. This REQ is applicable from SA PP TS v2.2 onwards
RQ8.1.3.12	It shall not be possible to create two files with the same file path irrespective of whether templates or a generic file system is used.
RQ8.1.3.13	VOID
RQ8.1.3.14	The eUICC shall be able to handle the "template modification rules" described within the specification.
RQ8.1.3.15	File content provided within the profile package shall be applied to the created file.
RQ8.1.3.16	Within an not created by default template, files shall only be created if the respective TLV is explicitly included in the profile package.
RQ8.1.3.17	For created by default templates all files shall be created unless they are explicitly marked as "do not create".
RQ8.1.3.18	For all files which are not fully defined in the template specification (open parameters like size) the respective parameters (except content) shall be included in the profile package.
RQ8.1.3.18b	Any content not explicitly set within the profile package shall be personalis,ed with the default content (FF..FF). This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.3.19	FCP of files which have been created may include proprietary information. These parameters shall be ignored when checking the settings of files which have been created.
RQ8.1.3.20	VOID
RQ8.1.3.20a	The access conditions which have been configured shall apply for the respective files; e.g.: 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].
RQ8.1.3.23	If parameter proprietaryEFInfo is provided and no repeat or fill pattern are present, the default template fill or repeat pattern shall be used. This REQ is applicable from SA PP TS v2.3 onwards

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 RQ8.1.3.9, RQ8.1.3.12 is FFS.
NOTE 3: RQ8.1.3.8 and RQ8.1.3.15 are implicitly tested in all test cases.
NOTE 4: RQ8.1.3.18 is related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.
NOTE 5: RQ8.1.3.18 is related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

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
RQ8.1.4.3d	For usim-test-algorithm, PE-AKAParameters shall be tested with the following parameters: RES Length Options: 32bits, 64bits, 128bits This REQ is applicable from SA PP TS v2.2 onwards
RQ8.1.4.4	For testing milenage the test vectors from 3GPP [MILENAGE TEST] shall be used: PE-AKAParameters shall be initialised with the respective settings.
RQ8.1.4.5	For testing TUAK the test vectors from 3GPP [TUAK TEST] shall be used: PE-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.
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	
RQ8.1.4.18a	PE-CSIMParameters may contain a hrpdAccessAuthenticationData of type OCTET STRING with a size 2 to 32 bytes. This REQ is applicable from SA PP TS v2.2 onwards	
RQ8.1.4.19	PE-CSIMParameters may contain a simpleIPAuthenticationData of type OCTET STRING with a size of 10 to 483 bytes	
RQ8.1.4.19a	PE-CSIMParameters may contain a simpleIPAuthenticationData of type OCTET STRING with a size of 3to 483 bytes. This REQ is applicable from SA PP TS v2.2 onwards	
RQ8.1.4.20	PE-CSIMParameters may contain a mobileIPAuthenticationData of type OCTET STRING with a size of 19 to 957 bytes	
RQ8.1.4.20a	PE-CSIMParameters may contain a mobileIPAuthenticationData of type OCTET STRING with a size of 12to 957 bytes. This REQ is applicable from SA PP TS v2.2 onwards	
RQ8.1.4.20b	PE-CSIMParameters may contain a mobileIPAuthenticationData of type OCTET STRING with a size of 5 to 957 bytes. This REQ is applicable from SA PP TS v2.3 onwards	
NOTE : VOID NOTE 2: RQ8.1.4.16 is not testable. NOTE 3: RQ8.1.4.1 is tested with USIM and ISIM, but not tested with CSIM. NOTE 4: RQ8.1.4.11 is related to the format of the profile package. This requirement is tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.		

8.1.5 PIN and PUK codes

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

RQ8.1.5.1	Global PINs created by the PE-PINCodes shall be valid within the complete FileSystem.
RQ8.1.5.1a	All the Global PINs referenced by a pinStatusTemplateDO shall be defined in the 'PIN Context' of the MF. This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.5.2	Local PINs shall only be valid within the context (DF/ADF and sub DFs) where they are defined.
RQ8.1.5.2b	The ADF/DF where the Local PIN will be created is the first ADF or DF created by the previous PE-Template or the previous PE-Generic File Management. This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.5.2c	All the Local PINs referenced by a pinStatusTemplateDO shall either be defined in a parent ADF or DF or created in a following PE-PINCodes. This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.5.2d	If Local PINs referenced by a pinStatusTemplateDO is not created in a following PE-PINCodes. the error code pin-code-missing may be returned and in this case the installation of the Profile Package shall be aborted. This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.5.3	VOID
RQ8.1.5.4	Local PINs shared shall share remaining attempts in all contexts where they are valid.
RQ8.1.5.5	It shall be possible to create Global PINs in the context of the MF. E.g. after creation of the MF or also after selection of the MF using Generic File System.
RQ8.1.5.6	VOID
RQ8.1.5.7	It shall be possible to share one PUK for multiple PIN values.
RQ8.1.5.8	Blocked PINs cannot be verified via I/O, but applets with the respective access rights may execute the authorised commands (update, read, create, delete etc).
RQ8.1.5.9	Within the FCP of the ADF and the MF the eUICC has to indicate the status of the PINs/PUKs as specified within the template (e.g. remaining attempts, PINs initialised, PINs available, PIN activated/deactivated) provided that the settings have not been altered after profile installation.

RQ8.1.5.10	The eUICC needs to support the PIN attributes specified:
	  - PINs enabled: in this case the PIN shall be enabled.
	  - PIN may be changed: PIN change allowed; otherwise not.
	  - PIN state change not allowed: 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.
RQ8.1.5.16b	It shall be possible to assign any PUK value for any PIN. This REQ is applicable from SA PP TS v2.2 onwards.
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 state change not allowed" stated to define that a PIN status cannot be changed from enabled to disabled and vice versa.
RQ8.1.5.20	It shall be possible to define any PIN with "PIN can be changed" set to allow changing the PIN value; if "PIN can be changed" is not set it shall not be possible to change the PIN.
RQ8.1.5.21	It is allowed to define the same PINKeyReferenceValue in multiple directories (e.g. secondPINAppl1 may be defined in the ISIM NAA and within the USIM NAA). Provided they are not linked they shall be handled as two independent PIN values which also may reference different PUK references.

NOTE1: Testing of RQ8.1.5.4, RQ8.1.5.10, RQ8.1.5.11, RQ8.1.5.12, RQ8.1.5.19 is out of scope.
NOTE2: Testing of RQ8.1.5.4, RQ8.1.5.21 is FFS.
NOTE3: RQ8.1.5.15 is not testable.
NOTE4: RQ8.1.5.14 is related to the format of the types used in the profile package. The ASN1 converter ensures compliance when the profile package is created.
NOTE5: RQ8.1.5.2b , RQ8.1.5.5 are related to the format of the profile package. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly formatted profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

8.1.6 Security domains

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

RQ8.1.6.1	The PE Security Domain shall consist of a PE header and an Application Instance object.
RQ8.1.6.2	The values standardised for Supplementary SDs shall be used for the Application Instance object.
RQ8.1.6.3	The PE Security Domain may consist of a keylist and sdPersoData objects.
RQ8.1.6.4	The PE-SecurityDomain shall be used for every SD creation, starting from MNO-SD.
RQ8.1.6.5	The MNO-SD shall be defined and created explicitly using "PE-SecurityDomain" within the Profile Package.
RQ8.1.6.6	The MNO-SD shall be created first before any other SD, before any RFM Parameters are set, or before any applets are created.
RQ8.1.6.7	Since no package AID nor classAID is standardised for the MNO-SD, it MAY use the values defined for supplementary SD creation in section 3.3.1.1 of [GP CIC].
RQ8.1.6.8	The first SD within the sequence of the Profile Package shall be categorised as the MNO-SD by definition.
RQ8.1.6.9	The MNO-SD shall be installed with the special MNO-SD privileges defined by the GSMA.
RQ8.1.6.10	All subsequent following instances of SDs shall be installed like regular supplementary SDs as known from GlobalPlatform Card Specification [GP CS].
RQ8.1.6.11	The keylist optionally present in the Security Domain PE shall be a sequence of key objects.
RQ8.1.6.12	A key object shall contain a keyUsageQualifier, tag number [21] which shall be an OCTET STRING with SIZE of 1. Note: This REQ is applicable up to SA PP TS v2.0
RQ8.1.6.12b	A key object shall contain a keyUsageQualifier, tag number [21] which shall be an OCTET STRING with SIZE of 1 to 2. Note: This REQ is applicable from SA PP TS v2.1 onwards
RQ8.1.6.13	The keyAccess, tag number [22] shall be an OCTET STRING with SIZE of 1, DEFAULT 00.
RQ8.1.6.14	A key object shall contain a keyIdentifier, tag number [2] which shall be an OCTET STRING with SIZE of 1.
RQ8.1.6.15	A key object shall contain a keyVersionNumber, tag number [3] which shall be an OCTET STRING with SIZE of 1.
RQ8.1.6.16	A key object shall contain a list of keyComponents.
RQ8.1.6.17	A keyComponent shall contain a keyType, tag number [0], which shall be an OCTET STRING.
RQ8.1.6.18	A keyComponent shall contain a keyData which shall be an OCTET STRING.
RQ8.1.6.19	VOID
RQ8.1.6.20	A key object may contain a keyCounterValue, tag number [5] which shall be an OCTET STRING.
RQ8.1.6.20a	If the keyCounterValue is present, it indicates the initial counter associated for that keyset.
RQ8.1.6.20b	If the keyCounterValue is absent, the initial counter value shall be set according to the default value of the related protocol (e.g. for SCP02 keyset the default value is '0000'h, for SCP03 it is '000000'h, for SCP80 it is '0000000000'h).
RQ8.1.6.21	VOID
RQ8.1.6.22	Each key to be personalised shall be listed only once.
RQ8.1.6.23	VOID
RQ8.1.6.24	VOID
RQ8.1.6.25	VOID
RQ8.1.6.26	Only keyTypes defined in GlobalPlatform Card Specification [GP CS], Table 11-16, may be part of the list of keyComponents.
RQ8.1.6.26b	Any key or key component with one of these key types (including ECC keys) shall be defined using KeyObject.
RQ8.1.6.27	Each keyComponent shall be specified only once per key (e.g. including the same keyType twice within one KeyObject will lead to an error).
RQ8.1.6.28	In case the sdPersoData is present it shall be a sequence of OCTET STRINGs each containing the data field of a STORE DATA command used to personalise the SD.
RQ8.1.6.29	The content of the data field of the STORE DATA command shall not be encrypted and shall use DGI format.
RQ8.1.6.30	The complete DGI structure for the SD personalisation shall be sent in one complete byte array.
RQ8.1.6.31	Each DGI shall be provided in its own sdPersoData record.
RQ8.1.6.32	Only standardised DGIs, according to GlobalPlatform Card Specification [GP CS], shall be sent when addressing a SD.
RQ8.1.6.33	Installation of the CASD, if required inside a Profile, shall use the same personalisation procedure as defined for SDs.
RQ8.1.6.34	In case RAM and OTA HTTPs is added to a SD the settings can be configured according to GlobalPlatform Card Specification [GP CS] and ETSI specifications.
RQ8.1.6.35	In case RAM is 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	The macLength shall be an UInt8 DEFAULT 8.
RQ8.1.6.43	If macLength is for AES KID keys, indicates the length of the MAC in bytes as defined in TS 102 226 [102 226].
RQ8.1.6.44	macLength shall be ignored for other key types than AES KID.
RQ8.1.6.45	If keyType or any other KeyObject parameters are not supported by the eUICC, the error code feature-not-supported shall be returned and the installation of the Profile Package shall be aborted.
RQ8.1.6.46	Parameters using TLV format may be included in DGI '0070' as defined by GlobalPlatform Card Specification [GP CS].
RQ8.1.6.47	keyUsageQualifier and keyAccess shall be ignored for SCP80 and SCP81 keys. Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.6.48	ECC Curve Parameters shall be defined using sdPersoData. DGIs described in GlobalPlatform Card Specification [GP CS] section 11.11.4.2.2.1 shall be coded in immediately consecutive sdPersoData objects.
RQ8.1.6.49	If keyType or any other KeyObject parameters are not supported by the Security Domain (Example: KeyObject not related to Secure Channel Protocol listed in the applicationSpecificParametersC9 or with the applicationPrivileges given in the ApplicationInstance of the Security domain), the error code feature-not-supported may be returned and the installation of the Profile Package may be aborted by the eUICC. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.6.50	The PE Security Domain may consist of a cattpParameters object.
RQ8.1.6.51	A cattpParameters shall contain a cattpMaxSduSize which shall be UInt16.
RQ8.1.6.52	A cattpParameters shall contain a cattpMaxPduSize which shall be UInt16.
RQ8.1.6.53	Only the PE-SecurityDomain that instantiates the MNO-SD may include the cattpParameters parameter: this parameter is forbidden for the other Security Domains.
RQ8.1.6.54	The PE Security Domain may consist of an openPersoData object.
RQ8.1.6.55	The openPersoData may consist of a restrictParameter object (see [GP CS] §11.5.2.3.7) which shall be an OCTET STRING.
RQ8.1.6.56	The openPersoData may consist of a contactlessProtocolParameters object (see [GP AC] §11.2) which shall be an OCTET STRING.
RQ8.1.6.56b	Only the following parameters are supported in contactlessProtocolParameters: o 'Initial Contactless Activation State', (see [GP AC] §8.3). o 'Contactless protocol Type State', (see [GP AC] §11.2.4) o 'Protocol Data type A', (see [GP AC] §4.6) o 'Protocol Data type B', (see [GP AC] §4.7) o 'Protocol Data type F', (see [GP AC] §4.8) o 'Continuous Processing' (see [GP AC] §6.4)
RQ8.1.6.57	Only the PE-SecurityDomain that instantiates the MNO-SD may include the openPersoData parameter, this parameter is forbidden for the other Security Domains.
RQ8.1.6.58	If no openPersoData parameters are present, default values apply as defined in the [GP CS] and [GP AC] specification.
RQ8.1.6.59	The profile openPersoData parameters shall apply only when the profile is enabled.
RQ8.1.6.60	If the eUICC doesn't support the Restrict parameter and this parameter is present in the Profile Package, the error code feature-not-supported shall be returned and the installation of the Profile Package shall be aborted by the eUICC.

NOTE 1: RQ8.1.6.9 is not tested in this specification. Its verification is under the scope of the GSMA.
NOTE 2: Testing of RQ8.1.6.20, RQ8.1.6.33, RQ8.1.6.43, RQ8.1.6.44, RQ8.1.6.47, RQ8.1.6.50, RQ8.1.6.54, RQ8.1.6.55, RQ8.1.6.56, RQ8.1.6.56b, RQ8.1.6.57, RQ8.1.6.58, RQ8.1.6.59, RQ8.1.6.60 is FFS.
NOTE 3: RQ8.1.6.20a, RQ8.1.6.20b, RQ8.1.6.39, RQ8.1.6.49, RQ8.1.6.53 are not testable.
NOTE 4: RQ8.1.6.32 is not tested in this specification. Its verification is under the scope of GlobalPlatform.
NOTE 5: RQ8.1.6.22 , RQ8.1.6.40 are out of scope of this specification.
NOTA 6: RQ8.1.6.1, RQ8.1.6.2, RQ8.1.6.11, RQ8.1.6.12, RQ8.1.6.12b, RQ8.1.6.13, RQ8.1.6.14, RQ8.1.6.15, RQ8.1.6.16, RQ8.1.6.17, RQ8.1.6.18, RQ8.1.6.28, RQ8.1.6.42, RQ8.1.6.51, RQ8.1.6.52 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.
NOTE7: RQ8.1.6.26, RQ8.1.6.29, RQ8.1.6.30, RQ8.1.6.31 are related to the format of the profile package. . These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

8.1.7 Application loading and installation

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

RQ8.1.7.1	A library shall be loaded when only an ApplicationLoadPackage object is provided within one Application PE.
RQ8.1.7.2	A preloaded application shall be installed only when an ApplicationInstance object is provided within one Application PE.
RQ8.1.7.3	Multiple instances of the same application shall be installed when multiple ApplicationInstance objects are provided within one Application PE.
RQ8.1.7.4	An application shall be loaded providing an ApplicationLoadPackage object and installed via an ApplicationInstance.
RQ8.1.7.5	An application shall be installed when an ApplicationInstance object is provided within one Application PE.
RQ8.1.7.6	If PEHeader object is set to mandatory, profile installation shall fail if one of the subsequent elements cannot be executed (e.g. load fails because of API incompatibility, install fails because of duplicate TAR values …).
RQ8.1.7.7	If PEHeader object is not set to mandatory, profile installation will continue with the next PE if one of the subsequent elements cannot be executed, except when defined differently in [SA PP TS] Section 8.11. .
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
RQ8.1.7.70	The cumulativeGrantedVolatileMemory is optional and it shall be OCTET STRING.
RQ8.1.7.71	The cumulativeGrantedVolatileMemory shall be coded according to Contactless Specific Parameters as defined in GlobalPlatform Amd. C [GP AC].
RQ8.1.7.72	The cumulativeGrantedNonVolatileMemory is optional and it shall be OCTET STRING.
RQ8.1.7.73	The cumulativeGrantedNonVolatileMemory shall be coded according to Contactless Specific Parameters as defined in GlobalPlatform Amd. C [GP AC].

NOTE1: Testing of RQ8.1.7.18, RQ8.1.7.53, RQ8.1.7.54, RQ8.1.7.64, RQ8.1.7.67, RQ8.1.7.70, RQ8.1.7.71, RQ8.1.7.72, RQ8.1.7.73 is FFS.
NOTE2: RQ8.1.7.2, RQ8.1.7.7, RQ8.1.7.68 are not testable.
NOTE3: RQ8.1.7.9, RQ8.1.7.19, RQ8.1.7.21, RQ8.1.7.23, RQ8.1.7.25, RQ8.1.7.27, RQ8.1.7.32, RQ8.1.7.36, RQ8.1.7.59 are related to the format of the types used in the profile package, or mandate some fields to be used in the profile package. The ASN1 converter ensures compliance when the profile package is created.
NOTE4: RQ8.1.7.8, RQ8.1.7.10, RQ8.1.7.12, RQ8.1.7.14, RQ8.1.7.16, RQ8.1.7.20, RQ8.1.7.22, RQ8.1.7.24, RQ8.1.7.26, RQ8.1.7.31, RQ8.1.7.33, RQ8.1.7.35, RQ8.1.7.37, RQ8.1.7.39, RQ8.1.7.45, RQ8.1.7.46, RQ8.1.7.61, RQ8.1.7.64 and RQ8.1.7.66 are related to the format of the. These requirements are tested with a correctly formatted profile to make sure that the eUICC is able to handle a correctly formatted profile package. The eUICC behaviour in case of a badly profile package is undefined according to [SA PP TS] v2.1 and above, so negative testing is not possible.

8.1.8   RFM Parameters

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

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

8.1.9   Non standardised content

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

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

8.1.10   Profile Package end

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

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

8.1.11 eUICC Response type

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

RQ8.1.11.1	EUICCResponse object shall contain peStatus field of SEQUENCE OF PEStatus type.
RQ8.1.11.2	EUICCResponse object may contain profileInstallationAborted field of NULL type.
RQ8.1.11.2a	When profileInstallationAborted is used, it shall be present in the last EUICCResponse sent by the eUICC.
RQ8.1.11.3	EUICCResponse object may contain statusMessage field of UTF8String type.
RQ8.1.11.4	PEStatus object shall contain status field of INTEGER type.
RQ8.1.11.5	PEStatus object may contain identification field of Uint15 type.
RQ8.1.11.6	The identification field, if present, shall indicate the identification number of the PE triggering the error.
RQ8.1.11.7	VOID
RQ8.1.11.7a	The identification field shall be present if EUICCResponse contains an error status except the following cases: - 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. Note: This REQ is applicable up to SA PP TS v2.1.
RQ8.1.11.9a	In case the eUICC has not aborted the installation of the Profile Package after processing the PE-End, a EUICCResponse ending with a PEStatus containing the `ok` status code shall be sent. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.10	EUICCResponse with `ok` status shall not indicate any PE identification.
RQ8.1.11.11	EUICCResponse with `PE-not-supported` status indicates that a specific PE is not supported by the eUICC.
RQ8.1.11.12	EUICCResponse with `PE-not-supported` status shall include profileInstallationAborted tag if an unsupported PE is indicated as "mandated".
RQ8.1.11.12a	If the PE generating `PE-not-supported` status does not indicate "mandated" in the PE header this status is a warning status and the installation of the Profile shall be continued.
RQ8.1.11.13	EUICCResponse with `memory-failure` status indicates profile installation failure due to internal memory issue .
RQ8.1.11.13a	If `memory-failure` is reported, the eUICC shall abort profile installation.
RQ8.1.11.14	EUICCResponse with `bad-values` status indicates that at least one value in the PE identified by its identification number is out of its acceptable value range.
RQ8.1.11.14a	In the case `bad-values` is reported, the eUICC may abort profile installation if it is not able to recover the error. Note: This REQ is applicable up to SA PP TS v2.0.
RQ8.1.11.14b	If the PE generating `bad-values` status indicates "mandated" in the PE header and the eUICC cannot apply a default value, this status is an error status and the processing of the Profile shall be aborted. Note: This REQ is applicable for SA PP TS v2.1.
RQ8.1.11.14c	If the PE generating `bad-values` status does not indicate "mandated" in the PE header this status is a warning status and the installation of the Profile shall be continued. Note: This REQ is applicable for SA PP TS v2.1.
RQ8.1.11.14d	If the PE generating `bad-values` status indicates "mandated" in the PE header this status is an error status and the processing of the Profile shall be aborted. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.14e	If the PE generating `bad-values` status does not indicate "mandated" in the PE header this status is a warning status and the installation of the Profile should be aborted. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.15	EUICCResponse with `not-enough-memory` status indicates that eUICC does not have enough free memory to install the Profile.
RQ8.1.11.15a	If the eUICC runs out of memory during processing PE-MF, it shall abort profile installation.
RQ8.1.11.15b	If the eUICC runs out of memory during processing a PE with "mandated" flag set, it shall abort profile installation. Note: This REQ is applicable up to SA PP TS v2.0.
RQ8.1.11.15c	If eUICC does not have enough free memory to install the Profile the processing of the Profile shall be aborted. Note: This REQ is applicable from SA PP TS v2.1 onwards.
RQ8.1.11.16	EUICCResponse with `invalid-request-format` indicates that a structure in a PE is unknown or badly formatted, or that the order of the PEs is invalid . 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 for SA PP TS v2.1 .

RQ8.1.11.16e	The eUICC should 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
	  - DF-GSM-ACCESS
	  - DF-PHONEBOOK
	  - PE ISIM
	  - PE OPT ISIM
	  - PE CSIM
	  - PE OPT CSIM
	  - EAP
	  - Generic File Management
	  - PE Application
	  - PE Non Standardized
	Note: This REQ is applicable from SA PP TS v2.2 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 onwards.
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 for SA PP TS v2.1.
RQ8.1.11.17e	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: - PE-MF - DF-CD - DF-TELECOM - PE USIM - PE OPT USIM - DF-GSM-ACCESS - DF-PHONEBOOK - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - EAP - Generic File Management - PE Application - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.2 onwards.

RQ8.1.11.17f	The eUICC should abort profile installation and shall ignore the parameter if `invalid-parameter` error is triggered by any of following PEs, and the PE triggering the error does not indicate "mandated" in the PE header: - PE-MF - DF-CD - DF-TELECOM - PE USIM - PE OPT USIM - DF-GSM-ACCESS - DF-PHONEBOOK - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - EAP - Generic File Management - PE Application - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.2 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 for SA PP TS v2.1.
RQ8.1.11.18c	If an unsupported runtime environment is requested by a PE without "mandated" flag, the installation of the Profile should be aborted and the application shall be ignored. Note: This REQ is applicable from SA PP TS v2.2. onwards
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 for SA PP TS v2.1.
RQ8.1.11.19c	If a missing library is requested by a PE without "mandated" flag set, the installation of the Profile should be aborted and the application shall be ignored. Note: This REQ is applicable from SA PP TS v2.2 onwards.
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 for 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 for 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 for SA PP TS v2.1.
RQ8.1.11.20g	The eUICC shall abort profile installation if `template-not-supported` error is triggered by any of following PEs: - PE-MF - DF-CD - DF-TELECOM - EAP Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.20h	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 - DF-GSM-ACCESS - DF-PHONEBOOK - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.20i	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 - DF-GSM-ACCESS - DF-PHONEBOOK - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM Note: This REQ is applicable from SA PP TS v2.2.onwards
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 onwards.

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 for 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 for SA PP TS v2.1.
RQ8.1.11.22f	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 - DF-GSM-ACCESS - DF-PHONEBOOK - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - EAP - PE Generic File Management - PE Security Domain - PE Application - PE RFM Parameters - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.2 onwards.

RQ8.1.11.22g	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 - DF-GSM-ACCESS - DF-PHONEBOOK - PE ISIM - PE OPT ISIM - PE CSIM - PE OPT CSIM - EAP - PE Generic File Management - PE Security Domain - PE Application - PE RFM Parameters - PE Non Standardized Note: This REQ is applicable from SA PP TS v2.2 onwards.
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.
RQ8.1.11.26	EUICCResponse with `pin-code-missing` indicates that at least one rule of "PE-PINCodes and pinStatusTemplateDO usage rules" is not satisfied. It is optional for the eUICC to support this status. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.27	EUICCResponse with `pin-code-missing` status is an error status and the processing of the Profile shall be aborted. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.28	PEStatus object may contain `offset` field of Uint31 type. Note: This REQ is applicable from SA PP TS v2.2 onwards.
RQ8.1.11.29	The `offset` field can be used by the eUICC in order to indicate the part of the PE generating a specific status. This value gives the approximate number of bytes from the beginning of the PE to the element generating the status. Note: This REQ is applicable from SA PP TS v2.2 onwards.
NOTE 1: RQ8.1.11.1 is implicitly tested everytime UICC response with PEStatus is sent. NOTE 2: Testing ofRQ8.1.11.11, RQ8.1.11.12, RQ8.1.11.12a, , , , , , RQ8.1.11.19c, RQ8.1.11.20c, RQ8.1.11.20d, RQ8.1.11.20e, RQ8.1.11.20f, RQ8.1.11.20g, RQ8.1.11.20h, RQ8.1.11.20i, RQ8.1.11.22, is FFS. NOTE3: RQ8.1.11.3, RQ8.1.11.8, RQ8.1.11.13, RQ8.1.11.13a, RQ8.1.11.14, RQ8.1.11.14a, RQ8.1.11.14b, RQ8.1.11.14c, RQ8.1.11.14d, RQ8.1.11.14e, RQ8.1.11.15a, RQ8.1.11.17a, RQ8.1.11.17c, RQ8.1.11.17f, RQ8.1.11.18, RQ8.1.11.18a, RQ8.1.11.18b, RQ8.1.11.18c, RQ8.1.11.22c are not testable. NOTE4: RQ8.1.11.19b is out of scope	

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-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	If O_V_20, or O_V21, or O_V_22: 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. If O_V_23: eUICC responds with PEStatus(5) invalid-request-format and identification of USIM-by-Generic-File-Management-1, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] 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 RQ8.1.11.16d RQ8.1.11.16e 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-27	6.14.1.27
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 RQ8.1.6.6
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: 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. If O_V_23: eUICC responds with PEStatus (5) invalid-request-format and identification of PE-Application-1, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of PE-Application-1. The last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.16 RQ8.1.11.16d RQ8.1.11.16e 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-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 RQ8.1.6.6 RQ8.1.8.1
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: 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. If O_V_23: eUICC responds with PEStatus (5) invalid-request-format and identification of PE-RFM-1, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of PE-RFM-1. The last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.16 RQ8.1.11.16b RQ8.1.11.16c RQ8.1.11.25
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

8.2.2   Check Profile Header

8.2.2.1.   Error when cat-tp in ServicesList and eUICC does not support CAT_TP

8.2.2.1.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-13	6.14.1.13
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.2.1.2. Initial Conditions

None.

8.2.2.1.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package according to 6.10.	RQ7.1.1.7 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	If O_V_22: eUICC responds with PEStatus (10) feature-not-supported, or with PEStatus different from (0) the last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC responds with PEStatus (10) feature-not-supported, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] 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.	

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

8.2.2.2.1.Test execution

The Profile Package is defined as follows:

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

8.2.2.2.2.Initial Conditions

None.

8.2.2.2.3.Test Procedure

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

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

8.2.2.3.1.Test execution

The Profile Package is defined as follows:

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

8.2.2.3.2.Initial Conditions

None.

8.2.2.3.3.Test Procedure

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

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

8.2.2.4.1.Test execution

The Profile Package is defined as follows:

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

8.2.2.4.2.Initial Conditions

None.

8.2.2.4.3.Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ7.1.1.7 RQ8.1.2.20
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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'.	

| 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'. | |

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

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

8.2.3 Check File System

8.2.3.1. Installing USIM files by generic file management

8.2.3.1.1. Test execution

The Profile Package is defined as follows:

Test PE name	REFERENCE
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
DF-CD-by-Generic-File-Management-1	6.14.2.2.2
DF-CUSTOM-by-Generic-File-Management-1	6.14.2.4.1
USIM-by-Generic-File-Management-2	6.14.5.1.4
PE-PINCodes-Local-PIN-1	6.14.8.1
OPT-USIM-by-Generic-File-Management-1	6.14.5.2.2
PE-AKAParameters-1	6.14.9.1
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-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 RQ8.1.2.3 RQ8.1.3.6 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.21 RQ8.1.3.22
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	RQ8.1.3.15 RQ8.1.3.21
6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.21 RQ8.1.3.22
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	RQ8.1.3.15 RQ8.1.3.21
8	T ↔ eUICC	Select all files in DF CUSTOM and verify their FCPs.	RQ8.1.3.21 RQ8.1.3.22
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	RQ8.1.3.15 RQ8.1.3.21
10	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.21 RQ8.1.3.22
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	RQ8.1.3.15 RQ8.1.3.21

| 12 | T ↔ eUICC | Select all files in OPT USIM and verify their FCPs. | RQ8.1.3.21 RQ8.1.3.22 |
| 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 | RQ8.1.3.15 RQ8.1.3.21 |

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-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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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 .	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16

8	T ↔ eUICC	Select all files in DF TELECOM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
10	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

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-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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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 .	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17

6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
8	T ↔ eUICC	Select all files in DF TELECOM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
10	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

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-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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16

8	T ↔ eUICC	Select all files in DF TELECOM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

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-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 RQ8.1.2.3b
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: eUICC responds with PEStatus (10) feature-not-supported, or with PEStatus different from (0) the last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC responds with PEStatus (10) feature-not-supported, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] 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-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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3
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.	RQ8.1.11.5 RQ8.1.11.6 RQ8.1.11.21 RQ8.1.11.22e RQ8.1.11.22g
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select all files in MF except EF UMPC and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16

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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.2.17
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16 RQ8.1.2.17
10	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

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-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 RQ8.1.3.5
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	RQ8.1.11.5 RQ8.1.11.6 RQ8.1.11.21 RQ8.1.11.22e RQ8.1.11.22g
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select all files in DF TELECOM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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'.	RQ8.1.2.17
7	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4

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-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 RQ8.1.2.3 RQ8.1.3.6 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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-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 RQ8.1.2.3 RQ8.1.3.6 RQ8.1.5.5 RQ8.1.5.14 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
6	T ↔ eUICC	Select DF LINK (fileID '7FA1') and verify its FCP, as defined in DF-CUSTOM-by-Generic-File-Management-3.	
7	T ↔ eUICC	Select all files in DF LINK (fileID '7FA1') as defined in the DF-CD-by-Generic-File-Management-1 and verify their FCP.	
8	T ↔ eUICC	Read all files in DF LINK (fileID '7FA1') and verify that the content is the same as defined in the DF-CD-by-Generic-File-Management-1.	

8.2.3.10. Installing CSIM files by template

8.2.3.10.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-8	6.14.1.8
PE-MF-by-Template-3	6.14.2.1.4
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CSIM-by-Template-1	6.14.7.1.1
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-CSIM-by-Template-1	6.14.7.2.1
PE-CDMAParameters-1	6.14.9.4
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.4.15 RQ8.1.4.17 RQ8.1.4.18 RQ8.1.4.18a RQ8.1.4.19 RQ8.1.4.19a RQ8.1.4.20 RQ8.1.4.20a RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
6	T ↔ eUICC	Select all files in ADF CSIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17

7	T ↔ eUICC	Read all files in ADF CSIM except the EF CST and verify that the content is the same as defined in the PE-CSIM-by-Template-1	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
9	T ↔ eUICC	Read all files in OPT CSIM except the EF EST and verify that the content is the same as defined in the PE-OPT-CSIM-by-Template-1	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

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	6.14.6.2.1
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-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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c 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 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17

6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
8	T ↔ eUICC	Select all files in DF TELECOM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
10	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
14	T ↔ eUICC	Select all files in ADF ISIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

8.2.3.12. Installing USIM files by template without content

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-2	6.14.1.2
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CD-by-Template-1	6.14.2.2.1
PE-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-2	6.14.5.1.3
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-USIM-by-Template-3	6.14.5.2.4
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.3.12.2. *Initial Conditions*

None.

8.2.3.12.3. *Test Procedure*

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

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

8.2.3.13.1. *Test execution*

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-2	6.14.1.2
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CD-by-Template-2	6.14.2.2.3
PE-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-3	6.14.5.1.5
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-USIM-by-Template-1	6.14.5.2.1
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.3.13.2.   Initial Conditions

None.

8.2.3.13.3.   Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted object eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select the three instances of EF ICON in DF CD and verify their FCPs. The file ID of the 2nd instance of EF ICON shall be set to "6F41" The file ID of the 3rd instance of EF ICON shall be set to "6F80"	RQ8.1.3.11 RQ8.1.3.11b
5	T ↔ eUICC	Read the three instances of EF ICON in DF CD and verify that the content is the same as defined in the PE-CD-by-Template-2	

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

8.2.3.14.1.   Test execution

The Profile Package is defined as follows:

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

8.2.3.14.2.   Initial Conditions

None.

8.2.3.14.3.   Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package according to 6.10.	RQ7.1.1.7
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: eUICC responds with PEStatus (10) feature-not-supported, or with PEStatus different from (0) the last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC responds with PEStatus (10) feature-not-supported, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] 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.	

8.2.3.15. Installing GSM-ACCESS files by template

8.2.3.15.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-17	6.14.1.18
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CD-by-Template-1	6.14.2.2.1
PE-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-5	6.14.5.1.7
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-USIM-by-Template-1	6.14.5.2.1
PE-GSM-ACCESS-by-Template-1	6.14.5.3.1
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.3.15.2. Initial Conditions

None.

8.2.3.15.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.6 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 RQ8.1.1.20 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 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.13 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 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the USIM application	
5	T ↔ eUICC	Select all files in DF GSM ACCESS and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
6	T ↔ eUICC	Read all files in DF GSM ACCESS and verify that the content is the same as defined in the PE-GSM-ACCESS-by-Template-1	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

8.2.3.16. Installing USIM Phonebook files by template

8.2.3.16.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-18	6.14.1.18
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CD-by-Template-1	6.14.2.2.1
PE-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-3	6.14.5.1.5
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-USIM-by-Template-1	6.14.5.2.1
PE-Phonebook-by-Template-1	6.14.5.4.1
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.3.16.2. Initial Conditions

None.

8.2.3.16.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.6 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 RQ8.1.1.21 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 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.13 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 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the USIM application	
5	T ↔ eUICC	Select all files in DF Phonebook and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
6	T ↔ eUICC	Read all files in DF Phonebook and verify that the content is the same as defined in the PE-Phonebook-by-Template-1.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

8.2.3.17.   Installing EAP files by template

8.2.3.17.1.   Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-19	6.14.1.19
PE-MF-by-Template-4	6.14.2.1.5
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CD-by-Template-1	6.14.2.2.1
PE-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-3	6.14.5.1.5
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-USIM-by-Template-1	6.14.5.2.1
PE-EAP-by-Template-1	6.14.2.5.1
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.3.17.2.   Initial Conditions

None.

8.2.3.17.3.   Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.6 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 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.13 RQ8.1.10.1 RQ8.1.10.2 RQ8.1.10.3 RQ8.1.1.40
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 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select all files in ADF USIM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
5	T ↔ eUICC	Read all files in ADF USIM except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-3. EF EPSLOCI shall not be present.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4

| 6 | T ↔ eUICC | Select all files in DF EAP and verify their FCPs. | RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16 |
| 7 | T ↔ eUICC | Read all files in DF EAP and verify that the content is the same as defined in the PE-EAP-by-Template-1 | RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16 |

8.2.3.18. Error when installing USIM files by template with BER-TLV files in a mandatory PE when eUICC does not support BER-TLV

8.2.3.18.1. 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-TELECOM-by-Template-2	6.14.2.3.2
PE-CD-by-Template-1	6.14.2.2.1
PE-USIM-by-Template-1	6.14.5.1.1
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-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.3.18.2. Initial Conditions

None.

8.2.3.18.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Test Profile according to 6.10.	
2	eUICC → T	eUICC responses with PEStatus (10) feature-not-supported and identification of PE-TELECOM-by-Template-2 the last eUICC response contains profileInstallationAborted object.	RQ7.1.1.4 RQ8.1.2.18 RQ8.1.3.2 RQ8.1.3.7 RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.21 RQ8.1.11.22d RQ8.1.11.22f RQ8.1.11.25
3	T ↔ eUICC	Enabling Test Profile according to 6.11 fail.	

8.2.3.19. Installing USIM files by template using proprietaryEFInfo

8.2.3.19.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-21	6.14.1.21
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-USIM-by-Template-6	6.14.5.1.8
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-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.3.19.2. Initial Conditions

None.

8.2.3.19.3. 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 profileInstallationAborted objecteUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select and read ef-epsloci in ADF USIM and verify that the content is the same as the default value defined in Section 9.5.1 of [SA PP TS] v2.3	RQ8.1.3.23

8.2.3.20. Installing profile with multiple FileManagement elements

8.2.3.20.1. 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-3	6.14.2.1.7
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-RFM-1	6.14.13.1
PE-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.3.20.2. Initial Conditions

None.

8.2.3.20.3. 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 profileInstallationAborted object. eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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.	RQ8.1.3.21 RQ8.1.3.22
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-3	RQ8.1.3.15 RQ8.1.3.21

8.2.3.21. Installing multiple USIM by template

8.2.3.21.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-23	6.14.1.23
PE-MF-by-Template-5	6.14.2.1.8
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-15	6.14.9.16
PE-USIM-by-Template-7	6.14.5.1.9
PE-PINCodes-Local-PIN-5	6.14.8.5
PE-OPT-USIM-by-Template-4	6.14.5.2.5
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-RFM-4	6.14.13.6
PE-END-1	6.14.14.1

8.2.3.21.2. Initial Conditions

None.

8.2.3.21.3. 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 RQ8.1.2.3 RQ8.1.2.14 RQ8.1.2.15 RQ8.1.5.1 RQ8.1.5.1a RQ8.1.5.2c RQ8.1.5.5 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.8.1 RQ8.1.8.1b RQ8.1.8.8 RQ8.1.8.13 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 RQ8.1.11.9a 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
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 .	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
6	T ↔ eUICC	Select all files in DF CD and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.11 RQ8.1.3.14 RQ8.1.3.16

8	T ↔ eUICC	Select all files in DF TELECOM and verify their FCPs.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
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	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
10	T ↔ eUICC	Select all files in ADF USIM (AID: A0 00 00 00 87 10 02 FF 33 FF 01 89 00 00 01 00) and verify their FCPs as defined in the PE-USIM-by-Template-3. .	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
11	T ↔ eUICC	Read all files in ADF USIM (AID: A0 00 00 00 87 10 02 FF 33 FF 01 89 00 00 01 00) 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.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
12	T ↔ eUICC	Select all files in OPT USIM belonging to ADF USIM (AID: A0 00 00 00 87 10 02 FF 33 FF 01 89 00 00 01 00) and verify their FCPs as defined in the PE-OPT-USIM-by-Template-1. Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-1.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
13	T ↔ eUICC	Read all files in OPT USIM belonging to ADF USIM (AID: A0 00 00 00 87 10 02 FF 33 FF 01 89 00 00 01 00) and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-1.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
14	T ↔ eUICC	Select all files in ADF USIM (AID: A0 00 00 00 87 10 02 00 00 00 00 00 00 00 02 00) and verify their FCPs as defined in the PE-USIM-by-Template-7. .	RQ8.1.3.3 RQ8.1.3.9 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17
15	T ↔ eUICC	Read all files in ADF USIM (AID: A0 00 00 00 87 10 02 00 00 00 00 00 00 00 02 00) except the EF UST and verify that the content is the same as defined in the PE-USIM-by-Template-7. EF EPSLOCI shall not be present.	RQ8.1.3.3 RQ8.1.3.9 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.17 RQ8.1.3.4
16	T ↔ eUICC	Select all files in OPT USIM belonging to ADF USIM (AID: A0 00 00 00 87 10 02 00 00 00 00 00 00 00 02 00) and verify their FCPs as defined in the PE-OPT-USIM-by-Template-4. Only those files shall be present which are explicitly included in PE-OPT-USIM-by-Template-4.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16
17	T ↔ eUICC	Read all files in OPT USIM belonging to ADF USIM (AID: A0 00 00 00 87 10 02 00 00 00 00 00 00 00 02 00) and verify that the content is the same as defined in the PE-OPT-USIM-by-Template-4.	RQ8.1.3.3 RQ8.1.3.10 RQ8.1.3.14 RQ8.1.3.16

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-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 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 F769BCD751044604127672711C6D3441' SW = '9000'. See Note1	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.4 RQ8.1.4.9 RQ8.1.4.14

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-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 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3b RQ8.1.4.5 RQ8.1.4.14

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

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

8.2.4.3.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.3.2. Initial Conditions

None.

8.2.4.3.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 C905EA893B1D3D7D626EB1E1EE37EC33 10 87D536D9BFC5DF1EC4EEC668FAB7E464'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 10 C904E88A3F183B7A6A67BBEAE23AE23C 10 04E88A3F183B7A6A67BBEAE23AE23CC9 10 E88A3F183B7A6A67BBEAE23AE23CC904'. SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2b RQ8.1.4.3c RQ8.1.4.14

<u>Installing PE-AKAParameters with TUAK with 256 bit key and restricted length and sending AUTHENTICATE</u>

8.2.4.4.1.Test execution

The Profile Package is defined as follows:

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

8.2.4.4.2.Initial Conditions

None.

8.2.4.4.3.Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 0123456789ABCDEF0123456789ABCDEF 10 4929D62245B5 ABCD D94900B0EE2B4C90'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 E9D749DC4EEA0035 10 A4CB6F6529AB17F8337F27BAA8234D47 10 2274155CCF4199D5E2ABCBF621907F90'. SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3b RQ8.1.4.5 RQ8.1.4.9 RQ8.1.4.14

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

8.2.4.5.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.5.2. Initial Conditions

None.

8.2.4.5.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 0123456789ABCDEF0123456789ABCDEF 18 4929D62245B5 ABCD C0B8C2D4148EC7AA5F1D78A97E4D1D58'. See Note1	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 E9D749DC4EEA0035 10 A4CB6F6529AB17F8337F27BAA8234D47 10 2274155CCF4199D5E2ABCBF621907F90'. SW = '9000'. See Note1	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3b RQ8.1.4.5 RQ8.1.4.9 RQ8.1.4.14

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

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

8.2.4.6.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.6.2. Initial Conditions

None.

8.2.4.6.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 C570AAC68CDE651FB1E3088322498BEF 10 3DAFA03D2D0E 297D 0599A0B5F389484B'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 10 AB548F680361E48D1239C74C51C20902 10 6708A1DD5FE63EAAC2884EF9F6E4B005 10 249EB1636FCBA040C4B5076F7645AACA'. SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3b RQ8.1.4.5 RQ8.1.4.10 RQ8.1.4.11b RQ8.1.4.14

8.2.4.7. Installing PE-AKAParameters with TUAK with numberOfKeccak and sending AUTHENTICATE

8.2.4.7.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-11	6.14.1.11
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-6	0
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.4.7.2. Initial Conditions

None.

8.2.4.7.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 C570AAC68CDE651FB1E3088322498BEF 28 A2353A07FE09 297D 90D2289ED1CA1C3DBC2247BB480D431AC71D2E4A767 7F6E997CFDDB0CBAD88B7'. See Note1	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 20 D67E6E64590D22EECBA7324AFA4AF4460C93F01B2450 6D6E12047D789A94C867 20 EDE57EDFC57CDFFE1AAE75066A1B7479BBC3837438E 88D37A801CCCC9F972B89 20 48ED9299126E5057402FE01F9201CF25249F9C5C0ED2A FCF084755DAFF1D3999'. SW = '9000'. See Note1	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3b RQ8.1.4.5 RQ8.1.4.10 RQ8.1.4.11b RQ8.1.4.14

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

8.2.4.8. Error when authCounterMax exceeded

8.2.4.8.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.8.2.Initial Conditions

None.

8.2.4.8.3.Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 1st AUTHENTICATE command with SQN '000000001007': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.4 RQ8.1.4.12 RQ8.1.4.14
8	T ↔ eUICC	Initialise eUICC according to 6.9	
9		Repeat steps 4-5 above	
10	T → eUICC	Send 2nd AUTHENTICATE command with SQN '000000002007': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C64A377 B9B9 0BBE6206A4126634'.	
11	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	

12	T → eUICC	Send 3rd AUTHENTICATE command with: P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 000102030405060708090A0B0C0D0E0F'.	
13	eUICC → T	AUTHENTICATE command fails with error SW '9862' – Authentication error, incorrect MAC.	RQ8.1.4.3
14	T ↔ eUICC	Disable Profile Package according to 6.12.	
15	T ↔ eUICC	Enable Profile Package according to 6.11.	
16		Repeat steps 4-5 above	
17	T → eUICC	Send 4th AUTHENTICATE command with SQN '000000004007': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C64C377 B9B9 E74ECB3901D13CA9'.	
18	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	
19	T → eUICC	Send 5th AUTHENTICATE command with SQN '000000005007: P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C64D377 B9B9 CA7271D09B9912BC'.	
20	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'. OR AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded. In this case, skip to step 25. See Note1	RQ8.1.4.13
21	T → eUICC	Send 6th AUTHENTICATE command with SQN '000000006007': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C64E377 B9B9 44157554E493F761'.	
22	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'. OR AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded. In this case, skip to step 25. See Note1	RQ8.1.4.13

23	T → eUICC	Send 7th AUTHENTICATE command with SQN '000000007007': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C64F377 B9B9 BF5507EC0E9454C6'.	
24	eUICC → T	AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded. See Note1	RQ8.1.4.13
25	T → eUICC	Send final AUTHENTICATE command with SQN '000000008007': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C640377 B9B9 30625750E8725846'.	
26	eUICC → T	AUTHENTICATE command fails with error SW '6F00' – authCounterMax exceeded.	RQ8.1.4.13

Note1: it is expected that the AUTHENTICATE error '6F00'h will first be returned on the 6th AUTHENTICATE, but first returning it on the 5th or 7th AUTHENTICATE commands is also accepted.

8.2.4.9. Test Milenage PIN verification and defined constants

8.2.4.9.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-8	0
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.4.9.2. Initial Conditions

None.

8.2.4.9.3. Test Procedure

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

5	T → eUICC	Send AUTHENTICATE command with: P1 = '00' P2 = '81' Data = '10 9F7C8D021ACCF4DB213CCFF0C7F71A6A 10 5666690B8413 725C A9083CDB9EEA8D0D'.	
6	eUICC → T	AUTHENTICATE command fails with error SW '6982' – security status not satisfied	RQ8.1.4.7
7	T → eUICC	Send VERIFY PIN pinAppl1	
8	T → eUICC	Send AUTHENTICATE command with: P1 = '00' P2 = '81' Data = ' 10 9F7C8D021ACCF4DB213CCFF0C7F71A6A 10 5666690B8413 725C A9083CDB9EEA8D0D.	
9	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 DAA6DE20020E36BC 10 2D6B88BF7EFB89CC30B67B90C22AB1DF 10 7C74227B13E7E48AE472E14D974FD030' SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.11 RQ8.1.4.14

8.2.4.10. Blocked SQN with wrap around deactivated

8.2.4.10.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-11	6.14.9.12
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.4.10.2. Initial Conditions

None.

8.2.4.10.3. 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 profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the USIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send AUTHENTICATE command with SQN 'FFFFFFFFFFE7': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 5597639B7C97 B9B9 E22D5F131BB290A1'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.4 RQ8.1.4.10 RQ8.1.4.12 RQ8.1.4.14
8	T → eUICC	Send AUTHENTICATE command with SQN '000000000027': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C648357 B9B9 618CEB2930A55745'.	
9	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E BAE174135BDC3D84FBD1F13F528B' SW = '9000' OR AUTHENTICATE command fails with error SW '6Fxx'	RQ8.1.4.12

8.2.4.11. Testing SQN delta and age limit

8.2.4.11.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.11.2. Initial Conditions

None.

8.2.4.11.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the USIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send AUTHENTICATE command with SQN '0000000010 07': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.4 RQ8.1.4.9 RQ8.1.4.10 RQ8.1.4.12 RQ8.1.4.14
8	T → eUICC	Send AUTHENTICATE command with SQN '0000000210 27' (exceeds delta): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669357 B9B9 94F171D3D1F4D089'.	
9	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BECB43C 2C80AE0582AE3FC7' SW = '9000'.	RQ8.1.4.12

10	T → eUICC	Send AUTHENTICATE command with SQN '0000000210 07' (within delta): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669377 B9B9 137626880CBAA079'.	
11	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD7510446604127672711C6D3441' SW = '9000'.	RQ8.1.4.12
12	T → eUICC	Send AUTHENTICATE command with SQN '0000000110 06' (exceeds age limit): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659376 B9B9 B7B092F5DDBF4EE3'.	
13	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BEEB43C E685022180D8A2AB' SW = '9000'.	RQ8.1.4.12
14	T → eUICC	Send AUTHENTICATE command with SQN '0000000110 25' (within age limit): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659355 B9B9 1B6EFE265B816C4A'.	
15	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD7510446604127672711C6D3441' SW = '9000'.	RQ8.1.4.12

8.2.4.12. Test usim-test-algorithm with 32 bit RES length

8.2.4.12.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.12.2. Initial Conditions

None.

8.2.4.12.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 E8F9461ADE8CEFDB318B6756F6C62E66 10 1430A70B1996 DF1E E5126AFB1F2636C2'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 04 E8F84419 10 F84419DA89E9DC39826D5DFACB2069E8 10 4419DA89 E9DC39826D5DFACB2069E8F8'. SW = '9000'.	RQ8.1.4.1 RQ8.1.4.2b RQ8.1.4.3c RQ8.1.4.3d RQ8.1.4.14

8.2.4.13. Installing PE-CDMAParameters and send COMPUTE IP AUTHENTICATE in Simple IP CHAP Mode

8.2.4.13.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-8	6.14.1.8
PE-MF-by-Template-3	6.14.2.1.4
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CSIM-by-Template-2	0
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-CSIM-by-Template-2	6.14.7.2.2
PE-CDMAParameters-1	6.14.9.4
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-RFM-CSIM	6.14.13.4
PE-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.4.13.2. Initial Conditions

None.

8.2.4.13.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.4.15 RQ8.1.4.17 RQ8.1.4.18 RQ8.1.4.19 RQ8.1.4.20 RQ8.1.4.18a RQ8.1.4.19a RQ8.1.4.20a
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification object.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the CSIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send COMPUTE IP AUTHENTICATION command with: P1 = '00' (CHAP Mode) P2 = '00' Data = '01 00 1122334455667788' *(Data = #CHAP_ID # NAI-Entry-Index #CHAP-Challenge)*	
7	eUICC → T	COMPUTE IP AUTHENTICATION command returns CHAP-Response with: Data = '984A6C6E7B8896628750C4930134F298'. SW = '9000'.	

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

8.2.4.14.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-8	6.14.1.8
PE-MF-by-Template-3	6.14.2.1.4
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CSIM-by-Template-2	0
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-CSIM-by-Template-2	6.14.7.2.2
PE-CDMAParameters-1	6.14.9.4
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-RFM-CSIM	6.14.13.4
PE-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.4.14.2. Initial Conditions

None.

8.2.4.14.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.4.15 RQ8.1.4.17 RQ8.1.4.18 RQ8.1.4.19 RQ8.1.4.20 RQ8.1.4.18a RQ8.1.4.19a RQ8.1.4.20a
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification object.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the CSIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send COMPUTE IP AUTHENTICATION command with: P1 = '04' (HRPD Access) P2 = '00' Data = '01 1122334455667788' (Data = #CHAP_ID #CHAP-Challenge)	
7	eUICC → T	COMPUTE IP AUTHENTICATION command returns CHAP-Response with: Data = '984A6C6E7B8896628750C4930134F298'. SW = '9000'.	

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

8.2.4.15.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-8	6.14.1.8
PE-MF-by-Template-3	6.14.2.1.4
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CSIM-by-Template-2	0
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-CSIM-by-Template-2	6.14.7.2.2
PE-CDMAParameters-1	6.14.9.4
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-RFM-CSIM	6.14.13.4
PE-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.4.15.2. Initial Conditions

None.

8.2.4.15.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.4.15 RQ8.1.4.17 RQ8.1.4.18 RQ8.1.4.19 RQ8.1.4.20 RQ8.1.4.18a RQ8.1.4.19a RQ8.1.4.20a
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification object.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the CSIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send COMPUTE IP AUTHENTICATION command with: P1 = '01 (MN-HA Authenticator) P2 = '02' Data = '00 0102030405060708090A0B0C' (Data #NAI-Entry-Index #Registration-Data)	
7	eUICC → T	COMPUTE IP AUTHENTICATION command returns MN-HA Authenticator with: Data = 8E13D5D91948D237EE4AB1DF26605C47'. SW = '9000'.	

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

8.2.4.16. Installing USIM and ISIM with sharing NAA parameters

8.2.4.16.1. Test execution

The Profile Package is defined as follows:

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

8.2.4.16.2. Initial Conditions

None.

8.2.4.16.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10

3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the ISIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send AUTHENTICATE command with SQN '0000000010 07': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'.	
7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.1 RQ8.1.4.8 RQ8.1.4.12 RQ8.1.4.13
8	T → eUICC	Send AUTHENTICATE command with SQN '0000000210 27' (exceeds delta): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669357 B9B9 94F171D3D1F4D089'.	
9	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BECB43C 2C80AE0582AE3FC7' SW = '9000'.	RQ8.1.4.12
10	T → eUICC	Send AUTHENTICATE command with SQN '0000000210 07' (within delta): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669377 B9B9 137626880CBAA079'.	
11	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.12
12	T → eUICC	Send AUTHENTICATE command with SQN '0000000110 06' (exceeds age limit): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659376 B9B9 B7B092F5DDBF4EE3'.	
13	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BEEB43C E685022180D8A2AB' SW = '9000'.	RQ8.1.4.12
14	T → eUICC	Send AUTHENTICATE command with SQN '0000000110 25' (within age limit): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659355 B9B9 1B6EFE265B816C4A'.	

| 15 | eUICC → T | AUTHENTICATE command returns with:
Data = 'DB 08 A54211D5E3BA50BF 10
B40BA9A3C58B2A05BBF0D987B21BF8CB 10
F769BCD751044604127672711C6D3441'
SW = '9000'. | RQ8.1.4.12 |

8.2.4.17. Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE in 2G mode

8.2.4.17.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
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-USIM-by-Template-1	6.14.5.1.1
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-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.4.17.2. Initial Conditions

None.

8.2.4.17.3. 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 profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 in 2G mode with: P1 = '00' P2 = '80' Data = '10 23553CBE9637A89D218AE64DAE47BF35'.	
7	eUICC → T	AUTHENTICATE command fails with error SW '9864' – Authentication error, GSM security context not supported.	RQ8.1.4.6
8	T ↔ eUICC	Select ef-ust (File ID '6F38').	
9	T → eUICC	Send VERIFY PIN adm1.	
10	T → eUICC	Send UPDATE BINARY with Data '220A0408 22 000000000010000000' to enable service 38.	
11	T → eUICC	Send AUTHENTICATE command in 2G mode with: P1 = '00' P2 = '80' Data = '10 23553CBE9637A89D218AE64DAE47BF35'.	

| 12 | eUICC → T | AUTHENTICATE command returns with:
Data = '04 46F8416A 08 EAE4BE823AF9A08B'
SW = '9000'. | RQ8.1.4.1
RQ8.1.4.2
RQ8.1.4.3
RQ8.1.4.6
RQ8.1.4.14 |

8.2.4.18. Installing USIM and ISIM with shared SQN array

8.2.4.18.1. 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-12	6.14.9.13
PE-ISIM-by-Template-1	6.14.6.1.1
PE-OPT-ISIM-by-Template-1	6.14.6.2.1
PE-AKAParameters-14	6.14.9.15
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-RFM-ISIM	6.14.13.3
PE-END-1	6.14.14.1

8.2.4.18.2. Initial Conditions

None.

8.2.4.18.3. 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 profileInstallationAborted object eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the ISIM application	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send AUTHENTICATE command with SQN '0000000010 07': P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'.	

7	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.1 RQ8.1.4.8b RQ8.1.4.12 RQ8.1.4.13
8	T → eUICC	Send AUTHENTICATE command with SQN '000000021027' (exceeds delta): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669357 B9B9 94F171D3D1F4D089'.	
9	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BECB43C 2C80AE0582AE3FC7' SW = '9000'.	RQ8.1.4.8b
10	T → eUICC	Send AUTHENTICATE command with SQN '000000021007' (within delta): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C669377 B9B9 137626880CBAA079'.	
11	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.8b
12	T → eUICC	Send AUTHENTICATE command with SQN '000000011006' (exceeds age limit): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659376 B9B9 B7B092F5DDBF4EE3'.	
13	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BEEB43C E685022180D8A2AB' SW = '9000'.	RQ8.1.4.8b
14	T → eUICC	Send AUTHENTICATE command with SQN '000000011025' (within age limit): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C659355 B9B9 1B6EFE265B816C4A'.	

15	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441' SW = '9000'.	RQ8.1.4.8b
16	T → eUICC	Select the USIM application	
17	T → eUICC	Send VERIFY PIN pinAppl1	
18	T → eUICC	Send AUTHENTICATE command with SQN '0000000010 07' (SQN is too old): P1 = '00' P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 AA689C649377 B9B9 022FE3275BF01411'.	
19	eUICC → T	AUTHENTICATE command returns with: Data = 'DC 0E 451E8BEEB43C E685022180D8A2AB' SW = '9000'.	RQ8.1.4.8b

8.2.4.19.   Installing multiple PE-AKAParameters with MILENAGE and TUAK and sending AUTHENTICATE

8.2.4.19.1.   Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-23	6.14.1.23
PE-MF-by-Template-5	6.14.2.1.8
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-15	6.14.9.16
PE-USIM-by-Template-7	6.14.5.1.9
PE-PINCodes-Local-PIN-5	6.14.8.5
PE-OPT-USIM-by-Template-4	6.14.5.2.5
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-RFM-4	6.14.13.6
PE-END-1	6.14.14.1

8.2.4.19.2.   Initial Conditions

None.

8.2.4.19.3.   Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.3.9 RQ8.1.4.1 RQ8.1.4.2 RQ8.1.4.3 RQ8.1.4.3b RQ8.1.4.4 RQ8.1.4.5 RQ8.1.4.9 RQ8.1.4.14
2	eUICC → T	eUICC responds with PEStatus (0) ok eUICC response contains no profileInstallationAborted object eUICC response contains no PE Identification object.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T → eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Select the USIM application (AID: A0 00 00 00 87 10 02 FF 33 FF 01 89 00 00 01 00).	
5	T → eUICC	Send VERIFY PIN pinAppl1	
6	T → eUICC	Send AUTHENTICATE command with: P1 = '00'. P2 = '81' Data = '10 4242424242424242424242424242424242 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	
8	T → eUICC	Select the USIM application (AID: A0 00 00 00 87 10 02 00 00 02 00 00 00 00 00 00).	
9	T → eUICC	Send VERIFY PIN pinAppl1	
10	T → eUICC	Send AUTHENTICATE command with: P1 = '00'. P2 = '81' Data = '10 23553CBE9637A89D218AE64DAE47BF35 10 55F328B43577 B9B9 4A9FFAC354DFAFB3'. See Note2	
11	eUICC → T	AUTHENTICATE command returns with: Data = 'DB 08 A54211D5E3BA50BF 10 B40BA9A3C58B2A05BBF0D987B21BF8CB 10 F769BCD751044604127672711C6D3441'. SW = '9000' See Note2	

Note1: the input and output of AUTHENTICATE command is derived from [TUAK TEST]
Note2: the input and output of AUTHENTICATE command is derived from [MILENAGE 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-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.	RQ8.1.5.7 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.5.18
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	
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'.	RQ8.1.5.9

8.2.5.2. Installing PINs in disabled state

8.2.5.2.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-2	6.14.4.2
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-3	6.14.8.3
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-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.	RQ8.1.5.7 RQ8.1.5.14 RQ8.1.5.16 RQ8.1.5.18
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	
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'	RQ8.1.5.9

8.2.5.3.   Installing different PINs with different PUKs

8.2.5.3.1.Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-3	6.14.4.3
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-4	6.14.8.4
PE-AKAParameters-1	6.14.9.1
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

8.2.5.3.1.Initial conditions

None.

8.2.5.3.2.Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
5	eUICC → T	VERIFY PIN command returns SW '63 C2'	
6	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
7	eUICC → T	VERIFY PIN command returns SW '63 C1'	
8	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
9	eUICC → T	VERIFY PIN command returns SW '63 C0'	
10	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
11	eUICC → T	VERIFY PIN command returns SW '69 83'	
12	T → eUICC	Send UNBLOCK PIN command for pinAppl1 with Data = '31323334353637383131313131313131'	
13	eUICC → T	UNBLOCK PIN command returns SW '90 00'	RQ8.1.5.16 RQ8.1.5.16b
14	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
15	eUICC → T	VERIFY PIN command returns SW '90 00'	RQ8.1.5.16 RQ8.1.5.16b
16	T → eUICC	Select the USIM application	
17	T → eUICC	Send VERIFY PIN command for secondPINAppl1 with Data = '3131313131313131'	
18	eUICC → T	VERIFY PIN command returns SW '63 C1'	
19	T → eUICC	Send VERIFY PIN command for secondPINAppl1 with Data = '3131313131313131'	
20	eUICC → T	VERIFY PIN command returns SW '63 C0'	

21	T → eUICC	Send VERIFY PIN command for secondPINAppl1 with Data = '3131313131313131'	
22	eUICC → T	VERIFY PIN command returns SW '69 83'	
23	T → eUICC	Send UNBLOCK PIN command for secondPINAppl1 with Data = '3132333435363738313131313131313131'	
24	eUICC → T	UNBLOCK PIN command returns SW '90 00'	RQ8.1.5.16 RQ8.1.5.16b
25	T → eUICC	Send VERIFY PIN command for secondPINAppl1 with Data = '3131313131313131'	
26	eUICC → T	VERIFY PIN command returns SW '90 00'	RQ8.1.5.16 RQ8.1.5.16b

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

8.2.5.4.1. Test execution

The Profile Package is defined as follows:

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

8.2.5.4.2. Initial conditions

None.

8.2.5.4.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
5	eUICC → T	VERIFY PIN command returns SW '63 C2'	
6	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
7	eUICC → T	VERIFY PIN command returns SW '63 C1'	
8	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
9	eUICC → T	VERIFY PIN command returns SW '63 C0'	
10	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	

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

8.2.5.5. Checking the PIN context of a Global PIN

8.2.5.5.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-2	6.14.1.2
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
PE-CD-by-Template-1	6.14.2.2.1
PE-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-3	6.14.5.1.5
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-OPT-USIM-by-Template-1	6.14.5.2.1
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.5.5.2. Initial conditions

None.

8.2.5.5.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select ef launchpad from the df cd	
5	T → eUICC	Send READ BINARY with Length = '05'	

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

8.2.5.6. Checking the PIN context of a Local PIN

8.2.5.6.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-2	6.14.2.1.6
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
ADF-CUSTOM-by-Generic-File-Management-1	6.14.2.4.4
PE-PINCodes-Local-PIN-5	6.14.8.5
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-SecurityDomain-SSD-1	6.14.11.1
PE-RFM-1	6.14.13.11
PE-END-1	6.14.14.1

8.2.5.6.2. Initial conditions

None.

8.2.5.6.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.5.21
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select ef1 (File ID '6F01') from the Custom ADF (File ID '7FA1')	
5	T → eUICC	Send UPDATE BINARY with Data '99887766554433221100'	
6	eUICC → T	UPDATE BINARY returns SW '69 82'	RQ8.1.5.2 RQ8.1.5.2b RQ8.1.3.20a
7	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '31323334FFFFFFFF'	
8	eUICC → T	VERIFY PIN returns SW '90 00'	
9	T → eUICC	Send UPDATE BINARY with Data '99887766554433221100'	
10	eUICC → T	UPDATE BINARY returns SW '90 00'	RQ8.1.5.2 RQ8.1.5.2b
11	T → eUICC	Send READ BINARY with Length = 0A	
12	eUICC → T	READ BINARY succeeds (SW '90 00') with response data containing the content of EF1 '99887766554433221100'	RQ8.1.5.2 RQ8.1.5.2b

8.2.5.7. Checking the "PIN state change allowed" and "PIN state change not allowed" status

8.2.5.7.1. Test execution

The Profile Package is defined as follows:

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

8.2.5.7.1. Initial conditions

None.

8.2.5.7.2.Test procedure

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

| 13 | 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 enabled.
There shall be three key references:
'830101' and
'830181' and
'83010A' | RQ8.1.5.10
RQ8.1.5.19 |

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

8.2.5.8.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-1	6.14.9.1
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

8.2.5.8.2. Initial conditions

None.

8.2.5.8.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 CHANGE PIN command for pinAppl1 with Data = '31323334353637383131313131313131'	
6	eUICC → T	CHANGE PIN command returns SW '90 00'	RQ8.1.5.10 RQ8.1.5.20
7	T → eUICC	Send VERIFY PIN command for pinAppl1 with Data = '3131313131313131'	
8	eUICC → T	VERIFY PIN command returns SW '90 00'	RQ8.1.5.10 RQ8.1.5.20
9	T → eUICC	Send CHANGE PIN command for secondPINAppl1 with Data = '31313131313131313132333435363738'	

10	eUICC → T	CHANGE PIN command fails with SW error	RQ8.1.5.10 RQ8.1.5.20
11	T → eUICC	Send VERIFY PIN command for secondPINAppl1 with Data = '3132333435363738'	
12	eUICC → T	VERIFY PIN command returns SW '63 C1'	RQ8.1.5.10 RQ8.1.5.20

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

8.2.5.9.1. Test execution

The Profile Package is defined as follows:

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

8.2.5.9.2. Initial conditions

None

8.2.5.9.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	If O_V_22: eUICC responds with PEStatus(11) pin-code-missing, or with PEStatus different from (0) and identification of USIM-by-Generic-File-Management-1, or PE-PINCodes-Local-PIN-2. The last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC responds with PEStatus(11) pin-code-missing, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of USIM-by-Generic-File-Management-1, or PE-PINCodes-Local-PIN-2. The last eUICC response contains profileInstallationAborted object.	RQ8.1.5.2d RQ8.1.11.26 RQ8.1.11.27
3	T ↔ eUICC	Enable Profile Package according to 6.11.fail	

8.2.5.10. Checking Local PIN handling

8.2.5.10.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
ADF-CUSTOM-by-Generic-File-Management-1	6.14.2.4.4
PE-PINCodes-Local-PIN-6	6.14.8.6
PE-USIM-by-Template-1	6.14.5.1.1
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-RFM-1	6.14.13.11
PE-END-1	6.14.14.1

8.2.5.10.2. Initial conditions

None

8.2.5.10.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.5.17
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T ↔ eUICC	Select ef1 (File ID '6F01') from the Custom ADF (File ID '7FA1')	
5	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '31323334FFFFFFFF'	
6	eUICC → T	VERIFY PIN returns SW '90 00'	
7	T ↔ eUICC	Select ef est (File ID '6F56') from ADF USIM	
8	T → eUICC	Send UPDATE BINARY with Data '01'	
9	eUICC → T	UPDATE BINARY returns SW '69 82'	RQ8.1.5.2 RQ8.1.5.2b
10	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '1111111111111111 '	
11	eUICC → T	VERIFY PIN returns SW '63 C1'	
12	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '1111111111111111 '	
13	eUICC → T	VERIFY PIN returns SW '63 C0'	
14	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '1111111111111111 '	
15	eUICC → T	VERIFY PIN returns SW '69 83'	
16	T ↔ eUICC	Select ef1 (File ID '6F01') from the Custom ADF (File ID '7FA1')	
17	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '31323334FFFFFFFF'	

18	eUICC → T	VERIFY PIN returns SW '90 00'	RQ8.1.5.13
19	T → eUICC	Send UPDATE BINARY with Data '99887766554433221100'	
20	eUICC → T	UPDATE BINARY returns SW '90 00'	RQ8.1.5.2 RQ8.1.5.2b RQ8.1.5.13

8.2.5.11.   Checking the PIN context of a Local PIN

8.2.5.11.1.   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-TELECOM-by-Template-4	6.14.2.3.4
PE-PINCodes-Local-PIN-5	6.14.8.5
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-RFM-1	6.14.13.1
PE-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.5.11.2.   Initial conditions

None.

8.2.5.11.3.   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	Select ef-sume (File ID '6F54') from the DF TELECOM	
5	T → eUICC	Send UPDATE BINARY with Data '8500FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF'	
6	eUICC → T	UPDATE BINARY returns SW '69 82'	RQ8.1.5.2 RQ8.1.5.2b
7	T → eUICC	Send VERIFY PIN for secondPINAppl1 with Data '31323334FFFFFFFF'	
8	eUICC → T	VERIFY PIN returns SW '90 00'	
9	T → eUICC	Send UPDATE BINARY with Data '8500FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF'	
10	eUICC → T	UPDATE BINARY returns SW '90 00'	RQ8.1.5.2 RQ8.1.5.2b
11	T ↔ eUICC	Select ef-icon (File ID '4F80') from the DF GRAPHICS in DF TELECOM	

12	T → eUICC	Send UPDATE BINARY with Data '00112233445566778899101112131415161718 1920'	
13	eUICC → T	UPDATE BINARY returns SW '90 00'	RQ8.1.5.2 RQ8.1.5.2b
14	T ↔ eUICC	Select ef-puid (File ID '4F24') from the DF PHONEBOOK in DF TELECOM	
15	T → eUICC	Send UPDATE BINARY with Data '0002'	
16	eUICC → T	UPDATE BINARY returns SW '90 00'	RQ8.1.5.2 RQ8.1.5.2b
17	T ↔ eUICC	Select ef-mspl (File ID '4F21') from the DF MMSS in DF TELECOM	
18	T → eUICC	Send UPDATE BINARY with Data '0011223344556677889910111213141516171819202 1222324'	
19	eUICC → T	UPDATE BINARY returns SW '90 00'	RQ8.1.5.2 RQ8.1.5.2b

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-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.	RQ8.1.6.1 RQ8.1.6.4 RQ8.1.6.5 RQ8.1.6.7
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	
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'.	RQ8.1.7.34b

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

8.2.6.2. 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-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 RQ8.1.6.3 RQ8.1.6.4 RQ8.1.6.5 RQ8.1.6.7 RQ8.1.6.10 RQ8.1.6.26 RQ8.1.6.34 RQ8.1.6.35 RQ8.1.6.37 RQ8.1.6.38a
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	
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'.	

| 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'. | RQ8.1.6.8 |

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

8.2.6.3. 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-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	If O_V_20, or O_V21, or O_V_22: eUICC response shall contain at least one PEStatus different from ok (0) and the identification of PE-SecurityDomain-MNO-SD-3. the last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC response shall contain at least one PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and the identification of PE-SecurityDomain-MNO-SD-3. the last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.25
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

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-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.	RQ8.1.6.29 RQ8.1.6.30 RQ8.1.6.31 RQ8.1.6.46
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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).	
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).	
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-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.6.5.2. Initial conditions

None

8.2.6.5.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	
5	eUICC → T	GET DATA command responds with • Security Domain Administration Session Parameters contained in `#sdPersoData`. • SW='9000'.	RQ8.1.6.36a

8.2.6.6. VOID

8.2.6.7. VOID

8.2.6.8. Check installing an SSD under a self extradited SSD

8.2.6.8.1. Test execution

The Profile Package is defined as follows:

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

8.2.6.8.2.Initial conditions

None.

8.2.6.8.3.Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.6.41
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11.	
4	T → eUICC	Send GET STATUS command to SSD-3 using SCP80 with P1 = '40' P2 = '02' Data = '4F 10 A0000005591010100102736456616C7566'.	
5	eUICC → T	GET STATUS command responds with • AID of SSD-4 (`#instanceAID`) • Life cycle state (`#lifeCyleState`) See Note • Privileges (`#applicationPrivileges`) • SCP Registry Data is present • SW='9000'.	

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

8.2.6.9. Check initial counter is default when keyCounterValue absent

8.2.6.9.1.Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-1	6.14.5.1.2
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-AKAParameters-1	6.14.9.1
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

8.2.6.9.2.Initial conditions

None.

8.2.6.9.3.Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.6.1 RQ8.1.6.3 RQ8.1.6.4 RQ8.1.6.5 RQ8.1.6.7 RQ8.1.6.8 RQ8.1.6.10 RQ8.1.6.26 RQ8.1.6.34 RQ8.1.6.35 RQ8.1.6.37 RQ8.1.6.38a
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 = 66 SPI = 1A 21 KIC = 00 KID = 12 Counter = 00 00 00 00 02.	
5	eUICC → T	Status Code of SCP80 protocol = 03 (CNTR high) , OR No Response Packet	RQ8.1.6.20b
6	T → eUICC	Send GET DATA command to MNO-SD using SCP80 with P1 = 00 P2 = 66 SPI = 1A 21 KIC = 00 KID = 12 Counter = 00 00 00 00 01.	
7	eUICC → T	Status Code of SCP80 protocol = 00 (PoR OK)	RQ8.1.6.20b

8.2.6.10. Error when installing KeyObject parameter not supported

8.2.6.10.1. Test execution

The Profile Package is defined as follows:

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

8.2.6.10.2. Initial conditions

None.

8.2.6.10.3. Test procedure

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

8.2.7 Check Application loading and installation

8.2.7.1. Check Application PE and mandatory elements in ApplicationInstance

8.2.7.1.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-27	6.14.1.27
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.	RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.33 RQ8.1.7.34a RQ8.1.7.34b RQ8.1.7.35 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.55 RQ8.1.7.61 RQ8.1.7.69
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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'.	
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'.	
6	T → eUICC	Send GET STATUS command to MNO-SD using SCP80 with P1 = '20' P2 = '02' Data ='4F 08 #loadPackageAID'.	
5	eUICC → T	GET STATUS command responds with - Executable Load File AID (`#loadPackageAID`) - Executable Load File Life Cycle State - SW='9000'.	RQ8.1.7.62

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

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

8.2.7.2.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-27	6.14.1.27
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.	RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 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 RQ8.1.7.51 RQ8.1.7.52 RQ8.1.7.61

| 2 | eUICC → T | If O_V_20, or O_V21, or O_V_22:
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.

If O_V_23:
the eUICC responds with PEStatus (4) not-enough-memory and the identification of PE-Application-2, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of PE-Application-2.
the last eUICC response contains profileInstallationAborted object. | RQ8.1.11.2
RQ8.1.11.2ª
RQ8.1.11.5
RQ8.1.11.6
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-27	6.14.1.27
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 RQ8.1.7.8 RQ8.1.720 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.28 RQ8.1.7.29 RQ8.1.7.31 RQ8.1.7.33 RQ8.1.7.34b RQ8.1.7.35 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 RQ8.1.7.55 RQ8.1.7.56 RQ8.1.7.58 RQ8.1.7.61 RQ8.1.7.69
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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'.	
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: 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-27	6.14.1.27
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.	RQ8.1.7.1 RQ8.1.7.6 RQ8.1.7.8
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: 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. If O_V_23: eUICC response with PEStatus (8) lib-not-supported and the identification of PE-Application-4, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of PE-Application-4. the last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.5 RQ8.1.11.6 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-27	6.14.1.27
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.	RQ8.1.7.3 RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.33 RQ8.1.7.34a RQ8.1.7.34b RQ8.1.7.35 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.55 RQ8.1.7.61 RQ8.1.7.69
2	eUICC → T	eUICC response with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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).	
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: 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-27	6.14.1.27
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.	RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.33 RQ8.1.7.34a RQ8.1.7.34b RQ8.1.7.35 RQ8.1.7.39 RQ8.1.7.40RQ8.1.7.41 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 RQ8.1.7.61 RQ8.1.7.69

2	eUICC → T	eUICC response with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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'.	
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: 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-27	6.14.1.27
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

8.2.7.7.2.Initial conditions

None

8.2.7.7.3.Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.7.69b RQ8.1.7.61
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 RQ8.1.11.5 RQ8.1.11.6 RQ8.1.11.17 RQ8.1.11.17d RQ8.1.11.17e 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-27	6.14.1.27
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

8.2.7.8.2. Initial conditions

None

8.2.7.8.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.7.8 RQ8.1.7.10 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 RQ8.1.7.51 RQ8.1.7.52 RQ8.1.7.61
2	eUICC → T	If O_V_21, or O_V_22: 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. If O_V_23: the eUICC responds with PEStatus (4) not-enough-memory and the identification of PE-Application-7, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of PE-Application-7. the last eUICC response contains profileInstallationAborted object.	RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.5 RQ8.1.11.6 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-27	6.14.1.27
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 RQ8.1.7.8 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.28 RQ8.1.7.29 RQ8.1.7.31 RQ8.1.7.33 RQ8.1.7.34b RQ8.1.7.35 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 RQ8.1.7.56 RQ8.1.7.58 RQ8.1.7.61 RQ8.1.7.69
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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'	
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_1: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

Note_2: SCP Registry Data may not be present in the response

8.2.7.10. Check loaded libraries within a PE-Application

8.2.7.10.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-27	6.14.1.27
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-8	6.14.12.8
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.7.10.2. Initial conditions

None

8.2.7.10.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.7.1 RQ8.1.7.6 RQ8.1.7.8
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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 = '10' P2 = '02' Data ='4F 08' #loadPackageAID	
5	eUICC → T	GET STATUS command responds with • Load Package AID (#loadPackageAID) • Life cycle state ('01') See Note • First Executable Module AID (A0000005591010011112233) Note2 SW='9000'.	

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

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

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

8.2.7.11.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-27	6.14.1.27
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-9	6.14.12.9
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.7.11.2. Initial conditions

None

8.2.7.11.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.28 RQ8.1.7.29 RQ8.1.7.31 RQ8.1.7.35 RQ8.1.7.37 RQ8.1.7.38 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42RQ8.1.7.47 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 profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a 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'	
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: a 2nd byte may be returned containing the Contactless Activation State. The value of the Contactless Activation State shall not be verified.

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

8.2.7.12.1. Test execution

The Profile Package is defined as follows:

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

8.2.7.12.2. Initial conditions

None

8.2.7.12.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.28 RQ8.1.7.31 RQ8.1.7.35 RQ8.1.7.37 RQ8.1.7.39 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.61 RQ8.1.7.65 RQ8.1.7.66
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: eUICC responds with PEStatus(10) feature-not-supported or with PEStatus different from (0). The last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC responds with PEStatus(10) feature-not-supported or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959]. The last eUICC response contains profileInstallationAborted object.	RQ8.1.11.21 RQ8.1.11.22b RQ8.1.11.2 RQ8.1.11.2a
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

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

8.2.7.13.1. Test execution

The Profile Package is defined as follows:

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

8.2.7.13.2. Initial conditions

None

8.2.7.13.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.28 RQ8.1.7.29 RQ8.1.7.31 RQ8.1.7.33 RQ8.1.7.34a RQ8.1.7.34b RQ8.1.7.35 RQ8.1.7.37 RQ8.1.7.38 RQ8.1.7.39 RQ8.1.7.40 RQ8.1.7.41 RQ8.1.7.42 RQ8.1.7.61 RQ8.1.7.63 RQ8.1.7.64
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted eUICC response contains no PE Identification object.	RQ8.1.11.4 RQ8.1.11.9 RQ8.1.11.9a RQ8.1.11.10
3	T ↔ eUICC	Enable Profile Package according to 6.11	
4	T → eUICC	Send GET STATUS command to SSD using SCP80 with P1 = '40' P2 = '02' Data ='4F 0C #instanceAID 5C 04 4F A9 87 88'	

| 5 | eUICC → T | GET STATUS command responds with
 • AID of application (#instanceAID)
 • Contactless Protocol Parameters Profile ('A10490020002')
 • Assigned Protocols for Implicit Selection ('828184')
 • Initial Contactless Activation State ('00')
 SW='9000'. | |

8.2.7.14. Check Application PE loaded using the SHA-1 algorithm for the "hashValue" related to the loadBlockObject.

8.2.7.14.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-27	6.14.1.27
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-USIM-by-Template-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-12	6.14.12.12
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.7.14.2. Initial conditions

None

8.2.7.14.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.1.6 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.18 RQ8.1.7.19 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.34a RQ8.1.7.35 RQ8.1.7.39 RQ8.1.7.55 RQ8.1.7.61 RQ8.1.7.69
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	

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

8.2.7.15. Check Application PE installed setting the Additional Contactless Parameters according to the ETSI TS 102.226.

8.2.7.15.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-22	6.14.1.22
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-USIM-by-Template-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-13	6.14.12.13
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.7.15.2. Initial conditions

None

8.2.7.15.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	RQ8.1.1.6 RQ8.1.1.7 RQ8.1.1.9 RQ8.1.7.4 RQ8.1.7.5 RQ8.1.7.8 RQ8.1.7.20 RQ8.1.7.22 RQ8.1.7.24 RQ8.1.7.26 RQ8.1.7.30 RQ8.1.7.31 RQ8.1.7.34a RQ8.1.7.35 RQ8.1.7.39 RQ8.1.7.54 RQ8.1.7.55 RQ8.1.7.61 RQ8.1.7.67 RQ8.1.7.69
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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) • Implicit selection parameter (#implicitSelectionParameter) • SCP Registry Data SW='9000'.	

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

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-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 profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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-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 profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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-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 profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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'.	
5	eUICC → T	SELECT command succeeds (SW '90 00')	RQ8.1.8.2 RQ8.1.8.4
6	T → eUICC	Send SELECT by FILE ID command to the RFM instance_2 (TAR value is B00002) using SCP80 with Data = '2F00'.	
7	eUICC → T	SELECT command succeeds (SW '90 00')	RQ8.1.8.2 RQ8.1.8.4

8.2.8.4. Installing PE-RFM associated to SSD1

8.2.8.4.1. Test execution

The Profile Package is defined as follows:

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

8.2.8.4.2. Initial conditions

None.

8.2.8.4.3. Test procedure

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

8.2.9 Check Non standardised content

8.2.9.1. No error when installing non mandatory PE-NonStandard

8.2.9.1.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
PE-NonStandard-1	6.14.15.1
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-2	6.14.5.1.4
PE-PINCodes-Local-PIN-1	6.14.8.1
OPT-USIM-by-Generic-File-Management-1	6.14.5.2.2
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.9.1.2. Initial conditions

None.

8.2.9.1.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.38
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification object.	RQ8.1.11.9 RQ8.1.11.9a 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	

8.2.9.2. Error when installing mandatory PE-NonStandard

8.2.9.2.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-1	6.14.1.1
PE-NonStandard-2	6.14.15.2
MF-by-Generic-File-Management-1	6.14.2.1.2
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
USIM-by-Generic-File-Management-2	6.14.5.1.4
PE-PINCodes-Local-PIN-1	6.14.8.1
OPT-USIM-by-Generic-File-Management-1	6.14.5.2.2
PE-AKAParameters-1	6.14.9.1
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-RFM-2	6.14.13.2
PE-END-1	6.14.14.1

8.2.9.2.2. Initial conditions

None.

8.2.9.2.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: eUICC responds with PEStatus different from (0) and identification of PE-NonStandard-2. The last eUICC response contains profileInstallationAborted object. If O_V_23: eUICC responds with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959] and identification of PE-NonStandard-2. The last eUICC response contains profileInstallationAborted object.	RQ8.1.1.8 RQ8.1.11.2 RQ8.1.11.2a RQ8.1.11.25
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fails.	

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-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.	
2	eUICC → T	eUICC response with PEStatus (31) unsupported-profile-version eUICC response contains no identification object eUICC response contains profileInstallationAborted object.	RQ8.1.2.5 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-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.	
2	eUICC → T	If O_V_20, or O_V21, or O_V_22: 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. If O_V_23: eUICC response with PEStatus (9) template-not-supported, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959]. eUICC response contains no identification object. eUICC response contains profileInstallationAborted object.	RQ8.1.2.19 RQ8.1.11.20 RQ8.1.11.20b
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

8.2.11.3.   Check offset in eUICC Response with error

8.2.11.3.1. Test execution

The Profile Package is defined as follows:

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

8.2.11.3.2. Initial conditions

None

8.2.11.3.3. Test procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	If O_V_22: eUICC response with PEStatus (9) template-not-supported, or with PEStatus different from (0), and offset with value between 51 and 58 inclusive. eUICC response contains no identification object. eUICC response contains profileInstallationAborted object. If O_V_23: eUICC response with PEStatus (9) template-not-supported, or with PEStatus in the range of [1...11] or [31] or [24576...28671] or [36864...40959], and offset with value between 51 and 58 inclusive. eUICC response contains no identification object. eUICC response contains profileInstallationAborted object.	RQ8.1.11.28 RQ8.1.11.29
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

8.2.11.4. Check unknown tag in Profile Package

8.2.11.4.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-20	6.14.1.20
PE-MF-by-Template-1	6.14.2.1.1
PE-PUKCodes-1	6.14.3.1
PE-PINCodes-1	6.14.4.1
DF-CUSTOM-by-Generic-File-Management-24 (See Note)	6.14.2.4.5
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-RFM-1	6.14.13.1
PE-RFM-2	6.14.13.2
PE-END-1	6.14.14.1
Note: When creating the DER code for this Test Case at least the DF-CUSTOM-by-Generic-File-Management-4 shall be created using PEDefinitions V2.100_with_unknownTag.asn. The PEDefinitions V2.100_with_unknownTag.asn is available for download on the SIMalliance website.	

8.2.11.4.2. Initial conditions

None

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10.	
2	eUICC → T	eUICC response with PEStatus (6) invalid-parameter and the identification of DF-CUSTOM-by-Generic-File-Management-4. the last eUICC response contains profileInstallationAborted object	RQ7.1.1.8 RQ8.1.2.7 RQ8.1.11.17 RQ8.1.11.17b RQ8.1.11.17e
3	T ↔ eUICC	Enabling Profile Package according to 6.11 fail.	

8.2.12   Check SUCI Calculation by USIM

8.2.12.1.   SUCI Calculation by default system application – Profile A

8.2.12.1.1.   Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-24	6.14.1.24
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-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-8	6.14.5.1.10
PE-OPT-USIM(by-Template)-1	6.14.5.2.1
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-5GS-by-Template-1	6.14.5.5.1
PE-SAIP-by-Template-1	6.14.5.6.1
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.12.1.2.   Initial Conditions

None.

8.2.12.1.3.   Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.41 RQ8.1.1.42
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 GET IDENTITY command with: P1 = '00' P2 = '01' Le = '00'	

7	eUICC → T	GET IDENTITY command returns with:
		A1 35
		    01
		    32F401F0FF
		    01
		    01
		    [USIM Public] 32 bytes
		    [Concealed SUPI] 5 bytes
		    [MAC Tag] 8 bytes
		9000
			RQ8.1.2.3

8	T	Using the received [USIM Public] and the Home Network Private Key as defined in PE-SAIP-by-Template-1 the Test Tool: • decrypts the received [Concealed SUPI] and check, if it equals to '9134876765'H • verifies the [MAC Tag]	

8.2.12.2. SUCI Calculation by default system application – Profile B

8.2.12.2.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-25	6.14.1.25
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-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-8	6.14.5.1.10
PE-OPT-USIM(by-Template)-1	6.14.5.2.1
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-5GS-by-Template-1	6.14.5.5.1
PE-SAIP-by-Template-2	6.14.5.6.2
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.12.2.2. Initial Conditions

None.

8.2.12.2.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.41 RQ8.1.1.42
2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 GET IDENTITY command with: P1 = '00' P2 = '01' Le = '00'	

7	eUICC → T	GET IDENTITY command returns with:
		A1 36
		    01
		    32F401F0FF
		    02
		    01
		    [USIM Public] 33 bytes
		    [Concealed SUPI] 5 bytes
		    [MAC Tag] 8 bytes
		9000
			RQ8.1.2.3

8	T	Using the received [USIM Public] and the Home Network Private Key as defined in PE-SAIP-by-Template-2 the Test Tool: • decrypts the received [Concealed SUPI] and check, if it equals to '9134876765'H • verifies the [MAC Tag]	

8.2.12.3. SUCI Calculation by default system application – Null Scheme

8.2.12.3.1. Test execution

The Profile Package is defined as follows:

Test PE name	Reference
Profile-Header-26	6.14.1.26
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-TELECOM-by-Template-1	6.14.2.3.1
PE-USIM-by-Template-8	6.14.5.1.10
PE-OPT-USIM(by-Template)-1	6.14.5.2.1
PE-PINCodes-Local-PIN-1	6.14.8.1
PE-5GS-by-Template-1	6.14.5.5.1
PE-SAIP-by-Template-3	6.14.5.6.3
PE-AKAParameters-1	6.14.9.1
PE-SecurityDomain-MNO-SD-1	6.14.10.1
PE-RFM-1	6.14.13.1
PE-END-1	6.14.14.1

8.2.12.3.2. Initial Conditions

None.

8.2.12.3.3. Test Procedure

Step	Direction	Description	RQ
1	T → eUICC	Load Profile Package to the eUICC according to 6.10 .	RQ8.1.1.41 RQ8.1.1.42

2	eUICC → T	eUICC responds with PEStatus (0) ok. eUICC response contains no profileInstallationAborted object. eUICC response contains no PE Identification.	RQ8.1.11.9 RQ8.1.11.9a 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 GET IDENTITY command with: P1 = '00' P2 = '01' Le = '00'	

7	eUICC → T	GET IDENTITY command returns with:
		A1 0D
		   01
		   32F401F0FF
		   00
		   00
		   9134876765
		9000
			RQ8.1.2.3

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

10.8   ANNEX B8 (Normative) : SFI values in DF GSM ACCESS

FID	EF Name	SFI
4F20	EF Kc	01
4F52	EF KcGPRS	02

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
V2.2	2019.February 15.	Major changes: -the following new test cases are added: 8.2.2.1. Error when cat-tp in ServicesList and eUICC does not support CAT_TP 8.2.2.2. Error when package in eUICC-Mandatory-AIDs is not known

		8.2.2.3. Error when version in eUICC-Mandatory-AIDs is not supported
		8.2.2.4. No error when package and version in eUICC-Mandatory-AIDs is known and supported
		8.2.3.12. Installing USIM files by template without content
		8.2.3.13. Creating file instances with and without explicitly set file ID
		8.2.3.14. Error when installing PE-CSIM when eUICC does not support CSIM
		8.2.3.15. Installing GSM-ACCESS files by template
		8.2.3.16. Installing USIM Phonebook files by template
		8.2.3.17. Installing EAP files by template
		8.2.4.3. Installing PE-AKAParameters with usim-test-algorithm and sending AUTHENTICATE
		8.2.4.4. Installing PE-AKAParameters with TUAK with 256 bit key and restricted length and sending AUTHENTICATE
		8.2.4.5. Installing PE-AKAParameters with TUAK with 256 bit key and sending AUTHENTICATE
		8.2.4.6. Installing PE-AKAParameters with TUAK with numberOfKeccak and restricted lengths and sending AUTHENTICATE
		8.2.4.7. Installing PE-AKAParameters with TUAK with numberOfKeccak and sending AUTHENTICATE
		8.2.4.8. Error when authCounterMax exceeded
		8.2.4.9. Test Milenage PIN verification and defined constants
		8.2.4.10. Blocked SQN with wrap around deactivated (content is FFS)
		8.2.4.11. Testing SQN delta and age limit
		8.2.4.12. Test usim-test-algorithm with 32 bit RES length
		8.2.4.13. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP CHAP Mode
		8.2.4.14. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP HRPD Access Mode
		8.2.4.15. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Mobile IP Mode
		8.2.4.16. Installing USIM and ISIM with sharing NAA parameters
		8.2.5.3. Installing different PINs with different PUKs
		8.2.5.4. Checking the access domain validity of an RFM instance in case of a blocked PIN
		8.2.5.5. Checking the PIN context of a Global PIN
		8.2.5.6. Checking the PIN context of a Local PIN
		8.2.5.7. Checking the "PIN state change allowed" and "PIN state change not allowed" status
		8.2.5.8. Checking the "PIN can be changed" and "PIN cannot be changed" status
		8.2.5.9. Error when no consistency between pinStatusTemplateDO and PE PINCodes Local
		8.2.6.6. Check CASD Personalisation – Scenario #3
		8.2.6.7 Check CASD personalization – Scenario#2B
		8.2.6.8. Check installing an SSD under a self extradited SSD
		8.2.6.9. Check initial counter is default when keyCounterValue absent
		8.2.6.10. Error when installing KeyObject parameter not supported

		8.2.7.10. Check loaded libraries within a PE-Application 8.2.7.11. Check PE-Application installation when Memory Management is supported. 8.2.7.12. Installing profile with contactless eUICC Mandatory service selected and userInteractionContactlessParameters, eUICC reports error 8.2.7.13. Check the contactlessProtocolParameters set inside the ApplicationInstance with contactless eUICC Mandatory service selected. 8.2.8.4. Installing PE-RFM associated to SSD1 8.2.9.1. No error when installing non mandatory PE-NonStandard 8.2.11.3. Check offset in eUICC Response with error -the following test case is deleted: 8.2.1.5. Installing profile with PE-USIM before PE-MF -in TC 8.2.3.10 Step 7 and 9 is updated (bugfix) -several test cases are updated to check that the eUICC response contains no profileInstallationAborted object when eUICC responds with PEStatus (0) ok -some requirements are added in some Test Sequences as tested requirements -several new Test PE-s are added in Section 6.14 -some Test PE-s are updated -new Optional features are added in Table 1 (Section 6.1) -several new REQ-s are added and some existing REQ-s are updated in Section 7 and 8 -Section 2 is updated -Section 3.1 is updated -Section 6.1 is updated : the support of O_JAVACARD is mandated -Section 6.6.4.2 is updated -new Section 6.6.4.4. is added with a clarification for file system checking by test tool -new Section 6.6.4.5 is added with a clarification for checking Tag '82' (File Descriptor) -new Section 6.6.6 is added with a clarification regarding possible returned status codes -new Section 6.6.7 is added about the usage of ISO interface
V2.2.1	2019.04.10.	The following new section is added: -Section 6.6.8 is about the handling of GET STATUS response The following Test PE-s are updated: -6.14.2.4.4. ADF-CUSTOM-by-Generic-File-Management-1 PE -6.14.7.1.1. PE-CSIM-by-Template-1 -6.14.7.1.2. PE-CSIM-by-Template-2 The following new Test PE is added:

		-6.14.8.5. PE-PINCodes-Local-PIN-5 The following test cases are updated: -8.2.3.10. Installing CSIM files by template -8.2.3.14. Error when installing PE-CSIM when eUICC does not support CSIM -8.2.4.13. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP CHAP Mode -8.2.4.14. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Simple IP HRPD Access Mode -8.2.4.15. Installing PE-CDMAParameters and send COMPUTE ID AUTHENTICATE in Mobile IP Mode -8.2.5.6. Checking the PIN context of a Local PIN The applicability of test case 8.2.5.6 is changed
V2.2.2	2019.07.12	The following sections are updated: -Section 6.6.7. ISO interface The following new Test PE is added: -6.14.2.1.6. MF-by-Generic-File-Management-2 The following Test PE-s are updated: -6.14.2.4.4. ADF-CUSTOM-by-Generic-File-Management-1 The following test cases are updated: -8.2.5.6. Checking the PIN context of a Local PIN -8.2.5.7. Checking the "PIN state change allowed" and "PIN state change not allowed" status -8.2.5.8. Checking the "PIN can be changed" and "PIN cannot be changed" status -8.2.6.6. Check CASD Personalisation – Scenario #3 -8.2.6.7. Check CASD Personalisation – Scenario #2B -8.2.6.9. Check initial counter is default when keyCounterValue absent -8.2.6.10. Error when installing KeyObject parameter not supported
V2.3	2020.03.10	Section 3.1 is updated Section 6.1 is updatedSection 6.2 is updated Section 6.6.4.6 is added Section 6.6.6 is updated Section 6.14 is updated Section 8.1 is updatedRQ-s in the test sequences are reordered and updated The javacard service became optional. It resulted in several changes, especially in the applicability of the test cases, in the profile headers and in the Test Profiles Some Test PE-s are added/updated/deleted in Section 6.14 New TC-es: 8.2.3.18. Error when installing USIM files by template with BER-TLV files in a mandatory PE when eUICC does not support BER-TLV

| | | 8.2.3.19. Installing USIM files by template using proprietaryEFInfo
8.2.3.20 Installing profile with multiple FileManagement elements
8.2.3.21. Installing multiple USIM by template
8.2.4.10. Blocked SQN with wrap around deactivated
8.2.4.17. Installing PE-AKAParameters with MILENAGE and sending AUTHENTICATE in 2G mode
8.2.4.18. Installing USIM and ISIM with shared SQN
8.2.4.19. Installing multiple PE-AKAParameters with MILENAGE and TUAK and sending AUTHENTICATE
8.2.5.10. Checking Local PIN handling
8.2.5.11 Checking the PIN context of a Local PIN
8.2.7.14. Check Application PE loaded using the SHA-1 algorithm for the "hashValue" related to the loadBlockObject
8.2.7.15. Check Application PE installed setting the Additional Contactless Parameters according to the ETSI TS 102.226
8.2.9.2. Error when installing mandatory PE-NonStandard
8.2.11.4. Check unknown tag in Profile Package
8.2.12.1. SUCI Calculation by default system application – Profile A
8.2.12.2. SUCI Calculation by default system application – Profile B
8.2.12.3. SUCI Calculation by default system application – Null Scheme

Deleted TC-es:
8.2.6.6. Check CASD Personalisation – Scenario #3
8.2.6.7. Check CASD Personalisation – Scenario #2B

Several TC-es are updated

Expected error statuses are updated in the following TC-es:
8.2.1.2
8.2.1.3
8.2.1.4
8.2.2.1
8.2.3.5
8.2.3.14
8.2.6.3
8.2.7.2
8.2.7.4
8.2.7.8
8.2.7.12
8.2.11.2
8.2.11.3

The title of TC 8.2.4.13; 8.2.4.14 and 8.2.4.15 is updated

Annex B8 is added |