Attachment 4-2-15

WiMAX Forum® Network Architecture

Architecture, detailed Protocols and Procedures

WiMAX-SIM Application on UICC

WMF-T33-114-R015v01

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WiMAX Forum® Approved

(2009-11-21)

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1 **Revision History**

November 6, 2009	Initial version of Release 1.5.

1. Introduction

The present document defines the WiMAX Subscriber Identity Module (WiMAX-SIM) application. This application resides on the UICC, an Integrated Circuit card specified in ETSI TS 102 221[6], 3GPP TS 31.101[8]. In particular, ETSI TS 102 221[6], 3GPP TS 31.101[8] specifies the application independent properties of the UICC/MS interface such as the physical characteristics and the logical structure.

ETSI TS 102 221[6] is one of the core documents for this specification and is therefore referenced in many places in the present document.

2. Scope

The present document defines the WiMAX-SIM application on UICC for WiMAX network operation. The requirements for WiMAX-SIM on UICC from R [496] to R [505] are specified in SPWG Release 1.5 section 10.15.

The present document specifies:

- Specific command parameters;
- File structures;
- Contents of EFs (Elementary Files);
- Security functions;
- Interworking with other Applications (ISIM, USIM, etc….) on UICC
- Logical Interface to the WiMAX-SIM on UICC.

This is to ensure interoperability between WiMAX-SIM and any MS independent of any UICC manufacturers, UICC issuers or operators.

The present document does not define any aspects related to the administrative management phase of the WiMAX-SIM application. The present document does not specify any of the security algorithms, which may be used.

This document defines only the WiMAX-SIM domain on UICC that is specific to WiMAX Network operation. This document reuses the existing UICC platform as defined by ETSI TS 102 221[6]. When applicable, this document re-uses standards applications functions on UICC (USIM, ISIM) as defined by other standards organizations. (such as ETSI, 3GPP, 3GPP2 etc. …)

The WiMAX-SIM feature specified by this document is optional. Hence, all normative statements within this specification are conditionally normative and only apply in the case where WiMAX-SIM is used.

If the WiMAX-SIM is present in the WiMAX-SIM enabled terminal, the terminal SHOULD be configurable to use the WiMAX-SIM based subscription.

3. References

The following standards are referenced in this text. At the time of publication, versions as indicated were valid. All standards are subject to revision, and parties to agreements based upon this document are encouraged to investigate the possibility of applying the most recent versions of the standards indicated below. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same release.

[1] RFC 3748 - Extensible Authentication Protocol (EAP).

[2] VOID

[2] ETSI TS 102 310 "Smart Cards; Extensible Authentication Protocol support in the UICC Rel 8"

[3] RFC 4187 - Extensible Authentication Protocol Method for 3rd Generation Authentication and Key Agreement(EAP-AKA)

[4] IETF Draft – "draft-urien-eap-smartcard-14.txt", EAP-Support in Smartcard

[5] ETSI TS 102 221:“Smart cards; UICC-Terminal interface; Physical and logical characteristics Rel 8”

[6] ETSI TS 102 223:“Smart Cards; Card Application Toolkit (CAT) Rel 8”

[7] 3GPP TS 31 101:“Universal Mobile Telecommunications System (UMTS); UICC-terminal interface; Physical and logical characteristics Rel 8”

[8] 3GPP TS 31 102:“Universal Mobile Telecommunications System (UMTS); Characteristics of the Universal Subscriber Identity Module (USIM) application Rel 8”

[9] 3GPP TS 33 102:“Universal Mobile Telecommunications System (UMTS); 3G security; Security architecture Release 8”

[10] ETSI TS 101 220: “Smart cards; ETSI numbering system for telecommunication application providers”

[12] SPWG Rel 1.5 Recommendations and Requirements for Networks based on WiMAX Forum Certified Products.

[13] WiMAX Forum, T33-001-R015v01, “Detailed Protocols and Procedures, Base Specification", Release 1.5

[14] RFC 4282 - The Network Access Identifier

[15] ETSI TS 102 225: “Smart cards; Secured packet structure for UICC based applications (Release 8)”

[16] ETSI TS 102 226: “Smart Cards; Remote APDU structure for UICC based applications (Release 8)”

[17] Void

[18] 3GPP 23.003: “Technical Specification Group Core Network and Terminals; Numbering, addressing and identification (Release 8)”

[19] 3GPP2 C.S0065: “cdma2000 Application on UICC for Spread Spectrum Systems”

4. Abbreviations/Acronyms Definitions and Conventions

4.1 Definitions

ICC: Cards with internal arithmetic devices (Micro-Processor) and memory are called ICC (Integrated Circuit Card)s or Smart Cards.

SIM Card: Cards equipped with communications applications used to authenticate subscribers of 2G Mobile Communications (GSM) are called SIM (Subscriber Identification Module) cards.

USIM : The Universal Subscriber Identity Module (USIM)-application residing on UICC used for 3G telecommunication networks as specified in specified in 3GPP TS 31 102 [9].

CSIM : cdma2000 Subscriber Identity Module residing on the UICC defined in 3GPP2 C.S0065[19].

WiMAX-SIM : WiMAX Subscriber Identity Module residing on the UICC equipped with information/credentials used to authenticate subscribers of WiMAX Network.

UICC: A physical secure device, an IC card (or "smart card"), that can be inserted or removed from the terminal. It may contain one or more applications such as SIM/USIM/CSIM/WiMAX-SIM mentioned above.

4.2 Abbreviations

ADF	Application Dedicated File
ADM	ADMinistrative
AID	Application IDentifier
AKA	Authentication and Key Agreement
APDU	Application Protocol Data Unit
ATR	Answer To Reset
CLA	CLAss
DF	Dedicated File
EAP	Extensible Authentication Protocol
EF	Elementary File
GSM	Global System for Mobile communications
IMEI	International Mobile Station Equipment Identity
IMSI	International Mobile Subscriber Identifier, used in 3GPP/3GPP2 to identify subscribers.
NAI	Network Access Identifier
MF	Master File
MSK	Master Session Key
EMSK	Extended Master Session Key

PIN	Personal Identification Number
PIX	Proprietary application Identifier eXtension
PLMN	Public Land Mobile Network
PPS	Protocol and Parameter Selection
RFU	Reserved for Future Use
RID	Registered application provider Identifier
SK	Session Key
SIM	Subscriber Identity Module
SFI	Short File Identifier
SW	Status Word
TLS	Transport Layer Security
UICC	Universal Integrated Circuit Card
USIM	Universal Subscriber Identity Module
WiMAX	Worldwide Interoperability for Microwave Access
WEP	Wired Equivalent Privacy
WiMAX-SIM	WiMAX Subscriber Identity Module
WLAN	Wireless Local Area Network

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5. Contents of files

This section specifies the EFs for the WiMAX session defining access conditions, data items and coding.

5.1 Contents of the EFs at the MF level

The files present under the MF level are defined in ETSI TS 102 221[6] e.g., EF_{ICCID}, EF_{DIR}, EF_{PL} and EF_{ARR} and DF Telecom.

The content of EF_{DIR} is defined in ETSI TS 102 221[6]. If EAP support is implemented in WiMAX-SIM, the content of EF_{DIR} shall also comply with ETSI TS 102 310[3]. Refer to ETSI TS 102 221[6] for structure and coding.

The format of the WiMAX-SIM AID is defined in ETSI TS 101 220 [11] and is stored in EF_{DIR}. The RID and the PIX part of the AID for the WiMAX-SIM is assigned as per ETSI TS 101 220 [11].

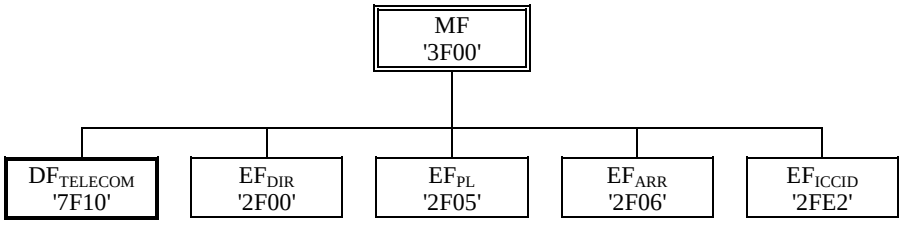
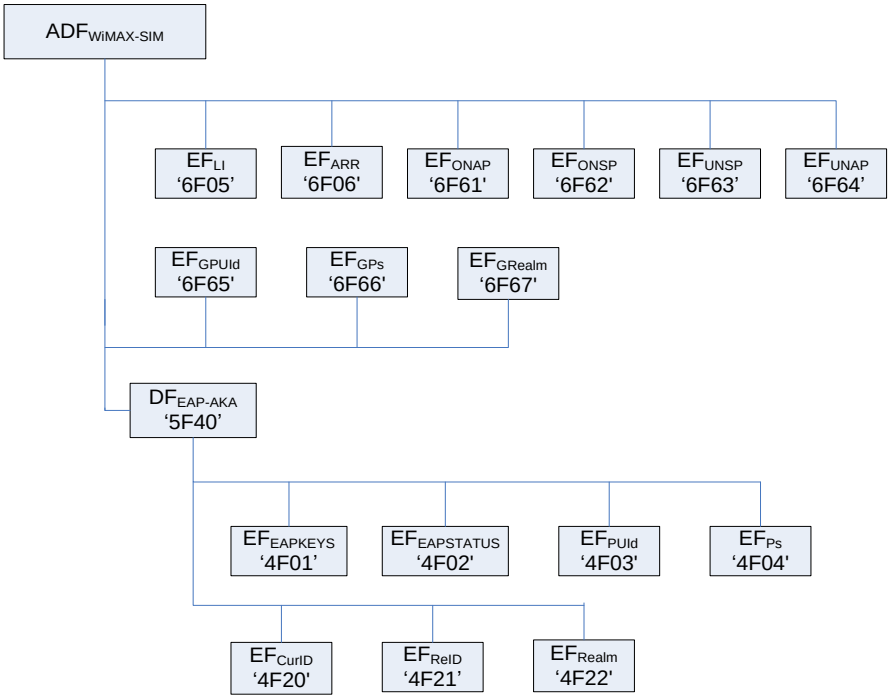


Figure 5-1: File identifiers and directory structure of UICC

5.2 Contents of files at the WiMAX-SIM ADF (Application DF) Level

This section contains the file structure of the WiMAX-SIM ADF. The files mentioned below with the header "Optional" indicate that the files may not be present in the WiMAX-SIM. and is optional for external entity to utilize the information stored in these files. If the file is present in the WiMAX-SIM the external entity shall utilize the information stored in it." to section 5.2.2 and 5.2.3. It is recommended to use these files as the single point of reference in terms of portability of settings and credentials across various interfaces to WiMAX-SIM/UICC.



5.2.1 EF_{ARR} at ADF WiMAX-SIM level (Access Rule Reference)

Refer to EF_{ARR} under ADF USIM of 3GPP TS 31.102[9] for structure and coding. SFI value is 17h.

5.2.2 EF_{ONAP} (Operator controlled NAP Identifier List)

This EF contains the coding for a Contractual Agreement Preference List (CAPL), and n is the number of entries in CAPL. This information defines the preferred NAP Identifiers in priority order. The first record MUST always be present and indicates the highest priority. The nth record indicates the lowest priority

Identifier: '6F61'	Structure: transparent	Optional
SFI: '11'		
File size: 3n (where n ≥ 1 bytes)	Update activity: low	
Access Conditions: READ PIN UPDATE ADM DEACTIVATE ADM ACTIVATE ADM		

Bytes	Description	M/O	Length
1 to 3	1st NAP Id (highest priority)	M	3 bytes
4 to 6	2nd NAP Id	O	3 bytes
:			
:	:		
(3n-2) to (3n)	Nth NAP Id (lowest priority)	O	3 bytes

- NAP Id (1-n occurences)

  Contents:

  - Network Access Provider Identifier.

  Coding of NAP ID:

  - Encoded to an octet string e.g. 0x012ABC.

5.2.3 EF_{ONSP}(Operator controlled NSP Identifiers List)

This EF contains the coding for Roaming Agreement Preference List (RAPL) where n is the number of entries in RAPL. This information defines the NSP Identifiers in priority order. The first record indicates the highest priority and the nth record indicates the lowest.

Identifier: '6F62'	Structure: transparent	Optional
SFI: '13'		
File size: 3n (where n ≥ 1 bytes)	Update activity: low	
Access Conditions: READ PIN UPDATE ADM DEACTIVATE ADM ACTIVATE ADM		

Bytes	Description	M/O	Length
1 to 3	1st NSP Id (highest priority)	M	3 bytes
4 to 6	2nd NSP Id	O	3 bytes
:	:		
(3n-2) to (3n)	Nth NSP Id (lowest priority)	O	3 bytes

- NSP Id.

  Contents:

  - Network Service Provider Identifier.

  Coding:

  - Encoded to an octet string e.g. 0x012ABC.

5.2.4 EF_{UNSP} (User controlled Network Service Provider List)

This EF contains the coding for n NSP Identifiers. This information is determined by the user and defines the preferred NSP Identifiers in priority order. The first record indicates the highest priority and the nth record indicates the lowest.

Identifier: '6F63'	Structure: transparent	Optional
SFI: '0A'		
File size: 3n (where n ≥ 1 bytes)	Update activity: low	
Access Conditions: READ PIN UPDATE PIN DEACTIVATE ADM ACTIVATE ADM		

Bytes	Description	M/O	Length
1 to 3	1st NSP Id (highest priority)	M	3 bytes
4 to 6	2nd NSP Id	O	3 bytes
:	:		
(3n-2) to (3n)	Nth NSP Id (lowest priority)	O	3 bytes

- NAP Id.

Contents:

- User defined Network Service Provider Identifiers.

Coding:

- Encoded to an octet string e.g. 0x123ABC.

5.2.5 EF_{UNAP} (User controlled Network Access Provider List)

This EF contains the coding for n NAP Identifiers, where n is determined by the User. This information is determined by the user and defines the preferred NAP Identifiers in priority order. The first record indicates the highest priority and the nth record indicates the lowest.

Identifier: '6F64'	Structure: transparent	Optional
SFI: '0B'		
File size: 3n (where n ≥ 1 bytes)	Update activity: low	
Access Conditions: READ PIN UPDATE PIN DEACTIVATE ADM ACTIVATE ADM		

Bytes	Description	M/O	Length
1 to 3	1st NAP Id (highest priority)	M	3 bytes
4 to 6	2nd NAP Id	O	3 bytes
:	:		
(3n-2) to (3n)	Nth NAP Id (lowest priority)	O	3 bytes

- NAP Id.

  Contents:

  - User defined Network Access Provider Identifiers.

  Coding:

  - Encoded to an octet string e.g. 0x123ABC.

5.2.6 EF_{LI} (Language Indication)

Refer to 3GPP 31.102[9] for reference.

5.2.7 EF_{GPUId} (Permanent User IDentity)

This EF contains the permanent user identity. The Permanent user identity MAY be used as the username part of the Network Access Identifier.

Structure of EF_{PuID}

Identifier: '6F65'	Structure: transparent		Mandatory
SFI:'0C'			
File size: n bytes		Update activity: low	
Access Conditions:			
READ	PIN		
UPDATE	ADM		
DEACTIVATE	ADM		
ACTIVATE	ADM		
Bytes	Description	M/O	Length
1-n	Permanent User Identity	M	n bytes

Permanent user identity

- Contents: user identity to be used as the username part of the NAI.
- Coding: Binary. Unused bytes SHALL be set to "FF" and SHALL not be considered as a part of the value.

5.2.8 EF_{GPs} (Pseudonym ID)

This EF contains a temporary user identifier (pseudonym) for subscriber identification. Pseudonyms MAY be provided as part of a previous authentication sequence. This MAY be used as the username part of the Network Access Identifier.
This file is not mandatory if pseudonyms are not managed by the application or they are derived by other means.

Structure of EF_{Ps}

Identifier: '6F66'	Structure: transparent		Optional
SFI:'0D'			
File size: n bytes		Update activity: high	
Access Conditions:			
READ	PIN		
UPDATE	PIN		
DEACTIVATE	ADM		
ACTIVATE	ADM		
Bytes	Description	M/O	Length

1-n	Pseudonym	M	n bytes

Pseudonym

- Contents: pseudonym to be used as the username part of the NAI.
- Coding: Binary. Unused bytes SHALL be set to "FF" and SHALL not be considered as a part of the value.

5.2.9 EF_{GRealm} (Realm value of the identity)

EF_{GRealm} includes the realm value of the permanent subscription identity.

Structure of EF_{GRealm}

Identifier: '6F67'	Structure: transparent		Mandatory
SFI:'0E'			
File size:nbytes		Update activity: low	
Access Conditions:			
READ	PIN		
UPDATE	ADM		
DEACTIVATE	ADM		
ACTIVATE	ADM		
Bytes	Description	M/O	Length
1	**Realm length**	M	1 byte
2 to n+1	Realm	M	n bytes

Realm

- Contents: Realm value of identity, which is a part of NAI.
- Coding: Refer to RFC 4282 [14] Unused bytes SHOULD be set to 'FF' and SHOULD not be considered as part of value.

5.2.10 Contents of files at EAP AKA DF level

Support for EAP on WiMAX-SIM is optional. A EAP capable WiMAX-SIM SHALL support the following files.

The file Id from 4F20 to 4F2F and SFI values are reserved in ETSI TS 102 310[3].

5.2.10.1 EF_{CurID} (Current user IDentity)

Refer to ETSI TS 102 310 [3] for structure and coding.

5.2.10.2 EF_{PUId} (Permanent User IDentity)

Refer to ETSI TS 102 310 [3] for structure and coding.

5.2.10.3 EF_{Ps} (Pseudonym ID)

Refer to ETSI TS 102 310 [3] for structure and coding.

5.2.10.4 EFReID (Re-authentication IDentity)

Refer to ETSI TS 102 310 [3] for structure and coding.

5.2.10.5 $EF_{EAPKEYS}$ (EAP derived keys)

Refer to ETSI TS 102 310[3] for structure and coding.

5.2.10.6 $EF_{EAPSTATUS}$ (EAP Authentication STATUS)

Refer to ETSI TS 102 310[3] for structure and coding.

5.2.10.7 EF_{Realm} (Realm value of the identity)

Refer to ETSI TS 102 310 [3] for structure and coding.

5.2.11 Application Specific Phonebook DF at DF phonebook level 5F3A (optional)

WiMAX-SIM MAY have an application specific phonebooks. If supported it SHALL comply with 3GPP TS 31.102[9].

5.3 Contents of DFs at the TELECOM level

The EFs in the $DF_{TELECOM}$ level under MF contain service related information and phone book related features as defined in ETSI TS 102 221[6] and 3GPP TS 31.102[9].

The interface to the WiMAX-SIM MAY use the global phonebook, which is located in $DF_{PHONEBOOK}$ under $DF_{TELECOM}$.

6. Application Protocol

The procedures listed in "WiMAX-SIM management procedures," are required for execution of these procedures in "WiMAX-SIM security related procedures" and “Subscription Related Procedures". The procedures listed in "WiMAX-SIM security related procedures," are mandatory. The procedures listed in “Subscription Related Procedures" are only executable if the associated services, that are optional, are provided in the WiMAX-SIM. However, if the procedures are implemented, it SHALL be in accordance with Section 6.3.

6.1 WiMAX-SIM management procedures

6.1.1 Initialization

6.1.1.1 WiMAX-SIM application selection

A WiMAX-SIM application SHALL be selected by MS/SS using procedures defined in 3GPP 31.101[8].

After a successful WIMAX-SIM application selection, the selected WIMAX-SIM (AID) is stored on the UICC. This application is referred to as the last selected WIMAX-SIM application. The last selected WIMAX-SIM application SHALL be available on the UICC after a deactivation followed by an activation of the UICC.

If a WIMAX-SIM application is selected using partial DF name, the partial DF name supplied in the command SHALL uniquely identify a WIMAX-SIM application. Furthermore if a WIMAX-SIM application is selected using a partial DF name as specified in 3GPP TS 31.101[8] indicating in the SELECT command the last occurrence the UICC SHALL select the WIMAX-SIM application stored as the last WIMAX-SIM application. If, in the SELECT command, the options first, next/previous are indicated, they have no meaning if an application has not been previously selected in the same and SHALL return an appropriate error code.

6.1.1.2 WiMAX-SIM application initialization

The external interface to the WiMAX-SIM/UICC runs the user verification procedure. If the procedure is not performed successfully, the WIMAX-SIM initialization stops.

The external interface to the WiMAX-SIM/UICC performs the administrative information request.

If all these procedures have been performed successfully the WIMAX-SIM session SHALL start. In all other cases the WIMAX-SIM session SHALL not start.

After the WIMAX-SIM initialization has been completed successfully, the external interface to the WiMAX-SIM/UICC is ready for a WIMAX-SIM session and SHALL indicate this to the WIMAX-SIM by sending a particular STATUS command. The STATUS command is sent to indicate to the WiMAX-SIM that the terminal is in a well defined state for further message exchanges. Please refer to ETSI TS 102 221[6] for the description of the STATUS command.

6.1.1.3 WiMAX-SIM session termination

The WIMAX-SIM session is terminated by the entity that interfaces to the WiMAX-SIM as follows.

The external interface to the WiMAX-SIM/UICC SHALL indicate termination to the WIMAX-SIM by sending a particular STATUS command that the termination procedure is starting.

Finally, the external entity that interfaces to the WiMAX-SIM/UICC deletes all the subscriber related information elements from its memory.

NOTE 1: If the entity that interfaces the WiMAX-SIM has already updated any of the subscriber related information during the WIMAX-SIM session, and the value has not changed until WIMAX-SIM session termination, the external interface to UICC MAY omit the respective update procedure.

To actually terminate the session, the external interface to UICC SHALL then use one of the mechanisms described in 3GPP TS 31.101[8].

6.1.1.4 WiMAX-SIM application closure

After termination of the WiMAX-SIM session as defined in 6.1.1.3, the WiMAX-SIM application MAY be closed by closing the logical channels that are used to communicate with this particular WiMAX-SIM application.

6.1.1.5 UICC presence detection

If a UICC based subscription is used for an active WiMAXsession that started with the UICC in the device, the entity external to the UICC SHOULD check for the presence of the UICC according to 3GPP TS 31.101[8] within 30 second period of inactivity on the UICC external interface during the active session. If the presence detection according to 3GPP TS 31.101[8] is used and fails, the entity interfacing to the UICC SHALL perform network exit for the UICC-based subscription and afterwards comply to the standard WiMAX network procedures as per NWG Stage 3[13]. In particular, the MS SHALL still support falling back into EAP-TLS .In this case deactivation is not precluded but would be a deployment specific decision, which is not in scope of this specification.

6.1.1.6 NSP NAP usage procedures

Refer to NWG Stage3 [13] specifications for selection and usage procedures.

6.1.2 WiMAX access authentication related procedures

6.1.2.1 AKA based authentication procedures

If AKA based authentication procedures are used, the MS SHALL select a WiMAX-SIM application and SHALL use the AUTHENTICATE command (see 7.2.1). The response is sent to the MS.

6.1.2.2 EAP Based Authentication (If WiMAX-SIM supports EAP)

For the authentication in which the EAP message handling is performed, EAP message MAC verification and the AKA algorithm handling are all computed in WiMAX-SIM according to ETSI TS 102 310 [3] and RFC 4187[4], the WiMAX-SIM, once selected, resets all EAP-Client state machines of the application. Following a successful authentication WiMAX-SIM SHALL perform key derivation procedures as defined in RFC 4187[4].".

7. Security Features

Refer to ETSI TS 102 221[6] for security features.

7.1 Structure of commands and responses

Refer to ETSI TS 102 221[6] for Structure of commands and responses.

Parameter P2 specifies the authentication context as follows:

Coding of the reference control P2:

Coding b8-b1	Meaning
'1-------'	Specific reference data (e.g. DF specific/application dependant key)
'-XXXX---'	'0000'
'----XXX'	Authentication context: 001 AKA (3GPP TS 31.102 [9])
'00000000'	EAP-AKA (ETSI TS 102 310 [3])

All other codings are RFU.

7.2 WiMAX-SIM Commands

7.2.1 AKA AUTHENTICATE Command

The WiMAX-SIM SHALL support AUTHENTICATE command with 3G security context as defined in 3GPP 31 102 [9].

7.2.2 EAP AKA Related Commands

7.2.2.1 EAP AKA Authenticate Command

If EAP is supported on WiMAX-SIM refer to ETSI TS 102 310[3] for structure, procedures and functionalities.

Note: The context between AKA and EAP-AKA authenticate differs in the coding of P2 parameter.

8. Over the Air related Procedures

Refer to TS 102 225[15] and TS 102 226[16] (Release 8) for Over the Air Management procedures for WiMAX-SIM on UICC.

9. Interworking with Other Access technologies

(INFORMATIVE)

The goal of this specification is to describe the aspects specific to a WiMAX-SIM application and the logical interface to the WiMAX-SIM. Both are unique to WiMAX. Hence, a WiMAX-SIM is intended to represent a subscription with related configuration and security information, with a WiMAX NSP.

Efforts related to the specification of Interworking support between WiMAX and other networks, such as 3GPP and 3GPP2, including the 3GPP-defined evolved packet core (EPC) are based on the assumption that the subscription is one with a home network. Specifically, if the home network is compliant with the 3GPP specifications based on a USIM application, or with the 3GPP2 specifications based on a CSIM application, such Interworking is not considered in this document.

It is outside the scope of the present version to cover aspects of using a plain USIM for carrying a subscription with a WiMAX NSP and entering a WiMAX network with the home operator's network being a CSN. Also, using both WiMAX-SIM and USIM applications on the same UICC is expected to be possible, but is considered a deployment-specific aspect and is hence outside the scope of this specification. It however needs to be noted, that for the purpose of preserving session continuity while Interworking with other technologies, the Identities used by the WiMAX-SIM application should be consistent with requirements placed on these identities by other technologies. As an example, the identity (NAI) used by the WiMAX-SIM while Interworking with the 3GPP EPC should be formatted according to the recommendations specified in 3GPP TS 23.003 [18].

Annex A. Role of Supplicant for EAP-AKA Authentication

[INFORMATIVE]

For the EAP-AKA method the supplicant can be split between a UICC (which includes WiMAX-SIM) and a terminal. When the UICC supports EAP-AKA, the EAP architecture could be as defined in ETSI 102 310[3].

When a WiMAX-SIM supports EAP-AKA, method the role of the supplicant could be defined as figure A.1.

The ***EAP*** of EAP-AKA method has functions to analyze and create EAP-AKA messages.

The ***MAC*** of EAP-AKA method has functions to verify and generate AT_MAC values of EAP-AKA messages.

Refer to ETSI 102 310[3] for the definition of ***EAP lower layer***, ***EAP layer***, ***UICC EAP Framework***.

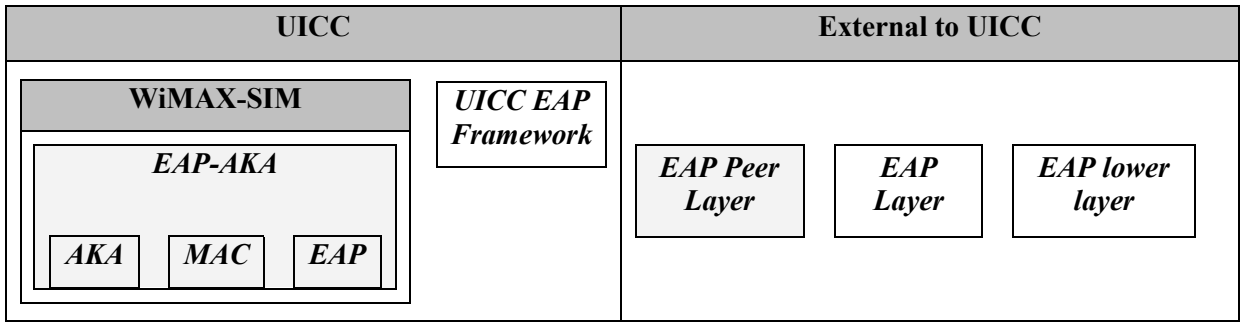


Figure A.1: The task Assignment of supplicant

Annex B. List of SFI Values

This annex lists SFI values assigned in the present document.

List of SFI Values at the WiMAX-SIM ADF Level

File Identification	SFI	Description
'6F61'	'11'	Operator Controlled NAP identifier list
'6F62'	'13'	Operator Controlled NSP identifiers list
'6F63'	'0A'	User Controlled Network Service Provider list
'6F64'	'0B'	User Controlled Network Access Provider list
'6F65'	'0C'	Permanent User Identity
'6F66'	'0D'	Pseudonym ID
'6F67'	'0E'	Realm

List of SFI Values at the WiMAX-SIM/ EAP-AKA DF Level

Refer to ETSI TS 102 310 [3] for structure and coding.

All other SFI values are reserved for future use.