

Source: T3

Title: Change Requests to SIM USIM specifications (TS 51.011 / 31.102)

Document for: Approval

This document contains several change requests as follows:

T3 Doc	Spec	CR	Rel	Cat	Subject
T3-020102	31.102	104	5	F	Addition of UICC Presence detection
T3-020078	31.102	105	4	D	Corrections to START-HFN and THRESHOLD files
T3-020144	31.102	106	5	B	Indication of Call Control on GPRS in UST
T3-020149	31.102	107	4	B	Introduction of MMS files and procedures

CR-Form-v4

CHANGE REQUEST

⌘ **31.102 CR 104** ⌘ ev **-** ⌘ Current version: **4.3.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ UICC presence detection		
Source:	⌘ T3		
Work item code:	⌘ UICC1	Date:	⌘ 23.01.2002
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		REL-4 (Release 4)
			REL-5 (Release 5)

Reason for change:	⌘ The presence detection time intervall and the condition for the presence detection has been removed from the core specification
Summary of change:	⌘ The time interval and condition added to 31.102
Consequences if not approved:	⌘

Clauses affected:	⌘ 5.1.9	
Other specs affected:	<input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications ⌘ <input type="checkbox"/> O&M Specifications ⌘	
Other comments:	⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under [ftp://ftp.3gpp.org/specs/](http://ftp.3gpp.org/specs/) For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.1.9 UICC presence detection

The ME checks for the presence of the UICC according to TS 31.101 [11] within all 30 s periods of inactivity on the UICC-ME interface during a call. If the presence detection according to TS 31.101 [11] fails the call shall be terminated as soon as possible but at least within 5s after the presence detection has failed.

CHANGE REQUEST

⌘ **31.102 CR 105** ⌘ rev **-** ⌘ Current version: **4.3.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Editorial changes to START-HFN and THRESHOLD files		
Source:	⌘ T3		
Work item code:	⌘ UICC1	Date:	⌘ 23/01/02
Category:	⌘ D	Release:	⌘ REL-4
	<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>

Reason for change:	⌘ Reference to a non-existing file. TS 33.102 defines that START is 20 bit long. The first nibble of START _{CS} and START _{PS} should be set to F at pre-personalization.
Summary of change:	⌘ Remove reference to non-existing file. Change pre-personalization of START _{CS} and START _{PS} values.
Consequences if not approved:	⌘ Inconsistency of the specification

Clauses affected:	⌘ 4.2.51, 4.2.52, Annex E		
Other specs Affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
Other comments:	⌘		

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4.2.51 EF_{START-HFN} (Initialisation values for Hyperframe number)

This EF contains the values of START_{CS} and START_{PS} of the bearers that were protected by the keys in EF_{KEYS} or EF_{KEYSPS} at release of the last CS or PS RRC connection. These values are used to control the lifetime of the keys (see TS 33.102 [13]).

Identifier: '6F5B'		Structure: transparent		Mandatory
SFI: '0F'				
File size: 6 bytes		Update activity: high		
Access Conditions:				
READ		PIN		
UPDATE		PIN		
DEACTIVATE		ADM		
ACTIVATE		ADM		
Bytes	Description	M/O	Length	
1 to 3	START _{CS}	M	3 bytes	
4 to 6	START _{PS}	M	3 bytes	

- START_{CS}
 Contents: Initialisation value for Hyperframe number – CS domain.
 Coding: The LSB of START_{CS} is stored in bit 1 of byte 3. Unused nibbles are set to 'F'.
- START_{PS}
 Contents: Initialisation value for Hyperframe number – PS domain.
 Coding: As for START_{CS} in EF_{START-CS}.

4.2.52 EF_{THRESHOLD} (Maximum value of START)

This EF contains the maximum value of START_{CS} or START_{PS}. This value is used to control the lifetime of the keys (see TS 33.102 [13]).

Identifier: '6F5C'		Structure: transparent		Mandatory
SFI: '10'				
File size: 3 bytes		Update activity: low		
Access Conditions:				
READ		PIN		
UPDATE		ADM		
DEACTIVATE		ADM		
ACTIVATE		ADM		
Bytes	Description	M/O	Length	
1 to 3	Maximum value of START _{CS} or START _{PS} .	M	3 bytes	

- Maximum value of START_{CS} or START_{PS}.
 Coding: As for START_{CS} in EF_{START-CS}.

Annex E (informative): Suggested contents of the EFs at pre-personalization

If EFs have an unassigned value, it may not be clear from the main text what this value should be. This annex suggests values in these cases.

File Identification	Description	Value
...
'6F58'	Comparison method information	'FF...FF'
'6F5B'	Initialisation value for Hyperframe number	'F00...00 00 F0 00 00'
'6F5C'	Maximum value of START	Operator dependant
'6F60'	User controlled PLMN selector with Access Technology	'FFFFFF0000..FFFFFF0000'
'6F61'	Operator controlled PLMN selector with Access Technology	'FFFFFF0000..FFFFFF0000'
'6F62'	HPLMN selector with Access Technology	'FFFFFF0000..FFFFFF0000'
'6F65'	RPLMN last used Access Technology	'0000'
'6F73'	Packet switched location information	'FFFFFF FFFFFF xxxxxx 0000 FF 01' (see note 2)
'6F78'	Access control class	Operator dependant
'6F7B'	Forbidden PLMNs	'FF...FF'
'6F7E'	Location information	'FFFFFF FFFFFF xxxxxx 0000 FF 01' (see note 2)
'6F80'	Incoming call information	'FF...FF 000000 00 01FFFF'
'6F81'	Outgoing call information	'FF...FF 000000 01FFFF'
'6F82'	Incoming call timer	'000000'
'6F83'	Outgoing call timer	'000000'
'6FAD'	Administrative data	Operator dependant
'6FB5'	EMLPP	Operator dependant
'6FB6'	AaeM	'00'
'6FB7'	Emergency call codes	Operator dependant
'6FC2'	Group identity	'FFFFFF'
'6FC3'	Key for hidden phone book entries	'FF...FF'
'6FC4'	Network Parameters	'FF...FF'

NOTE 1: The value '000000' means that ACMmax is not valid, i.e. there is no restriction on the ACM. When assigning a value to ACMmax, care should be taken not to use values too close to the maximum possible value 'FFFFFF', because the INCREASE command does not update EF_{ACM} if the units to be added would exceed 'FFFFFF'. This could affect the call termination procedure of the Advice of Charge function.

NOTE 2: xxxxxx stands for any valid MCC and MNC, coded according to TS 24.008 [9].

CR-Form-v3

CHANGE REQUEST

⌘ **31.102 CR 106** ⌘ rev **-** ⌘ Current version: **4.3.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Indication of Call Control on GPRS in UST		
Source:	⌘ T3		
Work item code:	⌘ UICC1	Date:	⌘ 25/01/02
Category:	⌘ B	Release:	⌘ REL-5
	<i>Use one of the following categories:</i> F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ Introduction of the call control on GPRS in 31.111		
Summary of change:	⌘ Update of UST		
Consequences if not approved:	⌘ The USIM cannot indicate it supports call control on GPRS		

Clauses affected:	⌘ 4.2.8		
Other specs Affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ 31.111	
Other comments:	⌘ See CR 31.111/63		

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- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://www.3gpp.org/specs/>. For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4.2.8 EF_{UST} (USIM Service Table)

This EF indicates which services are available. If a service is not indicated as available in the USIM, the ME shall not select this service.

Identifier: '6F38'		Structure: transparent		Mandatory	
SFI: '04'					
File size: X bytes, X >= 1			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		ADM			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes	Description	M/O	Length		
1	Services n°1 to n°8	M	1 byte		
2	Services n°9 to n°16	O	1 byte		
3	Services n°17 to n°24	O	1 byte		
4	Services n°25 to n°32	O	1 byte		
etc.					
X	Services n°(8X-7) to n°(8X)	O	1 byte		

-Services

Contents:	Service n°1:	Local Phone Book
	Service n°2:	Fixed Dialling Numbers (FDN)
	Service n°3:	Extension 2
	Service n°4:	Service Dialling Numbers (SDN)
	Service n°5:	Extension3
	Service n°6:	Barred Dialling Numbers (BDN)
	Service n°7:	Extension4
	Service n°8:	Outgoing Call Information (OCI and OCT)
	Service n°9:	Incoming Call Information (ICI and ICT)
	Service n°10:	Short Message Storage (SMS)
	Service n°11:	Short Message Status Reports (SMSR)
	Service n°12:	Short Message Service Parameters (SMSP)
	Service n°13:	Advice of Charge (AoC)
	Service n°14:	Capability Configuration Parameters (CCP)
	Service n°15:	Cell Broadcast Message Identifier
	Service n°16:	Cell Broadcast Message Identifier Ranges
	Service n°17:	Group Identifier Level 1
	Service n°18:	Group Identifier Level 2
	Service n°19:	Service Provider Name
	Service n°20:	User controlled PLMN selector with Access Technology
	Service n°21:	MSISDN
	Service n°22:	Image (IMG)
	Service n°23:	Not used (reserved for SoLSA)
	Service n°24:	Enhanced Multi-Level Precedence and Pre-emption Service
	Service n°25:	Automatic Answer for eMLPP
	Service n°26:	RFU
	Service n°27:	GSM Access
	Service n°28:	Data download via SMS-PP
	Service n°29:	Data download via SMS-CB
	Service n°30:	Call Control by USIM
	Service n°31:	MO-SMS Control by USIM
	Service n°32:	RUN AT COMMAND command
	Service n°33:	shall be set to '1'
	Service n°34:	Enabled Services Table
	Service n°35:	APN Control List (ACL)
	Service n°36:	Depersonalisation Control Keys
	Service n°37:	Co-operative Network List
	Service n°38:	GSM security context
	Service n°39:	CPBCCCH Information
	Service n°40:	Investigation Scan
	Service n°41:	MexE
	Service n°42:	Operator controlled PLMN selector with Access Technology
	Service n°43:	HPLMN selector with Access Technology
	Service n°44:	Extension 5
	Service n°45:	PLMN Network Name
	Service n°46:	Operator PLMN List
	Service n°47:	Mailbox Dialling Numbers
	Service n°48:	Message Waiting Indication Status
	Service n°49:	Call Forwarding Indication Status
	Service n°50:	RPLMN Last used Access Technology
	Service n°51:	Service Provider Display Information
	<u>Service n°xx</u>	<u>Call control on GPRS by USIM</u>

The EF shall contain at least one byte. Further bytes may be included, but if the EF includes an optional byte, then it is mandatory for the EF to also contain all bytes before that byte. Other services are possible in the future and will be coded on further bytes in the EF. The coding falls under the responsibility of the 3GPP.

Coding:

1 bit is used to code each service:

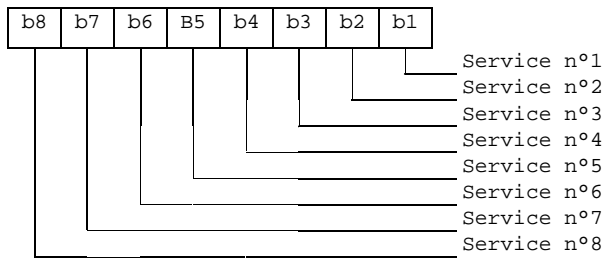
bit = 1: service available;

bit = 0: service not available.

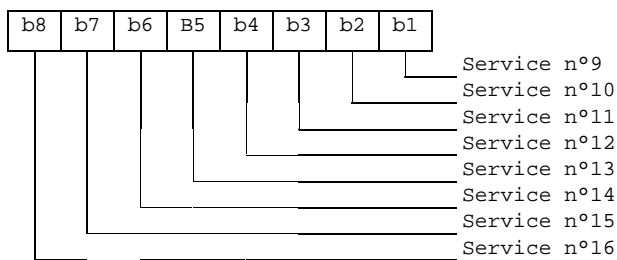
- Service available means that the USIM has the capability to support the service and that the service is available for the user of the USIM unless the service is identified as "disabled" in EF_{EST}.

Service not available means that the service shall not be used by the USIM user, even if the USIM has the capability to support the service.

First byte:



Second byte:



etc.

CHANGE REQUEST

⌘ **31.102 CR 107** ⌘ rev **-** ⌘ Current version: **4.3.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ CR 31.102 Rel-4 Introduction of MMS files and procedures		
Source:	⌘ T3		
Work item code:	⌘ UICC1	Date:	⌘ 29-01-2002
Category:	⌘ B	Release:	⌘ REL-4
<p><i>Use <u>one</u> of the following categories:</i></p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p><i>Use <u>one</u> of the following releases:</i></p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	Unlike SMS, for MMS-related information there is no storage possibilities on the USIM. The MMS service has a couple of features which would benefit from related information being stored on the USIM. Storing MMS parameters enables for automatic terminal configuration. Storing MMS notifications on the USIM allows a subscriber to remove the UICC from her ME and retain the ability to retrieve those messages using another ME.
Summary of change:	⌘ This contribution proposes to add the storage of MMS related information in several elementary files on the USIM. In detail this contribution proposes: <ul style="list-style-type: none"> - Changes in EF_{UST}. - A new file EF_{MMSN}, in which the MMS Notification can be stored. - A new file EF_{EXT8}, in which extensions to the Notification can be stored - A new file EF_{MMSCP}, in which the MMS Connectivity Parameters can be stored. - A new file EF_{MMUP}, in which the MMS User Preferences can be stored in.
Consequences if not approved:	⌘ <ol style="list-style-type: none"> 1) A user, having been notified of pending MMs, will lose the ability to retrieve those MMs if she swaps MEs before they have been delivered. 2) Creation of mobile-originated MMs will be cumbersome, requiring more user interaction than otherwise necessary.

Clauses affected:	⌘ 2, 4.2, 4.7, 5.3, Annex A, Annex D, Annex E, Annex X		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications	⌘	<input type="checkbox"/>
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> O&M Specifications		
Other comments:	⌘		

...

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. 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 as the present document*.

- [1] 3GPP TS 21.111: "USIM and IC Card Requirements".
- [2] 3GPP TS 22.011: "Service accessibility".
- [3] 3GPP TS 22.024: "Description of Charge Advice Information (CAI)".
- [4] 3GPP TS 22.030: "Man-Machine Interface (MMI) of the Mobile Station (MS)".
- [5] 3GPP TS 23.038: "Alphabets and language".
- [6] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS) Point-to-Point (PP)".
- [7] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".
- [8] 3GPP TS 22.067: "Enhanced Multi Level Precedence and Pre-emption service (eMLPP) - Stage 1".
- [9] 3GPP TS 24.008: "Mobile Radio Interface Layer 3 specification".
- [10] 3GPP TS 24.011: "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
- [11] 3GPP TS 31.101: "UICC-Terminal Interface, Physical and Logical Characteristics".
- [12] 3GPP TS 31.111: "USIM Application Toolkit (USAT)".
- [13] 3GPP TS 33.102: "3G Security Architecture".
- [14] 3GPP TS 33.103: "3G Security; Integration Guidelines".
- [15] 3GPP TS 22.086: "Advice of charge (AoC) Supplementary Services - Stage 1".
- [16] 3GPP TS 23.041: "Technical realization of Short Message Service Cell Broadcast (SMSCB)".
- [17] 3GPP TS 02.07: "Mobile Stations (MS) features".
- [18] 3GPP TS 11.11: "Specification of the Subscriber Identity Module – Mobile Equipment (SIM – ME) interface".
- [19] ISO 639 (1988): "Code for the representation of names of languages".
- [20] ISO/IEC 7816-4 (1995): "Identification cards - Integrated circuit(s) cards with contacts, Part 4: Interindustry commands for interchange".
- [21] ISO/IEC 7816-5 (1994): "Identification cards - Integrated circuit(s) cards with contacts, Part 5: Numbering system and registration procedure for application identifiers".
- [22] ITU-T Recommendation E.164: "Numbering plan for the ISDN era".
- [23] ITU-T Recommendation T.50: "International Alphabet No. 5". (ISO 646 (1983): "Information processing - ISO 7-bits coded characters set for information interchange").
- [24] 3GPP TS 22.101: "Service aspects; service principles".

- [25] 3GPP TS 23.003: "Numbering, Addressing and Identification".
- [26] ISO/IEC FCD 7816-9 (1999): "Identification cards - Integrated circuit(s) cards with contacts, Part 9: Additional Interindustry commands and security attributes".
- [27] 3GPP TS 22.022: "Personalisation of GSM Mobile Equipment (ME); Mobile functionality specification".
- [28] 3GPP TS 04.18 "Mobile Interface Layer3 Specification, Radio Resource control protocol"
- [29] 3GPP TS 23.022: "Functions related to Mobile Station (MS) in idle mode and group receive mode".
- [30] 3GPP TS 23.057: "Mobile Station Application Execution Environment (MExE);Functional description; Stage 2".
- [31] 3GPP TS 23.122: "NAS Functions related to Mobile Station (MS) in idle mode"
- [32] ISO/IEC 7816-6 (1996): "Identification cards -- Integrated circuit(s) cards with contacts -- Part 6: Interindustry data elements".
- [33] 3GPP TS 25.101: "UE Radio Transmission and Reception (FDD)"
- [34] 3GPP TS 45.005: "Radio Transmission and Reception"
- [35] ISO/IEC 8825 (1990): "Information technology; Open Systems Interconnection; Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)"
- [36] 3GPP TS 23.097: "Multiple Subscriber Profile (MSP)"
- [37] ETSI TS 102 221 "Smart cards; UICC-Terminal interface; Physical and logical characteristics (Release 4)"
- [38] [3GPP TS 23.140: "Multimedia Messaging Service \(MMS\); Functional description; stage 2".](#)

4.2.8 EF_{UST} (USIM Service Table)

This EF indicates which services are available. If a service is not indicated as available in the USIM, the ME shall not select this service.

Identifier: '6F38'		Structure: transparent		Mandatory	
SFI: '04'					
File size: X bytes, X >= 1			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		ADM			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes	Description	M/O	Length		
1	Services n°1 to n°8	M	1 byte		
2	Services n°9 to n°16	O	1 byte		
3	Services n°17 to n°24	O	1 byte		
4	Services n°25 to n°32	O	1 byte		
Etc.					
X	Services n°(8X-7) to n°(8X)	O	1 byte		

-Services

Contents:	Service n°1:	Local Phone Book
	Service n°2:	Fixed Dialling Numbers (FDN)
	Service n°3:	Extension 2
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	Service n°8:	Outgoing Call Information (OCI and OCT)
	Service n°9:	Incoming Call Information (ICI and ICT)
	Service n°10:	Short Message Storage (SMS)
	Service n°11:	Short Message Status Reports (SMSR)
	Service n°12:	Short Message Service Parameters (SMSP)
	Service n°13:	Advice of Charge (AoC)
	Service n°14:	Capability Configuration Parameters (CCP)
	Service n°15:	Cell Broadcast Message Identifier
	Service n°16:	Cell Broadcast Message Identifier Ranges
	Service n°17:	Group Identifier Level 1
	Service n°18:	Group Identifier Level 2
	Service n°19:	Service Provider Name
	Service n°20:	User controlled PLMN selector with Access Technology
	Service n°21:	MSISDN
	Service n°22:	Image (IMG)
	Service n°23:	Not used (reserved for SoLSA)
	Service n°24:	Enhanced Multi-Level Precedence and Pre-emption Service
	Service n°25:	Automatic Answer for eMLPP
	Service n°26:	RFU
	Service n°27:	GSM Access
	Service n°28:	Data download via SMS-PP
	Service n°29:	Data download via SMS-CB
	Service n°30:	Call Control by USIM
	Service n°31:	MO-SMS Control by USIM
	Service n°32:	RUN AT COMMAND command
	Service n°33:	shall be set to '1'
	Service n°34:	Enabled Services Table
	Service n°35:	APN Control List (ACL)
	Service n°36:	Depersonalisation Control Keys
	Service n°37:	Co-operative Network List
	Service n°38:	GSM security context
	Service n°39:	CPBCCCH Information
	Service n°40:	Investigation Scan
	Service n°41:	MExE
	Service n°42:	Operator controlled PLMN selector with Access Technology
	Service n°43:	HPLMN selector with Access Technology
	Service n°44:	Extension 5
	Service n°45:	PLMN Network Name
	Service n°46:	Operator PLMN List
	Service n°47:	Mailbox Dialling Numbers
	Service n°48:	Message Waiting Indication Status
	Service n°49:	Call Forwarding Indication Status
	Service n°50:	RPLMN Last used Access Technology
	Service n°51:	Service Provider Display Information
	Service n°XX	Multimedia Messaging Service (MMS)
	Service n°YY	Extension 8

The EF shall contain at least one byte. Further bytes may be included, but if the EF includes an optional byte, then it is mandatory for the EF to also contain all bytes before that byte. Other services are possible in the future and will be coded on further bytes in the EF. The coding falls under the responsibility of the 3GPP.

Coding:

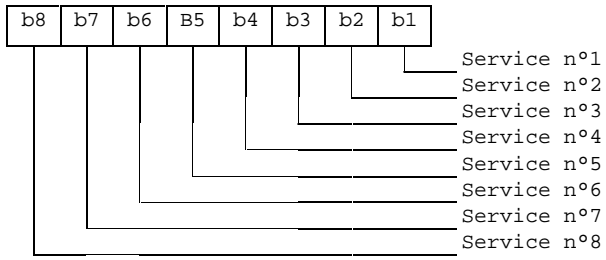
1 bit is used to code each service:

bit = 1: service available;

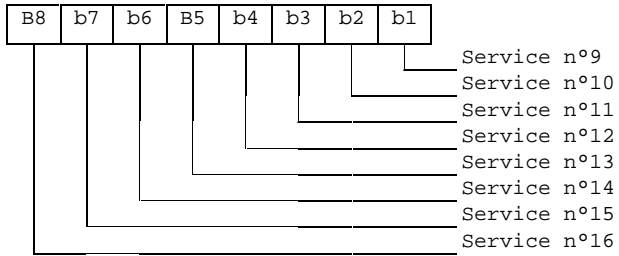
bit = 0: service not available.

- Service available means that the USIM has the capability to support the service and that the service is available for the user of the USIM unless the service is identified as "disabled" in EF_{EST}.
Service not available means that the service shall not be used by the USIM user, even if the USIM has the capability to support the service.

First byte:



Second byte:



4.2.XX EF_{MMSN} (MMS Notification)

If service n°XX is "available", this file shall be present.

This EF contains information in accordance with 3GPP TS 23.140 [38] comprising MMS notifications (and associated parameters) which have been received by the UE from the network.

<u>Identifier: '6FXX'</u>		<u>Structure: Linear fixed</u>		<u>Optional</u>
<u>Record length: 4+X bytes</u>			<u>Update activity: low</u>	
<u>Access Conditions:</u>				
<u>READ</u>		<u>PIN</u>		
<u>UPDATE</u>		<u>PIN</u>		
<u>DEACTIVATE</u>		<u>ADM</u>		
<u>ACTIVATE</u>		<u>ADM</u>		
<u>Bytes</u>	<u>Description</u>	<u>M/O</u>	<u>Length</u>	
<u>1 to 2</u>	<u>MMS Status</u>	<u>M</u>	<u>2 bytes</u>	
<u>3</u>	<u>MMS Implementation</u>	<u>M</u>	<u>1 byte</u>	
<u>4 to X+3</u>	<u>MMS Notification</u>	<u>M</u>	<u>X bytes</u>	
<u>X+4</u>	<u>Extension file record number</u>	<u>M</u>	<u>1 byte</u>	

- MMS Status

Content:

The status bytes contain the status information of the notification.

Coding:

b1 indicates whether there is valid data or if the location is free. b2 indicates whether the MMS notification has been read or not. Bits b3-b4 of the first byte indicate the MM retrieval, MM rejection, or MM forwarding status. Bits b5-b8 of the first byte and the entire second byte are reserved for future use.

First byte:

<u>b8</u>	<u>b7</u>	<u>b6</u>	<u>b5</u>	<u>b4</u>	<u>b3</u>	<u>b2</u>	<u>b1</u>	
				<u>X</u>	<u>X</u>	<u>X</u>	<u>0</u>	<u>Free space</u>
				<u>X</u>	<u>X</u>	<u>X</u>	<u>1</u>	<u>Used space</u>
				<u>X</u>	<u>X</u>	<u>0</u>	<u>1</u>	<u>Notification not read</u>
				<u>X</u>	<u>X</u>	<u>1</u>	<u>1</u>	<u>Notification read</u>
				<u>0</u>	<u>0</u>	<u>X</u>	<u>1</u>	<u>MM not retrieved</u>
				<u>0</u>	<u>1</u>	<u>X</u>	<u>1</u>	<u>MM retrieved</u>
				<u>1</u>	<u>0</u>	<u>X</u>	<u>1</u>	<u>MM rejected</u>
				<u>1</u>	<u>1</u>	<u>X</u>	<u>1</u>	<u>MM forwarded</u>
								<u>Reserved for future use</u>

Second byte:

<u>b8</u>	<u>b7</u>	<u>b6</u>	<u>b5</u>	<u>b4</u>	<u>b3</u>	<u>b2</u>	<u>b1</u>	
								<u>Reserved for future use</u>

- MMS Implementation

Contents:

The MMS Implementation indicates the used implementation type, e.g. WAP.

Coding:

Allocation of bits:

Bit number Parameter indicated

1 WAP implementation of MMS

2-8 Reserved for future use

<u>Bit value</u>	<u>Meaning</u>
<u>0</u>	<u>Implementation not supported.</u>
<u>1</u>	<u>Implementation supported.</u>

- MMS Notification

Contents:

The MMS Notification contains the MMS notification.

Coding:

The MMS Notification is coded according to the MMS Implementation as indicated in Byte 3.
Any unused byte shall be set to 'FF'.

- Extension file record number

Contents:

- extension file record number. This byte identifies the number of a record in the EF_{EXT8} containing extension data for the notification information. The use of this byte is optional. If it is not used it shall be set to 'FF'.

Coding:

- binary.

4.2.YY EF_{EXT8} (Extension 8)

If service n°YY is "available", this file shall be present.

This EF contains extension data of a MMS Notification (Multimedia Messaging Service - see 4.2.XX).

<u>Identifier: '6FXX'</u>	<u>Structure: linear fixed</u>	<u>Optional</u>	
<u>Record length: X+2 bytes</u>	<u>Update activity: low</u>		
<u>Access Conditions:</u>			
<u>READ</u>	<u>PIN</u>		
<u>UPDATE</u>	<u>PIN</u>		
<u>DEACTIVATE</u>	<u>ADM</u>		
<u>ACTIVATE</u>	<u>ADM</u>		
<u>Bytes</u>	<u>Description</u>	<u>M/O</u>	<u>Length</u>
<u>1</u>	<u>Record type</u>	<u>M</u>	<u>1 byte</u>
<u>2 to X+1</u>	<u>Extension data</u>	<u>M</u>	<u>X bytes</u>
<u>X+2</u>	<u>Identifier</u>	<u>M</u>	<u>1 byte</u>

For contents and coding see clause 4.4.2.4 (EF_{EXT1}).

4.2.WW EF_{MMSCP} (MMS Connectivity Parameters)

If service n°XX is "available", this file shall be present.

This EF contains values for Multimedia Messaging Connectivity Parameters, which can be used by the ME for user assistance in preparation of connecting to the network for the MMS purpose.

Identifier: '6FXX'	Structure: Transparent	Optional	
File Size: X bytes	Update activity: low		
Access Conditions:			
READ	PIN		
UPDATE	ADM/PIN2		
	(fixed during administrative management)		
DEACTIVATE	ADM		
ACTIVATE	ADM		
Bytes	Description	M/O	Length
1 to X	MMS Connectivity Parameters TLV objects	M	X bytes

- MMS Connectivity Parameters tags

Description	Tag Value
MMS Connectivity Parameters Tag	'AX'
MMS Implementation Tag	'80'
MMS Relay/Server Tag	'81'
Interface to Core Network and Bearer Tag	'82'
GatewayTag	'83'

- MMS Connectivity Parameters contents

Description	Value	M/O	Length (bytes)
MMS Connectivity Parameters Tag	'AX'	M	1
Length	Note 1	M	Note 2
MMS Implementation Tag	'80'	M	1
Length	1	M	Note 2
MMS Implementation Information	--	M	1
MMS Relay/Server Tag	'81'	M	1
Length	X	M	Note 2
MMS Relay/Server Address	--	M	X
Interface to Core Network and Bearer Tag	'82'	M	1
Length	Y	M	Note 2
Interface to Core Network and Bearer information	--	M	Y
GatewayTag	'83'	O	1
Length	Z	O	Note 2
Gateway Information	--	O	Z
Note 1 : This is the total size of the constructed TLV object			
Note 2 : The length is coded according to ISO/IEC 8825 [35]			

- MMS Implementation Tag '80'

See section 4.2.XX for contents and coding.

- MMS Relay/server Tag '81'

Contents:

The MMS relay/server contains the address of the associated MMS relay/server.

Coding:

The MMS relay/server address is coded according to the guideline provided in 3GPP TS 23.140 [38].

- Interface to Core Network and Bearer Tag '82'

Contents:

The Interface to Core Network and Bearer may contain the following information to set up the bearer: Bearer, Address, Type of address, Speed, Call type, Authentication type, Authentication id, Authentication password.

Coding:

The coding is according to the guideline provided in 3GPP TS 23.140 [38].

- Gateway Tag '83'

Contents:

The Gateway may contain the following information; Address , Type of address, Port, Service, Authentication type , Authentication id and Authentication password.

Coding:

The coding is according to the guideline provided in 3GPP TS 23.140 [38].

4.2.ZZ EF_{MMSUP} (MMS User Preferences)

If service n°XX is "available", this file shall be present.

This EF contains values for Multimedia Messaging Service User Preferences, which can be used by the ME for user assistance in preparation of mobile multimedia messages (e.g. default values for parameters that are often used).

<u>Identifier: '6FXX'</u>	<u>Structure: Linear Fixed</u>	<u>Optional</u>	
<u>Record Length: X bytes</u>		<u>Update activity: low</u>	
<u>Access Conditions:</u>			
<u>READ</u>	<u>PIN</u>		
<u>UPDATE</u>	<u>PIN</u>		
<u>DEACTIVATE</u>	<u>ADM</u>		
<u>ACTIVATE</u>	<u>ADM</u>		
<u>Bytes</u>	<u>Description</u>	<u>M/O</u>	<u>Length</u>
<u>1 to X</u>	<u>MMS User Preference TLV Objects</u>	<u>M</u>	<u>X bytes</u>

- MMS User Preference tags

<u>Description</u>	<u>Tag Value</u>
<u>MMS Implementation Tag</u>	<u>'80'</u>
<u>MMS User preference profile name Tag</u>	<u>'81'</u>
<u>MMS User Preference information Tag</u>	<u>'82'</u>

MMS User Preference information

<u>Description</u>	<u>Value</u>	<u>M/O</u>	<u>Length (bytes)</u>
<u>MMS Implementation Tag</u>	<u>'80'</u>	<u>M</u>	<u>1</u>
<u>Length</u>	<u>1</u>	<u>M</u>	<u>Note</u>
<u>MMS Implementation information</u>	<u>--</u>	<u>M</u>	<u>1</u>
<u>MMS User preference profile name Tag</u>	<u>'81'</u>	<u>M</u>	<u>1</u>
<u>Length</u>	<u>X</u>	<u>M</u>	<u>Note</u>
<u>MMS User profile name</u>	<u>--</u>	<u>M</u>	<u>X</u>
<u>MMS User Preference information Tag</u>	<u>'82'</u>	<u>M</u>	<u>1</u>
<u>Length</u>	<u>Y</u>	<u>M</u>	<u>Note</u>
<u>MMS User Preference information</u>	<u>--</u>	<u>M</u>	<u>Y</u>
<u>Note : The length is coded according to ISO/IEC 8825 [35]</u>			

- MMS Implementation Tag '80'

For contents and coding see 4.2.XX

- MMS User preference profile name Tag '81'

Contents:

Alpha tagging of the MMS user preference profile.

Coding:

this alpha-tagging shall use either:

- the SMS default 7-bit coded alphabet as defined in TS 23.038 [5] with bit 8 set to 0. The alpha identifier shall be left justified.

or:

- one of the UCS2 coded options as defined in the annex of TS 31.101 [11].

- MMS User Preference information Tag '82'

Contents:

The following information elements may be coded; Sender Visibility, Delivery Report, Read-Reply, Priority, Time of Expiry and Earliest Delivery Time.

Coding:

Depending upon the MMS implementation as indicated in Tag '80'.

...

4.7 Files of USIM

This subclause contains two figures depicting the file structure of the UICC and the ADF_{USIM} . ADF_{USIM} shall be selected using the AID and information in EF_{DIR} .

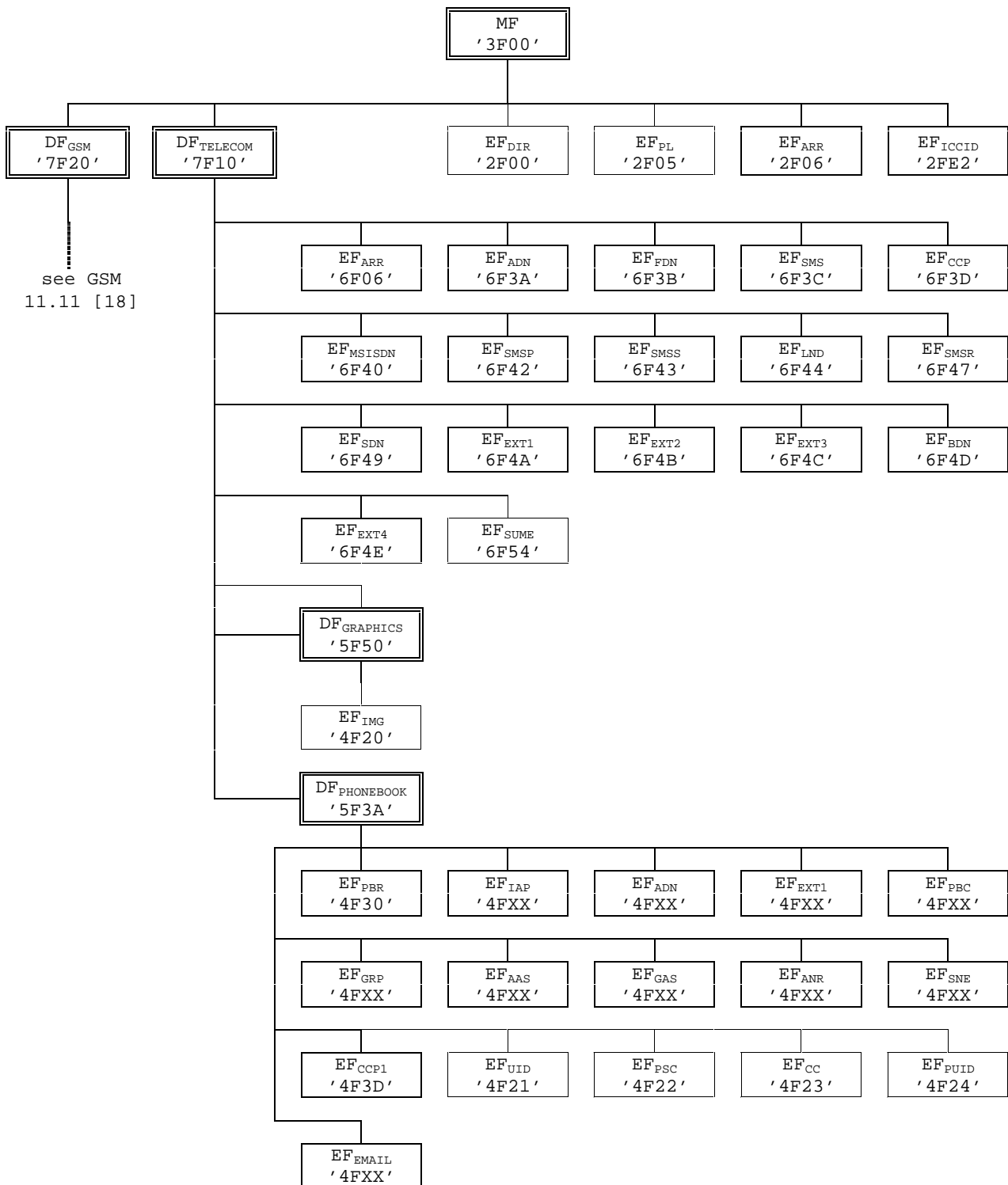


Figure 4.1: File identifiers and directory structures of UICC

ADF_{USIM}

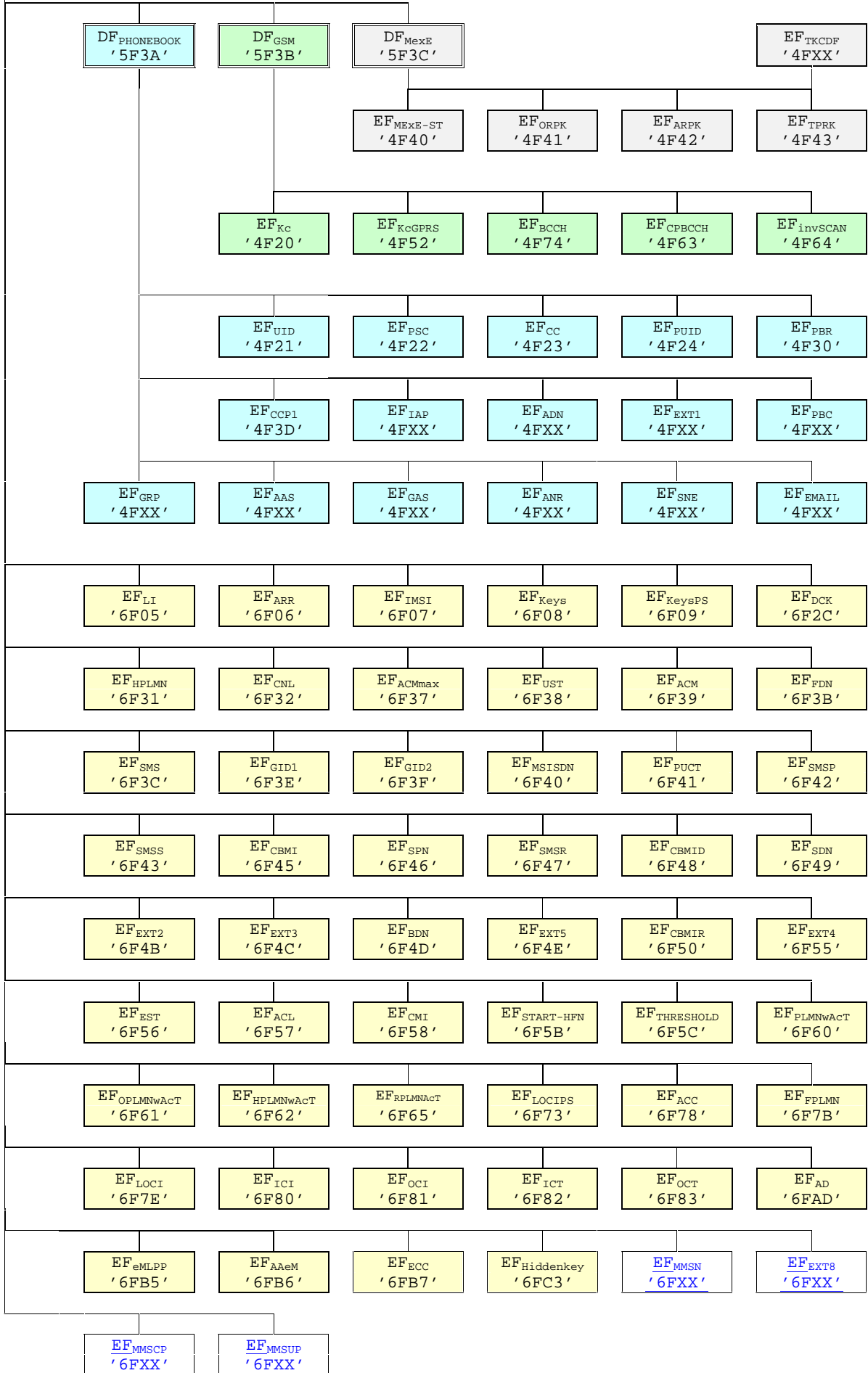


Figure 4.2: File identifiers and directory structures of USIM

DF 5F70 is reserved for SoLSA. EF 4F30 (EF_{SAL}) and EF 4F31 (EF_{SLI}) are reserved under DF 5F70 (SoLSA).

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5.3.X MMS Notifications

- Requirement: Service n°XX "available".
- Request: The ME sends the identification of the information to be read, then the ME performs the reading procedure with EF_{MMSN}. If Service n°YY is available the ME shall analyse the data of EF_{MMSN} to ascertain, whether additional data is associated in EF_{EXT8}. If necessary, then the ME performs the reading procedure on EF_{EXT8} to assemble the complete MMS notification.
- Update: The ME analyses and assembles the MMS notification to be stored as follows:
 - if the MMS notification contains not more bytes than the maximum possible number for EF_{MMSN}, then the ME looks for the next available area to store the MMS notification. If such an area is available, it performs the updating procedure with EF_{MMSN}.
 - if the MMS notification contains more bytes than the maximum possible number for EF_{MMSN} then the ME seeks for a sufficient number of free records in EF_{EXT8} to store the complete MMS notification.
 - If there is not a sufficient number of EF_{EXT8} records marked as "free" to store the complete MMS notification, the procedure is aborted.
 - otherwise, the ME performs the updating procedure and stores as many bytes as possible in EF_{MMSN}. The Extension file record number of EF_{MMSN} is coded with the associated record number in the EF_{EXT8}. The remaining bytes are stored in the selected EF_{EXT8} record where the type of the record is then set to "additional data". The second byte of the EF_{EXT8} record is set with the number of bytes of the remaining additional data. It is possible, if the number of additional digits exceeds the capacity of the additional record, to chain another record inside the EF_{EXT8} by the identifier in the last byte of the record. In this case byte 2 of each record for additional data within the same chain indicates the number of bytes within the same record.

The ME is only allowed to store extension data in unused records of EF_{EXT8}

If there is no available empty space in the USIM to store the MMS notification, it is up to ME implementation how the notification is handled.

- Erasure: The ME will select in the USIM the MMS notification to be erased. Depending on the MMI, the MMS notification may be read before the area is marked as "free". The memory of the USIM may still contain the old MMS notification until a new message is stored. If Service n°YY is available all associated records in EF_{EXT8} are then marked by the ME as "free" by setting them to 'FF'.

5.3.Y MMS Connectivity Parameters

- Requirement: Service n°XX "available".
- Request: the ME performs the reading procedure with EF_{MMSCP}.
- Update: The ME performs the updating procedure with EF_{MMSCP}.

5.3.Z MMS User Preferences

- Requirement: Service n°XX "available".
- Request: the ME performs the reading procedure with EF_{MMSUP}.

- Update: The ME performs the updating procedure with EF_{MMSUP} .

...

Annex A (informative):

EF changes via Data Download or USAT applications

This annex defines if changing the content of an EF by the network (e.g. by sending an SMS), or by a USAT Application, is advisable. Updating of certain EFs "over the air" such as EF_{ACC} could result in unpredictable behaviour of the UE; these are marked "Caution" in the table below.

Certain EFs are marked "No"; under no circumstances should "over the air" changes of these EFs be considered.

File identification	Description	Change advised
'2F00'	Application directory	
'2F05'	Preferred languages	Yes
'2F06'	Access rule reference	
'2FE2'	ICC identification	No
'4F20'	Image data	Yes
'4FXX'	Image Instance data Files	Yes
'4FXX'	Unique identifier	Yes
'4F22'	Phone book synchronisation counter	Yes
'4F23'	Change counter	Yes
'4F24'	Previous unique identifier	Yes
'4F30'	Phone book reference file	Yes
'4FXX'	Capability configuration parameters 1	Yes
'4F75'	CPBCCCH Information	No
'4F76'	Investigation Scan	Caution
'4FXX'	Additional number alpha string	Yes
'4FXX'	Additional number	Yes
'4FXX'	Second name entry	Yes
'4FXX'	Grouping information alpha string	Yes
'4FXX'	Phone book control	Yes
'4FXX'	E-mail addresses	Yes
'4FXX'	Index administration phone book	Yes
'4FXX'	Extension 1	Yes
'4FXX'	Abbreviated dialling numbers	Yes
'4FXX'	Grouping file	Yes
'6F05'	Language indication	Yes
'6F07'	IMSI	Caution (Note 1)
'6F08'	Ciphering and integrity keys	No
'6F09'	Ciphering and integrity keys for packet switched domain	No
'6F20'	Ciphering key Kc	No
'6F2C'	De-personalization Control Keys	Caution
'6F31'	HPLMN search period	Caution
'6F32'	Co-operative network list	Caution
'6F37'	ACM maximum value	Yes
'6F38'	USIM service table	Caution
'6F39'	Accumulated call meter	Yes
'6F3B'	Fixed dialling numbers	Yes
'6F3C'	Short messages	Yes
'6F4F'	Extended Capability configuration parameters	Yes
'6F3E'	Group identifier level 1	Yes
'6F3F'	Group identifier level 2	Yes
	Continued....	

File identification	Description	Change advised
'6F40'	MSISDN storage	Yes
'6F41'	PUCT	Yes
'6F42'	SMS parameters	Yes
'6F43'	SMS status	Yes
'6F44'	Last number dialled	Yes
'6F45'	CBMI	Caution
'6F46'	Service provider name	Yes
'6F47'	Short message status reports	Yes
'6F48'	CBMID	Yes
'6F49'	Service Dialling Numbers	Yes
'6F4B'	Extension 2	Yes
'6F4C'	Extension 3	Yes
'6F4D'	Barred dialling numbers	Yes
'6F4E'	Extension 5	Yes
'6F4F'	Capability configuration parameters 2	Yes
'6F50'	CBMIR	Yes
'6F52'	GPRS Ciphering key KcGPRS	No
'6F54'	SetUp Menu Elements	Yes
'6F56'	Enabled services table	
'6F57'	Access point name control list	
'6F58'	Comparison method information	
'6F5B'	Initialisation value for Hyperframe number	Caution
'6F5C'	Maximum value of START	Yes
'6F60'	User controlled PLMN selector with Access Technology	No
'6F61'	Operator controlled PLMN selector with Access Technology	Caution
'6F62'	HPLMN selector with Access Technology	Caution
'6F63'	RPLMN last used Access Technology	Caution
'6F73'	Packet switched location information	Caution
'6F78'	Access control class	Caution
'6F7B'	Forbidden PLMNs	Caution
'6F7E'	Location information	No (Note 1)
'6F80'	Incoming call information	Yes
'6F81'	Outgoing call information	Yes
'6F82'	Incoming call timer	Yes
'6F83'	Outgoing call timer	Yes
'6FAD'	Administrative data	Caution
'6FB5'	Enhanced Multi Level Pre-emption and Priority	Yes
'6FB6'	Automatic Answer for eMLPP Service	Yes
'6FB7'	Emergency Call Codes	Caution
'6FC2'	Group identity	No
'6FC3'	Key for hidden phone book entries	
'6FC4'	Network Parameters	No
'6FC5'	PLMN Network Name	Yes
'6FC6'	Operator Network List	Yes
'6FC7'	Mailbox Dialling Numbers	Yes
'6FC8'	Extension 6	Yes
'6FC9'	Mailbox Identifier	Caution
'6FCA'	Message Waiting Indication Status	Caution
'6FCB'	Call Forwarding Indication Status	Caution
'6FCC'	Extension 7	Yes
'6FCD'	Service Provider Display Information	
'6FXX'	MMS Notification	Yes
'6FXX'	Extension 8	Yes
'6FXX'	MMS Connectivity Parameters	Yes
'6FXX'	MMS User Preferences	Yes

NOTE 1: If EF_{MSI} is changed, the UICC should issue REFRESH as defined in TS 31.111 and update EF_{LOC1} accordingly.

Annex D (informative): Tags defined in 31.102

Tag	Name of Data Element	Usage
'A0'	GSM cell information The following tags are encapsulated within 'A0': '80' GSM Camping Frequency data object '81' GSM Neighbour Frequency Information data object	Network Parameters (EF _{NETPAR})
'A1'	FDD cell information The following tags are encapsulated within 'A1': '80' FDD Intra Frequency data object '81' FDD Inter Frequency Information data object	Network Parameters (EF _{NETPAR})
'A2'	TDD cell information The following tags are encapsulated within 'A2': '80' TDD Intra Frequency data object '81' TDD Inter Frequency Information data object	Network Parameters (EF _{NETPAR})
'A3'	Service provider display information The following tags are encapsulated within 'A3': '80' Service provider PLMN list	Service Provider Display Information (EF _{SPDI})
'A8'	Indicator for type 1 EFs (amount of records equal to master EF) The following tags are encapsulated within 'A8': 'C0' EF _{ADN} data object 'C1' EF _{IAP} data object 'C3' EF _{SNE} data object 'C4' EF _{ANR} data object 'C5' EF _{PBC} data object 'C6' EF _{GRP} data object 'C9' EF _{UID} data object 'CA' EF _{EMAIL} data object	Phone Book Reference File (EF _{PBR})
'A9'	Indicator for type 2 EFs (EFs linked via the index administration file) The following tags are encapsulated within 'A9': 'C3' EF _{SNE} data object 'C4' EF _{ANR} data object 'CA' EF _{EMAIL} data object	Phone Book Reference File (EF _{PBR})
'AA'	Indicator for type 3 EFs (EFs addressed inside an object using a record identifier as a pointer) The following tags are encapsulated within 'AA': 'C2' EF _{EXT1} data object 'C7' EF _{AAS} data object 'C8' EF _{GAS} data object 'CB' EF _{CCP1} data object	Phone Book Reference File (EF _{PBR})
'DB'	Successful 3G authentication	Response to AUTHENTICATE
'DC'	Synchronisation failure	Response to AUTHENTICATE
'DD'	Access Point Name	APN Control List (EF _{ACL})
'AX'	MMS Connectivity Parameters: The following are encapsulated under 'AX': '80' MMS Implementation Tag '81' MMS Relay/Server Tag '82' Interface to core network and bearer Tag '83' Gateway Tag	MMS Connectivity Parameters (EF_{MMSCP})

Annex E (informative): Suggested contents of the EFs at pre-personalization

If EFs have an unassigned value, it may not be clear from the main text what this value should be. This annex suggests values in these cases.

File Identification	Description	Value
'2F00'	Application directory	Card issuer/operator dependant
'2F05'	Preferred languages	'FF...FF'
'2F06'	Access rule reference	Card issuer/operator dependant
'2FE2'	ICC identification	operator dependant
'4F20'	Image data	'00FF...FF'
'4FXX'	Image instance data files	'FF...FF'
'4FXX'	Unique identifier	'0000'
'4F22'	Phone book synchronisation counter	'00000000'
'4F23'	Change counter	'0000'
'4F24'	Previous unique identifier	'0000'
'4F30'	Phone book reference file	Operator dependant
'4FXX'	Capability configuration parameters 1	'FF...FF'
'4F63'	CPBCCCH Information	'FF..FF'
'4F64'	Investigation PLMN scan	'00'
'4FXX'	E-mail addresses	'FF...FF'
'4FXX'	Additional number alpha string	'FF...FF'
'4FXX'	Second name entry	'FF...FF'
'4FXX'	Abbreviated dialling numbers	'FF...FF'
'4FXX'	Grouping file	'00...00'
'4FXX'	Grouping information alpha string	'FF...FF'
'4FXX'	Phone book control	'0000'
'4FXX'	Index administration phone book	'FF...FF'
'4FXX'	Additional number	'FF...FF'
'4FXX'	Extension 1	'00FF...FF'
'6F05'	Language indication	'FF...FF'
'6F07'	IMSI	Operator dependant
'6F08'	Ciphering and integrity keys	'07FF...FF'
'6F09'	Ciphering and integrity keys for packet switched domain	'07FF...FF'
'6F20'	Ciphering key Kc	'FF...FF07'
'6F2C'	De-personalization control keys	'FF...FF'
'6F31'	HPLMN search period	'FF'
'6F32'	Co-operative network list	'FF...FF'
'6F37'	ACM maximum value	'000000' (see note 1)
'6F38'	USIM service table	Operator dependant
'6F39'	Accumulated call meter	'000000'
'6F3B'	Fixed dialling numbers	'FF...FF'
'6F3C'	Short messages	'00FF...FF'
'6F3E'	Group identifier level 1	Operator dependant
'6F3F'	Group identifier level 2	Operator dependant
'6F40'	MSISDN storage	'FF...FF'
'6F41'	PUCT	'FFFFFF0000'
'6F42'	SMS parameters	'FF...FF'
'6F43'	SMS status	'FF...FF'
'6F45'	CBMI	'FF...FF'
'6F46'	Service provider name	Operator dependant
'6F47'	Short message status reports	'00FF...FF'
'6F48'	CBMID	'FF...FF'
'6F49'	Service Dialling Numbers	'FF...FF'
'6F4B'	Extension 2	'00FF...FF'
'6F4C'	Extension 3	'00FF...FF'

Continued....

File Identification	Description	Value
'6F4D'	Barred Dialling Numbers	'FF...FF'
'6F4E'	Extension 5	'00FF...FF'
'6F4F'	Capability configuration parameters 2	'FF...FF'
'6F50'	CBMIR	'FF...FF'
'6F52'	GPRS Ciphering key KcGPRS	'FF...FF07'
'6F54'	SetUp Menu Elements	Operator dependant
'6F55'	Extension 4	'FF...FF'
'6F56'	Enabled services table	Operator dependant
'6F57'	Access point name control list	'00FF...FF'
'6F58'	Comparison method information	'FF...FF'
'6F5B'	Initialisation value for Hyperframe number	'00...00'
'6F5C'	Maximum value of START	Operator dependant
'6F60'	User controlled PLMN selector with Access Technology	'FFFFFF0000..FFFFFF0000'
'6F61'	Operator controlled PLMN selector with Access Technology	'FFFFFF0000..FFFFFF0000'
'6F62'	HPLMN selector with Access Technology	'FFFFFF0000..FFFFFF0000'
'6F65'	RPLMN last used Access Technology	'0000'
'6F73'	Packet switched location information	'FFFFFFFF FFFFFFFF xxxxxx 0000 FF 01' (see note 2)
'6F78'	Access control class	Operator dependant
'6F7B'	Forbidden PLMNs	'FF...FF'
'6F7E'	Location information	'FFFFFFFF xxxxxx 0000 FF 01' (see note 2)
'6F80'	Incoming call information	'FF...FF 000000 00 01FFFF'
'6F81'	Outgoing call information	'FF...FF 000000 01FFFF'
'6F82'	Incoming call timer	'000000'
'6F83'	Outgoing call timer	'000000'
'6FAD'	Administrative data	Operator dependant
'6FB5'	EMLPP	Operator dependant
'6FB6'	AaeM	'00'
'6FB7'	Emergency call codes	Operator dependant
'6FC2'	Group identity	'FFFFFFFF'
'6FC3'	Key for hidden phone book entries	'FF...FF'
'6FC4'	Network Parameters	'FF...FF'
'6FC5'	PLMN Network Name	Operator dependant
'6FC6'	Operator Network List	Operator dependant
'6FC7'	Mailbox Dialling Numbers	Operator dependant
'6FC8'	Extension 6	'00 FF...FF'
'6FC9'	Mailbox Identifier	Operator dependant
'6FCA'	Message Waiting Indication Status	'00 00 00 00 00'
'6FCB'	Call Forwarding Indication Status	'xx 00 FF...FF'
'6FCC'	Extension 7	'00 FF...FF'
'6FCD'	Service Provider Display Information	
'6FXX'	MMS Notification	'00 00 00 FF...FF'
'6FXX'	Extension 8	'FF...FF'
'6FXX'	MMS Connectivity Parameters	'FF...FF'
'6FXX'	MMS User Preferences	'FE...FE'

NOTE 1: The value '000000' means that ACMmax is not valid, i.e. there is no restriction on the ACM. When assigning a value to ACMmax, care should be taken not to use values too close to the maximum possible value 'FFFFFF', because the INCREASE command does not update EF_{ACM} if the units to be added would exceed 'FFFFFF'. This could affect the call termination procedure of the Advice of Charge function.

NOTE 2: xxxxxx stands for any valid MCC and MNC, coded according to 3G TS 24.008 [9].

Annex X (informative): Example of MMS coding

0x80 MMS Implementation Tag

0x01 Length

0x01 MMS Implementation information (WAP)

0x81 MMS User preference profile name Tag

0x1C Length

“Christmas Card”

0x82 MMS User Information Preference tag

0x19 Length

0x14 0x80 (visibility: hide)

0x06 0x80 (delivery report: yes)

0x10 0x80 (Read-reply: yes)

0x0F 0x81 (Priority: Normal)

0x07 0x07 0x80 0x05 0x11 0x22 0x33 0x44 0x55 (Delivery time tag: Value-Length: Absolute-token tag; Date Value-Length Date -Value)

0x08 0x06 0x81 0x04 0x55 0x22 0x33 0x44 (Expiry: Tag:: Value-Length : Relative-token Tag ; Delta -Second Value-Length, Delta -Second-Value)