

Source: T3

Title: CRs to TS 31.102: Characteristics of the USIM Application

Document for: Approval

This document contains the following change requests:

T3-Doc	Spec	CR	Rev	Cat	Phase	Subject	Version-Current	Version-New	WI
T3-030188	31.102	130	1	D	Rel-6	Miscellaneous corrections on files	6.0.0	6.1.0	TEI
T3-030148	31.102	131	-	F	Rel-4	CR 31.102 Rel-4: Example for MMS connectivity parameters	4.7.0	4.8.0	TEI
T3-030149	31.102	132	-	A	Rel-5	CR 31.102 Rel-5: Example for MMS connectivity parameters	5.3.0	5.4.0	TEI
T3-030150	31.102	133	-	A	Rel-6	CR 31.102 Rel-6: Example for MMS connectivity parameters	6.0.0	6.1.0	TEI
T3-030177	31.102	134	-	F	R99	CR to delete Elementary File EF_RPLMNAcT, in accordance with TP-020168 from TP#16 in Marco Island.	3.11.0	3.12.0	TEI
T3-030178	31.102	135	-	A	Rel-4	CR to delete Elementary File EF_RPLMNAcT, in accordance with TP-020168 from TP#16 in Marco Island.	4.7.0	4.8.0	TEI
T3-030179	31.102	136	-	A	Rel-5	CR to delete Elementary File EF_RPLMNAcT, in accordance with TP-020168 from TP#16 in Marco Island.	5.3.0	5.4.0	TEI
T3-030180	31.102	137	-	A	Rel-6	CR to delete Elementary File EFRPLMNAcT, in accordance with TP-020168 from TP#16 in Marco Island.	6.0.0	6.1.0	TEI
T3-030189	31.102	138	-	F	R99	CR to make EF-EXT1 optional in the USIM Phonebook	3.11.0	3.12.0	TEI
T3-030190	31.102	139	-	F	Rel-4	CR to make EF-EXT1 optional in the USIM Phonebook	4.7.0	4.8.0	TEI
T3-030191	31.102	140	-	F	Rel-5	CR to make EF-EXT1 optional in the USIM Phonebook	5.3.0	5.4.0	TEI
T3-030192	31.102	141	-	F	Rel-6	CR to make EF-EXT1 optional in the USIM Phonebook	6.0.0	6.1.0	TEI

CHANGE REQUEST

⌘ **TS 31.102 CR 130** ⌘ rev **1** ⌘ Current version: **6.0.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Miscellaneous corrections on files		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 11/02/2003
Category:	⌘ D	Release:	⌘ Rel-6
	<i>Use one of the following categories:</i> F (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) Rel-6 (Release 6)

Reason for change:	⌘ Miscellaneous corrections		
Summary of change:	⌘ Change DFgsm to Dfgsmaccess Delete references to DFsolsa and its files Add EFccp2 which was forgotten in figure		
Consequences if not approved:	⌘ Misleading statements leading to confusion		

Clauses affected:	⌘ 4.3, 4.4.1, 4.7										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
		Test specifications									
		O&M Specifications									
Other comments:	⌘										

4.3 DFs at the USIM ADF (Application DF) Level

DFs may be present as child directories of USIM ADF. The following DFs are defined:

- DF_{PHONEBOOK} '5F3A'.
- DF_{GSM-ACCESS} ~~————~~'5F3B'.
- DF_{MEXE} '5F3C'.

(DF for application specific phonebook. This DF has the same structure as the DF_{PHONEBOOK} under DF_{TELECOM}).

'5F70' is reserved for DF_{SoLSA}.

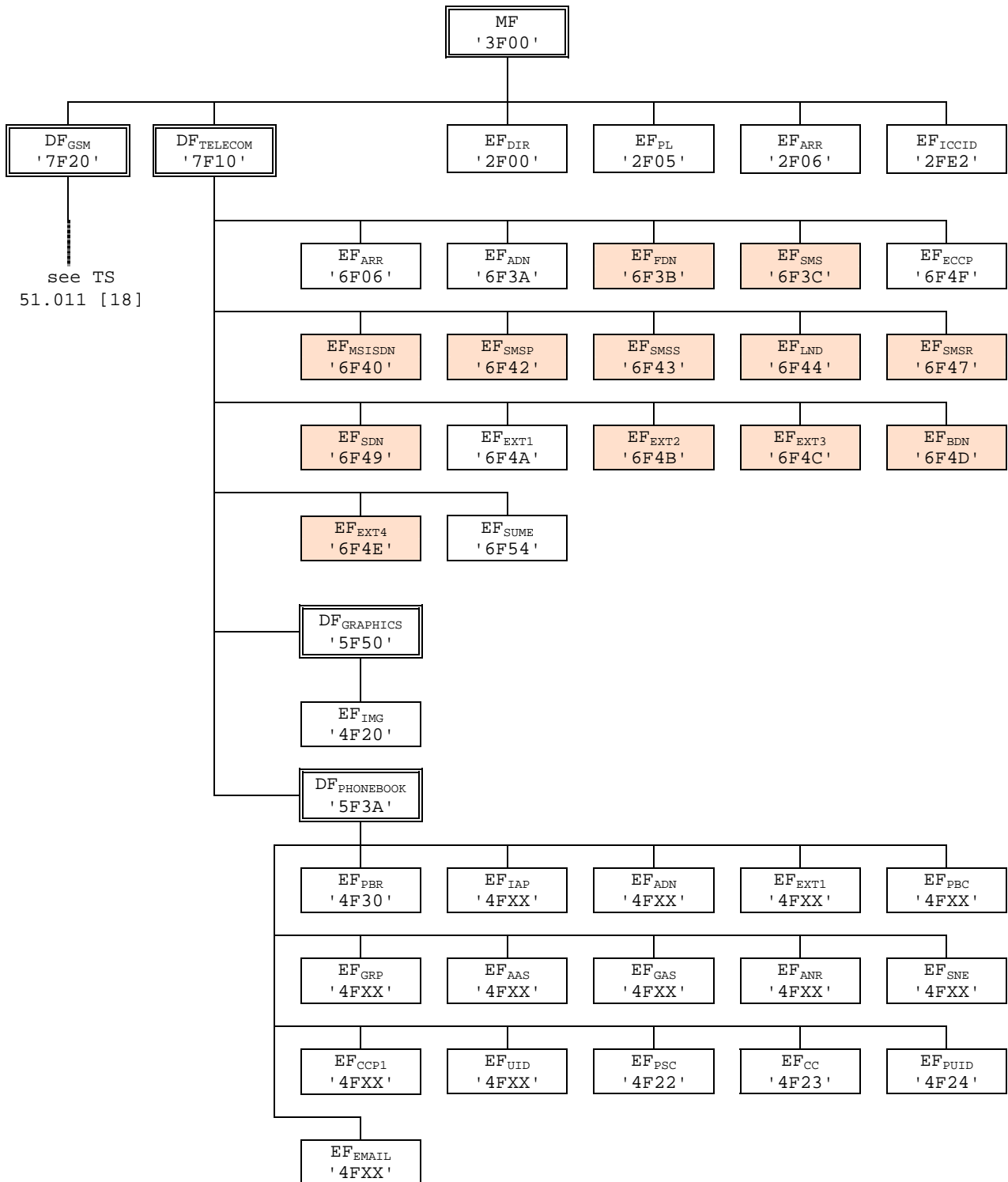
4.4 Contents of DFs at the USIM ADF (Application DF) level

4.4.1 Void~~Contents of files at the DF SoLSA level~~

~~Void.~~

4.7 Files of USIM

This clause 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}.



NOTE: Files under DF_{TELECOM} with shaded background are defined in TS 51.011 [18].

Figure 4.1: File identifiers and directory structures of UICC

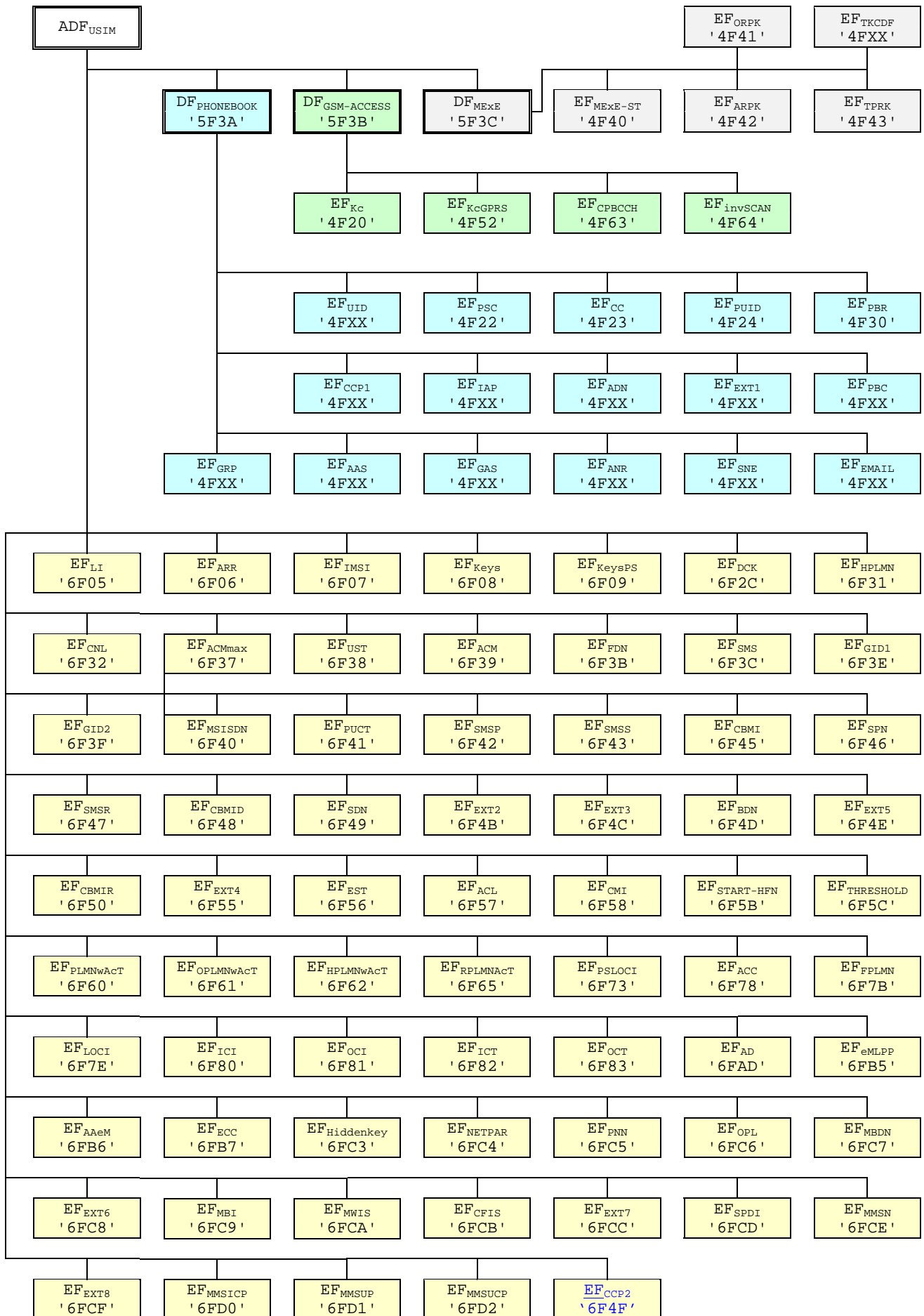


Figure 4.2: File identifiers and directory structures of USIM

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

CHANGE REQUEST

⌘ **31.102 CR 131** ⌘ - ⌘ Current version: **4.7.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ CR 31.102 Rel-4: Example for MMS connectivity parameters		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14/02/2003
Category:	⌘ F	Release:	⌘ Rel-4
	<i>Use <u>one</u> of the following categories:</i> F (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 <u>one</u> 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) Rel-6 (Release 6)

Reason for change:	⌘ Discussions in T2 and T3 have shown that the current definitions regarding the storage of MMS connectivity parameters in the T2 and T3 specifications without an additional coding example would potentially result in severe interoperability problems between terminals of different manufacturers when a UICC is moved from one terminal to another. Furthermore there is a potential problem with initial provisioning of MMS parameters on the UICC, as the format of the initial provisioning data may not be consistent on different UICCs.
	T3 and T2 have agreed during the joint T3/T2 session at the T3#26 meeting that an encoding example for the storage of the MMS Connectivity Information as depicted in this change request shall be added to the (U)SIM specifications (TS 31.102 and TS 51.011) in order to avoid misinterpretation.
Summary of change:	⌘ <ol style="list-style-type: none"> 1.) addition of an new encoding example for MMS Connectivity Information in annex J.2. 2.) some minor editorial refinements for encoding example dealing with MMS User Preferences in annex J.1. 3.) update/addition of references to annex J.1 and J.2 in section 4.2.
Consequences if not approved:	⌘ The current definition of how MMS Connectivity Information is stored in the (U)SIM is open to misinterpretation.

Clauses affected: ⌘ Chapter 4.2.69 and 4.2.70

Annex J												
Other specs affected:		<table border="1"><tr><td>Y</td><td>N</td></tr><tr><td>X</td><td></td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr></table>	Y	N	X			X		X	Other core specifications	⌘ TS 51.011
	Y	N										
	X											
	X											
	X											
		Test specifications										
		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/specs/CR.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/> 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.

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4.2.69 EF_{MMSICP} (MMS Issuer Connectivity Parameters)

If service n°52 is "available", this file shall be present.

This EF contains values for Multimedia Messaging Connectivity Parameters as determined by the issuer, which can be used by the ME for MMS network connection. This file may contain one or more sets of Multimedia Messaging Issuer Connectivity Parameters. The first set of Multimedia Messaging Issuer Connectivity Parameters is used as the default set. Each set of Multimedia Messaging Issuer Connectivity Parameters may consist of one or more Interface to Core Network and Bearer information TLV objects, but shall contain only one MMS implementation TLV object, one MMS Relay/Server TLV object and one Gateway TLV object. The order of the Interface to Core Network and Bearer information TLV objects in the MMS Connectivity TLV object defines the priority of the Interface to Core Network and Bearer information, with the first TLV object having the highest priority.

Identifier: '6FD0'		Structure: Transparent		Optional	
File Size: X ₁ +...+ X _n bytes			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		ADM			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes	Description			M/O	Length
1 to X ₁	MMS Connectivity Parameters TLV object			M	X ₁ bytes
X ₁ +1 to X ₁ + X ₂	MMS Connectivity Parameters TLV object			O	X ₂ bytes
...	...				
X ₁ +...+ X _{n-1} +1 to X ₁ +...+ X _n	MMS Connectivity Parameters TLV object			O	X _n bytes

- MMS Connectivity Parameters tags

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

- MMS Connectivity Parameters contents

Description	Value	M/O	Length (bytes)
-------------	-------	-----	----------------

MMS Connectivity Parameters Tag	'AB'	M	1
Length	Note 1	M	Note 2
MMS Implementation Tag	'80'	M	1
Length	1	M	1
MMS Implementation Information	--	M	1
MMS Relay/Server Tag	'81'	M	1
Length	X	M	Note 2
MMS Relay/Server Address	--	M	X
1 st Interface to Core Network and Bearer Information Tag (highest priority)	'82'	M	1
Length	Y1	M	Note 2
1 st Interface to Core Network and Bearer information	--	M	Y1
2 nd Interface to Core Network and Bearer Information Tag	'82'	M	1
Length	Y2	M	Note 2
2 nd Interface to Core Network and Bearer information	--	M	Y2
...			
N th Interface to Core Network and Bearer Information Tag (lowest priority)	'82'	M	1
Length	Y3	M	Note 2
N th Interface to Core Network and Bearer information	--	M	Y3
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 4.2.67 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 Information Tag '82'
Contents:
The Interface to Core Network and Bearer Information 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].

Unused bytes shall be set to 'FF'.

[An Example for the coding of these parameters can be found in Annex J.2.](#)

4.2.70 EF_{MMSUP} (MMS User Preferences)

If service n°52 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).

Identifier: '6FD1'	Structure: Linear Fixed	Optional	
Record Length: X bytes		Update activity: low	
Access Conditions: READ PIN UPDATE PIN DEACTIVATE ADM ACTIVATE ADM			
Bytes	Description	M/O	Length
1 to X	MMS User Preference TLV Objects	M	X bytes

- MMS User Preference tags

Description	Tag Value
MMS Implementation Tag	'80'
MMS User preference profile name Tag	'81'
MMS User Preference information Tag	'82'

MMS User Preference information

Description	Value	M/O	Length (bytes)
MMS Implementation Tag	'80'	M	1
Length	1	M	Note
MMS Implementation information	--	M	1
MMS User preference profile name Tag	'81'	M	1
Length	X	M	Note
MMS User profile name	--	M	X
MMS User Preference information Tag	'82'	M	1
Length	Y	M	Note
MMS User Preference information	--	M	Y

Note: The length is coded according to ISO/IEC 8825 [35]

- MMS Implementation Tag '80'

For contents and coding see 4.2.67

- 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'.

An Example for the coding of these parameters can be found in Annex [J.1](#).

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Annex J (informative): Example of MMS coding

J.1 Coding example for MMS User Preferences

0x80 MMS Implementation Tag

0x01 (Length = "1")

0x01 (MMS implementation information = "WAP")

0x81 MMS User Preference Profile Name Tag

0x1C (Length = "28")

(profile name = "Christmas Card"; 14 characters, 28 Bytes)

0x82 MMS User ~~Information~~-Preference Information Tag

0x19 (Length = "25")

0x14 0x80 (visibility = "hide"; 2 Bytes)

0x06 0x80 (delivery report = "yes"; 2 Bytes)

0x10 0x80 (read-reply = "yes"; 2 Bytes)

0x0F 0x81 (priority = "normal"; 2 Bytes)

0x07 0x07 0x80 0x05 0x11 0x22 0x33 0x44 0x55

(Delivery-Time-Tag, Value-Length, Absolute-Token-Tag, Date-Value-Length, Date-Value; 9 Bytes)

0x08 0x06 0x81 0x04 0x55 0x22 0x33 0x44

(Expiry Tag, Value-Length, Relative-Token-Tag, Delta-Second-Value-Length, Delta-Second-Value; 8 Bytes)

J.2 Coding Example for MMS Issuer/User Connectivity Parameters

0xAB MMS Connectivity Parameters Tag

0x9F (Length = "159")

0x80 MMS Implementation Tag

0x01 (Length = "1")

0x01 (MMS implementation information = "WAP"; 1 Byte)

0x81 MMS Relay/Server Tag

0x2E (Length = "46")

0x68 0x74 0x74 0x70 0x3A 0x2F 0x2F 0x6D 0x6D 0x73 0x2D 0x6F 0x70 0x65 0x72 0x61 0x74
0x6F 0x72 0x2E 0x63 0x6F 0x6D

(MMS Relay/Server information = "http://mms-operator.com"; 23 characters; 46 Bytes)

0x82 Interface to Core Network and Bearer Tag

0x32 (Length = "50")

0x10 0xAA (bearer = "GSM-CSD"; 2 Bytes)

0x08 0x2B 0x34 0x39 0x35 0x33 0x34 0x31 0x39 0x30 0x36 0x00
(address = "+495341906"; 12 Bytes)

0x09 0x87 (type of address = "E164"; 2 Bytes)

0x25 0xC5 (speed = "autobauding"; 2 Bytes)

0x0A 0x90 (call type = "ANALOG MODEM"; 2 Bytes)

0x0C 0x9A (authentication type = "PAP"; 2 Bytes)

0x0D 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x6E 0x61 0x6D 0x65 0x00
(authentication id = "dummy_name"; 12 Bytes)

0x0E 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x70 0x61 0x73 0x73 0x77 0x6F 0x72 0x64 0x00
(authentication pw = "dummy_password"; 16 Bytes)

0x83 Gateway Tag

0x36 (Length = "54")

0x20 0x31 0x37 0x30 0x2E 0x31 0x38 0x37 0x2E 0x35 0x31 0x2E 0x33 0x00
(address = "170.187.51.3"; 14 Bytes)

0x21 0x85 (type of address = "IPv4"; 2 Bytes)

0x23 0x39 0x32 0x30 0x33 0x00 (port = "9203"; 6 Bytes)

0x24 0xCB (service = "CO-WSP"; 2 Bytes)

0x19 0x9C (authentication type = "HTTP BASIC"; 2 Bytes)

0x1A 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x6E 0x61 0x6D 0x65 0x00
(authentication id = "dummy_name"; 12 Bytes)

0x1B 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x70 0x61 0x73 0x73 0x77 0x6F 0x72 0x64 0x00
(authentication pw = "dummy_password"; 16 Bytes)

...

CHANGE REQUEST

⌘ **31.102 CR 132** ⌘ - ⌘ Current version: **5.3.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ CR 31.102 Rel-5: Example for MMS connectivity parameters		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14/02/2003
Category:	⌘ A	Release:	⌘ Rel-5
	<i>Use <u>one</u> of the following categories:</i> F (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 <u>one</u> 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) Rel-6 (Release 6)

Reason for change:	⌘ Discussions in T2 and T3 have shown that the current definitions regarding the storage of MMS connectivity parameters in the T2 and T3 specifications without an additional coding example would potentially result in severe interoperability problems between terminals of different manufacturers when a UICC is moved from one terminal to another. Furthermore there is a potential problem with initial provisioning of MMS parameters on the UICC, as the format of the initial provisioning data may not be consistent on different UICCs.
	T3 and T2 have agreed during the joint T3/T2 session at the T3#26 meeting that an encoding example for the storage of the MMS Connectivity Information as depicted in this change request shall be added to the (U)SIM specifications (TS 31.102 and TS 51.011) in order to avoid misinterpretation.
Summary of change:	⌘ <ol style="list-style-type: none"> 1.) addition of an new encoding example for MMS Connectivity Information in annex J.2. 2.) some minor editorial refinements for encoding example dealing with MMS User Preferences in annex J.1. 3.) update/addition of references to annex J.1 and J.2 in section 4.2.
Consequences if not approved:	⌘ The current definition of how MMS Connectivity Information is stored in the (U)SIM is open to misinterpretation.

Clauses affected: ⌘ Chapter 4.2.69 and 4.2.70

Annex J

Other specs affected:

Y	N
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Other core specifications
Test specifications
O&M Specifications

⌘

Other comments:

⌘

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...

4.2.69 EF_{MMSICP} (MMS Issuer Connectivity Parameters)

If service n°52 is "available", this file shall be present.

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Identifier: '6FD0'		Structure: Transparent		Optional	
File Size: X ₁ +...+ X _n bytes			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		ADM			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes		Description		M/O	Length
1 to X ₁		MMS Connectivity Parameters TLV object		M	X ₁ bytes
X ₁ +1 to X ₁ + X ₂		MMS Connectivity Parameters TLV object		O	X ₂ bytes
...		...			
X ₁ +...+ X _{n-1} +1 to X ₁ +...+ X _n		MMS Connectivity Parameters TLV object		O	X _n bytes

- MMS Connectivity Parameters tags

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

- MMS Connectivity Parameters contents

Description	Value	M/O	Length (bytes)
-------------	-------	-----	----------------

MMS Connectivity Parameters Tag	'AB'	M	1
Length	Note 1	M	Note 2
MMS Implementation Tag	'80'	M	1
Length	1	M	1
MMS Implementation Information	--	M	1
MMS Relay/Server Tag	'81'	M	1
Length	X	M	Note 2
MMS Relay/Server Address	--	M	X
1 st Interface to Core Network and Bearer Information Tag (highest priority)	'82'	M	1
Length	Y1	M	Note 2
1 st Interface to Core Network and Bearer information	--	M	Y1
2 nd Interface to Core Network and Bearer Information Tag	'82'	M	1
Length	Y2	M	Note 2
2 nd Interface to Core Network and Bearer information	--	M	Y2
...			
N th Interface to Core Network and Bearer Information Tag (lowest priority)	'82'	M	1
Length	Y3	M	Note 2
N th Interface to Core Network and Bearer information	--	M	Y3
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 4.2.67 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 Information Tag '82'
Contents:
The Interface to Core Network and Bearer Information 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].

Unused bytes shall be set to 'FF'.

[An Example for the coding of these parameters can be found in Annex J.2.](#)

4.2.70 EF_{MMSUP} (MMS User Preferences)

If service n°52 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).

Identifier: '6FD1'	Structure: Linear Fixed	Optional	
Record Length: X bytes		Update activity: low	
Access Conditions:			
READ	PIN		
UPDATE	PIN		
DEACTIVATE	ADM		
ACTIVATE	ADM		
Bytes	Description	M/O	Length
1 to X	MMS User Preference TLV Objects	M	X bytes

- MMS User Preference tags

Description	Tag Value
MMS Implementation Tag	'80'
MMS User preference profile name Tag	'81'
MMS User Preference information Tag	'82'

MMS User Preference information

Description	Value	M/O	Length (bytes)
MMS Implementation Tag	'80'	M	1
Length	1	M	Note
MMS Implementation information	--	M	1
MMS User preference profile name Tag	'81'	M	1
Length	X	M	Note
MMS User profile name	--	M	X
MMS User Preference information Tag	'82'	M	1
Length	Y	M	Note
MMS User Preference information	--	M	Y

Note: The length is coded according to ISO/IEC 8825 [35]

- MMS Implementation Tag '80'

For contents and coding see 4.2.67

- 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'.

An Example for the coding of these parameters can be found in Annex J.1.

4.2.71 EF_{MMSUCP} (MMS User Connectivity Parameters)

...

Annex J (informative): Example of MMS coding

J.1 Coding example for MMS User Preferences

0x80 MMS Implementation Tag

0x01 (Length = "1")

0x01 (MMS implementation information = "WAP")

0x81 MMS User Preference Profile Name Tag

0x1C (Length = "28")

(profile name = "Christmas Card"; 14 characters, 28 Bytes)

0x82 MMS User ~~Information~~-Preference Information Tag

0x19 (Length = "25")

0x14 0x80 (visibility: = "hide"; 2 Bytes)

0x06 0x80 (delivery report: = "yes"; 2 Bytes)

0x10 0x80 (read-reply: = "yes"; 2 Bytes)

0x0F 0x81 (priority: = "normal"; 2 Bytes)

0x07 0x07 0x80 0x05 0x11 0x22 0x33 0x44 0x55

(Delivery-Time-Tag, Value-Length, Absolute-Token-Tag, Date-Value-Length, Date-Value; 9 Bytes)

0x08 0x06 0x81 0x04 0x55 0x22 0x33 0x44

(Expiry Tag, Value-Length, Relative-Token-Tag, Delta-Second-Value-Length, Delta-Second-Value; 8 Bytes)

J.2 Coding Example for MMS Issuer/User Connectivity Parameters

0xAB MMS Connectivity Parameters Tag

0x9F (Length = "159")

0x80 MMS Implementation Tag

0x01 (Length = "1")

0x01 (MMS implementation information = "WAP"; 1 Byte)

0x81 MMS Relay/Server Tag

0x2E (Length = "46")

0x68 0x74 0x74 0x70 0x3A 0x2F 0x2F 0x6D 0x6D 0x73 0x2D 0x6F 0x70 0x65 0x72 0x61 0x74
0x6F 0x72 0x2E 0x63 0x6F 0x6D

(MMS Relay/Server information = "http://mms-operator.com"; 23 characters; 46 Bytes)

0x82 Interface to Core Network and Bearer Tag

0x32 (Length = "50")

0x10 0xAA (bearer = "GSM-CSD"; 2 Bytes)

0x08 0x2B 0x34 0x39 0x35 0x33 0x34 0x31 0x39 0x30 0x36 0x00
(address = "+495341906"; 12 Bytes)

0x09 0x87 (type of address = "E164"; 2 Bytes)

0x25 0xC5 (speed = "autobauding"; 2 Bytes)

0x0A 0x90 (call type = "ANALOG MODEM"; 2 Bytes)

0x0C 0x9A (authentication type = "PAP"; 2 Bytes)

0x0D 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x6E 0x61 0x6D 0x65 0x00
(authentication id = "dummy_name"; 12 Bytes)

0x0E 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x70 0x61 0x73 0x73 0x77 0x6F 0x72 0x64 0x00
(authentication pw = "dummy_password"; 16 Bytes)

0x83 Gateway Tag

0x36 (Length = "54")

0x20 0x31 0x37 0x30 0x2E 0x31 0x38 0x37 0x2E 0x35 0x31 0x2E 0x33 0x00
(address = "170.187.51.3"; 14 Bytes)

0x21 0x85 (type of address = "IPv4"; 2 Bytes)

0x23 0x39 0x32 0x30 0x33 0x00 (port = "9203"; 6 Bytes)

0x24 0xCB (service = "CO-WSP"; 2 Bytes)

0x19 0x9C (authentication type = "HTTP BASIC"; 2 Bytes)

0x1A 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x6E 0x61 0x6D 0x65 0x00
(authentication id = "dummy_name"; 12 Bytes)

0x1B 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x70 0x61 0x73 0x73 0x77 0x6F 0x72 0x64 0x00
(authentication pw = "dummy_password"; 16 Bytes)

...

CHANGE REQUEST

⌘ **31.102 CR 133** ⌘ - ⌘ Current version: **6.0.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ CR 31.102 Rel-6: Example for MMS connectivity parameters		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14/02/2003
Category:	⌘ A	Release:	⌘ Rel-6
	<i>Use <u>one</u> of the following categories:</i> F (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 <u>one</u> 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) Rel-6 (Release 6)

Reason for change:	⌘ Discussions in T2 and T3 have shown that the current definitions regarding the storage of MMS connectivity parameters in the T2 and T3 specifications without an additional coding example would potentially result in severe interoperability problems between terminals of different manufacturers when a UICC is moved from one terminal to another. Furthermore there is a potential problem with initial provisioning of MMS parameters on the UICC, as the format of the initial provisioning data may not be consistent on different UICCs.
	T3 and T2 have agreed during the joint T3/T2 session at the T3#26 meeting that an encoding example for the storage of the MMS Connectivity Information as depicted in this change request shall be added to the (U)SIM specifications (TS 31.102 and TS 51.011) in order to avoid misinterpretation.
Summary of change:	⌘ <ol style="list-style-type: none"> 1.) addition of an new encoding example for MMS Connectivity Information in annex J.2. 2.) some minor editorial refinements for encoding example dealing with MMS User Preferences in annex J.1. 3.) update/addition of references to annex J.1 and J.2 in section 4.2.
Consequences if not approved:	⌘ The current definition of how MMS Connectivity Information is stored in the (U)SIM is open to misinterpretation.

Clauses affected: ⌘ Chapter 4.2.69, 4.2.70 and Annex J

Other specs affected:		Y	N		
	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	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/specs/CR.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/> 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.

...

4.2.69 EF_{MMSICP} (MMS Issuer Connectivity Parameters)

If service n°52 is "available", this file shall be present.

This EF contains values for Multimedia Messaging Connectivity Parameters as determined by the issuer, which can be used by the ME for MMS network connection. This file may contain one or more sets of Multimedia Messaging Issuer Connectivity Parameters. The first set of Multimedia Messaging Issuer Connectivity Parameters is used as the default set. Each set of Multimedia Messaging Issuer Connectivity Parameters may consist of one or more Interface to Core Network and Bearer information TLV objects, but shall contain only one MMS implementation TLV object, one MMS Relay/Server TLV object and one Gateway TLV object. The order of the Interface to Core Network and Bearer information TLV objects in the MMS Connectivity TLV object defines the priority of the Interface to Core Network and Bearer information, with the first TLV object having the highest priority.

Identifier: '6FD0'		Structure: Transparent		Optional	
File Size: X ₁ +...+ X _n bytes			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		ADM			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes		Description		M/O	Length
1 to X ₁		MMS Connectivity Parameters TLV object		M	X ₁ bytes
X ₁ +1 to X ₁ + X ₂		MMS Connectivity Parameters TLV object		O	X ₂ bytes
...		...			
X ₁ +...+ X _{n-1} +1 to X ₁ +...+ X _n		MMS Connectivity Parameters TLV object		O	X _n bytes

- MMS Connectivity Parameters tags

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

- MMS Connectivity Parameters contents

Description	Value	M/O	Length (bytes)
-------------	-------	-----	----------------

MMS Connectivity Parameters Tag	'AB'	M	1
Length	Note 1	M	Note 2
MMS Implementation Tag	'80'	M	1
Length	1	M	1
MMS Implementation Information	--	M	1
MMS Relay/Server Tag	'81'	M	1
Length	X	M	Note 2
MMS Relay/Server Address	--	M	X
1 st Interface to Core Network and Bearer Information Tag (highest priority)	'82'	M	1
Length	Y1	M	Note 2
1 st Interface to Core Network and Bearer information	--	M	Y1
2 nd Interface to Core Network and Bearer Information Tag	'82'	M	1
Length	Y2	M	Note 2
2 nd Interface to Core Network and Bearer information	--	M	Y2
...			
N th Interface to Core Network and Bearer Information Tag (lowest priority)	'82'	M	1
Length	Y3	M	Note 2
N th Interface to Core Network and Bearer information	--	M	Y3
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 4.2.67 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 Information Tag '82'
Contents:
The Interface to Core Network and Bearer Information 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].

Unused bytes shall be set to 'FF'.

[An Example for the coding of these parameters can be found in Annex J.2.](#)

4.2.70 EF_{MMSUP} (MMS User Preferences)

If service n°52 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).

Identifier: '6FD1'		Structure: Linear Fixed		Optional
Record Length: X bytes			Update activity: low	
Access Conditions:				
READ	PIN			
UPDATE	PIN			
DEACTIVATE	ADM			
ACTIVATE	ADM			
Bytes	Description	M/O	Length	
1 to X	MMS User Preference TLV Objects	M	X bytes	

- MMS User Preference tags

Description	Tag Value
MMS Implementation Tag	'80'
MMS User preference profile name Tag	'81'
MMS User Preference information Tag	'82'

MMS User Preference information

Description	Value	M/O	Length (bytes)
MMS Implementation Tag	'80'	M	1
Length	1	M	Note
MMS Implementation information	--	M	1
MMS User preference profile name Tag	'81'	M	1
Length	X	M	Note
MMS User profile name	--	M	X
MMS User Preference information Tag	'82'	M	1
Length	Y	M	Note
MMS User Preference information	--	M	Y

Note: The length is coded according to ISO/IEC 8825 [35]

- MMS Implementation Tag '80'

For contents and coding see 4.2.67

- 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'.

An Example for the coding of these parameters can be found in Annex J.1.

4.2.71 EF_{MMSUCP} (MMS User Connectivity Parameters)

...

Annex J (informative): Example of MMS coding

J.1 Coding example for MMS User Preferences

0x80 MMS Implementation Tag

0x01 (Length = "1")

0x01 (MMS implementation information = "WAP")

0x81 MMS User Preference Profile Name Tag

0x1C (Length = "28")

(profile name = "Christmas Card"; 14 characters, 28 Bytes)

0x82 MMS User ~~Information~~-Preference Information Tag

0x19 (Length = "25")

0x14 0x80 (visibility: = "hide"; 2 Bytes)

0x06 0x80 (delivery report: = "yes"; 2 Bytes)

0x10 0x80 (read-reply: = "yes"; 2 Bytes)

0x0F 0x81 (priority: = "normal"; 2 Bytes)

0x07 0x07 0x80 0x05 0x11 0x22 0x33 0x44 0x55
(Delivery-Time-Tag, Value-Length, Absolute-Token-Tag, Date-Value-Length, Date-Value; 9 Bytes)

0x08 0x06 0x81 0x04 0x55 0x22 0x33 0x44
(Expiry Tag, Value-Length, Relative-Token-Tag, Delta-Second-Value-Length, Delta-Second-Value; 8 Bytes)

J.2 Coding Example for MMS Issuer/User Connectivity Parameters

0xAB MMS Connectivity Parameters Tag

0x9F (Length = "159")

0x80 MMS Implementation Tag

0x01 (Length = "1")

0x01 (MMS implementation information = "WAP"; 1 Byte)

0x81 MMS Relay/Server Tag

0x2E (Length = "46")

0x68 0x74 0x74 0x70 0x3A 0x2F 0x2F 0x6D 0x6D 0x73 0x2D 0x6F 0x70 0x65 0x72 0x61 0x74
0x6F 0x72 0x2E 0x63 0x6F 0x6D

(MMS Relay/Server information = "http://mms-operator.com"; 23 characters; 46 Bytes)

0x82 Interface to Core Network and Bearer Tag

0x32 (Length = "50")

0x10 0xAA (bearer = "GSM-CSD"; 2 Bytes)

0x08 0x2B 0x34 0x39 0x35 0x33 0x34 0x31 0x39 0x30 0x36 0x00
(address = "+495341906"; 12 Bytes)

0x09 0x87 (type of address = "E164"; 2 Bytes)

0x25 0xC5 (speed = "autobauding"; 2 Bytes)

0x0A 0x90 (call type = "ANALOG MODEM"; 2 Bytes)

0x0C 0x9A (authentication type = "PAP"; 2 Bytes)

0x0D 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x6E 0x61 0x6D 0x65 0x00
(authentication id = "dummy_name"; 12 Bytes)

0x0E 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x70 0x61 0x73 0x73 0x77 0x6F 0x72 0x64 0x00
(authentication pw = "dummy_password"; 16 Bytes)

0x83 Gateway Tag

0x36 (Length = "54")

0x20 0x31 0x37 0x30 0x2E 0x31 0x38 0x37 0x2E 0x35 0x31 0x2E 0x33 0x00
(address = "170.187.51.3"; 14 Bytes)

0x21 0x85 (type of address = "IPv4"; 2 Bytes)

0x23 0x39 0x32 0x30 0x33 0x00 (port = "9203"; 6 Bytes)

0x24 0xCB (service = "CO-WSP"; 2 Bytes)

0x19 0x9C (authentication type = "HTTP BASIC"; 2 Bytes)

0x1A 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x6E 0x61 0x6D 0x65 0x00
(authentication id = "dummy_name"; 12 Bytes)

0x1B 0x64 0x75 0x6D 0x6D 0x79 0x5F 0x70 0x61 0x73 0x73 0x77 0x6F 0x72 0x64 0x00
(authentication pw = "dummy_password"; 16 Bytes)

...

CHANGE REQUEST

31.102 CR 134 # rev **-** # Current version: **3.11.0**

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# CR to delete Elementary File EF _{RPLMNACT} , in accordance with TP-020168 from TP#16 in Marco Island.				
Source:	# TSG-T3				
Work item code:	# TEI	Date:	# 13/02/2003		
Category:	# F	Release:	# R99		
	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)		
			Rel-6 (Release 6)		

Reason for change:	# It has been identified that File EF _{RPLMNACT} has inconsistent file identifiers in the specification, and TP#16 wrote an LS to CN1 in document TP-020168 requesting that T3 can delete the file from the specifications. CN1 minutes state the following regarding the LS: "Noted. CN1 agreed the proposal in principle but no CRs were presented to this meeting yet. CRs from interested companies were invited for the next CN1 meeting. TSG-T would like to delete USIM file RPLMN last used access technology since it seems to be needed only for GSM compact and the definition is incorrect anyway. If this is agreed then the outcome is that CN1 must change 23.122 to move this information storage from USIM to ME memory." The LS to CN1 noted that there may a corresponding change to TS 23.122. The FIDs 4F23 and 4F24 are assigned to the CC and PUID files respectively and shall not be used by another file. DF _{USIM} is incorrect, it must read ADF _{USIM} .
Summary of change:	# The references to EF _{RPLMNACT} are deleted everywhere in the specification, and the values of the file identifiers are set to "reserved, not to be used". Change FID of GRP and GRP1. All references to DF _{USIM} are change to ADF _{USIM} .
Consequences if not approved:	# Inconsistencies within the specification, leading to confusion and misinterpretation.

Clauses affected:	# 4.2.8, 4.2.56, 4.4.2, 4.6.2,4.7, 5.1.1.2, 5.1.2.2, 5.3.2.2, Annex A, Annex E, Annex G, Annex H1
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**Other specs
affected:**

Y	N
X	
	X
	X

Other core specifications
Test specifications
O&M Specifications

⌘ TS 11.11, TS 51.011, TS 23.122

Other comments: ⌘

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:	reserved for use in the release 5 version of the present document
	Service n°46:	reserved for use in the release 5 version of the present document
	Service n°47:	reserved for use in the release 5 version of the present document
	Service n°48:	reserved for use in the release 5 version of the present document
	Service n°49:	reserved for use in the release 5 version of the present document
	Service n°50:	Reserved and shall not be used RPLMN-Last-used-Access-Technology

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:

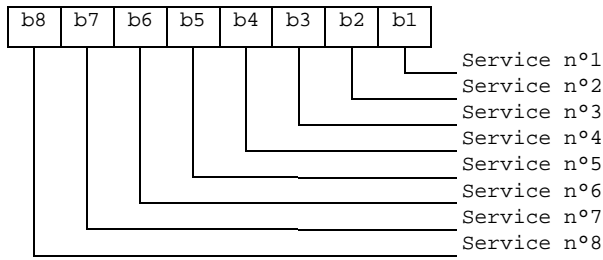
1 bit is used to code each service:

bit = 1: service available;

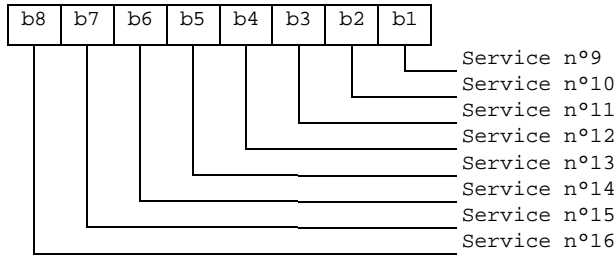
bit = 0: service not available.

- 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.

 NEXT REVISED SECTION

4.2.56 ~~Void~~EF_{RPLMNAct} (~~RPLMN Last used Access Technology~~)

~~This EF contains the last used access technology for the Registered PLMN, RPLMN. (see TS 23.122 [31]). This EF shall contain only one access technology.~~

~~NOTE: One access technology means that only one bit is set in the entire field.~~

Identifier: '6F65'		Structure: transparent		Optional
SFI: '18'				
File size: 2+X bytes			Update activity: High	
Access Conditions: — READ ————— PIN — UPDATE ————— PIN — DEACTIVATE ————— ADM — ACTIVATE ————— ADM				
Bytes	Description		M/O	Length
1 to 2	Access Technology of RPLMN		M	2 bytes
3 to 2+X	-RFU		Ø	X bytes

~~— Access Technology~~

~~Coding:~~

~~— See EF_{PLMNwAct} for coding.~~

 NEXT REVISED SECTION

4.4.2 Contents of files at the DF PHONEBOOK level

The UICC may contain a global phonebook, or application specific phonebooks, or both in parallel. When both phonebook types co-exist, they are independent and no data is shared. In this case, it shall be possible for the user to select which phonebook the user would like to access.

It is recommended that the terminal searches for the global phonebook located under $DF_{TELECOM}$ as its presence is not indicated anywhere in the USIM application.

The global phonebook is located in $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. Each specific USIM application phonebook is located in $DF_{PHONEBOOK}$ of its respective Application ΔDF_{USIM} . The organisation of files in $DF_{PHONEBOOK}$ under ΔDF_{USIM} and under $DF_{TELECOM}$ follows the same rules. Yet $DF_{PHONEBOOK}$ under ΔDF_{USIM} may contain a different set of files than $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. All phonebook related EFs are located under their respective $DF_{PHONEBOOK}$. USIM specific phonebooks are dedicated to application specific entries. Each application specific phonebook is protected by the application PIN.

EF_{ADN} and EF_{PBR} shall always be present if the $DF_{PHONEBOOK}$ is present. If any phonebook file other than EF_{ADN} or EF_{EXT1} is used, then EF_{PBC} shall be present.

If a GSM application resides on the UICC, the EFs ADN and EXT1 from one $DF_{PHONEBOOK}$ (defined at GSM application installation) are mapped to $DF_{TELECOM}$. Their file IDs are specified in TS 51.011 [18], i.e. $EF_{ADN} = '6F3A'$ and $EF_{EXT1} = '6F4A'$, respectively.

If the UICC is inserted into a terminal accessing the ADN and EXT1 files under $DF_{TELECOM}$; and a record in these files has been updated, a flag in the corresponding entry control information in the EF_{PBC} is set from 0 to 1 by the UICC. If the UICC is later inserted into a terminal that supports the 3G phonebook, the terminal shall check the flag in EF_{PBC} and if this flag is set, shall update the EF_{CC} , and then reset the flag. A flag set in EF_{PBC} results in a full synchronisation of the phonebook between an external entity and the UICC (if synchronisation is requested).

The EF structure related to the public phonebook is located under $DF_{PHONEBOOK}$ in $DF_{TELECOM}$. A USIM specific phonebook may exist for application specific entries. The application specific phonebook is protected by the application PIN. The organisation of files in the application specific phonebook follows the same rules as the one specified for the public phone book under $DF_{TELECOM}$. The application specific phonebook may contain a different set of files than the one in the public area under $DF_{TELECOM}$.

NEXT REVISED SECTION

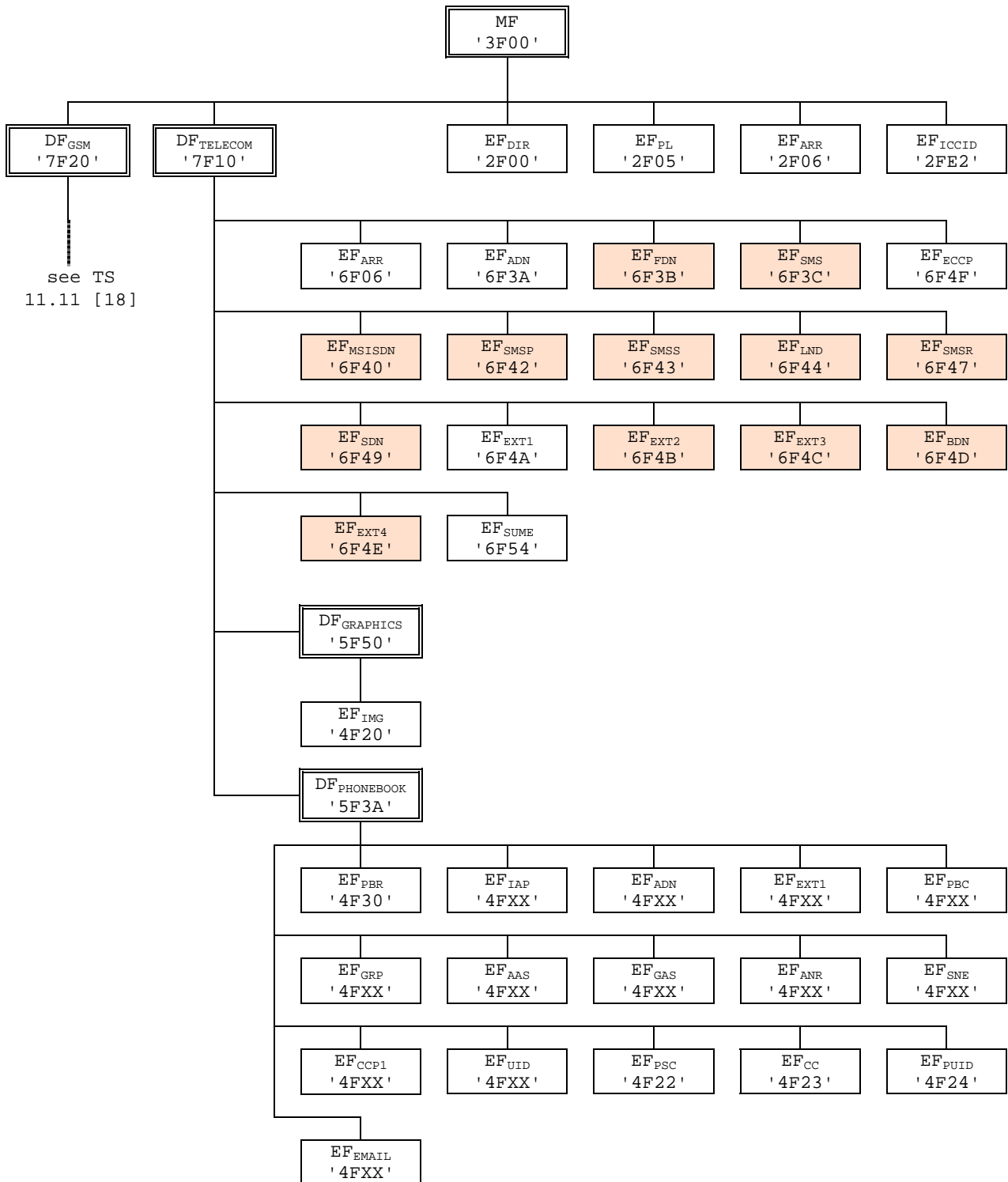
4.6.2 Contents of files at the $DF_{PHONEBOOK}$ under the $DF_{TELECOM}$

This DF has the same structure as $DF_{PHONEBOOK}$ under the ΔDF_{USIM} .

NEXT REVISED SECTION

4.7 Files of USIM

This clause 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}.



NOTE: Files under DF_{TELECOM} with shaded background are defined in TS 11.11 [18].

Figure 4.1: File identifiers and directory structures of UICC

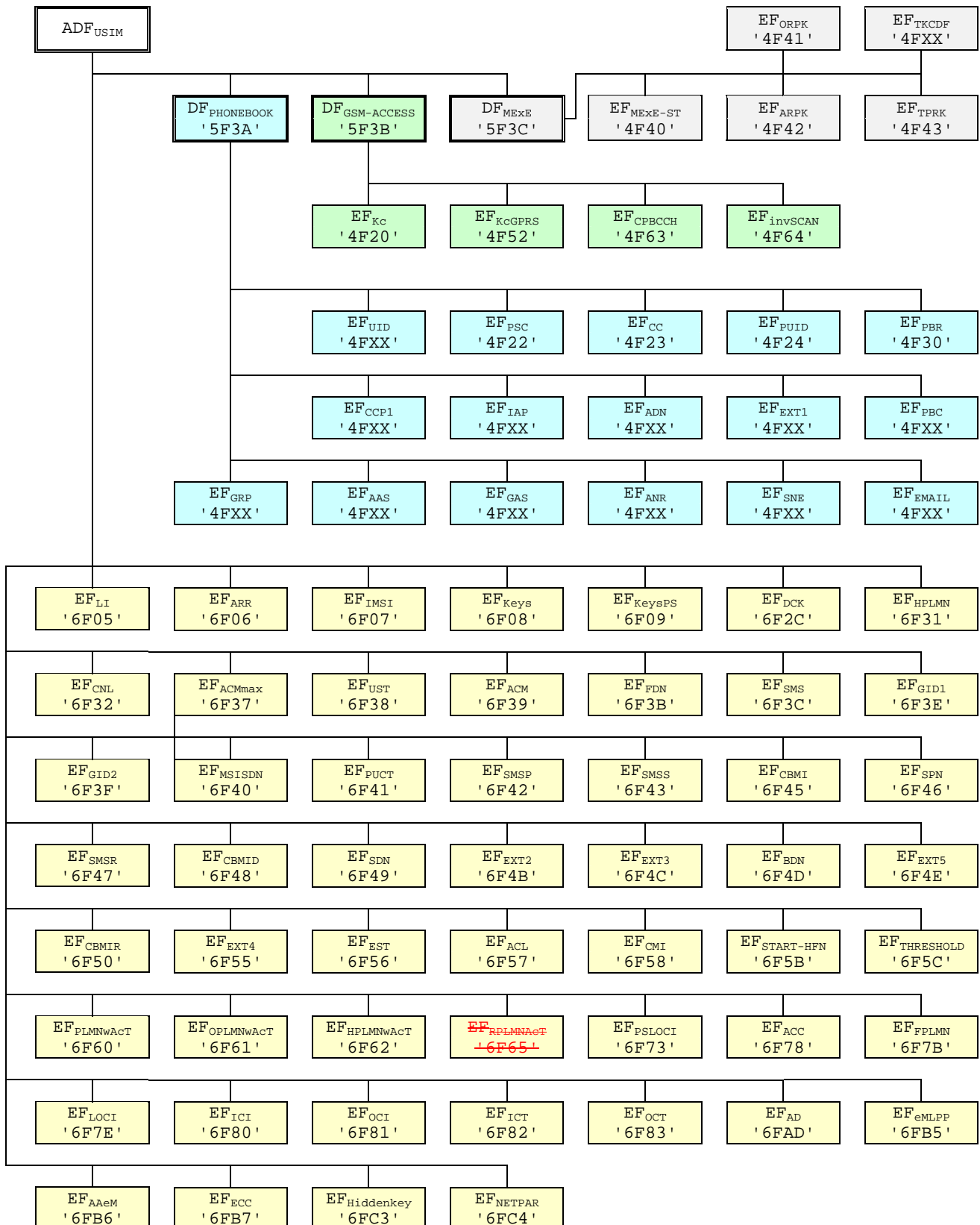


Figure 4.2: File identifiers and directory structures of USIM

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

5.1.1.2 USIM initialisation

The ME requests the emergency call codes. For service requirements, see TS 22.101 [24].

The ME requests the Language Indication. The preferred language selection shall always use the EF_{LI} in preference to the EF_{PL} at the MF unless any of the following conditions applies:

- if the EF_{LI} has the value 'FFFF' in its highest priority position, then the preferred language selection shall be the language preference in the EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if the ME does not support any of the language codes indicated in EF_{LI}, or if EF_{LI} is not present, then the language selection shall be as defined in EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if neither the languages of EF_{LI} nor EF_{PL} are supported by the terminal, then the terminal shall use its own internal default selection.

The ME then runs the user verification procedure. If the procedure is not performed successfully, the USIM initialisation stops.

The ME performs the administrative information request.

The ME performs the USIM Service Table request.

The ME performs the Enabled Services Table Request.

In case FDN is enabled, an ME which does not support FDN shall allow emergency calls but shall not allow MO-CS calls and MO-SMS.

If BDN is enabled, an ME which does not support Call Control shall allow emergency calls but shall not allow MO-CS calls.

If ACL is enabled, an ME which does not support ACL shall not send any APN to the network.

If all these procedures have been performed successfully then 3G session shall start. In all other cases 3G session shall not start.

Afterwards, the ME runs the following procedures if the ME and the USIM support the related services:

- IMSI request.
- Access control information request.
- HPLMN search period request.
- HPLMN selector with Access Technology request;
- User controlled PLMN selector with Access Technology request;
- Operator controlled PLMN selector with Access Technology request;
- ~~RPLMN last used Access Technology~~
- GSM initialisation requests.
- Location Information request for CS-and/or PS-mode.
- Cipher key and integrity key request for CS- and/or PS-mode.
- Forbidden PLMN request.
- Initialisation value for hyperframe number request.
- Maximum value of START request.
- CBMID request.

- Depending on the further services that are supported by both the ME and the USIM the corresponding EFs have to be read.

After the USIM initialisation has been completed successfully, the ME is ready for a 3G session and shall indicate this to the USIM by sending a particular STATUS command.

NEXT REVISED SECTION

5.1.2.2 GSM termination procedures

If GSM access is enabled the following termination procedures shall be performed if the applicable service is enabled.

- CPBCCCH information update (if the ME supports the GSM compact access technology);

~~RPLMN last used Access Technology update (if the ME supports the GSM compact access technology).~~

NEXT REVISED SECTION

~~5.3.22~~ 5.3.22 Void ~~RPLMN last used Access Technology~~

~~Requirement: Service n°50 "available".~~

~~Request: The ME performs the reading procedure with EF_{RPLMNAcT}.~~

~~Update: The ME performs the updating procedure with EF_{RPLMNAcT}.~~

NEXT REVISED SECTION

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
'6F55'	Extension 4	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
'6F653'	Reserved and shall not be used RPLMN last used Access Technology	Caution N/A
'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
NOTE1: If EF _{IMSI} is changed, the UICC should issue REFRESH as defined in TS 31.111 and update EF _{LOC1} accordingly.		

NEXT REVISED SECTION

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'	Reserved and shall not be used RPLMN last used Access Technology	'0000'N/A
'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'

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].

NEXT REVISED SECTION

Annex G (informative): Phonebook Example

This example phonebook has more than 254 entries. Additional number (3 additional numbers) information, second name and e-mail information can be added to each ADN entry. In addition each entry has a 2 byte Unique ID (UID) attached to it. The phonebook also contains three files that are shared EF_{EXT1}, EF_{AAS} and EF_{GAS}. These files are addressed from inside a file. EF_{EXT1} is addressed via EF_{ADN}, EF_{ADN1}, EF_{AAS} is addressed via EF_{ANRA1}, EF_{ANRA1} and EF_{GAS} is addressed via EF_{GRP}, EF_{GRP1}. The phonebook supports two levels of grouping and hidden entries in EF_{PBC}.

Two records are needed in the phonebook reference file PBR '4F30' for supporting more than 254 entries. The content of the phonebook reference file PBR '4F30' records is as shown in table G.2. The structure of the DF_{PHONEBOOK} is shown in table G.1.

The content of phonebook entries in the range from 1-508 is described in the tables G.3 and G.4.

Table G.1: Structure of EFs inside DF_{PHONEBOOK}

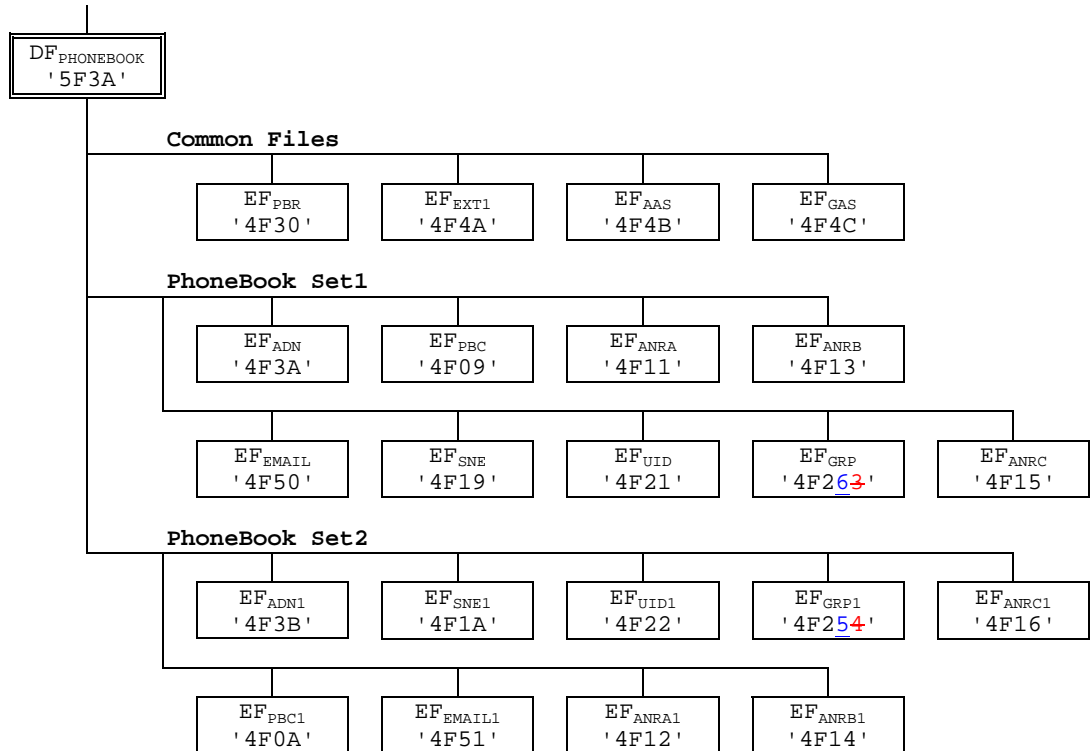


Table G.2: Contents of EF_{PBR}

Rec 1 Tag'A8' L='26' (for Phonebook Set1)

Tag'C0'	L='03'	'4F3A'	'01'	Tag'C5'	L='03'	'4F09'	'02'	Tag'C6'	L='02'	'4F263'	Tag'C4'	L='02'	'4F11'
Tag'C4'	L='02'	'4F13'	Tag'C4'	L='02'	'4F15'	Tag'C3'	L='02'	'4F19'	Tag'C9'	L='02'	'4F21'		
Tag'CA'	L='02'	'4F50'											
Tag'AA'	L='0C'												
Tag'C2'	L='02'	'4F4A'	Tag'C7'	L='02'	'4F4B'	Tag'C8'	L='02'	'4F4C'					

Rec 2 Tag'A8' L='24' (for Phonebook Set 2)

Tag'C0'	L='02'	'4F3B'	Tag'C5'	L='02'	'4F0A'	Tag'C6'	L='02'	'4F254'	Tag'C4'	L='02'	'4F12'		
Tag'C4'	L='02'	'4F14'	Tag'C4'	L='02'	'4F16'	Tag'C3'	L='02'	'4F1A'	Tag'C9'	L='02'	'4F22'		
Tag'CA'	L='02'	'4F51'											
Tag'AA'	L='0C'												
Tag'C2'	L='02'	'4F4A'	Tag'C7'	L='02'	'4F4B'	Tag'C8'	L='02'	'4F4C'	'FF'		'FF'		

Table G.3: Structure of the 254 first entries in the phonebook

Phone book entry	ADN '4F3A' SFI '01'		PBC '4F09' SFI '02'	GRP '4F263'	ANRA '4F11'	ANRB '4F13'	ANRC '4F15'	SNE '4F19'	UID '4F21'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL '4F50'
# 1	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID rec N° 3)	Rec n°1 Rec n°3 '00'	ANRA Rec n°1	ANRB Rec n°1	ANRC Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 2	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°1 Rec n°3	ANRA Rec n°2	ANRB Rec n°2	ANRC Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 3													
:													
:													
:													
# 254													

Table G.4: Structure of phone book entries 255 to 508 (Rec 1-254)

Phone book entry	ADN1 '4F3B'		PBC1 '4F0A'	GRP1 '4F254'	ANRA1 '4F12'	ANRB1 '4F14'	ANRC1 '4F16'	SNE1 '4F1A'	UID1 '4F22'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL1 '4F51'
#255	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID Rec n° 3)	Rec n°1 Rec n°3 '00'	ANRA1 Rec n°1	ANRB1 Rec n°1	ANRC1 Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#256	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°1 Rec n°3	ANRA1 Rec n°2	ANRB1 Rec n°2	ANRC1 Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#257													
:													
:													
:													
#508													

 NEXT REVISED SECTION

H.1 List of SFI Values at the USIM ADF Level

File Identification	SFI	Description
'6FB7'	'01'	Emergency call codes
'6F05'	'02'	Language indication
'6FAD'	'03'	Administrative data
'6F38'	'04'	USIM service table
'6F56'	'05'	Enabled services table
'6F78'	'06'	Access control class
'6F07'	'07'	IMSI
'6F08'	'08'	Ciphering and integrity keys
'6F09'	'09'	Ciphering and integrity keys for packet switched domain
'6F60'	'0A'	User PLMN selector
'6F7E'	'0B'	Location information
'6F73'	'0C'	Packet switched location information
'6F7B'	'0D'	Forbidden PLMNs
'6F48'	'0E'	CBMID
'6F5B'	'0F'	Hyperframe number
'6F5C'	'10'	Maximum value of hyperframe number
'6F61'	'11'	Operator PLMN selector
'6F31'	'12'	HPLMN search period
'6F62'	'13'	Preferred HPLMN access technology
'6F80'	'14'	Incoming call information
'6F81'	'15'	Outgoing call information
'6F4F'	'16'	Capability configuration parameters 2
'6F06'	'17'	Access Rule Reference
'6F65'	'18'	RPLMN last used Access Technology Reserved and shall not be used

All other SFI values are reserved for future use.

CHANGE REQUEST

31.102 CR 135 # rev - # Current version: 4.7.0

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# CR to delete Elementary File EF _{RPLMNACT} , in accordance with TP-020168 from TP#16 in Marco Island.		
Source:	# TSG T3		
Work item code:	# TEI	Date:	# 13/02/2003
Category:	# A	Release:	# Rel-4
	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)
			Rel-6 (Release 6)

Reason for change:	# It has been identified that File EF _{RPLMNACT} has inconsistent file identifiers in the specification, and TP#16 wrote an LS to CN1 in document TP-020168 requesting that T3 can delete the file from the specifications. CN1 minutes state the following regarding the LS: "Noted. CN1 agreed the proposal in principle but no CRs were presented to this meeting yet. CRs from interested companies were invited for the next CN1 meeting. TSG-T would like to delete USIM file RPLMN last used access technology since it seems to be needed only for GSM compact and the definition is incorrect anyway. If this is agreed then the outcome is that CN1 must change 23.122 to move this information storage from USIM to ME memory." The LS to CN1 noted that there may a corresponding change to TS 23.122. The FIDs 4F23 and 4F24 are assigned to the CC and PUID files respectively and shall not be used by another file. DF _{USIM} is incorrect, it must read ADF _{USIM} .
Summary of change:	# The references to EF _{RPLMNACT} are deleted everywhere in the specification, and the values of the file identifiers are set to "reserved, not to be used". Change FID of GRP and GRP1 All references to DF _{USIM} are change to ADF _{USIM} .
Consequences if not approved:	# Inconsistencies within the specification, leading to confusion and misinterpretation.

Clauses affected:	# 4.2.8, 4.2.56, 4.4.2, 4.6.2,4.7, 5.1.1.2, 5.1.2.2, 5.3.2.2, Annex A, Annex E, Annex G, Annex H1
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**Other specs
affected:**

Y	N
X	
	X
	X

Other core specifications
Test specifications
O&M Specifications

TS 11.11, TS 51.011, TS 23.122

Other comments:

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:	Reserved and shall not be used RPLMN Last-used Access Technology
	Service n°51:	Service Provider Display Information
	Service n°52:	Multimedia Messaging Service (MMS)
	Service n°53:	Extension 8
	Service n°55:	MMS User Connectivity Parameters

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:

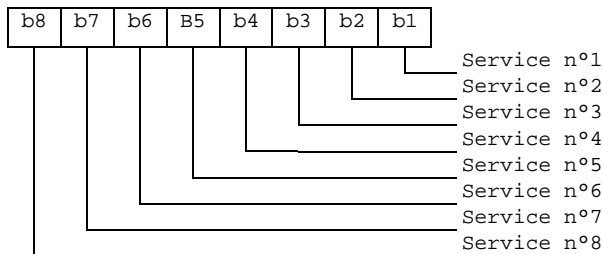
1 bit is used to code each service:

bit = 1: service available;

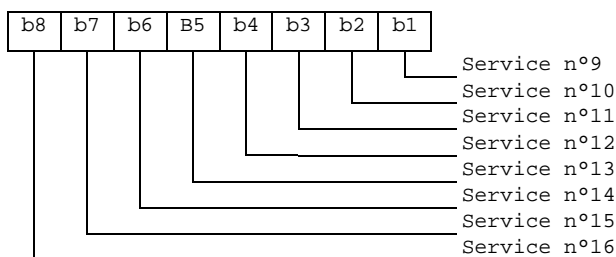
bit = 0: service not available.

- 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.

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4.2.56 ~~Void~~EF_{RPLMNACT} (~~RPLMN Last used Access Technology~~)

~~This EF contains the last used access technology for the Registered PLMN, RPLMN. (see TS 23.122 [31]). This EF shall contain only one access technology.~~

~~NOTE:— One access technology means that only one bit is set in the entire field.~~

Identifier: '6F65'		Structure: transparent		optional	
SFI: '18'					
File size: 2+X bytes			Update activity: High		
Access Conditions:					
— READ		PIN			
— UPDATE		PIN			
— DEACTIVATE		ADM			
— ACTIVATE		ADM			
Bytes	Description			M/O	Length
1 to 2	Access Technology of RPLMN			M	2 bytes
3 to 2+X	RFU			Ø	X bytes

~~— Access Technology~~

~~Coding:~~

~~— See EF_{PLMNwAcT} for coding.~~

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4.4.2 Contents of files at the DF PHONEBOOK level

The UICC may contain a global phonebook, or application specific phonebooks, or both in parallel. When both phonebook types co-exist, they are independent and no data is shared. In this case, it shall be possible for the user to select which phonebook the user would like to access.

It is recommended that the terminal searches for the global phonebook located under $DF_{TELECOM}$ as its presence is not indicated anywhere in the USIM application.

The global phonebook is located in $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. Each specific USIM application phonebook is located in $DF_{PHONEBOOK}$ of its respective Application ADF_{USIM} . The organisation of files in $DF_{PHONEBOOK}$ under ADF_{USIM} and under $DF_{TELECOM}$ follows the same rules. Yet $DF_{PHONEBOOK}$ under ADF_{USIM} may contain a different set of files than $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. All phonebook related EFs are located under their respective $DF_{PHONEBOOK}$. USIM specific phonebooks are dedicated to application specific entries. Each application specific phonebook is protected by the application PIN.

EF_{ADN} and EF_{PBR} shall always be present if the $DF_{Phonebook}$ is present. If any phonebook file other than EF_{ADN} or EF_{EXT1} , is used, then EF_{PBC} shall be present.

If a GSM application resides on the UICC, the EFs ADN and EXT1 from one $DF_{PHONEBOOK}$ (defined at GSM application installation) are mapped to $DF_{TELECOM}$. Their file IDs are specified in TS 51.011 [18], i.e. $EF_{ADN} = '6F3A'$ and $EF_{EXT1} = '6F4A'$, respectively.

If the UICC is inserted into a terminal accessing the ADN and EXT1 files under $DF_{TELECOM}$; and a record in these files has been updated, a flag in the corresponding entry control information in the EF_{PBC} is set from 0 to 1 by the UICC. If the UICC is later inserted into a terminal that supports the 3G phonebook, the terminal shall check the flag in EF_{PBC} and if this flag is set, shall update the EF_{CC} , and then reset the flag. A flag set in EF_{PBC} results in a full synchronisation of the phonebook between an external entity and the UICC (if synchronisation is requested).

The EF structure related to the public phonebook is located under $DF_{PHONEBOOK}$ in $DF_{TELECOM}$. A USIM specific phonebook may exist for application specific entries. The application specific phonebook is protected by the application PIN. The organisation of files in the application specific phonebook follows the same rules as the one specified for the public phone book under $DF_{TELECOM}$. The application specific phonebook may contain a different set of files than the one in the public area under $DF_{TELECOM}$.

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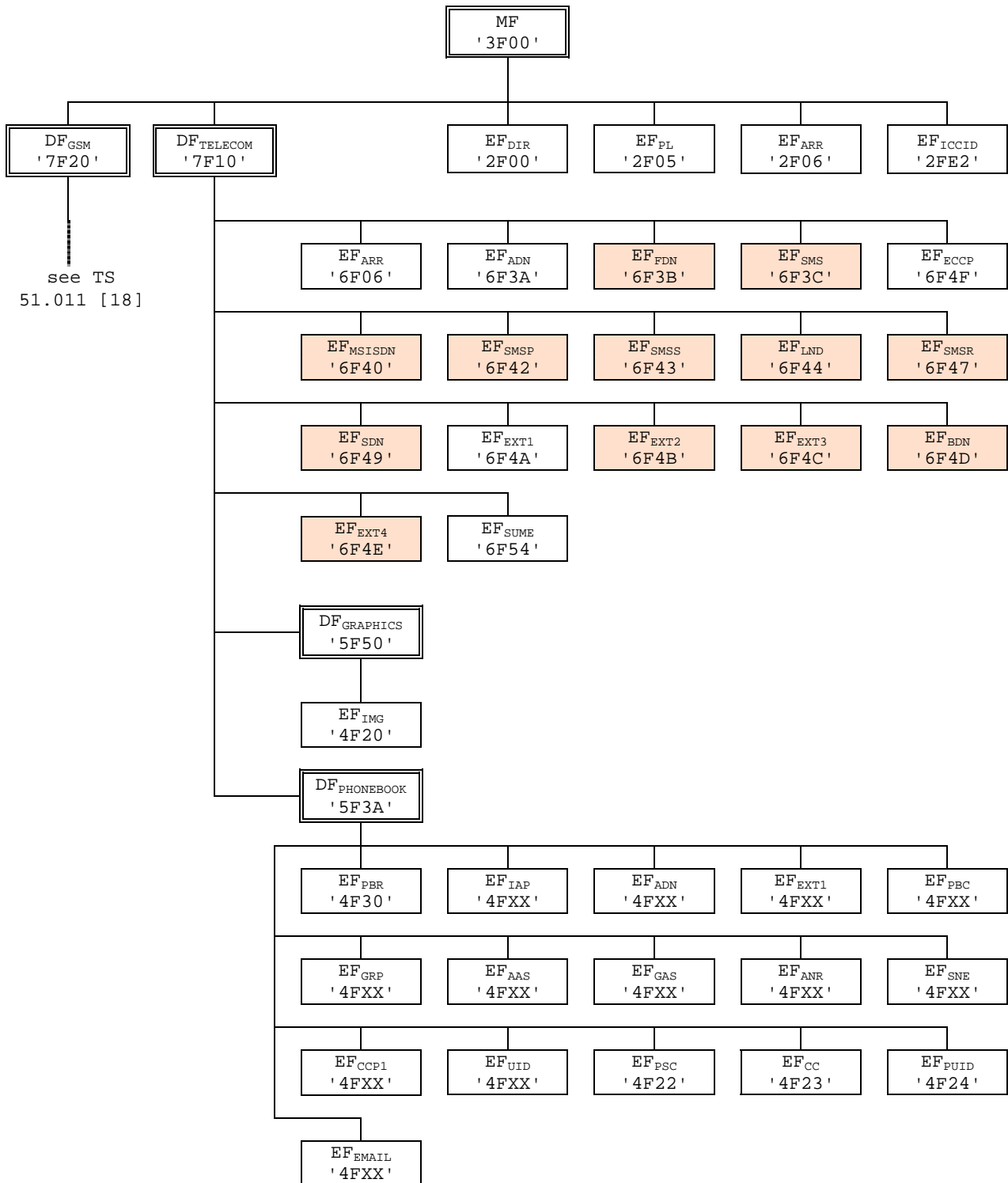
4.6.2 Contents of files at the $DF_{PHONEBOOK}$ under the $DF_{TELECOM}$

This DF has the same structure as $DF_{PHONEBOOK}$ under the ADF_{USIM} .

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4.7 Files of USIM

This clause 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}.



NOTE: Files under DF_{TELECOM} with shaded background are defined in TS 51.011 [18].

Figure 4.1: File identifiers and directory structures of UICC

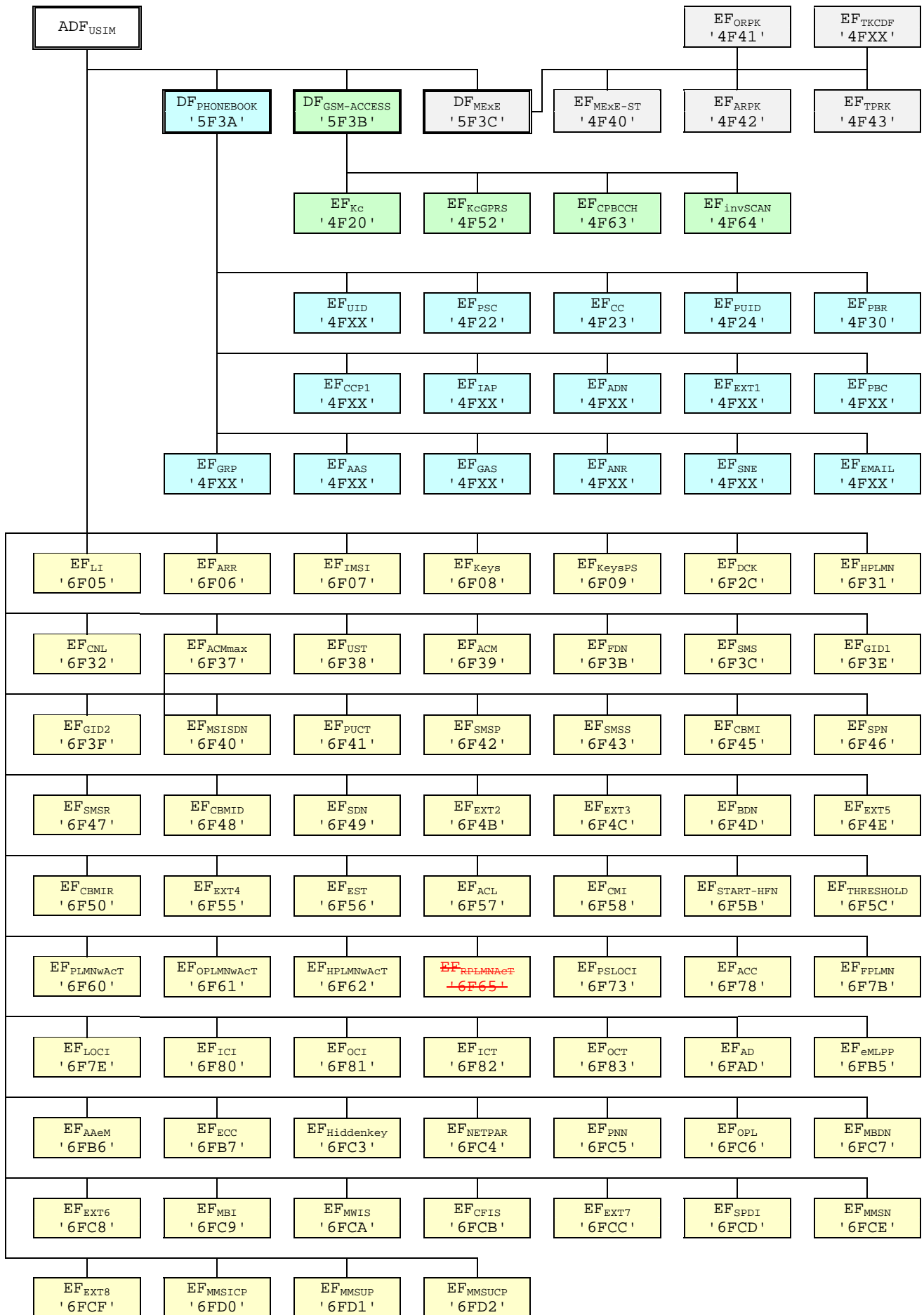


Figure 4.2: File identifiers and directory structures of USIM

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

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5.1.1.2 USIM initialisation

The ME requests the emergency call codes. For service requirements, see TS 22.101 [24].

The ME requests the Language Indication. The preferred language selection shall always use the EF_{LI} in preference to the EF_{PL} at the MF unless any of the following conditions applies:

- if the EF_{LI} has the value 'FFFF' in its highest priority position, then the preferred language selection shall be the language preference in the EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if the ME does not support any of the language codes indicated in EF_{LI}, or if EF_{LI} is not present, then the language selection shall be as defined in EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if neither the languages of EF_{LI} nor EF_{PL} are supported by the terminal, then the terminal shall use its own internal default selection.

The ME then runs the user verification procedure. If the procedure is not performed successfully, the USIM initialisation stops.

The ME performs the administrative information request.

The ME performs the USIM Service Table request.

The ME performs the Enabled Services Table Request.

In case FDN is enabled, an ME which does not support FDN shall allow emergency calls but shall not allow MO-CS calls and MO-SMS.

If BDN is enabled, an ME which does not support Call Control shall allow emergency calls but shall not allow MO-CS calls.

If ACL is enabled, an ME which does not support ACL shall not send any APN to the network.

If all these procedures have been performed successfully then 3G session shall start. In all other cases 3G session shall not start.

Afterwards, the ME runs the following procedures if the ME and the USIM support the related services:

- IMSI request.
- Access control information request.
- HPLMN search period request.
- HPLMN selector with Access Technology request;
- User controlled PLMN selector with Access Technology request;
- Operator controlled PLMN selector with Access Technology request;
- ~~RPLMN last used Access Technology~~
- GSM initialisation requests.

- Location Information request for CS-and/or PS-mode.
- Cipher key and integrity key request for CS- and/or PS-mode.
- Forbidden PLMN request.
- Initialisation value for hyperframe number request.
- Maximum value of START request.
- CBMID request.
- Depending on the further services that are supported by both the ME and the USIM the corresponding EFs have to be read.

After the USIM initialisation has been completed successfully, the ME is ready for a 3G session and shall indicate this to the USIM by sending a particular STATUS command.

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5.1.2.2 GSM termination procedures

If GSM access is enabled the following termination procedures shall be performed if the applicable service is enabled.

- CPBCCCH information update (if the ME supports the GSM compact access technology);
- ~~- RPLMN last used Access Technology update (if the ME supports the GSM compact access technology).~~

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5.3.22 ~~Void~~RPLMN last used Access Technology

- ~~— Requirement: Service n°50 "available".~~
- ~~— Request: — The ME performs the reading procedure with EF_{RPLMNAcT}~~
- ~~— Update: — The ME performs the updating procedure with EF_{RPLMNAcT}~~

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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	Caution
'2F05'	Preferred languages	Yes
'2F06'	Access rule reference	Caution
'2FE2'	ICC identification	No
'4F20'	Image data	Yes
'4F20'	GSM Ciphering key Kc	No
'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
'4F52'	GPRS Ciphering key KcGPRS	No
'4F63'	CPBCCCH Information	No
'4F64'	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
'6F06'	Access rule reference (under ADF _{USIM} and DF _{TELECOM})	Caution
'6F07'	IMSI	Caution (Note 1)
'6F08'	Ciphering and integrity keys	No
'6F09'	Ciphering and integrity keys for packet switched domain	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
'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
'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
'6F54'	SetUp Menu Elements	Yes
'6F55'	Extension 4	Yes
'6F56'	Enabled services table	Caution
'6F57'	Access point name control list	Yes
'6F58'	Comparison method information	Yes
'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
'6F65'	RPLMN last used Access Technology Reserved and shall not be used	Caution N/A
'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
'6FC3'	Key for hidden phone book entries	No
'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	Yes
'6FCE'	MMS Notification	Yes
'6FCF'	Extension 8	Yes
'6FD0'	MMS Issuer Connectivity Parameters	Yes
'6FD1'	MMS User Preferences	Yes
'6FD2'	MMS User Connectivity Parameters	Yes

NOTE1: If EF_{IMSI} is changed, the UICC should issue REFRESH as defined in TS 31.111 and update EF_{LOCI} accordingly.

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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'
'4F20'	GSM Ciphering key Kc	'FF...FF07'
'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'
'4F52'	GPRS Ciphering key KcGPRS	'FF...FF07'
'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'
'6F06'	Access rule reference (under ADF _{USIM} and DF _{TELECOM})	Card issuer/operator dependant
'6F07'	IMSI	Operator dependant
'6F08'	Ciphering and integrity keys	'07FF...FF'
'6F09'	Ciphering and integrity keys for packet switched domain	'07FF...FF'
'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'
'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	'F0 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'	Reserved and shall not be used RPLMN last used Access Technology	'0000'N/A
'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
'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	
'6FCE'	MMS Notification	'00 00 00 FF...FF'
'6FCF'	Extension 8	'FF...FF'
'6FD0'	MMS Issuer Connectivity Parameters	'FF...FF'
'6FD1'	MMS User Preferences	'FF...FF'
'6FD2'	MMS User Connectivity 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].

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Annex G (informative): Phonebook Example

This example phonebook has more than 254 entries. Additional number (3 additional numbers) information, second name and e-mail information can be added to each ADN entry. In addition each entry has a 2 byte Unique ID (UID) attached to it. The phonebook also contains three files that are shared EF_{EXT1}, EF_{AAS} and EF_{GAS}. These files are addressed from inside a file. EF_{EXT1} is addressed via EF_{ADN}, EF_{ADN1}, EF_{AAS} is addressed via EF_{ANRA1}, EF_{ANRA1} and EF_{GAS} is addressed via EF_{GRP}, EF_{GRP1}. The phonebook supports two levels of grouping and hidden entries in EF_{PBC}.

Two records are needed in the phonebook reference file PBR '4F30' for supporting more than 254 entries. The content of the phonebook reference file PBR '4F30' records is as shown in table G.2. The structure of the DF_{PHONEBOOK} is shown in table G.1.

The content of phonebook entries in the range from 1-508 is described in the tables G.3 and G.4.

Table G.1: Structure of EFs inside DF_{PHONEBOOK}

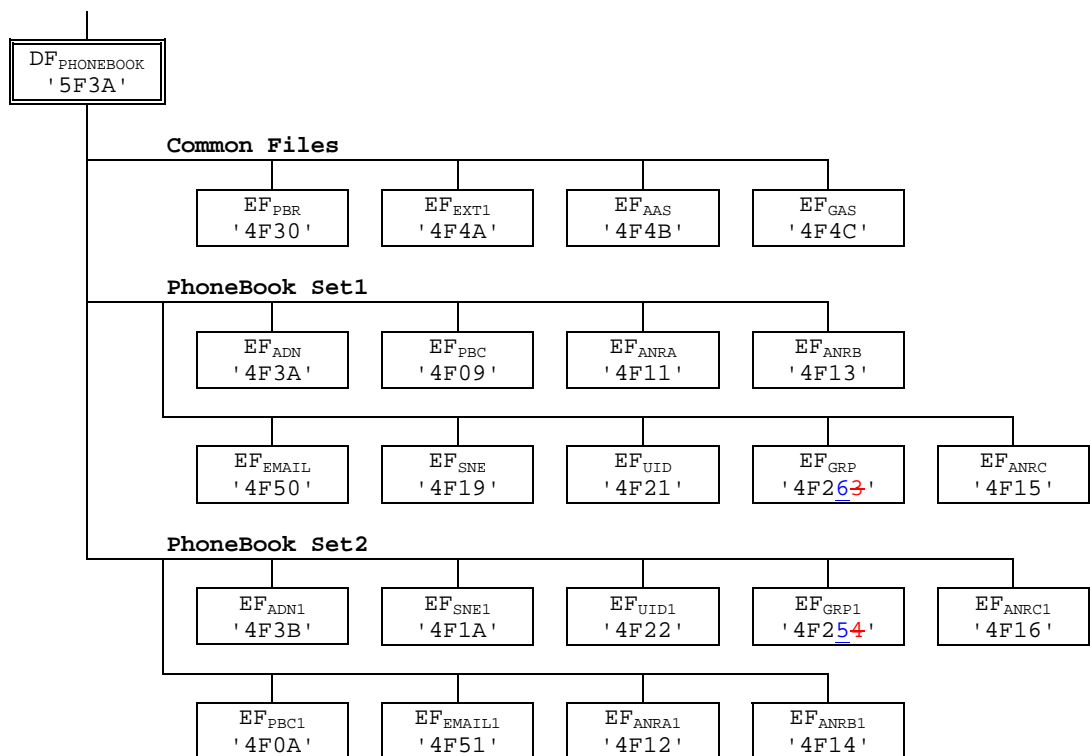


Table G.2: Contents of EF_{PBR}

Rec 1 Tag'A8' L='26'

(for Phonebook Set1)

Tag'C0' L='03' '4F3A' '01' Tag'C5' L='03' '4F09' '02' Tag'C6' L='02' '4F263' Tag'C4' L='02' '4F11'

Tag'C4' L='02' '4F13' Tag'C4' L='02' '4F15' Tag'C3' L='02' '4F19' Tag'C9' L='02' '4F21'

Tag'CA' L='02' '4F50'

Tag'AA' L='0C'

Tag'C2' L='02' '4F4A' Tag'C7' L='02' '4F4B' Tag'C8' L='02' '4F4C'

Rec 2 Tag'A8' L='24' (for Phonebook Set 2)

Tag'C0' L='02' '4F3B' Tag'C5' L='02' '4F0A' Tag'C6' L='02' '4F254' Tag'C4' L='02' '4F12'

Tag'C4' L='02' '4F14' Tag'C4' L='02' '4F16' Tag'C3' L='02' '4F1A' Tag'C9' L='02' '4F22'

Tag'CA' L='02' '4F51'

Tag'AA' L='0C'

Tag'C2' L='02' '4F4A' Tag'C7' L='02' '4F4B' Tag'C8' L='02' '4F4C' 'FF' 'FF'

Table G.3: Structure of the 254 first entries in the phonebook

Phone book entry	ADN '4F3A' SFI '01'	EXT1 Ident. (Byte X+14): Rec '02'	PBC '4F09' SFI '02'	GRP '4F263'	ANRA '4F11'	ANRB '4F13'	ANRC '4F15'	SNE '4F19'	UID '4F21'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL '4F50'
# 1	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID rec N° 3)	Rec n°1 Rec n°3 '00'	ANRA Rec n°1	ANRB Rec n°1	ANRC Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 2	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°3	ANRA Rec n°2	ANRB Rec n°2	ANRC Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 3													
:													
:													
:													
# 254													

Table G.4: Structure of phone book entries 255 to 508 (Rec 1-254)

Phone book entry	ADN1 '4F3B'	EXT1 Ident. (Byte X+14): Rec '02'	PBC1 '4F0A'	GRP1 '4F254'	ANRA1 '4F12'	ANRB1 '4F14'	ANRC1 '4F16'	SNE1 '4F1A'	UID1 '4F22'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL1 '4F51'
#255	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID Rec n° 3)	Rec n°1 Rec n°3 '00'	ANRA1 Rec n°1	ANRB1 Rec n°1	ANRC1 Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#256	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°3	ANRA1 Rec n°2	ANRB1 Rec n°2	ANRC1 Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#257													
:													
:													
:													
#508													

NEXT REVISED SECTION

H.1 List of SFI Values at the USIM ADF Level

File Identification	SFI	Description
'6FB7'	'01'	Emergency call codes
'6F05'	'02'	Language indication
'6FAD'	'03'	Administrative data
'6F38'	'04'	USIM service table
'6F56'	'05'	Enabled services table
'6F78'	'06'	Access control class
'6F07'	'07'	IMSI
'6F08'	'08'	Ciphering and integrity keys
'6F09'	'09'	Ciphering and integrity keys for packet switched domain
'6F60'	'0A'	User PLMN selector
'6F7E'	'0B'	Location information
'6F73'	'0C'	Packet switched location information
'6F7B'	'0D'	Forbidden PLMNs
'6F48'	'0E'	CBMID
'6F5B'	'0F'	Hyperframe number
'6F5C'	'10'	Maximum value of hyperframe number
'6F61'	'11'	Operator PLMN selector
'6F31'	'12'	HPLMN search period
'6F62'	'13'	Preferred HPLMN access technology
'6F80'	'14'	Incoming call information
'6F81'	'15'	Outgoing call information
'6F4F'	'16'	Capability configuration parameters 2
'6F06'	'17'	Access Rule Reference
'6F65'	'18'	Reserved and shall not be used RPLMN last used Access Technology
'6FC5'	'19'	PLMN Network Name
'6FC6'	'1A'	Operator Network List
'6FCD'	'1B'	Service Provider Display Information

All other SFI values are reserved for future use.

CHANGE REQUEST

31.102 CR 136 # rev - # Current version: 5.3.0

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# CR to delete Elementary File EF _{RPLMNACT} , in accordance with TP-020168 from TP#16 in Marco Island.		
Source:	# TSG T3		
Work item code:	# TEI	Date:	# 13/02/2003
Category:	# A	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)
			Rel-6 (Release 6)

Reason for change:	# It has been identified that File EF _{RPLMNACT} has inconsistent file identifiers in the specification, and TP#16 wrote an LS to CN1 in document TP-020168 requesting that T3 can delete the file from the specifications. CN1 minutes state the following regarding the LS: "Noted. CN1 agreed the proposal in principle but no CRs were presented to this meeting yet. CRs from interested companies were invited for the next CN1 meeting. TSG-T would like to delete USIM file RPLMN last used access technology since it seems to be needed only for GSM compact and the definition is incorrect anyway. If this is agreed then the outcome is that CN1 must change 23.122 to move this information storage from USIM to ME memory." The LS to CN1 noted that there may a corresponding change to TS 23.122. The FIDs 4F23 and 4F24 are assigned to the CC and PUID files respectively and shall not be used by another file. DF _{USIM} is incorrect, it must read ADF _{USIM} .
Summary of change:	# The references to EF _{RPLMNACT} are deleted everywhere in the specification, and the values of the file identifiers are set to "reserved, not to be used". Change FID of GRP and GRP1. All references to DF _{USIM} are change to ADF _{USIM} .
Consequences if not approved:	# Inconsistencies within the specification, leading to confusion and misinterpretation.

Clauses affected:	# 4.2.8, 4.2.56, 4.4.2, 4.6.2,4.7, 5.1.1.2, 5.1.2.2, 5.3.2.2, Annex A, Annex E, Annex G, Annex H1
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**Other specs
affected:**

Y	N
X	
	X
	X

Other core specifications
Test specifications
O&M Specifications

⌘ TS 11.11, TS 51.011, TS 23.122

Other comments: ⌘

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:	Reserved and shall not be used RPLMN Last-used Access Technology
	Service n°51:	Service Provider Display Information
	Service n°52:	Multimedia Messaging Service (MMS)
	Service n°53:	Extension 8
	Service n°55:	MMS User Connectivity Parameters

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:

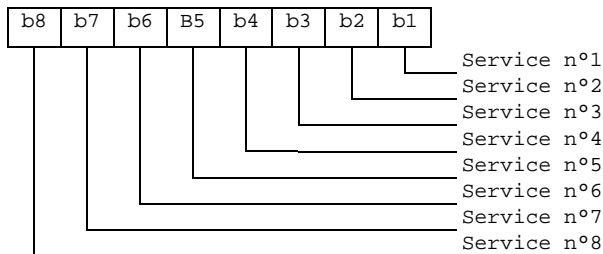
1 bit is used to code each service:

bit = 1: service available;

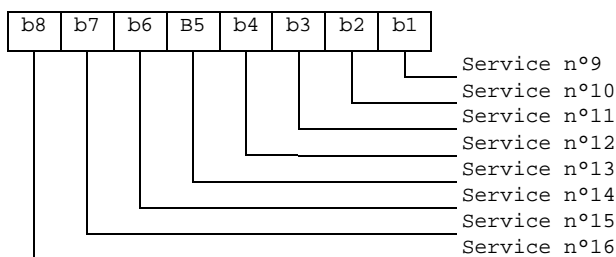
bit = 0: service not available.

- 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.

NEXT REVISED SECTION

4.2.56 ~~Void~~EF_{RPLMNACT} (~~RPLMN Last used Access Technology~~)

~~This EF contains the last used access technology for the Registered PLMN, RPLMN. (see TS 23.122 [31]). This EF shall contain only one access technology.~~

~~NOTE:— One access technology means that only one bit is set in the entire field.~~

Identifier: '6F65'		Structure: transparent		optional	
SFI: '18'					
File size: 2+X bytes			Update activity: High		
Access Conditions:					
— READ		PIN			
— UPDATE		PIN			
— DEACTIVATE		ADM			
— ACTIVATE		ADM			
Bytes	Description			M/O	Length
1 to 2	Access Technology of RPLMN			M	2 bytes
3 to 2+X	RFU			Ø	X bytes

~~— Access Technology~~

~~Coding:~~

~~— See EF_{PLMNwAcT} for coding.~~

NEXT REVISED SECTION

4.4.2 Contents of files at the DF PHONEBOOK level

The UICC may contain a global phonebook, or application specific phonebooks, or both in parallel. When both phonebook types co-exist, they are independent and no data is shared. In this case, it shall be possible for the user to select which phonebook the user would like to access.

It is recommended that the terminal searches for the global phonebook located under $DF_{TELECOM}$ as its presence is not indicated anywhere in the USIM application.

The global phonebook is located in $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. Each specific USIM application phonebook is located in $DF_{PHONEBOOK}$ of its respective Application ADF_{USIM} . The organisation of files in $DF_{PHONEBOOK}$ under ADF_{USIM} and under $DF_{TELECOM}$ follows the same rules. Yet $DF_{PHONEBOOK}$ under ADF_{USIM} may contain a different set of files than $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. All phonebook related EFs are located under their respective $DF_{PHONEBOOK}$. USIM specific phonebooks are dedicated to application specific entries. Each application specific phonebook is protected by the application PIN.

EF_{ADN} and EF_{PBR} shall always be present if the $DF_{Phonebook}$ is present. If any phonebook file other than EF_{ADN} or EF_{EXT1} , is used, then EF_{PBC} shall be present.

If a GSM application resides on the UICC, the EFs ADN and EXT1 from one $DF_{PHONEBOOK}$ (defined at GSM application installation) are mapped to $DF_{TELECOM}$. Their file IDs are specified in TS 51.011 [18], i.e. $EF_{ADN} = '6F3A'$ and $EF_{EXT1} = '6F4A'$, respectively.

If the UICC is inserted into a terminal accessing the ADN and EXT1 files under $DF_{TELECOM}$; and a record in these files has been updated, a flag in the corresponding entry control information in the EF_{PBC} is set from 0 to 1 by the UICC. If the UICC is later inserted into a terminal that supports the 3G phonebook, the terminal shall check the flag in EF_{PBC} and if this flag is set, shall update the EF_{CC} , and then reset the flag. A flag set in EF_{PBC} results in a full synchronisation of the phonebook between an external entity and the UICC (if synchronisation is requested).

The EF structure related to the public phonebook is located under $DF_{PHONEBOOK}$ in $DF_{TELECOM}$. A USIM specific phonebook may exist for application specific entries. The application specific phonebook is protected by the application PIN. The organisation of files in the application specific phonebook follows the same rules as the one specified for the public phone book under $DF_{TELECOM}$. The application specific phonebook may contain a different set of files than the one in the public area under $DF_{TELECOM}$.

NEXT REVISED SECTION

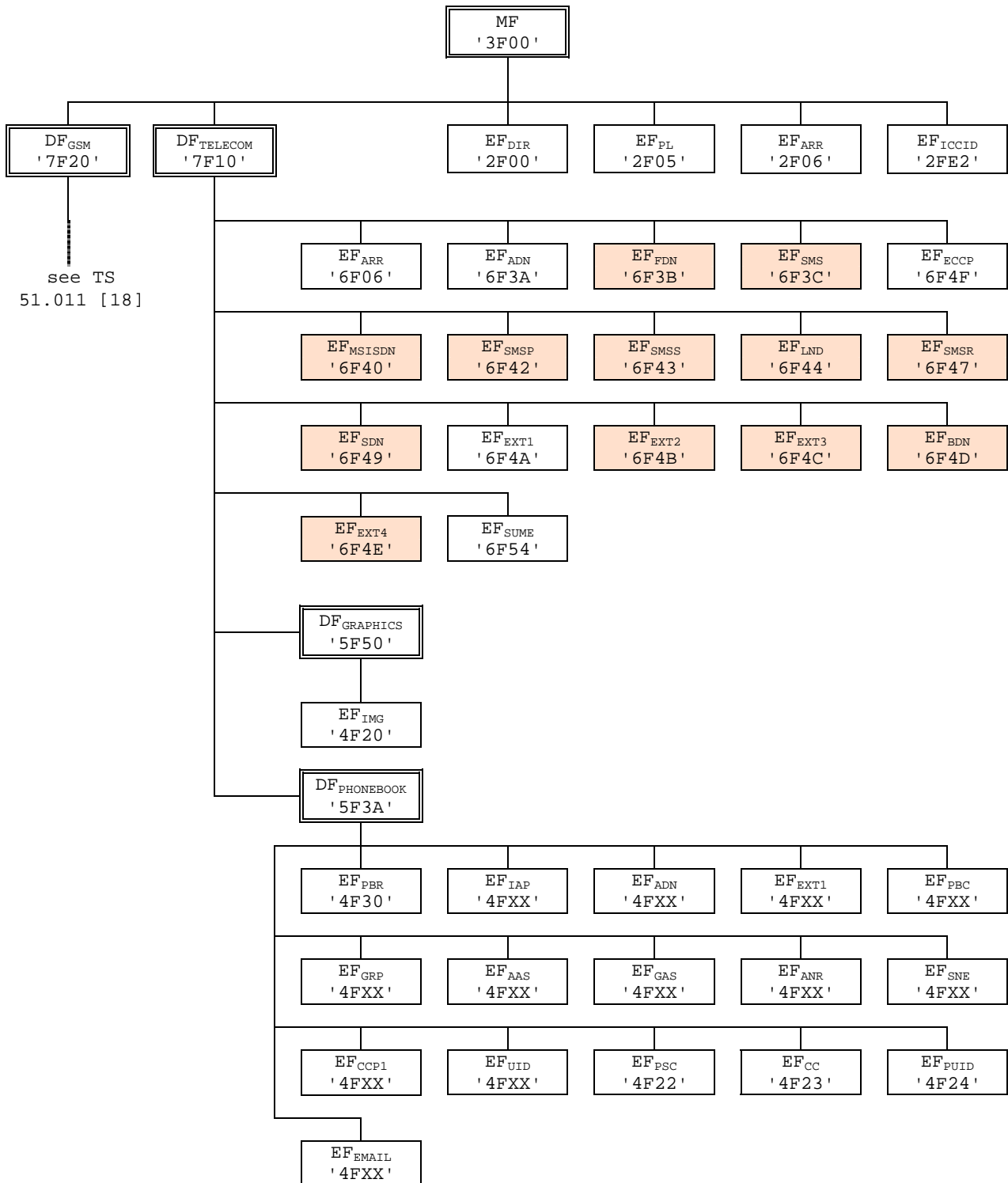
4.6.2 Contents of files at the $DF_{PHONEBOOK}$ under the $DF_{TELECOM}$

This DF has the same structure as $DF_{PHONEBOOK}$ under the ADF_{USIM} .

NEXT REVISED SECTION

4.7 Files of USIM

This clause 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}.



NOTE: Files under DF_{TELECOM} with shaded background are defined in TS 51.011 [18].

Figure 4.1: File identifiers and directory structures of UICC

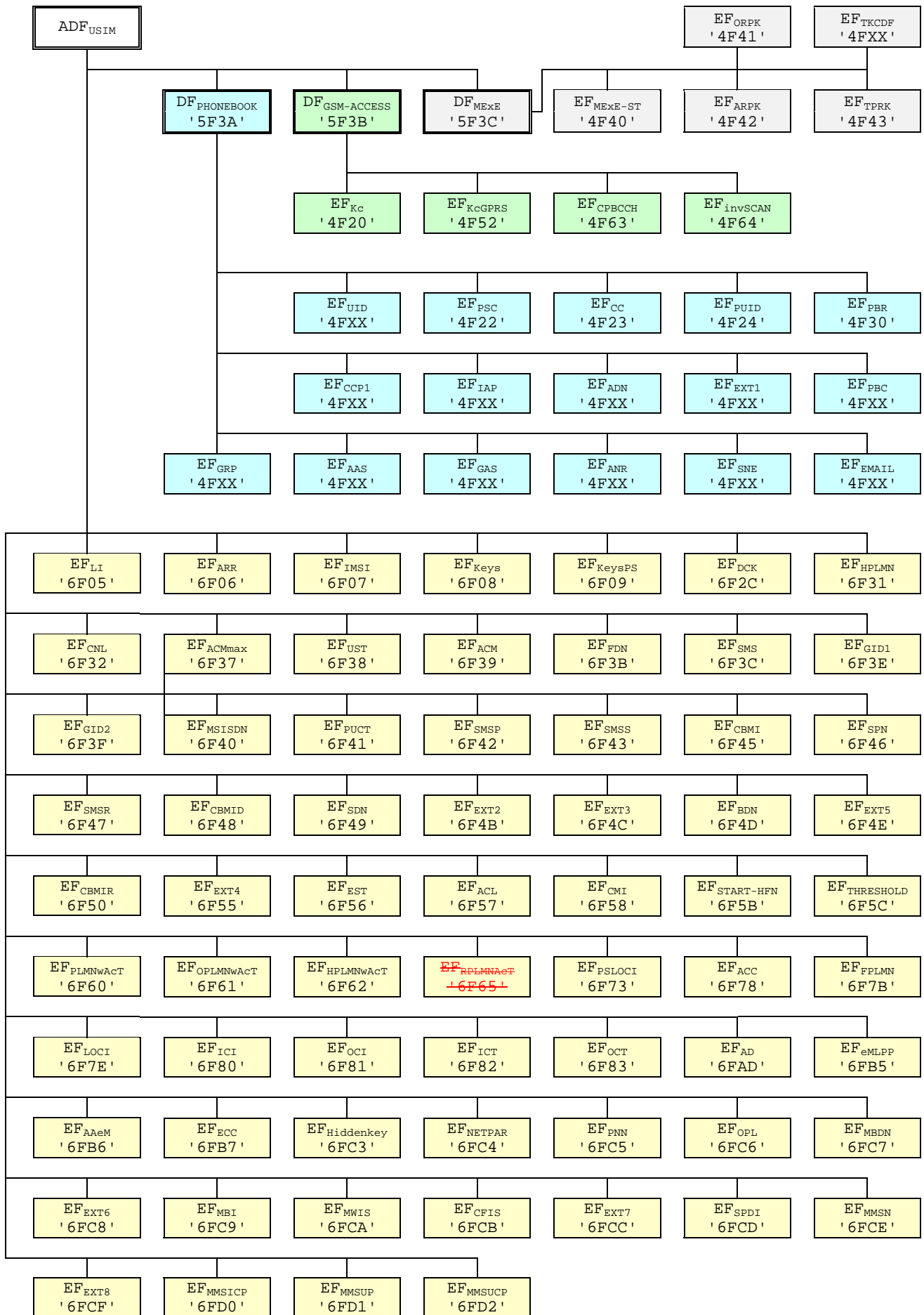


Figure 4.2: File identifiers and directory structures of USIM

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

NEXT REVISED SECTION

5.1.1.2 USIM initialisation

The ME requests the emergency call codes. For service requirements, see TS 22.101 [24].

The ME requests the Language Indication. The preferred language selection shall always use the EF_{LI} in preference to the EF_{PL} at the MF unless any of the following conditions applies:

- if the EF_{LI} has the value 'FFFF' in its highest priority position, then the preferred language selection shall be the language preference in the EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if the ME does not support any of the language codes indicated in EF_{LI}, or if EF_{LI} is not present, then the language selection shall be as defined in EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if neither the languages of EF_{LI} nor EF_{PL} are supported by the terminal, then the terminal shall use its own internal default selection.

The ME then runs the user verification procedure. If the procedure is not performed successfully, the USIM initialisation stops.

The ME performs the administrative information request.

The ME performs the USIM Service Table request.

The ME performs the Enabled Services Table Request.

In case FDN is enabled, an ME which does not support FDN shall allow emergency calls but shall not allow MO-CS calls and MO-SMS.

If BDN is enabled, an ME which does not support Call Control shall allow emergency calls but shall not allow MO-CS calls.

If ACL is enabled, an ME which does not support ACL shall not send any APN to the network.

If all these procedures have been performed successfully then 3G session shall start. In all other cases 3G session shall not start.

Afterwards, the ME runs the following procedures if the ME and the USIM support the related services:

- IMSI request.
- Access control information request.
- HPLMN search period request.
- HPLMN selector with Access Technology request;
- User controlled PLMN selector with Access Technology request;
- Operator controlled PLMN selector with Access Technology request;
- ~~RPLMN last used Access Technology~~
- GSM initialisation requests.

- Location Information request for CS-and/or PS-mode.
- Cipher key and integrity key request for CS- and/or PS-mode.
- Forbidden PLMN request.
- Initialisation value for hyperframe number request.
- Maximum value of START request.
- CBMID request.
- Depending on the further services that are supported by both the ME and the USIM the corresponding EFs have to be read.

After the USIM initialisation has been completed successfully, the ME is ready for a 3G session and shall indicate this to the USIM by sending a particular STATUS command.

NEXT REVISED SECTION

5.1.2.2 GSM termination procedures

If GSM access is enabled the following termination procedures shall be performed if the applicable service is enabled.

- CPBCCCH information update (if the ME supports the GSM compact access technology);
- ~~- RPLMN last used Access Technology update (if the ME supports the GSM compact access technology).~~

NEXT REVISED SECTION

5.3.22 ~~Void~~RPLMN last used Access Technology

- ~~—Requirement: Service n°50 "available".~~
- ~~—Request: —The ME performs the reading procedure with EF_{RPLMNAcT}~~
- ~~—Update: —The ME performs the updating procedure with EF_{RPLMNAcT}~~

NEXT REVISED SECTION

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	Caution
'2F05'	Preferred languages	Yes
'2F06'	Access rule reference	Caution
'2FE2'	ICC identification	No
'4F20'	Image data	Yes
'4F20'	GSM Ciphering key Kc	No
'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
'4F52'	GPRS Ciphering key KcGPRS	No
'4F63'	CPBCCCH Information	No
'4F64'	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
'6F06'	Access rule reference (under ADF _{USIM} and DF _{TELECOM})	Caution
'6F07'	IMSI	Caution (Note 1)
'6F08'	Ciphering and integrity keys	No
'6F09'	Ciphering and integrity keys for packet switched domain	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
'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
'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
'6F54'	SetUp Menu Elements	Yes
'6F55'	Extension 4	Yes
'6F56'	Enabled services table	Caution
'6F57'	Access point name control list	Yes
'6F58'	Comparison method information	Yes
'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
'6F65'	RPLMN last used Access Technology Reserved and shall not be used	Caution N/A
'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
'6FC3'	Key for hidden phone book entries	No
'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	Yes
'6FCE'	MMS Notification	Yes
'6FCF'	Extension 8	Yes
'6FD0'	MMS Issuer Connectivity Parameters	Yes
'6FD1'	MMS User Preferences	Yes
'6FD2'	MMS User Connectivity Parameters	Yes

NOTE1: If EF_{IMSI} is changed, the UICC should issue REFRESH as defined in TS 31.111 and update EF_{LOCI} accordingly.

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'
'4F20'	GSM Ciphering key Kc	'FF...FF07'
'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'
'4F52'	GPRS Ciphering key KcGPRS	'FF...FF07'
'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'
'6F06'	Access rule reference (under ADF _{USIM} and DF _{TELECOM})	Card issuer/operator dependant
'6F07'	IMSI	Operator dependant
'6F08'	Ciphering and integrity keys	'07FF...FF'
'6F09'	Ciphering and integrity keys for packet switched domain	'07FF...FF'
'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'
'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	'F0 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'	Reserved and shall not be used RPLMN last used Access Technology	'0000'N/A
'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
'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	
'6FCE'	MMS Notification	'00 00 00 FF...FF'
'6FCF'	Extension 8	'FF...FF'
'6FD0'	MMS Issuer Connectivity Parameters	'FF...FF'
'6FD1'	MMS User Preferences	'FF...FF'
'6FD2'	MMS User Connectivity 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].

NEXT REVISED SECTION

Annex G (informative): Phonebook Example

This example phonebook has more than 254 entries. Additional number (3 additional numbers) information, second name and e-mail information can be added to each ADN entry. In addition each entry has a 2 byte Unique ID (UID) attached to it. The phonebook also contains three files that are shared EF_{EXT1}, EF_{AAS} and EF_{GAS}. These files are addressed from inside a file. EF_{EXT1} is addressed via EF_{ADN}, EF_{ADN1}, EF_{AAS} is addressed via EF_{ANRA1}, EF_{ANRA1} and EF_{GAS} is addressed via EF_{GRP}, EF_{GRP1}. The phonebook supports two levels of grouping and hidden entries in EF_{PBC}.

Two records are needed in the phonebook reference file PBR '4F30' for supporting more than 254 entries. The content of the phonebook reference file PBR '4F30' records is as shown in table G.2. The structure of the DF_{PHONEBOOK} is shown in table G.1.

The content of phonebook entries in the range from 1-508 is described in the tables G.3 and G.4.

Table G.1: Structure of EFs inside DF_{PHONEBOOK}

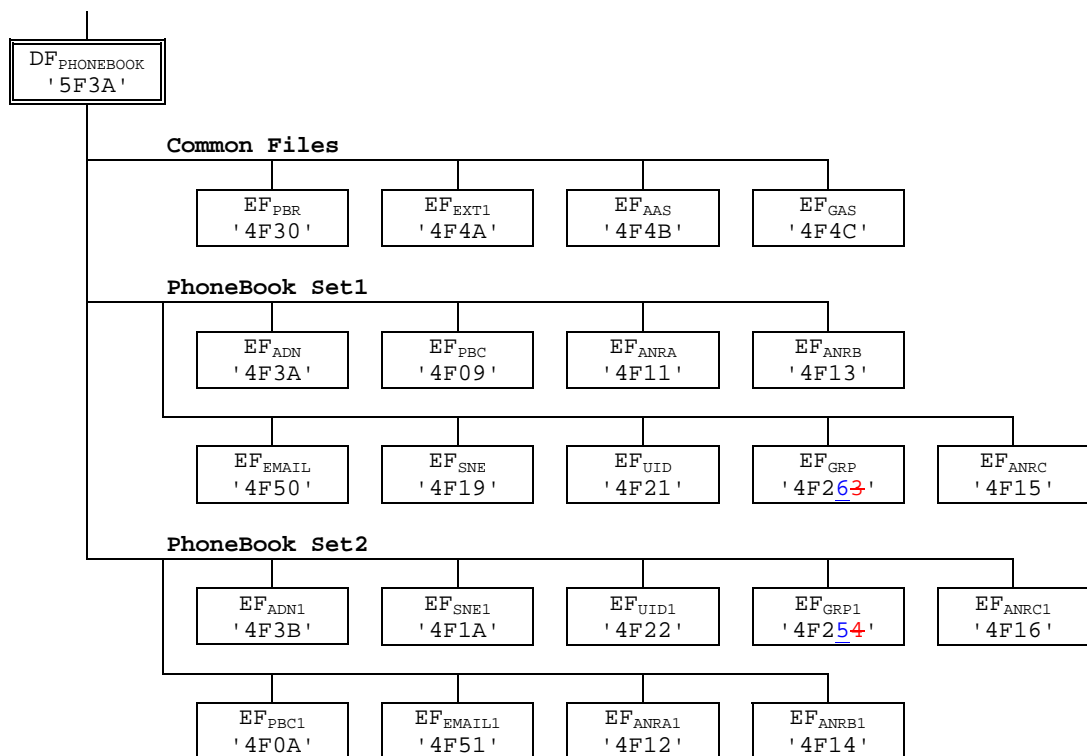


Table G.2: Contents of EF_{PBR}

Rec 1	Tag'A8'	L='26'	(for Phonebook Set1)											
	Tag'C0'	L='03'	'4F3A'	'01'	Tag'C5'	L='03'	'4F09'	'02'	Tag'C6'	L='02'	'4F263'	Tag'C4'	L='02'	'4F11'
	Tag'C4'	L='02'	'4F13'	Tag'C4'	L='02'	'4F15'	Tag'C3'	L='02'	'4F19'	Tag'C9'	L='02'	'4F21'		
	Tag'CA'	L='02'	'4F50'											
	Tag'AA'	L='0C'												
	Tag'C2'	L='02'	'4F4A'	Tag'C7'	L='02'	'4F4B'	Tag'C8'	L='02'	'4F4C'					

Rec 2 Tag'A8' L='24' (for Phonebook Set 2)

Tag'C0' L='02' '4F3B' Tag'C5' L='02' '4F0A' Tag'C6' L='02' '4F254' Tag'C4' L='02' '4F12'

Tag'C4' L='02' '4F14' Tag'C4' L='02' '4F16' Tag'C3' L='02' '4F1A' Tag'C9' L='02' '4F22'

Tag'CA' L='02' '4F51'

Tag'AA' L='0C'

Tag'C2' L='02' '4F4A' Tag'C7' L='02' '4F4B' Tag'C8' L='02' '4F4C' 'FF' 'FF'

Table G.3: Structure of the 254 first entries in the phonebook

Phone book entry	ADN '4F3A' SFI '01'		PBC '4F09' SFI '02'	GRP '4F263'	ANRA '4F11'	ANRB '4F13'	ANRC '4F15'	SNE '4F19'	UID '4F21'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL '4F50'
# 1	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID rec N° 3)	Rec n°1 Rec n°3 '00'	ANRA Rec n°1	ANRB Rec n°1	ANRC Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 2	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°1 Rec n°3	ANRA Rec n°2	ANRB Rec n°2	ANRC Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 3													
:													
:													
:													
# 254													

Table G.4: Structure of phone book entries 255 to 508 (Rec 1-254)

Phone book entry	ADN1 '4F3B'		PBC1 '4F0A'	GRP1 '4F254'	ANRA1 '4F12'	ANRB1 '4F14'	ANRC1 '4F16'	SNE1 '4F1A'	UID1 '4F22'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL1 '4F51'
#255	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID Rec n° 3)	Rec n°1 Rec n°3 '00'	ANRA1 Rec n°1	ANRB1 Rec n°1	ANRC1 Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#256	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°1 Rec n°3	ANRA1 Rec n°2	ANRB1 Rec n°2	ANRC1 Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#257													
:													
:													
:													
#508													

NEXT REVISED SECTION

H.1 List of SFI Values at the USIM ADF Level

File Identification	SFI	Description
'6FB7'	'01'	Emergency call codes
'6F05'	'02'	Language indication
'6FAD'	'03'	Administrative data
'6F38'	'04'	USIM service table
'6F56'	'05'	Enabled services table
'6F78'	'06'	Access control class
'6F07'	'07'	IMSI
'6F08'	'08'	Ciphering and integrity keys
'6F09'	'09'	Ciphering and integrity keys for packet switched domain
'6F60'	'0A'	User PLMN selector
'6F7E'	'0B'	Location information
'6F73'	'0C'	Packet switched location information
'6F7B'	'0D'	Forbidden PLMNs
'6F48'	'0E'	CBMID
'6F5B'	'0F'	Hyperframe number
'6F5C'	'10'	Maximum value of hyperframe number
'6F61'	'11'	Operator PLMN selector
'6F31'	'12'	HPLMN search period
'6F62'	'13'	Preferred HPLMN access technology
'6F80'	'14'	Incoming call information
'6F81'	'15'	Outgoing call information
'6F4F'	'16'	Capability configuration parameters 2
'6F06'	'17'	Access Rule Reference
'6F65'	'18'	Reserved and shall not be used RPLMN last used Access Technology
'6FC5'	'19'	PLMN Network Name
'6FC6'	'1A'	Operator Network List
'6FCD'	'1B'	Service Provider Display Information

All other SFI values are reserved for future use.

CHANGE REQUEST

31.102 CR 137 # rev - # Current version: 6.0.0

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# CR to delete Elementary File EF _{RPLMNACT} , in accordance with TP-020168 from TP#16 in Marco Island.		
Source:	# TSG T3		
Work item code:	# TEI	Date:	# 13/02/2003
Category:	# A	Release:	# Rel-6
	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)
			Rel-6 (Release 6)

Reason for change:	# It has been identified that File EF _{RPLMNACT} has inconsistent file identifiers in the specification, and TP#16 wrote an LS to CN1 in document TP-020168 requesting that T3 can delete the file from the specifications. CN1 minutes state the following regarding the LS: "Noted. CN1 agreed the proposal in principle but no CRs were presented to this meeting yet. CRs from interested companies were invited for the next CN1 meeting. TSG-T would like to delete USIM file RPLMN last used access technology since it seems to be needed only for GSM compact and the definition is incorrect anyway. If this is agreed then the outcome is that CN1 must change 23.122 to move this information storage from USIM to ME memory." The LS to CN1 noted that there may a corresponding change to TS 23.122. The FIDs 4F23 and 4F24 are assigned to the CC and PUID files respectively and shall not be used by another file. DF _{USIM} is incorrect, it must read ADF _{USIM} .
Summary of change:	# The references to EF _{RPLMNACT} are deleted everywhere in the specification, and the values of the file identifiers are set to "reserved, not to be used". Change FID of GRP and GRP1. All references to DF _{USIM} are change to ADF _{USIM} .
Consequences if not approved:	# Inconsistencies within the specification, leading to confusion and misinterpretation.

Clauses affected:	# 4.2.8, 4.2.56, 4.4.2, 4.6.2,4.7, 5.1.1.2, 5.1.2.2, 5.3.2.2, Annex A, Annex E, Annex G, Annex H1
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**Other specs
affected:**

Y	N
X	
	X
	X

Other core specifications
Test specifications
O&M Specifications

⌘ TS 11.11, TS 51.011, TS 23.122

Other comments: ⌘

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:	Reserved and shall not be used RPLMN Last-used Access Technology
	Service n°51:	Service Provider Display Information
	Service n°52:	Multimedia Messaging Service (MMS)
	Service n°53:	Extension 8
	Service n°54:	Call control on GPRS by USIM
	Service n°55:	MMS User Connectivity Parameters

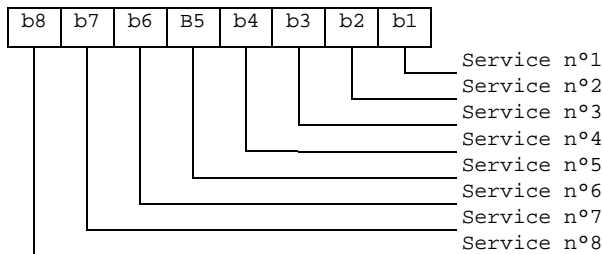
The EF shall contain at least one byte. Further bytes may be included, but if the EF includes an optional byte, then it is mandatory for the EF to also contain all bytes before that byte. Other services are possible in the future and will be coded on further bytes in the EF. The coding falls under the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

Coding:

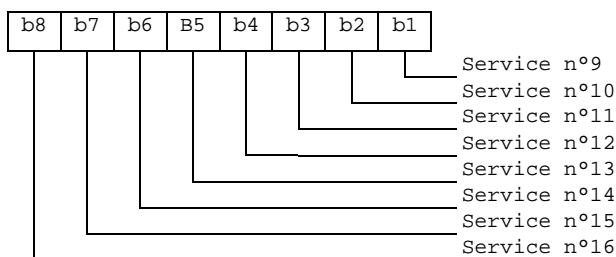
- 1 bit is used to code each service:
bit = 1: service available;
bit = 0: service not available.

- 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.

NEXT REVISED SECTION

4.2.56 ~~Void~~EF_{RPLMNACT} (~~RPLMN Last used Access Technology~~)

~~This EF contains the last used access technology for the Registered PLMN, RPLMN. (see TS 23.122 [31]). This EF shall contain only one access technology.~~

~~NOTE:— One access technology means that only one bit is set in the entire field.~~

Identifier: '6F65'		Structure: transparent		optional	
SFI: '18'					
File size: 2+X bytes			Update activity: High		
Access Conditions:					
— READ		PIN			
— UPDATE		PIN			
— DEACTIVATE		ADM			
— ACTIVATE		ADM			
Bytes	Description			M/O	Length
1 to 2	Access Technology of RPLMN			M	2 bytes
3 to 2+X	RFU			Ø	X bytes

~~— Access Technology~~

~~Coding:~~

~~— See EF_{PLMNwAcT} for coding.~~

NEXT REVISED SECTION

4.4.2 Contents of files at the DF PHONEBOOK level

The UICC may contain a global phonebook, or application specific phonebooks, or both in parallel. When both phonebook types co-exist, they are independent and no data is shared. In this case, it shall be possible for the user to select which phonebook the user would like to access.

It is recommended that the terminal searches for the global phonebook located under $DF_{TELECOM}$ as its presence is not indicated anywhere in the USIM application.

The global phonebook is located in $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. Each specific USIM application phonebook is located in $DF_{PHONEBOOK}$ of its respective Application ΔDF_{USIM} . The organisation of files in $DF_{PHONEBOOK}$ under ΔDF_{USIM} and under $DF_{TELECOM}$ follows the same rules. Yet $DF_{PHONEBOOK}$ under ΔDF_{USIM} may contain a different set of files than $DF_{PHONEBOOK}$ under $DF_{TELECOM}$. All phonebook related EFs are located under their respective $DF_{PHONEBOOK}$. USIM specific phonebooks are dedicated to application specific entries. Each application specific phonebook is protected by the application PIN.

EF_{ADN} and EF_{PBR} shall always be present if the $DF_{PHONEBOOK}$ is present. If any phonebook file other than EF_{ADN} or EF_{EXT1} , is used, then EF_{PBC} shall be present.

If a GSM application resides on the UICC, the EFs ADN and EXT1 from one $DF_{PHONEBOOK}$ (defined at GSM application installation) are mapped to $DF_{TELECOM}$. Their file IDs are specified in TS 51.011 [18], i.e. $EF_{ADN} = '6F3A'$ and $EF_{EXT1} = '6F4A'$, respectively.

If the UICC is inserted into a terminal accessing the ADN and EXT1 files under $DF_{TELECOM}$; and a record in these files has been updated, a flag in the corresponding entry control information in the EF_{PBC} is set from 0 to 1 by the UICC. If the UICC is later inserted into a terminal that supports the 3G phonebook, the terminal shall check the flag in EF_{PBC} and if this flag is set, shall update the EF_{CC} , and then reset the flag. A flag set in EF_{PBC} results in a full synchronisation of the phonebook between an external entity and the UICC (if synchronisation is requested).

The EF structure related to the public phonebook is located under $DF_{PHONEBOOK}$ in $DF_{TELECOM}$. A USIM specific phonebook may exist for application specific entries. The application specific phonebook is protected by the application PIN. The organisation of files in the application specific phonebook follows the same rules as the one specified for the public phone book under $DF_{TELECOM}$. The application specific phonebook may contain a different set of files than the one in the public area under $DF_{TELECOM}$.

NEXT REVISED SECTION

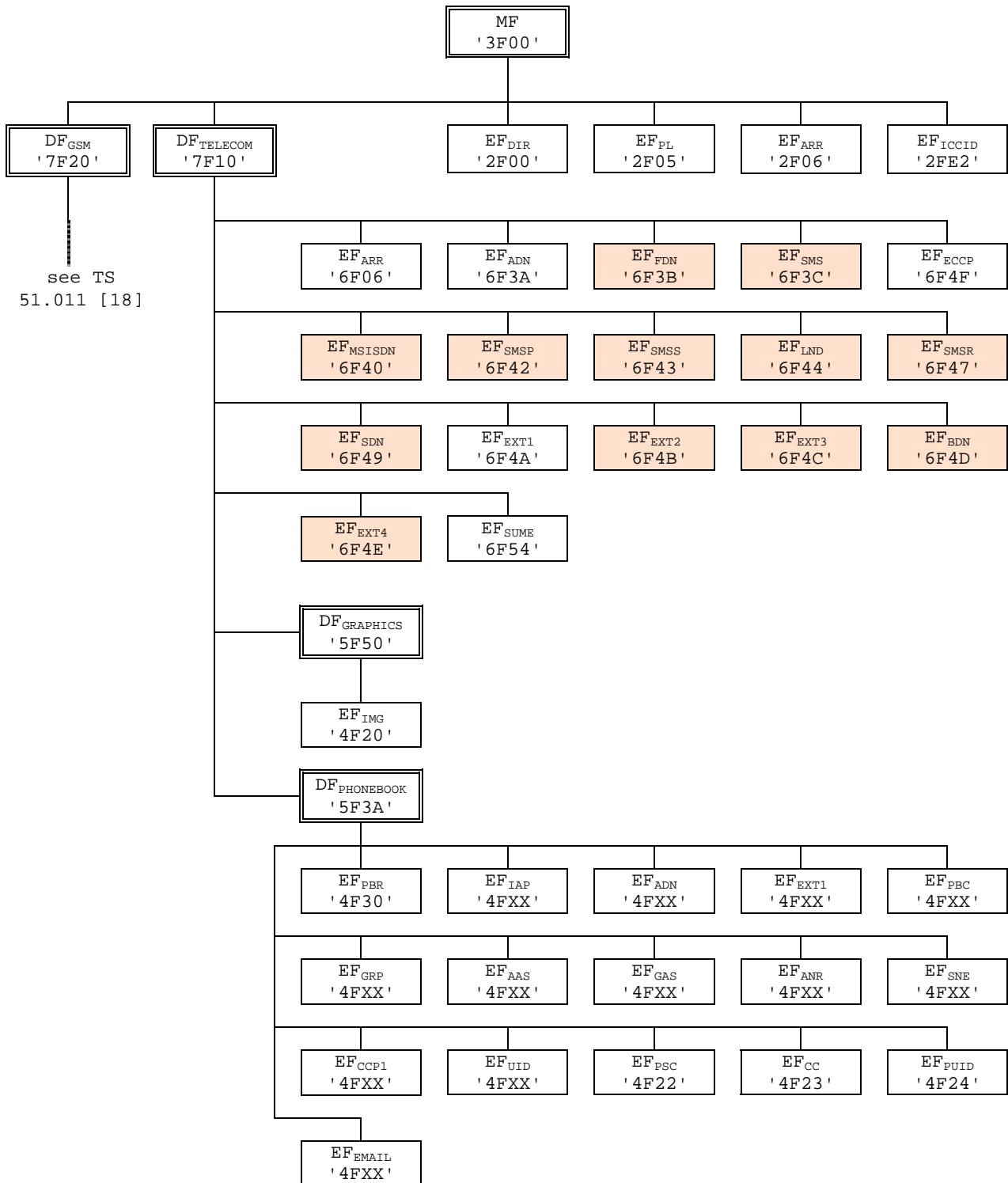
4.6.2 Contents of files at the DF PHONEBOOK under the DF TELECOM

This DF has the same structure as $DF_{PHONEBOOK}$ under the ΔDF_{USIM} .

NEXT REVISED SECTION

4.7 Files of USIM

This clause 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}.



NOTE: Files under DF_{TELECOM} with shaded background are defined in TS 51.011 [18].

Figure 4.1: File identifiers and directory structures of UICC

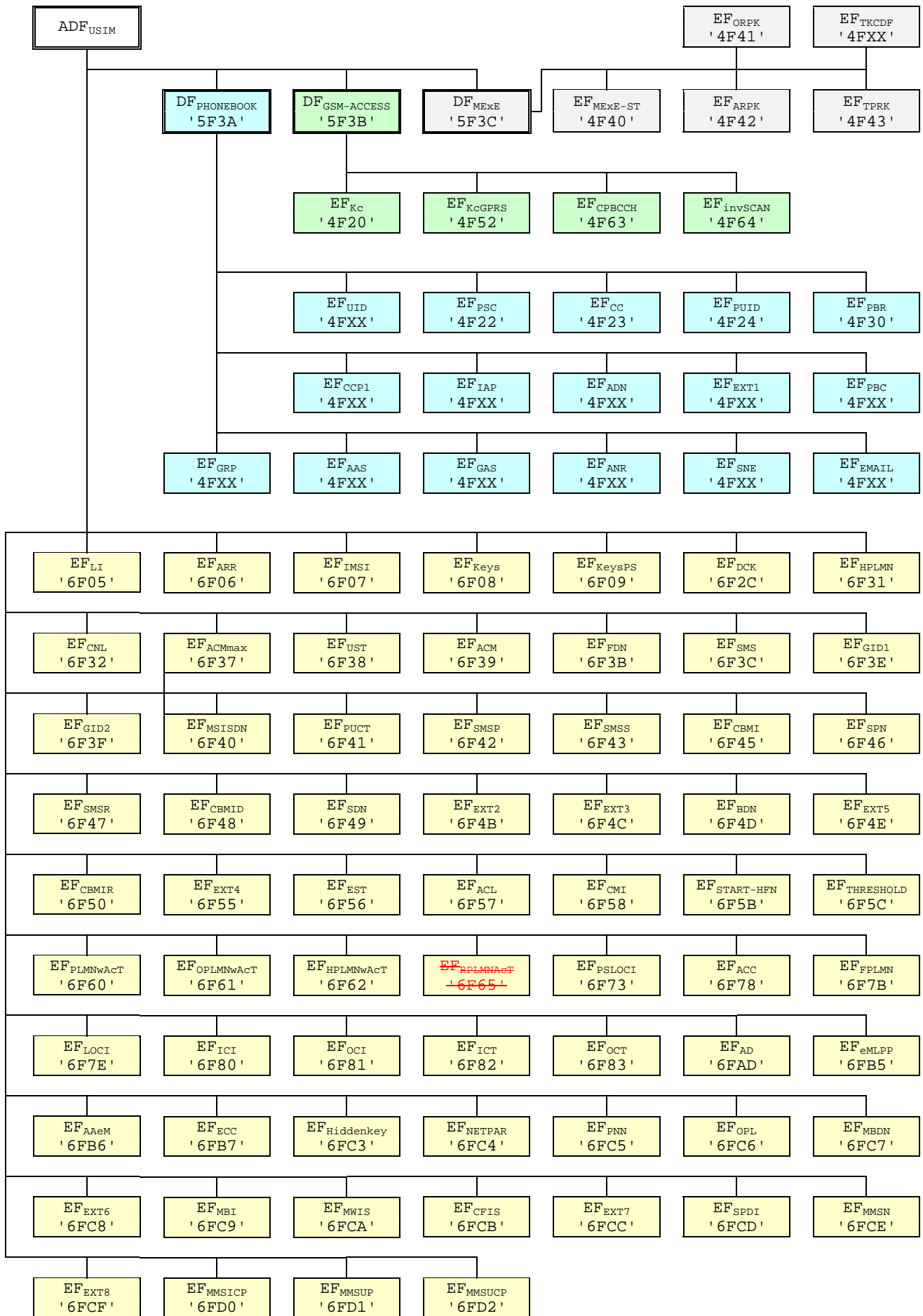


Figure 4.2: File identifiers and directory structures of USIM

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

NEXT REVISED SECTION

5.1.1.2 USIM initialisation

The ME requests the emergency call codes. For service requirements, see TS 22.101 [24].

The ME requests the Language Indication. The preferred language selection shall always use the EF_{LI} in preference to the EF_{PL} at the MF unless any of the following conditions applies:

- if the EF_{LI} has the value 'FFFF' in its highest priority position, then the preferred language selection shall be the language preference in the EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if the ME does not support any of the language codes indicated in EF_{LI}, or if EF_{LI} is not present, then the language selection shall be as defined in EF_{PL} at the MF level according the procedure defined in TS 31.101[11];
- if neither the languages of EF_{LI} nor EF_{PL} are supported by the terminal, then the terminal shall use its own internal default selection.

The ME then runs the user verification procedure. If the procedure is not performed successfully, the USIM initialisation stops.

The ME performs the administrative information request.

The ME performs the USIM Service Table request.

The ME performs the Enabled Services Table Request.

In case FDN is enabled, an ME which does not support FDN shall allow emergency calls but shall not allow MO-CS calls and MO-SMS.

If BDN is enabled, an ME which does not support Call Control shall allow emergency calls but shall not allow MO-CS calls.

If ACL is enabled, an ME which does not support ACL shall not send any APN to the network.

If all these procedures have been performed successfully then 3G session shall start. In all other cases 3G session shall not start.

Afterwards, the ME runs the following procedures if the ME and the USIM support the related services:

- IMSI request.
- Access control information request.
- HPLMN search period request.
- HPLMN selector with Access Technology request;
- User controlled PLMN selector with Access Technology request;
- Operator controlled PLMN selector with Access Technology request;
- ~~RPLMN last used Access Technology~~
- GSM initialisation requests.

- Location Information request for CS-and/or PS-mode.
- Cipher key and integrity key request for CS- and/or PS-mode.
- Forbidden PLMN request.
- Initialisation value for hyperframe number request.
- Maximum value of START request.
- CBMID request.
- Depending on the further services that are supported by both the ME and the USIM the corresponding EFs have to be read.

After the USIM initialisation has been completed successfully, the ME is ready for a 3G session and shall indicate this to the USIM by sending a particular STATUS command.

NEXT REVISED SECTION

5.1.2.2 GSM termination procedures

If GSM access is enabled the following termination procedures shall be performed if the applicable service is enabled.

- CPBCCCH information update (if the ME supports the GSM compact access technology);
- ~~—RPLMN last used Access Technology update (if the ME supports the GSM compact access technology).~~

NEXT REVISED SECTION

5.3.22 Void~~RPLMN last used Access Technology~~

- ~~—Requirement: Service n°50 "available".~~
- ~~—Request: —The ME performs the reading procedure with EF_{RPLMNAcT}~~
- ~~—Update: —The ME performs the updating procedure with EF_{RPLMNAcT}~~

NEXT REVISED SECTION

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	Caution
'2F05'	Preferred languages	Yes
'2F06'	Access rule reference	Caution
'2FE2'	ICC identification	No
'4F20'	Image data	Yes
'4F20'	GSM Ciphering key Kc	No
'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
'4F52'	GPRS Ciphering key KcGPRS	No
'4F63'	CPBCCCH Information	No
'4F64'	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
'6F06'	Access rule reference (under ADF _{USIM} and DF _{TELECOM})	Caution
'6F07'	IMSI	Caution (Note 1)
'6F08'	Ciphering and integrity keys	No
'6F09'	Ciphering and integrity keys for packet switched domain	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
'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
'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
'6F54'	SetUp Menu Elements	Yes
'6F55'	Extension 4	Yes
'6F56'	Enabled services table	Caution
'6F57'	Access point name control list	Yes
'6F58'	Comparison method information	Yes
'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
'6F65'	RPLMN last used Access Technology Reserved and shall not be used	Caution N/A
'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
'6FC3'	Key for hidden phone book entries	No
'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	Yes
'6FCE'	MMS Notification	Yes
'6FCF'	Extension 8	Yes
'6FD0'	MMS Issuer Connectivity Parameters	Yes
'6FD1'	MMS User Preferences	Yes
'6FD2'	MMS User Connectivity Parameters	Yes

NOTE1: If EF_{IMSI} is changed, the UICC should issue REFRESH as defined in TS 31.111 and update EF_{LOCI} accordingly.

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'
'4F20'	GSM Ciphering key Kc	'FF...FF07'
'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'
'4F52'	GPRS Ciphering key KcGPRS	'FF...FF07'
'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'
'6F06'	Access rule reference (under ADF _{USIM} and DF _{TELECOM})	Card issuer/operator dependant
'6F07'	IMSI	Operator dependant
'6F08'	Ciphering and integrity keys	'07FF...FF'
'6F09'	Ciphering and integrity keys for packet switched domain	'07FF...FF'
'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'
'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	'F0 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'	Reserved and shall not be used RPLMN last used Access Technology	'0000'N/A
'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
'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	
'6FCE'	MMS Notification	'00 00 00 FF...FF'
'6FCF'	Extension 8	'FF...FF'
'6FD0'	MMS Issuer Connectivity Parameters	'FF...FF'
'6FD1'	MMS User Preferences	'FF...FF'
'6FD2'	MMS User Connectivity 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].

NEXT REVISED SECTION

Annex G (informative): Phonebook Example

This example phonebook has more than 254 entries. Additional number (3 additional numbers) information, second name and e-mail information can be added to each ADN entry. In addition each entry has a 2 byte Unique ID (UID) attached to it. The phonebook also contains three files that are shared EF_{EXT1}, EF_{AAS} and EF_{GAS}. These files are addressed from inside a file. EF_{EXT1} is addressed via EF_{ADN}, EF_{ADN1}, EF_{AAS} is addressed via EF_{ANRA1}, EF_{ANRA1} and EF_{GAS} is addressed via EF_{GRP}, EF_{GRP1}. The phonebook supports two levels of grouping and hidden entries in EF_{PBC}.

Two records are needed in the phonebook reference file PBR '4F30' for supporting more than 254 entries. The content of the phonebook reference file PBR '4F30' records is as shown in table G.2. The structure of the DF_{PHONEBOOK} is shown in table G.1.

The content of phonebook entries in the range from 1-508 is described in the tables G.3 and G.4.

Table G.1: Structure of EFs inside DF_{PHONEBOOK}

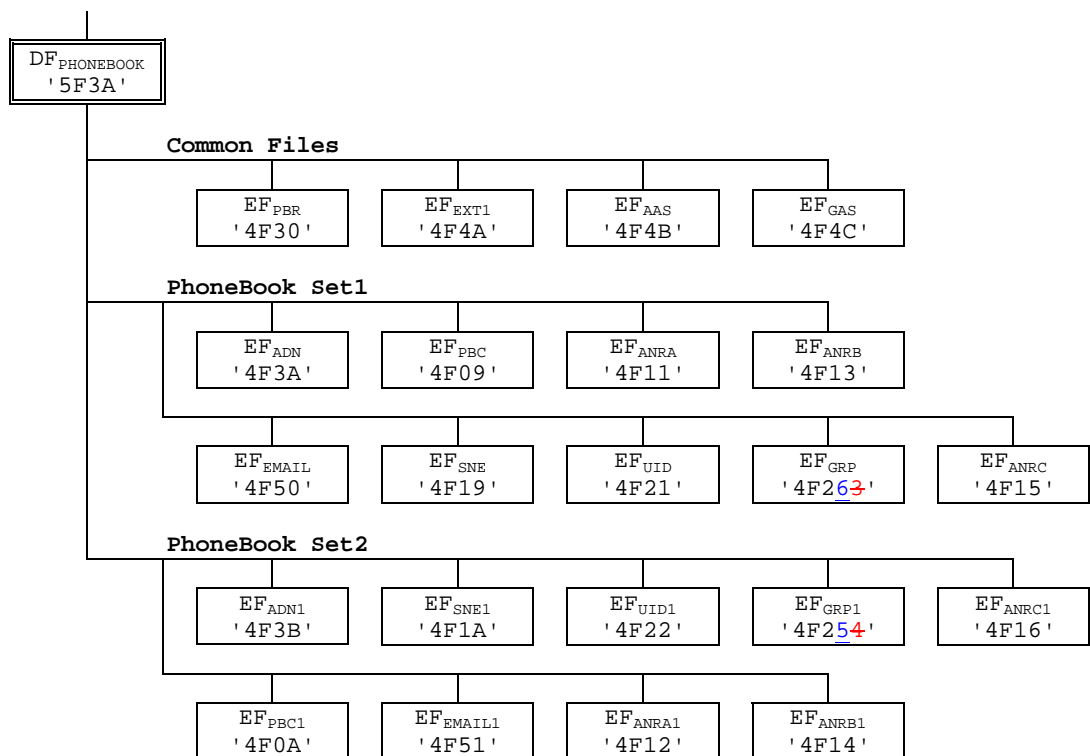


Table G.2: Contents of EF_{PBR}

Rec 1 Tag'A8' L='26'

(for Phonebook Set1)

Tag'C0' L='03' '4F3A' '01' Tag'C5' L='03' '4F09' '02' Tag'C6' L='02' '4F263' Tag'C4' L='02' '4F11'

Tag'C4' L='02' '4F13' Tag'C4' L='02' '4F15' Tag'C3' L='02' '4F19' Tag'C9' L='02' '4F21'

Tag'CA' L='02' '4F50'

Tag'AA' L='0C'

Tag'C2' L='02' '4F4A' Tag'C7' L='02' '4F4B' Tag'C8' L='02' '4F4C'

Rec 2 Tag'A8' L='24' (for Phonebook Set 2)

Tag'C0' L='02' '4F3B' Tag'C5' L='02' '4F0A' Tag'C6' L='02' '4F254' Tag'C4' L='02' '4F12'

Tag'C4' L='02' '4F14' Tag'C4' L='02' '4F16' Tag'C3' L='02' '4F1A' Tag'C9' L='02' '4F22'

Tag'CA' L='02' '4F51'

Tag'AA' L='0C'

Tag'C2' L='02' '4F4A' Tag'C7' L='02' '4F4B' Tag'C8' L='02' '4F4C' 'FF' 'FF'

Table G.3: Structure of the 254 first entries in the phonebook

Phone book entry	ADN '4F3A' SFI '01'	EXT1 Ident. (Byte X+14): Rec '02'	PBC '4F09' SFI '02'	GRP '4F263'	ANRA '4F11'	ANRB '4F13'	ANRC '4F15'	SNE '4F19'	UID '4F21'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL '4F50'
# 1	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID rec N° 3)	Rec n°1 Rec n°3 '00'	ANRA Rec n°1	ANRB Rec n°1	ANRC Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 2	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°3	ANRA Rec n°2	ANRB Rec n°2	ANRC Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP	email address
# 3													
:													
:													
:													
# 254													

Table G.4: Structure of phone book entries 255 to 508 (Rec 1-254)

Phone book entry	ADN1 '4F3B'	EXT1 Ident. (Byte X+14): Rec '02'	PBC1 '4F0A'	GRP1 '4F254'	ANRA1 '4F12'	ANRB1 '4F14'	ANRC1 '4F16'	SNE1 '4F1A'	UID1 '4F22'	EXT1 '4F4A'	AAS '4F4B'	GAS '4F4C'	EMAIL1 '4F51'
#255	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '02'	Hidden (AID Rec n° 3)	Rec n°1 Rec n°3 '00'	ANRA1 Rec n°1	ANRB1 Rec n°1	ANRC1 Rec n°1	Second Name Alpha String	UID	Rec '02'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#256	ADN Content Bytes (1-(X+13))	EXT1 Ident. (Byte X+14): Rec '2A'	Not Hidden	Rec n°2 Rec n°3	ANRA1 Rec n°2	ANRB1 Rec n°2	ANRC1 Rec n°2	Second Name Alpha String	UID	Rec '2A'	Record numbers as defined in the ANRs	Record no.'s as defined in GRP1	email address
#257													
:													
:													
:													
#508													

NEXT REVISED SECTION

H.1 List of SFI Values at the USIM ADF Level

File Identification	SFI	Description
'6FB7'	'01'	Emergency call codes
'6F05'	'02'	Language indication
'6FAD'	'03'	Administrative data
'6F38'	'04'	USIM service table
'6F56'	'05'	Enabled services table
'6F78'	'06'	Access control class
'6F07'	'07'	IMSI
'6F08'	'08'	Ciphering and integrity keys
'6F09'	'09'	Ciphering and integrity keys for packet switched domain
'6F60'	'0A'	User PLMN selector
'6F7E'	'0B'	Location information
'6F73'	'0C'	Packet switched location information
'6F7B'	'0D'	Forbidden PLMNs
'6F48'	'0E'	CBMID
'6F5B'	'0F'	Hyperframe number
'6F5C'	'10'	Maximum value of hyperframe number
'6F61'	'11'	Operator PLMN selector
'6F31'	'12'	HPLMN search period
'6F62'	'13'	Preferred HPLMN access technology
'6F80'	'14'	Incoming call information
'6F81'	'15'	Outgoing call information
'6F4F'	'16'	Capability configuration parameters 2
'6F06'	'17'	Access Rule Reference
'6F65'	'18'	Reserved and shall not be used RPLMN last used Access Technology
'6FC5'	'19'	PLMN Network Name
'6FC6'	'1A'	Operator Network List
'6FCD'	'1B'	Service Provider Display Information

All other SFI values are reserved for future use.

CR-Form-v4

CHANGE REQUEST

⌘ **31.102 CR 138** ⌘ ev **-** ⌘ Current version: **3.11.0** ⌘

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 to make EF-EXT1 optional in the USIM Phonebook		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14.02.03
Category:	⌘ F	Release:	⌘ R99
	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:	⌘ There is no reason for EF-EXT1 to be mandatory in the USIM Phonebook. Moreover, if EF-EXT1 exists in the USIM, it must exist in the SIM as well, which leads to a problem: In the SIM, EF-EXT1 is used to extend EF-MSISDN, while the USIM uses EF-EXT5 for that same purpose. Thus, if EF-EXT1 exists, EF-MSISDN cannot be mapped between the SIM and the USIM, which is a significant disadvantage at least for those operators who actually do not need EF-EXT1.
Summary of change:	⌘ EF-EXT1 is made optional
Consequences if not approved:	⌘ Mapping of EF-MSISDN between SIM and USIM is impossible. UICC memory is unnecessarily wasted if EF-EXT1 is not needed.

Clauses affected:	⌘ 4.4.2.4		
Other specs affected:	⌘ <input checked="" type="checkbox"/> Other core specifications	⌘	
	<input checked="" type="checkbox"/> Test specifications		
	<input checked="" 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/>. 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.

4.4.2.4 EF_{EXT1} (Extension1)

This EF contains extension data of an ADN/SSC. ~~This EF shall always be present if the DF_{Phonebook} is present.~~

Extension data is caused by:

- an ADN/SSC which is greater than the 20 digit capacity of the ADN/SSC Elementary File or where common digits are required to follow an ADN/SSC string of less than 20 digits. The remainder is stored in this EF as a record, which is identified by a specified identification byte inside the ADN/SSC Elementary File. The EXT1 record in this case is specified as additional data;
- an associated called party subaddress. The EXT1 record in this case is specified as subaddress data.

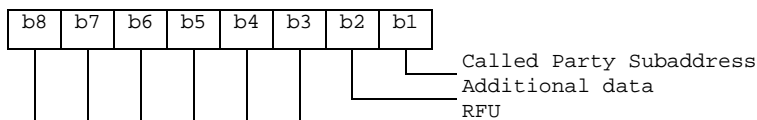
Identifier: '4FXX'		Structure: linear fixed		Optional	
SFI: 'YY'					
Record length: 13 bytes			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		PIN			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes	Description			M/O	Length
1	Record type			M	1 byte
2 to 12	Extension data			M	11 bytes
13	Identifier			M	1 byte

- Record type.

Contents:

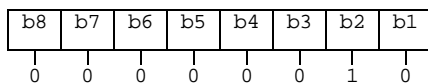
- type of the record.

Coding:



- b3-b8 are reserved and set to 0;
- a bit set to 1 identifies the type of record;
- only one type can be set;
- '00' indicates the type "unknown".

The following example of coding means that the type of extension data is "additional data":



- Extension data.

Contents:

additional data or Called Party Subaddress depending on record type.

Coding:

Case 1, Extension1 record is additional data:

- The first byte of the extension data gives the number of bytes of the remainder of ADN/SSC. The coding of remaining bytes is BCD, according to the coding of ADN/SSC. Unused nibbles at the end shall be set

to 'F'. It is possible if the number of additional digits exceeds the capacity of the additional record to chain another record inside the EXT1 Elementary File by the identifier in byte 13.

Case 2, Extension1 record is Called Party Subaddress:

- The subaddress data contains information as defined for this purpose in TS 24.008 [9]. All information defined in TS 24.008, except the information element identifier, shall be stored in the USIM. The length of this subaddress data can be up to 22 bytes. In those cases where two extension records are needed, these records are chained by the identifier field. The extension record containing the first part of the called party subaddress points to the record which contains the second part of the subaddress.
- Identifier.
 Contents:
 identifier of the next extension record to enable storage of information longer than 11 bytes.
 Coding:
 record number of next record. 'FF' identifies the end of the chain.
- Example of a chain of extension records being associated to an ADN/SSC. The extension1 record identifier (Byte 14+X) of ADN/SSC is set to 3.

No of Record	Type	Extension Data	Next	Record
:	:	:	:	
:	:	:	:	
Record 3	'02'	xxxx	'06'	▶
Record 4	'xx'	xxxx	'xx'	
Record 5	'01'	xxxx	'FF'	◀
Record 6	'01'	xxxx	'05'	◀
:	:	:	:	
:	:	:	:	

In this example ADN/SSC is associated to additional data (record 3) and a called party subaddress whose length is more than 11 bytes (records 6 and 5).

CR-Form-v4

CHANGE REQUEST

⌘ **31.102 CR 139** ⌘ ev **-** ⌘ Current version: **4.7.0** ⌘

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 to make EF-EXT1 optional in the USIM Phonebook		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14.02.03
Category:	⌘ F	Release:	⌘ REL-4
	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:	⌘ There is no reason for EF-EXT1 to be mandatory in the USIM Phonebook. Moreover, if EF-EXT1 exists in the USIM, it must exist in the SIM as well, which leads to a problem: In the SIM, EF-EXT1 is used to extend EF-MSISDN, while the USIM uses EF-EXT5 for that same purpose. Thus, if EF-EXT1 exists, EF-MSISDN cannot be mapped between the SIM and the USIM, which is a significant disadvantage at least for those operators who actually do not need EF-EXT1.
Summary of change:	⌘ EF-EXT1 is made optional
Consequences if not approved:	⌘ Mapping of EF-MSISDN between SIM and USIM is impossible. UICC memory is unnecessarily wasted if EF-EXT1 is not needed.

Clauses affected:	⌘ 4.4.2.4		
Other specs affected:	⌘ <input checked="" type="checkbox"/> Other core specifications	⌘	
	<input checked="" type="checkbox"/> Test specifications		
	<input checked="" type="checkbox"/> O&M Specifications		
Other comments:	⌘		

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- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
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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.

4.4.2.4 EF_{EXT1} (Extension1)

This EF contains extension data of an ADN/SSC. ~~This EF shall always be present if the DF_{Phonebook} is present.~~

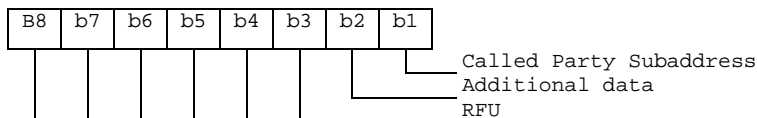
Extension data is caused by:

- an ADN/SSC which is greater than the 20 digit capacity of the ADN/SSC Elementary File or where common digits are required to follow an ADN/SSC string of less than 20 digits. The remainder is stored in this EF as a record, which is identified by a specified identification byte inside the ADN/SSC Elementary File. The EXT1 record in this case is specified as additional data;
- an associated called party subaddress. The EXT1 record in this case is specified as subaddress data.

Identifier: '4FXX'		Structure: linear fixed		Optional	
SFI: 'YY'					
Record length: 13 bytes			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		PIN			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes	Description			M/O	Length
1	Record type			M	1 byte
2 to 12	Extension data			M	11 bytes
13	Identifier			M	1 byte

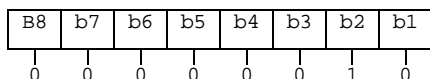
- Record type.
Contents:
 - type of the record.

Coding:



- b3-b8 are reserved and set to 0;
- a bit set to 1 identifies the type of record;
- only one type can be set;
- '00' indicates the type "unknown".

The following example of coding means that the type of extension data is "additional data":



- Extension data.
Contents:
 - additional data or Called Party Subaddress depending on record type.

Coding:

Case 1, Extension1 record is additional data:

- The first byte of the extension data gives the number of bytes of the remainder of ADN/SSC. The coding of remaining bytes is BCD, according to the coding of ADN/SSC. Unused nibbles at the end shall be set

to 'F'. It is possible if the number of additional digits exceeds the capacity of the additional record to chain another record inside the EXT1 Elementary File by the identifier in byte 13. In this case byte 2 (first byte of the extension data) of all records for additional data within the same chain indicates the number of bytes ('01' to '0A') for ADN/SSC (respectively MSISDN, LND) within the same record unequal to 'FF'.

Case 2, Extension1 record is Called Party Subaddress:

- The subaddress data contains information as defined for this purpose in TS 24.008 [9]. All information defined in TS 24.008, except the information element identifier, shall be stored in the USIM. The length of this subaddress data can be up to 22 bytes. In those cases where two extension records are needed, these records are chained by the identifier field. The extension record containing the first part of the called party subaddress points to the record which contains the second part of the subaddress.

- Identifier.

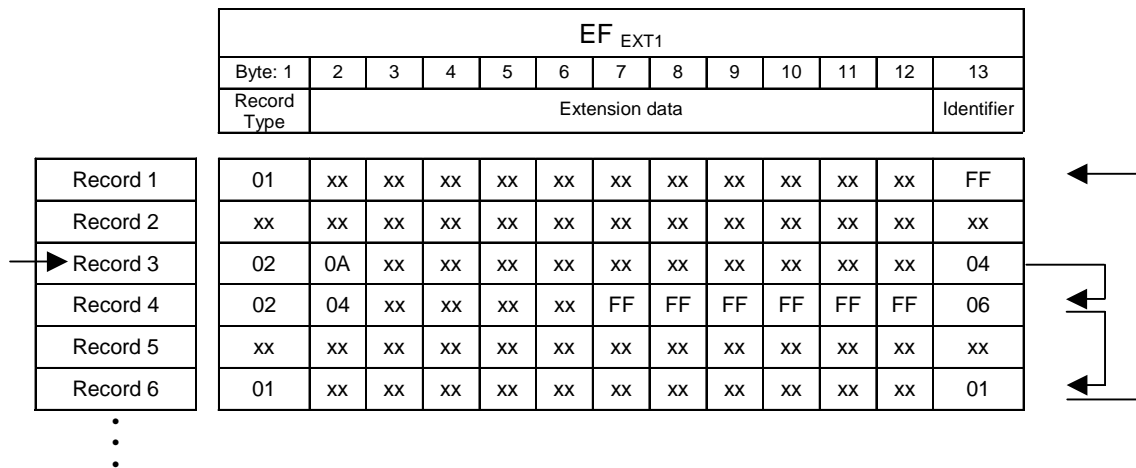
Contents:

identifier of the next extension record to enable storage of information longer than 11 bytes.

Coding:

record number of next record. 'FF' identifies the end of the chain.

- Example of a chain of extension records being associated to an ADN/SSC. The extension1 record identifier (Byte 14+X) of EF_{ADN} is set to 3.



In this example, ADN/SSC is associated to additional data (records 3 and 4) which represent the last 27 or 28 digits of the whole ADN/SSC (the first 20 digits are stored in EF_{ADN}) and a called party subaddress whose length is more than 11 bytes (records 6 and 1).

CR-Form-v4

CHANGE REQUEST

⌘ **31.102 CR 140** ⌘ ev **-** ⌘ Current version: **5.3.0** ⌘

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 to make EF-EXT1 optional in the USIM Phonebook		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14.02.03
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:	⌘ There is no reason for EF-EXT1 to be mandatory in the USIM Phonebook. Moreover, if EF-EXT1 exists in the USIM, it must exist in the SIM as well, which leads to a problem: In the SIM, EF-EXT1 is used to extend EF-MSISDN, while the USIM uses EF-EXT5 for that same purpose. Thus, if EF-EXT1 exists, EF-MSISDN cannot be mapped between the SIM and the USIM, which is a significant disadvantage at least for those operators who actually do not need EF-EXT1.
Summary of change:	⌘ EF-EXT1 is made optional
Consequences if not approved:	⌘ Mapping of EF-MSISDN between SIM and USIM is impossible. UICC memory is unnecessarily wasted if EF-EXT1 is not needed.

Clauses affected:	⌘ 4.4.2.4		
Other specs affected:	⌘ <input checked="" type="checkbox"/> Other core specifications	⌘	
	<input checked="" type="checkbox"/> Test specifications		
	<input checked="" 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.
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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.

4.4.2.4 EF_{EXT1} (Extension1)

This EF contains extension data of an ADN/SSC. ~~This EF shall always be present if the DF_{Phonebook} is present.~~

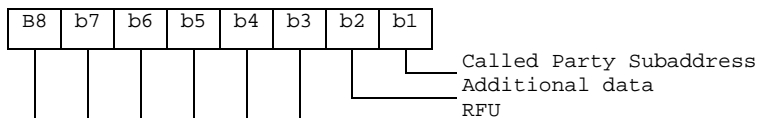
Extension data is caused by:

- an ADN/SSC which is greater than the 20 digit capacity of the ADN/SSC Elementary File or where common digits are required to follow an ADN/SSC string of less than 20 digits. The remainder is stored in this EF as a record, which is identified by a specified identification byte inside the ADN/SSC Elementary File. The EXT1 record in this case is specified as additional data;
- an associated called party subaddress. The EXT1 record in this case is specified as subaddress data.

Identifier: '4FXX'		Structure: linear fixed		Optional	
SFI: 'YY'					
Record length: 13 bytes			Update activity: low		
Access Conditions:					
READ		PIN			
UPDATE		PIN			
DEACTIVATE		ADM			
ACTIVATE		ADM			
Bytes	Description			M/O	Length
1	Record type			M	1 byte
2 to 12	Extension data			M	11 bytes
13	Identifier			M	1 byte

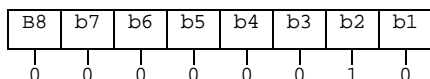
- Record type.
Contents:
 - type of the record.

Coding:



- b3-b8 are reserved and set to 0;
- a bit set to 1 identifies the type of record;
- only one type can be set;
- '00' indicates the type "unknown".

The following example of coding means that the type of extension data is "additional data":



- Extension data.
Contents:
 - additional data or Called Party Subaddress depending on record type.

Coding:

Case 1, Extension1 record is additional data:

- The first byte of the extension data gives the number of bytes of the remainder of ADN/SSC. The coding of remaining bytes is BCD, according to the coding of ADN/SSC. Unused nibbles at the end shall be set

to 'F'. It is possible if the number of additional digits exceeds the capacity of the additional record to chain another record inside the EXT1 Elementary File by the identifier in byte 13. In this case byte 2 (first byte of the extension data) of all records for additional data within the same chain indicates the number of bytes ('01' to '0A') for ADN/SSC (respectively MSISDN, LND) within the same record unequal to 'FF'.

Case 2, Extension1 record is Called Party Subaddress:

- The subaddress data contains information as defined for this purpose in TS 24.008 [9]. All information defined in TS 24.008, except the information element identifier, shall be stored in the USIM. The length of this subaddress data can be up to 22 bytes. In those cases where two extension records are needed, these records are chained by the identifier field. The extension record containing the first part of the called party subaddress points to the record which contains the second part of the subaddress.

- Identifier.

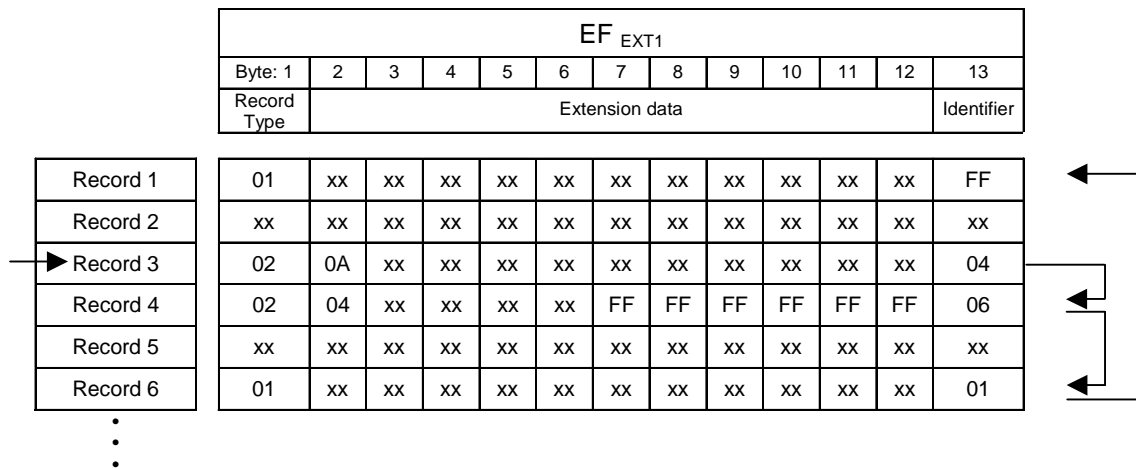
Contents:

identifier of the next extension record to enable storage of information longer than 11 bytes.

Coding:

record number of next record. 'FF' identifies the end of the chain.

- Example of a chain of extension records being associated to an ADN/SSC. The extension1 record identifier (Byte 14+X) of EF_{ADN} is set to 3.



In this example, ADN/SSC is associated to additional data (records 3 and 4) which represent the last 27 or 28 digits of the whole ADN/SSC (the first 20 digits are stored in EF_{ADN}) and a called party subaddress whose length is more than 11 bytes (records 6 and 1).

CR-Form-v4	
CHANGE REQUEST	
⌘ 31.102 CR 141 ⌘ ev - ⌘ Current version: 6.0.0 ⌘	

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

Title:	⌘ CR to make EF-EXT1 optional in the USIM Phonebook		
Source:	⌘ T3		
Work item code:	⌘ TEI	Date:	⌘ 14.02.03
Category:	⌘ F	Release:	⌘ REL-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
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Reason for change:	⌘ There is no reason for EF-EXT1 to be mandatory in the USIM Phonebook. Moreover, if EF-EXT1 exists in the USIM, it must exist in the SIM as well, which leads to a problem: In the SIM, EF-EXT1 is used to extend EF-MSISDN, while the USIM uses EF-EXT5 for that same purpose. Thus, if EF-EXT1 exists, EF-MSISDN cannot be mapped between the SIM and the USIM, which is a significant disadvantage at least for those operators who actually do not need EF-EXT1.
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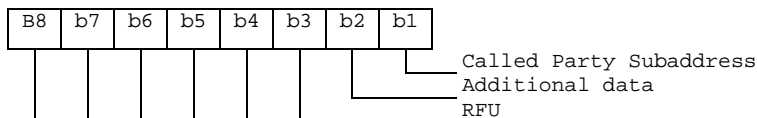
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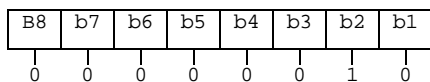
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- Identifier.

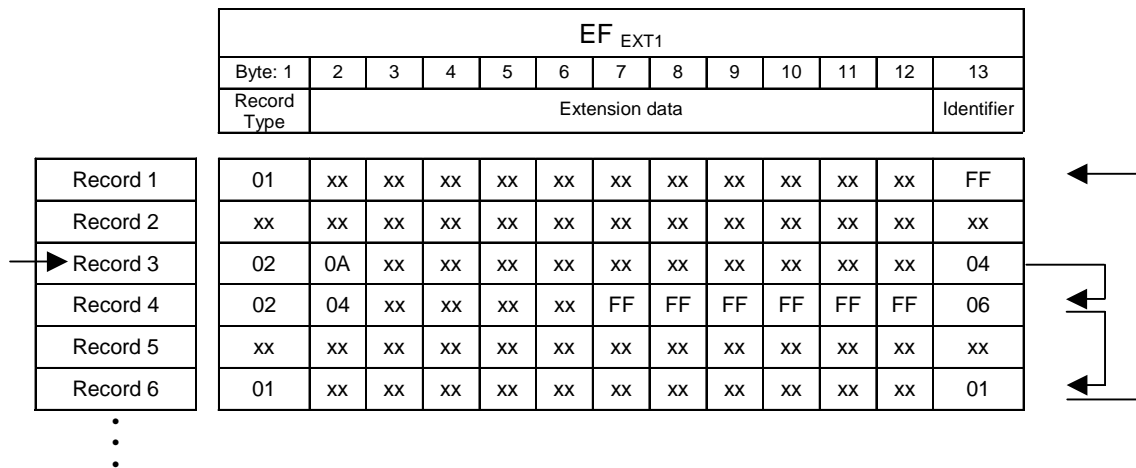
Contents:

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