

**3GPP TSG-T (Terminals) Meeting #26**  
**Athens, Greece**  
**8 - 10 December 2004**

**TP-040220**

3GPP TSG-T3 #33  
Sophia Antipolis, France  
16-19 November 2004

**T3-040771**

**Title:** LS support of 3GPP2 MMS parameters in TS 51.011  
**Response to:** LS (TP-040204) concerning harmonization of MMS provisioning files between 3GPP & 3GPP2

**Release:**  
**Work Item:**

**Source:** T3  
**To:** TSG-T  
**Cc:** T2

**Contact Person:**  
**Name:** Rune Lindholm  
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**Attachments:** T3-040831, T3-040645

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### 1. Overall Description:

T3 thanks TSG-T for the LS concerning harmonization of MMS provisioning files between 3GPP & 3GPP2 TP-040204, T3-040642. Regarding the harmonisation of 3GPP2 specifications and 3GPP TS 51.011 T3 would like to point out that TS 51.011 is a release 4 specification and has been frozen since Rel-4. It has been agreed by TSG-T that TS 11.11 and 51.011 is not to be modified incorporating new features. It is the opinion of T3 that making this alignment from 3GPP2 is not an essential correction to a 3GPP specification, with respect to 3GPP functionality. As a result T3 has agreed a CR to 31.102 Rel-6 to incorporate the requirements expressed by 3GPP2.

T3 ask TSG-T to inform 3GPP2 about the situation and the status of TS 51.011 and to inform 3GPP2 that the relevant 3GPP2 specifications should refer 3GPP TS 31.102 with respect to this functionality and not 3GPP TS 51.011.

T3 has prepared a CR to 51.011, attached to this document, which is considered to be correct from a technical point of view for TSG-T consideration if TSG-T decides to make the change to 3GPP TS 51.011.

T3 has attached the request from 3GPP2 on harmonization with 3GPP in T3-040645 for information on MMS parameters.

### 2. Actions:

**To TSG-T group.**

**ACTION:** T3 asks TSG-T to inform 3GPP2 about the situation described above and to ask 3GPP2 to refer to 3GPP TS 31.102 Rel-6 with respect to this functionality

### 3. Date of next T3 Meetings:

<b>T3#34</b>	8 - 11 Feb 2005	Barcelona, Spain
<b>T3#35</b>	26 - 29 Apr 2005	Cancun, Mexico



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27 August 2004

Mr. Nigel Barnes  
Chair, 3GPP-TSG-T-WG3 (T3)  
[Nigel.barnes@motorola.com](mailto:Nigel.barnes@motorola.com)

**Re: *Tdoc T3-040524 Tdoc T3-040517: LS on harmonization of ISIM and MMS between 3GPP & 3GPP2***

Dear Nigel,

TSG-C would like to thank T3 for completing the actions requested by TSG-C on harmonizing ISIM and MMS between 3GPP and 3GPP2.

In Tdoc 3-040590, we recognize that the value of HTTP Digest in section 7.1.2 is assigned at 2 in the CR and this value is acceptable to us.

In Tdoc T3-040593, however, we would like to request two changes in this CR. First, for the reference [xx], please use the 3GPP2 designation X.S0016-000-A v1.0 to replace the TIA designation (TIA/EIA-934). Secondly, the length value of "MMS Authentication User Name" field of "MMS Connectivity Parameters contents" should be X3 instead of X2.

Please adopt the aforementioned changes in your document. Should you need further information, please let me know.

We would like to remind that it would be beneficial to have a common definition for MMS files in all specifications. Proposed changes don't invalidate the current 3GPP file structure. Moreover, MMS provisioning was included in TS 51.011 after it was frozen. Therefore, we would like T3 to align the definition of MMS files with TS 31.102 release 6 as a correction in older releases.

We thank you for your understanding and we look forward to further cooperation on these matters.

Regards,



Byung K. (BK) Yi  
Chair, 3GPP2 TSG-C

cc: Hideo Okinaka  
Henry Cuschieri

3GPP2 SC Chair  
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CR-Form-v7

## CHANGE REQUEST

**51.011 CR 034** rev - Current version: **4.12.0**

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

<b>Title:</b>	Introduction of M-IMAP and SIP as MMS implementations in MMS provisioning		
<b>Source:</b>	T3		
<b>Work item code:</b>	TEI4	<b>Date:</b>	19/11/04
<b>Category:</b>	<b>C</b>	<b>Release:</b>	Rel-4
	<p>Use <u>one</u> of the following categories:</p> <p><b>F</b> (correction)  <b>A</b> (corresponds to a correction in an earlier release)  <b>B</b> (addition of feature),  <b>C</b> (functional modification of feature)  <b>D</b> (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a>.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)  R96 (Release 1996)  R97 (Release 1997)  R98 (Release 1998)  R99 (Release 1999)  Rel-4 (Release 4)  Rel-5 (Release 5)  Rel-6 (Release 6)</p>

<b>Reason for change:</b>	<p>In their LS to 3GPP-T3 (see T3-040645), 3GPP2 SWG 1.4 is looking forward to have a common definition for MMS files between the R-UIM (based on the SIM specification) and the SIM, as this would be beneficial to e.g. maintain alignment of R-UIM/SIM, and provision efficiently dual mode terminals. As 3GPP2 SWG 1.4 is willing to re-use the files defined in the SIM, some changes must be done to allow the support of MMS implementations parameters used in 3GPP2, i.e. M-IMAP and SIP.</p> <p>In addition, special care is being taken to ensure that a 3GPP-only terminal is not affected by this CR and backward compatibility is guaranteed.</p>
<b>Summary of change:</b>	Add SIP and M-IMAP in MMS implementations field and adapt MMS Issuer / User Connectivity Parameters files to allow the storage of these new implementations.
<b>Consequences if not approved:</b>	3GPP2 requirements cannot be fulfilled.

<b>Clauses affected:</b>	2, 10.3.51, 10.3.53										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	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	
Y	N										
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<b>Other comments:</b>											

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## 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] Void.
- [2] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [3] Void.
- [4] 3GPP TS 02.09: "Security aspects".
- [5] 3GPP TS 22.011: "Service accessibility".
- [6] 3GPP TS 42.017: "Subscriber Identity Modules (SIM); Functional characteristics".
- [7] 3GPP TS 22.024: "Description of Charge Advice Information (CAI)".
- [8] 3GPP TS 22.030: "Man-Machine Interface (MMI) of the User Equipment (UE)".
- [9] 3GPP TS 22.086: "Advice of Charge (AoC) Supplementary Services - Stage 1".
- [10] 3GPP TS 23.003: "Numbering, addressing and identification".
- [11] 3GPP TS 43.020: "Security related network functions".
- [12] 3GPP TS 23.038: "Alphabets and language-specific information".
- [13] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS)".
- [14] 3GPP TS 23.041: "Technical realization of Cell Broadcast Service (CBS)".
- [15] Void.
- [16] 3GPP TS 24.011: "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
- [17] GSM 09.91: "Digital cellular telecommunications system (Phase 2); Interworking aspects of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface between Phase 1 and Phase 2".
- [18] ITU-T Recommendation E.118: "The international telecommunication charge card".
- [19] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".
- [20] ITU-T Recommendation T.50: "International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) - Information technology - 7-bit coded character set for information interchange".
- [21] ISO/IEC 7810 (1995): "Identification cards - Physical characteristics".
- [22] ISO/IEC 7811-1 (1995): "Identification cards - Recording technique - Part 1: Embossing".
- [23] ISO/IEC 7811-3 (1995): "Identification cards - Recording technique - Part 3: Location of embossed characters on ID-1 cards".

- [24] ISO/IEC 7816-1 (1998): "Identification cards - Integrated circuit(s) cards with contacts - Part 1: Physical characteristics".
- [25] ISO/IEC 7816-2 (1988): "Identification cards - Integrated circuit(s) cards with contacts - Part 2: Dimensions and locations of the contacts".
- [26] ISO/IEC 7816-3 (1997): "Identification cards - Integrated circuit(s) cards with contacts - Part 3: Electronic signals and transmission protocols".
- [27] 3GPP TS 51.014: "Specification of the SIM Application Toolkit for the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".
- [28] GSM 11.12: "Digital cellular telecommunications system (Phase 2); Specification of the 3 Volt Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".
- [29] 3GPP TS 22.022: "Personalization of Mobile Equipment (ME); Mobile functionality specification".
- [30] ISO 639 (1988): "Code for the representation of names of languages".
- [31] ISO/IEC 10646-1 (1993): "Information technology - Universal Multiple-Octet Coded Character Set (UCS) - Part 1: Architecture and Basic Multilingual Plane".
- [32] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".
- [33] 3GPP TS 23.073: "Support of Localised Service Area (SoLSA); Stage 2".
- [34] GSM 11.19: "Specification of the Cordless Telephony System Subscriber Identity Module for both Fixed Part and Mobile Station".
- [35] ISO/IEC 7816-4 (1995): "Identification cards - Integrated circuit(s) cards with contacts - Part 4: Interindustry commands for interchange".
- [36] TIA/EIA-136-005: "Introduction, Identification, and Semi-Permanent Memory, November 1998".
- [37] TIA/EIA-136-123-A: "Digital Control Channel Layer 3, November 1998".
- [38] TIA/EIA-136-140-A: "Analogue Control Channel, November 1998".
- [39] TIA/EIA-136-510-A: "Authentication, Encryption of Signaling Information/User Data and Privacy, November 1998".
- [40] ANSI TIA/EIA-41: "Cellular Radio Telecommunications Intersystem Operations".
- [41] EIA/TIA-553: "Mobile Station - Land Station Compatibility Specification".
- [42] 3GPP TS 22.067: "enhanced Multi Level Precedence and Pre-emption service (eMLPP) - Stage 1".
- [43] TR45 AHAG "Common Cryptographic Algorithms, Revision C," October 27, 1998.
- [44] ETS 300 812: "Terrestrial Trunked Radio (TETRA); Security aspects; Subscriber Identity Module to Mobile Equipment (SIM - ME) interface".
- [45] 3GPP TS 03.22: "Functions related to Mobile Station (MS) in idle mode and group receive mode".
- [46] 3GPP TS 05.05: "Radio transmission and reception".
- [47] 3GPP TS 24.008: "Mobile Radio Interface Layer 3 specification; Core Network Protocols; Stage 3".
- [48] 3GPP TS 04.18: "Mobile radio interface layer 3 specification; Radio Resource Control Protocol".
- [49] 3GPP TS 04.60: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/ Medium Access Control (RLC/MAC) protocol".
- [50] 3GPP TS 23.057: "Mobile Execution Environment (MExE); Functional description; Stage 2".

- [51] 3GPP TS 23.122: "NAS Functions related to Mobile Station (MS) in idle mode".
  - [52] 3GPP TS 31.102: "Characteristics of the USIM Application".
  - [53] 3GPP TS 22.101: "Service aspects; Service principles".
  - [54] 3GPP TS 23.097: "Multiple Subscriber Profile (MSP) (Phase 2) - Stage 2".
  - [55] 3GPP TS 31.101: "UICC-Terminal interface; Physical and logical characteristics"
  - [56] ISO/IEC 8825 (1990): "Information technology; Open Systems Interconnection; Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)"
  - [57] ETSI TS 102 221: "UICC-Terminal interface; Physical and logical characteristics"
  - [58] 3GPP TS 23.140: "Multimedia Messaging Service (MMS); Functional description; stage 2".
  - [59] 3GPP TS 44.018: "Mobile Radio Interface Layer 3 Specification; Radio Resource Control Protocol".
- [xx] [X.S0016-000-A v1.0: "3GPP2 Multimedia Messaging System MMS Specification Overview, Revision A"](#)

### 10.3.51 EF<sub>MMSN</sub> (MMS Notification)

If service  $\alpha$ 7 is "allocated and activated", this file shall be present.

This EF contains information in accordance with 3GPP TS 23.140 [58] and X.S0016-000-A v1.0 [xx] comprising MMS notifications (and associated parameters) which have been received by the UE from the network. [A 3GPP terminal needs only to support the MMS implementation specified in 3GPP TS 23.140 \[58\].](#)

Identifier: í6FCEí		Structure: Linear fixed		Optional
Record length: 4+X bytes		Update activity: low		
Access Conditions:				
READ		CHV1		
UPDATE		CHV1		
DEACTIVATE		ADM		
ACTIVATE		ADM		
Bytes	Description	M/O	Length	
1 to 2	MMS Status	M	2 bytes	
3	MMS Implementation	M	1 byte	
4 to X+3	MMS Notification	M	X bytes	
X+4	Extension file record number	M	1 byte	

- MMS Status

Content:

The status bytes contain the status information of the notification.

Coding:

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

First byte:

B8	B7	b6	b5	b4	b3	b2	B1	
				X	X	X	0	Free space
				X	X	X	1	Used space
				X	X	0	1	Notification not read
				X	X	1	1	Notification read
				0	0	X	1	MM not retrieved
				0	1	X	1	MM retrieved
				1	0	X	1	MM rejected
				1	1	X	1	MM forwarded
								Reserved for future use

Second byte:

B8	B7	b6	b5	b4	b3	b2	B1	
								Reserved for future use

- MMS Implementation

Contents:

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



Coding:

Allocation of bits:

Bit number    Parameter indicated

1	WAP implementation of MMS <a href="#">as defined in 3GPP TS 23.140 [58]</a>
<u>2</u>	<a href="#">Reserved for 3GPP2: M-IMAP implementation of MMS as defined in X.S0016-000-A v1.0 [xx]</a>
<u>3</u>	<a href="#">Reserved for 3GPP2: SIP implementation of MMS as defined in X.S0016-000-A v1.0 [xx]</a>
<del>4-8</del>	Reserved for future use

Bit value    Meaning

0	Implementation not supported.
1	Implementation supported.

- MMS Notification

Contents:

The MMS Notification contains the MMS notification.

Coding:

The MMS Notification is coded according to the MMS Implementation as indicated in Byte 3.

Any unused byte shall be set to 'FF'.

- Extension file record number

Contents:

extension file record number. This byte identifies the number of a record in the EF<sub>EXT8</sub> containing extension data for the notification information. The use of this byte is optional. If it is not used it shall be set to 'FF'.

Coding:

binary

### 10.3.53 EF<sub>MMSICP</sub> (MMS Issuer Connectivity Parameters)

If service  $\neq 7$  is "allocated and activated", 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 user assistance in preparation of connecting to the network for the MMS purpose 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: $X_1 + \bar{O} + X_n$ bytes			Update activity: low		
Access Conditions:					
READ		CHV1			
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		
$\bar{O}$	$\bar{O}$				
$X_1 + \bar{O} + X_{n-1} + 1$ to $X_1 + \bar{O} + X_n$	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'
Gateway Tag	'83'
<a href="#">Reserved for 3GPP2: MMS Authentication Mechanism Tag</a>	'84'
<a href="#">Reserved for 3GPP2: MMS Authentication User Name Tag</a>	'85'

- 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	Note 1
MMS Implementation Information	--	M	1
MMS Relay/Server Tag	'81'	M	1
Length	X1	M	Note 2
MMS Relay/Server Address	--	M	X1
<a href="#">MMS Authentication Mechanism Tag</a>	'84'	C1	1
<a href="#">Length</a>	X2	C1	Note 2
<a href="#">MMS Authentication Mechanism</a>	--	C1	X2
<a href="#">MMS Authentication User Name Tag</a>	'85'	C1	1
<a href="#">Length</a>	X3	C1	Note 2
<a href="#">MMS Authentication User Name</a>	--	C1	X3
1 <sup>st</sup> Interface to Core Network and Bearer Information Tag (highest priority)	'82'	MC2	1
Length	Y1	MC2	Note 2
1 <sup>st</sup> Interface to Core Network and Bearer information	--	MC2	Y1
2 <sup>nd</sup> Interface to Core Network and Bearer Information Tag	'82'	OC2	1
Length	Y2	OC2	Note 2
2 <sup>nd</sup> Interface to Core Network and Bearer information	--	OC2	Y2
Ö	Ö	Ö	Ö
n <sup>th</sup> Interface to Core Network and Bearer Information Tag (lowest priority)	'82'	OC2	1
Length	Y3	OC2	Note 2
Interface to Core Network and Bearer information	--	OC2	Y3
Gateway Tag	'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 [56] <a href="#">C1: Reserved for 3GPP2: only present if M-IMAP or SIP indicated in tag 80</a> <a href="#">C2: only present if WAP indicated in tag 80</a>			

- MMS Implementation Tag '80'

See section 10.3.51 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 [58].

- [MMS Authentication Mechanism Tag '84'](#)

[Contents:](#)

[The MMS authentication mechanism contains the authentication mechanism used for M-IMAP and SIP.](#)

[Coding:](#)

[The MMS authentication mechanism is coded according to the guidelines provided in X.S0016-000-A v1.0 \[xx\].](#)

- [MMS Authentication User Name Tag '85'](#)

[Contents:](#)

[The MMS Authentication User Name contains the authentication user name used for M-IMAP and SIP.](#)

[Coding:](#)

[The MMS authentication User Name is coded according to the guidelines provided in X.S0016-000-A v1.0 \[xx\].](#)

- 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 [58].

- 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 [58].

Unused bytes shall be set to 'FF'.

An Example for the coding of these parameters can be found in Annex K.2.