
Source: SA1
Title: Assorted CRs to 22.140 on MMS (Rel-6)
Document for: Approval
Agenda Item: 7.1.3

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-21	SP-030460	22.140	035	-	Rel-6	B	Management of Hyperlinks with MMS	6.2.0	6.3.0	S1-030883
SP-21	SP-030460	22.140	037	-	Rel-6	B	Conditional delivery behaviour	6.2.0	6.3.0	S1-030925

CR-Form-v7

CHANGE REQUEST

⌘ **22.140 CR 035** ⌘ rev - ⌘ Current version: **6.2.0** ⌘

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

Title:	⌘ Management of Hyperlinks with MMS		
Source:	⌘ T-Mobile		
Work item code:	⌘ MMS	Date:	⌘ 02/07/2003
Category:	⌘ B	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:	⌘ Currently there is no requirement defined to transfer hyperlinks using multimedia messages. High potential is seen mainly for two reasons. First the user is well experienced by using links for mobile internet access with advanced terminal capabilities recently emerging on the market. Second a hyperlink may reference to further mobile services e.g. mobile office, organizer, streaming and SIP addresses which lead to increased user convenience for further upcoming Rel.6 services.
Summary of change:	⌘ In order to ensure that the functionality will be available in a user friendly standardised way, chapter 5.1 (Multimedia message management) is enhanced with respect to adding, presenting and the following of hyperlinks.
Consequences if not approved:	⌘ Extensive links and references have to be put in manually in order to use well deployed and further enhanced mobile data services.

Clauses affected:	⌘ 5.1						
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> </table>	Y	N	⌘	X	Other core specifications	⌘
Y	N						
⌘	X						
	⌘	Test specifications					
	⌘	O&M Specifications					
Other comments:	⌘						

How to create CRs using this form:

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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.

- 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.

5 General Requirements

Network operators have many differing requirements, and MMS shall be supported in the network in a manner which allows network operators to consider different configurations depending on their network and commercial requirements. Thus, an identified set of functionalities and formats shall be standardised to ensure interoperability across networks and terminals to support MMS.

However, some network operators may wish to design and configure networks in different ways, and the subsequent requirements are identified to allow flexibility in how the MMS functionality is supported. For example in some networks the network operators may wish to implement the MMS functionality within the core network, whereas other may wish to place the MMS functionality on the periphery of the core network (e.g. a centralised network model instead of a distributed architecture). Further, some network operators may wish to support a limited set of MMS functionality, while others may require extensive and elaborate MMS support according to their business models (e.g. basic MMS instead of advanced MMS). Interoperability shall always be maintained within this flexible architecture.

The following sub-clauses use the term "*The MMS shall be able to support a request for ...*" and similar phrases to allow network operators to consider these different network models and business requirements, to permit flexible architectures and ensure MMS interoperability.

The following sub-clauses use the term "*This requirement shall be supported at the application layer in the terminal (and/or the network), and will not be further elaborated.*" and similar phrases to identify those service requirements that shall be supported by MMS but do not require standardisation.

The criterion for identifying these types of requirements is as follows:

If the requirement corresponds to an interaction and/or command between the terminal and the network applications from the same Service Provider (e.g. between the recipient's terminal resident messaging application and the recipient's network resident application. The same applies for the sender), then this requirement shall be supported by MMS but does not require standardisation.

The following general requirements shall be supported.

5.1 Multimedia message management

- **Terminal-sensitive MM management**

The MMS shall be able to support the capability for the terminal and network to take account of the capability of the user's terminal (e.g. deliver a MM / notification in a manner compatible with the terminal's capability).

- **Terminal status-sensitive MM Management**

The MMS shall be able to support the capability of the network to take account of the availability, changes of the state of availability of the terminal (e.g. store messages if the recipient is not available).

- **MMS Control by the operator**

The MMS shall be able to support a request from the operator to enable/disable MM delivery and submission.

- **MMS Control by the user**

The MMS shall be able to support a request from the user to enable/disable MM delivery and submission.

This requirement shall be supported at the application layer in the terminal, and will not be further elaborated.

- **Storage of MMS parameters**

The USIM shall be able to store the following types of MMS related data:

- i) a number of sets of issuer configuration information to allow access to MMS services.

At least one of these sets of configuration information should be stored on the USIM by the issuer of the USIM.

The first issuer configuration information set is denoted as the default configuration set.

This configuration information shall only be configurable by the issuer of the USIM.

ii) a number of sets of user configuration information to allow access to MMS services.

If more than one set of configuration information is present, it shall be possible for the user to select which set is used. If the user has not selected any of the configuration information sets, then the default set in the active USIM is used.

iii) MMS notifications

iv) MMS user preferences

A terminal using a USIM [7] or a SIM [8] with these MMS parameters, shall by default use them and the related preferred bearer, to access to the MMS services.

Note: Terminal support of SIM and USIM in general is specified in TS 22.101[1].

- **Personalise multimedia messaging**

The MMS shall be able to support a request by the user to manage the Service Preferences of his User Service Profile related to this MMS [2](e.g. customise his MM environment within the capabilities of the terminal, network and MM application. This could be unconditional or conditional e.g. depending on roaming conditions or operator restrictions).

- **MM creation**

The MMS shall be able to support the request to create a MM by the user or an application.

This requirement shall be supported at the application layer in the terminal, and will not be further elaborated.

- **MM Time Stamping**

The MMS shall be able to support the request to include a reliable time value in an MM, a notification and an acknowledgement as appropriate.

- **Multiple Media**

Multimedia messages may be composed of either a single medium (e.g. voice) or multi-media (e.g. Voice and video). The MMS shall be able to support a request for media synchronisation / sequencing.

- **Media Type Conversion**

The MMS shall be able to support a request to convert between media types (e.g. Fax to image). The MMS shall be able to support an indication from a VASP that VASP originated content of an MM should not be converted or changed by the MMS service provider before it is delivered to the recipient.

This requirement shall be supported at the application layer in the network, and will not be further elaborated.

- **Media Format Conversion**

The MMS shall be able to support a request by the user or the application to convert between MM media formats (e.g. JPEG to GIF).

This requirement shall be supported at the application layer in the terminal and/or in the network, and will not be further elaborated.

- **Message forwarding**

The MMS shall be able to support a request to forward multimedia messages or multimedia message elements without having to first download the MM to the terminal. The MMS shall provide a mechanism to prevent an MM forwarding loop (e.g. MMs are setup to be automatically forwarded from User A to B, then from B to C and from C back to A. Users A, B, and C are unaware that they have setup this undesirable situation).

- **Storage of Multi-Media Messages**

The MMS shall be able to support a request for multimedia messages or message elements to be stored until delivered to the recipient's terminal, until they expire, or until they are deleted by the user (unless configured differently). The MMS shall be able to support a request to store and manage all MMs in a network based repository rather than on the mobile terminal.

NOTE: There is no requirement for the MMS to be responsible for the processing/presentation of the MM message, after it has been delivered to the terminal.

- **Prioritisation of Messages**

The MMS shall be able to support a request for MM prioritisation. The prioritisation is passed to the recipient(s) of the message as an indication of the importance the sender places on the message. MM prioritisation is not acted upon by the network.

- **Message qualification**

The MMS shall be able to support a request for MM qualification (e.g. subject) for the purpose of advanced user experience and awareness.

- **Screening of Messages**

The MMS shall be able to support a request for MM screening subject to the capabilities of the network (e.g. automatically delete "junk mail", anonymous messages without delivery to the recipient's terminal).

This requirement shall be supported at the application layer in the terminal an/or in the network, and will not be further elaborated.

- **Validity Period**

The MMS shall be able to support a request by the originator of a message to define validity periods (earliest and latest desired time) for message delivery (e.g. if a message can not be delivered within a certain time it will be automatically deleted). The MMS service provider shall be able to set the MAXIMUM allowable validity period for any message.

- **Multimedia Message Processing by a VASP**

The MMS shall be able to support a request for messages to be processed by a VASP. An example of such processing may be where an MM is sent to a VASP before delivery to the recipient so that the VASP can add multimedia element(s) to the original message.

- **Replacing MM**

The MMS shall be able to support a request by a VASP to replace a previously sent MM from the VASP with a second newer MM.

- **Cancellation of MM**

The MMS shall be able to support a request by a VASP to delete a MM that had previously been sent from the VASP but not yet delivered to the terminal.

Modified section

- [Hyperlinks in MM](#)

[It shall be possible to embed a hyperlink in a MM.](#)

[The following guidelines on editing, presenting and following of hyperlinks should be followed:](#)

- [There should be no restriction to the position in the MM where a hyperlink can be added.](#)
- [It should be possible to clearly recognise the presence of a hyperlink.](#)

[NOTE: It is preferable to display the title of a hyperlink rather than the complete address. \(URI\)](#)

- [Presence of a hyperlink in an MM should not impact the presentation of the MM \(i.e. due to immediate following or storage of the link\)](#)
- [The recipient of an MM should be able to follow a hyperlink.](#)

[The hyperlink should not be followed automatically by default \(explicit user interaction should be required\)](#)

End of modified section

- **Digital Rights Management**

The MMS shall be able to support controlling the distribution of controlled content as defined in 3GPP TS 22.242 [9]. MMS Content Providers shall be able to invoke DRM to prevent unauthorized copying and forwarding of controlled content through the MMS.

CR-Form-v7

CHANGE REQUEST

⌘ **22.140 CR 037** ⌘ rev **-** ⌘ Current version: **6.2.0** ⌘

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:	⌘ Conditional delivery behaviour
Source:	⌘ Orange, T-mobile, Telefonica
Work item code:	⌘ MMS
Date:	⌘ 10/07/2003
Category:	⌘ B
	Use <u>one</u> of the following categories: 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 .
Release:	⌘ REL-6
	Use <u>one</u> of the following releases: 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:	⌘ In certain situations the user may want to modify the delivery mechanism according to a set of network, MMS and terminal parameters. This change request introduces a new requirement to allow the user to specify a per message delivery mechanism. The change request also states that the network can set up a default mechanism for the users so in order to improve the MMS experience.
Summary of change:	⌘ A new requirement is introduced to allow the user to select the most appropriate delivery mechanism subject to a number of information on the MM.
Consequences if not approved:	⌘ Description of how conditional delivery of messages can be specified and used is less complete.

Clauses affected:	⌘ 5.2																
Other specs Affected:	<table border="1"> <tr> <td></td> <td>Y</td> <td>N</td> <td></td> </tr> <tr> <td>⌘</td> <td>X</td> <td></td> <td>Other core specifications</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>Test specifications</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>O&M Specifications</td> </tr> </table>		Y	N		⌘	X		Other core specifications			X	Test specifications			X	O&M Specifications
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Other comments:	⌘ 23.140																

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5.2 Multimedia message delivery and submission

- Submission mechanism

The MMS shall support multimedia messages or messages elements to be submitted from the sender's terminal.

- Push Mechanism

The MMS shall be able to support a request for multimedia messages or messages elements to be automatically delivered to the recipient's terminal.

- Pull Mechanism

The MMS shall be able to support a request for multimedia messages or messages elements to be delivered to the recipient's terminal on request by the recipient.

Note: Push and pull delivery mechanisms could be identical; the criteria which decide on the type of mechanism (push / pull) are either described in the User Services Profile or out of the scope of this specification.

- Concurrency

The MMS shall be able to support MM delivery to and from the user's terminal not be restricted during other active services (subject to the capabilities of the terminal and the network).

- Streaming

The MMS shall be able to support streaming for MM delivery from the MMS system to the terminal.

Support for streaming for MM upload from the terminal to the MMS system will be considered for future releases.

- Preferred Bearer

It shall be possible to define a list of precedence for bearers in the configuration information sets for delivery and submission of MM (e.g. GPRS, CSD). By default, the terminal shall be able to support automatic bearer selection (i.e. without user intervention) based on the order of precedence defined in the configuration information sets on the USIM[7] or SIM [8]. The user shall be able to enable or disable automatic bearer selection. When disabled, manual bearer selection shall be available from the list of bearers.

- Conditional delivery mechanism

It shall be possible for the user to define in the User Profile a set of conditions that determine which delivery mechanism should be used for the submission of a MM.

Such conditions should include:

- Roaming status of the recipient (e.g. inside or outside the home network)
- Identity of the MM originator
- Time of day (of the recipient's home network)
- Upper limit to the MM size

The notification message shall relay the information of the user's preferred delivery mechanism to the UE and if a mismatch is identified between the delivery mechanism configured in the UE and the suggested delivery mechanism, a warning should be displayed to the user. It shall be possible for the user to follow the recommendation given in the notification message.

Furthermore, the terminal may also display a warning prior the download of a message depending on some terminal parameters such as:

- Available storage capacity
- Remaining battery life

- Available bearers

For example, the user may elect to have all MMs downloaded automatically when in the home network, be able to manually select whether to download a MM or not when roaming.

It shall be possible for the network operator to program a default set of rules for the delivery mechanism in the User profile. Such rules can be overridden by the user.

Note: the way the user profile is accessed and modified is not subject of standardisation.