TSG-SA WG (Services) meeting #14 SP-010748
Kyoto, Japan, 17 – 20 December 2001

CR-Form-v3

CHANGE REQUEST

⌘ **22.140** **CR** ⌘ rev **-** ⌘ Current version: **4.1.0** ⌘

*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 **X** Radio Access Network ☐ Core Network **X**

Title:	⌘	Minimum set of functionality for the support of a Network Based repository
Source:	⌘	Openwave Systems
Work item code:	⌘	MMS enhancements
Date:	⌘	17 Dec, 2001
Category:	⌘	**B**
Release:	⌘	*REL-5*

Use one of the following categories:
F *(essential correction)*
A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
C *(Functional modification of feature)*
D *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one 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)*

Reason for change:	⌘	The current Stage 1 MMS specification says that network based storage shall not be elaborated by 3GPP. Within the 3GPP community there is a desire to have network-based storage defined by 3GPP, to allow a more consistent interface on the UE in terms of manipulating messages in the network storage. This change defines more clearly how the network based storage should operate.
Summary of change:	⌘	The basic requirement necessary to manage a network based storage are added in section 5 of the document. It is also stated that a network based repository is an optional component of the MMS. A sentence is also added to User Profile Section 6 to require that the user shall be able to configure the rules for the use of the network based repository if the latter exists.
Consequences if not approved:	⌘	MMS users will not be able to manage network based repository , retrieve or store MMS it from their UE in a standard way.

Clauses affected:	⌘			
Other specs Affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	
Other comments:	⌘	T2 has already been working on delivery of Network based storage in the Stage 2 and it is believed that this Stage 1 text is in alignment with T2 work so far.		

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://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

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

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 terminals 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.

- **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)

  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.

- **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.

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

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 subject to the capabilities of the network (e.g. the sender of the MM may request to prioritise the importance of the multimedia messages).

- **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.

5.2 Multimedia message delivery and submission

- **Submission mechanism**

  The MMS shall support multimedia messages or messages elements to be submitted to the recipient'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.

  ~~Editor's~~ 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.

5.3 Notification and Acknowledgement

The MMS shall be able to support a request to send generic notification and acknowledgement capability to inform the user in an appropriate manner of MMS events. Examples may include:

- notify the recipient about received messages (including a description of the message, e.g. content, size, type).
- notify the recipient about actions taken by the MMS, (e.g. due to profile settings like automatic MM forwarding, deletion, etc.).
- acknowledge the sender about successful or failed MM or storage of a MM.
- acknowledge the sender about successful or failed MM submission.
- acknowledge the sender about successful or failed MM delivery to the recipient terminal (subject to the recipient permitting such an acknowledgement).
- acknowledge the sender about the MM being read/handled at the recipient terminal (subject to the recipient permitting such an acknowledgement).
- acknowledge the sender about successful or failed MM deletion.
- acknowledge the sender, upon request, about the status of a submitted MM (i.e. delivered / not delivered).

5.4 Addressing

The MMS shall support different addressing formats to identify the sender and recipient as specified in 22.975 [4] where applicable. It shall be possible to submit one message to multiple recipients.

The MMS shall be able to support the request to hide the sender's address from the recipient.

5.5 Management and Control of a Network Based Repository

Network based repository is optional. If supported, MMS shall be able to support following functionalities:-

- The MMS shall allow an MMS service provider to configure MMS in such a way that one, several or all incoming MMs of a particular user be stored persistently in a network based repository
- The MMS shall allow an MMS service provider to configure MMS in such a way that one, several or all submitted MMs of a particular user be stored persistently in a network based repository
- The MMS shall be able to support a request from a sender to persistently store a sent MM in a network based repository at the time of sending
- The MMS shall be able to support a request from a user to persistently store a MM for which he received a notification in a network based repository
- The MMS shall be able to support a request from a user to upload one or more MMs into a network based repository for persistent storage
- The MMS shall be able to support a request from a user to receive one or more MMs that are stored in a network based repository
- The MMS shall be able to support a request from a user to delete one or more MMs that are stored in a network based repository
- The MMS shall be able to support a request from a user to forward one or more MMs that are stored in a network based repository to another destination without being delivered first to that user.

- The MMS shall be able to support a request from a user to view the list of MMs and MM related attributes, such as sender, recipient, subject and date/time, in a network based repository

6 User Profile

The MMS shall be able to support the ability to create, update, store, transfer, interrogate, manage and retrieve a user's multimedia messaging profiles.

The multimedia messaging profiles shall allow a user to configure and personalise his multimedia messaging environment with the multimedia messaging profiles (e.g. which media types and notifications that shall be delivered to the recipient , such as voice only or text only).

If the MMS supports a network based repository of MMs, it shall be possible for the users to configure where incoming MMs will be stored.

The multimedia messaging profiles shall form part of the user's virtual home environment.