Technical Specification Group Services and System Aspects    *TSGS#20(03)0256*
Meeting #20, Hämeenlinna, Finland, 09-12 June 2003

| | |
|---|---|
| **Source:** | **SA1** |
| **Title:** | **CRs to 22.140 on Multimedia Messaging (Rel-6)** |
| **Document for:** | **Approval** |
| **Agenda Item:** | **7.1.3** |

*CR-Form-v7*

# CHANGE REQUEST

⌘        **22.140** CR **026**   ⌘**rev**   **-**   ⌘   Current version: **6.1.0** ⌘

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

**Proposed change affects:**        UICC apps⌘ ☐         ME **X** Radio Access Network ☐        Core Network **X**

| | |
|---|---|
| **Title:** ⌘ | Add DRM Requirement to 22.140 |
| **Source:** ⌘ | TSG-SA WG1 |

| | | |
|---|---|---|
| **Work item code:** ⌘ | MMS | **Date:** ⌘ 08/04/2003 |

| | |
|---|---|
| **Category:** ⌘ **B** | **Release:** ⌘ Rel-6 |

*Use one 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.

*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)*
    *Rel-6  (Release 6)*

| | |
|---|---|
| **Reason for change:** ⌘ | Add requirements for DRM to MMS |
| **Summary of change:** ⌘ | This change adds a reference to the OMA DRM specification and adds a DRM requirements to the Multimedia Messaging Management section. |
| **Consequences if not approved:** ⌘ | DRM support will not be required in Release 6 MMS which will impact the ability of content providers to utilize MMS for content delivery |

| | |
|---|---|
| **Clauses affected:** ⌘ | 2,5.1 |

| | Y | N | | |
|---|---|---|---|---|
| **Other specs affected:** ⌘ | Y | | Other core specifications ⌘ | 23.140 |
| | | | Test specifications | |
| | | | O&M Specifications | |

| | |
|---|---|
| **Other comments:** ⌘ | |

**How to create CRs using this form:**
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[1]        3GPP TS 22.101: "Service Principles".

[2]        3GPP TS 22.121: "The Virtual home Environment".

[3]        3GPP TS 21.133: "3G Security; Security Threats and Requirements".

[4]        ITU-T E.164 (1997): "The International Public Telecommunications Numbering Plan".

[5]        IETF; STD 0011 (RFC 2822): "Internet Message Format", URL: http://www.ietf.org/rfc/rfc2822.txt.

[6]        3GPP TS 21.905: "Vocabulary"

[7]        3GPP TS 31.102 "Characteristics of the USIM Application".

[8]        3GPP TS 51.011 (Rel-4): "Specification of the Subscriber Identity Module – Mobile Equipment (SIM-ME) interface".

[x]        3GPP TS 22.242  "Digital Rights Management (DRM); Stage 1"

# 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.

- **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.

- **Digital Rights Management**

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

<table>
<tr><td colspan="3" align="right"><em>CR-Form-v7</em></td></tr>
<tr><td colspan="3" align="center"><h1>CHANGE REQUEST</h1></td></tr>
</table>

| ⌘ | **22.140** CR **027** | ⌘**rev** | **-** | ⌘ | Current version: | **6.1.0** | ⌘ |

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

**Proposed change affects:** UICC apps⌘ ☐  ME ☐ Radio Access Network ☐ Core Network **X**

| | | |
|---|---|---|
| **Title:** ⌘ | Add a Standardized Charging Record Interface Requirement to 22.140 | |
| **Source:** ⌘ | SA1 Messaging SWG | |
| **Work item code:** ⌘ | MMS | **Date:** ⌘ 08/04/2003 |
| **Category:** ⌘ | **B** | **Release:** ⌘ Rel-6 |

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.

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:** ⌘ | Add requirements for use of a standardized interface to transfer billing records to the MMS |
| **Summary of change:** ⌘ | This change adds a requirement for a standardized interface for transferring billing records between the MMSC and the Billing System. |
| **Consequences if not approved:** ⌘ | The cost of installing and operating MMS networks will be higher due to higher cost for integration of the MMS with billing solutions |

| | | |
|---|---|---|
| **Clauses affected:** ⌘ | 8 | |

| | | Y | N | | |
|---|---|---|---|---|---|
| **Other specs affected:** ⌘ | | Y | | Other core specifications ⌘ | 23.140 |
| | | | | Test specifications | |
| | | | | O&M Specifications | |

| | |
|---|---|
| **Other comments:** ⌘ | |

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# 8      Charging

The MMS shall be able to support various charging models, including:

-   Sender pays;

-   both Sender and Recipient pay their respective charges for message delivery;

-   Recipient pays for receipt of messages from a VASP when there is a commercial agreement between the Recipient and the VASP;

-   Sender pays for reply message on a per message basis.

-    The third party who has a commercial agreement with the VASP (and possibly additional agreement with the operator and/or recipient) is charged for the delivery of the message to the recipient.

The MMS shall be able to support various charging mechanisms. The following charging characteristics may be considered:

-   message types, length, storage time in the network, etc,

-   delivering time, upload / download method,

-   MM-sender / -recipient,

-   number of messages sent,

-   number of messages received,

-   roaming conditions,

-   location conditions,

-   Indication of charging,

    The MMS indicates to the recipient prior to the recipient downloading a multi media message whether the sender has paid or the recipient is expected to pay for the message.

-   Prepaid subscriptions.

-   Priority of the message (see Prioritisation of Messages in 5.1)

-   Bearer of the message

The MMS shall support a standardized interface to transfer CDRs and other charging related information between the MMS system and the billing system for prepaid and postpaid billing solutions.

*CR-Form-v7*

# CHANGE REQUEST

⌘                **22.140** CR **028**        ⌘ **rev**  **-**  ⌘  Current version:  **6.1.0**  ⌘

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

**Proposed change affects:**    UICC apps⌘ ☐        ME **X** Radio Access Network ☐    Core Network **X**

| | |
|---|---|
| ***Title:*** ⌘ | Add a Standardized User Profile to 22.140 |
| ***Source:*** ⌘ | SA1 Messaging SWG |

| | | | |
|---|---|---|---|
| ***Work item code:*** ⌘ | MMS | ***Date:*** ⌘ | 19/02/2003 |

***Category:*** ⌘ **B**                                                        ***Release:*** ⌘  Rel-6

| | |
|---|---|
| *Use one of the following categories:* | *Use one 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:*** ⌘ | Add requirements for use of a standardized user profile to MMS |
| ***Summary of change:*** ⌘ | This change adds a reference to the GUP specification and adds a requirements to the User Profile section that a standardized user profile be used.  That profile must conform to GUP whenever possible. |
| ***Consequences if not approved:*** ⌘ | The cost of operating MMS networks will be higher due to lack of standardized user profiles |

| | |
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| ***Clauses affected:*** ⌘ | 2,6 |

| | | | |
|---|---|---|---|
| | **Y** | **N** | |
| ***Other specs affected:*** ⌘ | **Y** | | Other core specifications ⌘ 23.140 |
| | | | Test specifications |
| | | | O&M Specifications |

| | |
|---|---|
| ***Other comments:*** ⌘ | |

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[7]             3GPP TS 31.102 "Characteristics of the USIM Application".

[8]             3GPP TS 51.011 (Rel-4): "Specification of the Subscriber Identity Module – Mobile Equipment (SIM-ME) interface".

[y]             3GPP TS 22.240  "Stage 1 Service Requirement for the 3GPP Generic User Profile (GUP)"

# 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.

MMS information in the user profile when stored in the UA or the network shall be accessed in a standardised manner. The MMS should accomplish this using mechanisms described in the 3GPP Generic User Profile 3GPP TS 22.240 [y] whenever possible.

*CR-Form-v7*

# CHANGE REQUEST

⌘ | **22.140** CR **029** | ⌘**rev** | **-** | ⌘ | Current version: **6.1.0** | ⌘

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**Proposed change affects:** UICC apps⌘ ☐  ME ☐  Radio Access Network ☐  Core Network **X**

| | |
|---|---|
| ***Title:*** ⌘ | Addition of blacklisting capability in the the multimedia messaging profiles |
| ***Source:*** ⌘ | China Mobile |

| | | | |
|---|---|---|---|
| ***Work item code:*** ⌘ | R6: MMS | ***Date:*** ⌘ | 08/04/2003 |

***Category:*** ⌘ **B**

*Use one of the following categories:*
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***Release:*** ⌘ Rel-6

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R99   *(Release 1999)*
Rel-4   *(Release 4)*
Rel-5   *(Release 5)*
Rel-6   *(Release 6)*

| | |
|---|---|
| ***Reason for change:*** ⌘ | User-level blacklist is an important part of the multimedia messaging profiles , but in the current version of specification the user-level blacklist has not been mentioned. The user shall be able to block the reception of messages from some addresses that can be specified in the user profile. |
| ***Summary of change:*** ⌘ | The capability for the user to create and manage a list of addresses from which messages are not submitted to the user is added. |
| ***Consequences if not approved:*** ⌘ | It will not be possible for the user to specify a list of addresses from which the user does not wish to receive messages. |

| | |
|---|---|
| ***Clauses affected:*** ⌘ | 6 |

| ***Other specs affected:*** ⌘ | Y | N | | |
|---|---|---|---|---|
| | X | | Other core specifications | ⌘   23.140 |
| | | X | Test specifications | |
| | | X | O&M Specifications | |

| | |
|---|---|
| ***Other comments:*** ⌘ | Refer to the T2 CR on blacklist |

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# 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).

The user profile shall allow the user to create and manipulate a list of users, identified by their addresses, from which the user does not want to receive messages. This list is called "user-level blacklist". It shall be possible for the user to add, remove and edit addresses in the user-level blacklist.

Note: User-level blacklist differs from ODB blacklist. Users can decide from whom they do not want to receive messages by adding the corresponding address to the user profile.

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.