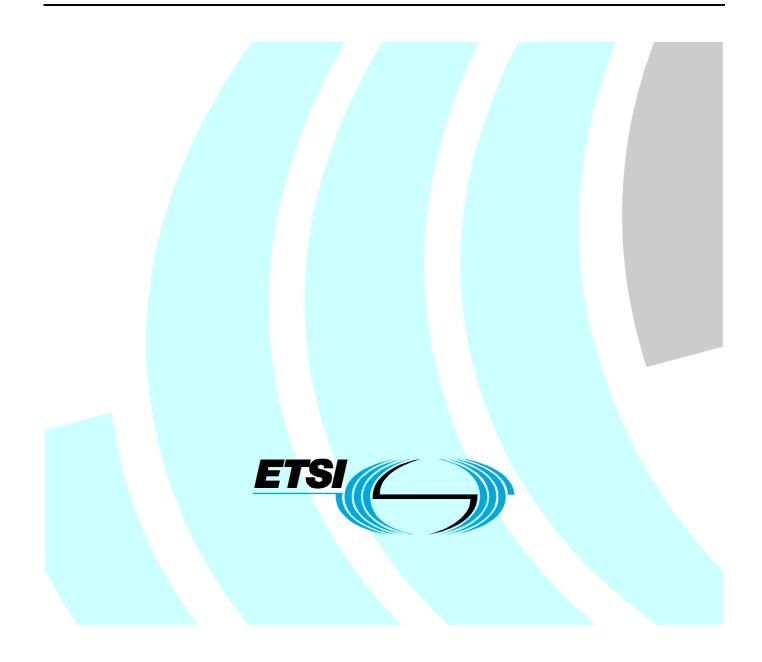# ETSI TS 102 508 V1.1.1 (2006-03)

Technical Specification

Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Fixed network Multimedia Messaging Service (F-MMS) for IP networks; Service description

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

In accordance with ITU-T Recommendation I.130 [1] the following three level structure is used to describe the supplementary telecommunication services as provided by European public telecommunications operators under the pan-European Integrated Services Digital Network (ISDN):

- stage 1: is an overall service description, from the user's stand-point;

- stage 2: identifies the functional capabilities and information flows needed to support the service described in stage 1; and

- stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

The present document details the stage 1 aspects (overall service description) for the Fixed network Multimedia Messaging Service (F-MMS) for IP networks.

Introduction

The Short Message Service (SMS) has paved the way for a new approach to personal communication. Following the success in mobile telecommunication networks, SMS has also become in fixed line telecommunication networks a well-known feature. Based on ETSI standards, SMS offers the possibility of exchanging Short Messages within and between fixed line and mobile telecommunication networks.

The Multimedia Messaging Service (MMS) in the mobile networks was created to provide a sophisticated kind of messaging which combines the advantages of both SMS and email messaging. The Multimedia Messaging Service (MMS) allows users to send and receive messages exploiting the whole array of media types available today e.g. text, images, audio, video and even streaming contents, while also making it possible to support new content types as they become popular.
Similar to the Short Message Service (SMS), the Multimedia Messaging Service (MMS) is a non-real-time delivery system providing a store-and-forward mechanism. A good overview about the Multimedia Messaging Service can be found in TS 122 140 [2].
A multimedia message (MM) consists of one or more media elements (such as text, voice, image and video), and it is the combination of these media elements in an ordered synchronized manner that creates a multimedia presentation. The non-real-time multimedia messaging service shall be capable of supporting current and future multimedia messaging based services, and exploit the advances being made in the world multimedia community.

The Multimedia Messaging Service (MMS) is a service that shall make it possible to offer seamless MMS over different networks (e.g. PSTN, ISDN, PLMN, NGN).

The Fixed network Multimedia Messaging Service follows the philosophy of adopting the existing Multimedia Messaging Service of the mobile networks as widely as possible, to:

- simplify the interworking with the existing mobile net MMS;

- offer the same user experience for both fixed and mobile net users;

- reduce the fixed network MMS implementation efforts.

The MMS enables a unified application which integrates the composition, storage, access, and delivery of different kinds of media, e.g. text, voice, image or video.

In the following of the present document it is assumed that both the sending and receiving Terminal Equipment (TE) have appropriate capabilities to send, receive, store, display and delete multimedia messages.

1 Scope

The present document defines the stage 1 service description of the Fixed network Multimedia Messaging Service (F-MMS) using IP technology applicable to both NGN with an IMS and other IP networks. Stage 1 is an overall service description, primarily from the user's point of view, but does not deal with the details of the human interface itself.

The present document includes information applicable to service providers and equipment manufacturers. Where the text indicates the status of a requirement, (i.e. a strict command or prohibition, an authorization leaving freedom or, a capability or possibility), this shall be reflected in the text of the relevant stage two and stage three standards.

The present document describes only the Fixed network Multimedia Messaging Service (F-MMS) between a Multimedia Messaging Terminal Equipment (MM-TE) and a Multimedia Messaging Service Centre (MM-SC).

Charging principles are outside the scope of the present document.

The present document contains the core service features and also additional service features for the Fixed network Multimedia Messaging Service (F-MMS). A service may be provided on the basis of the core requirements alone.

Furthermore, additional functionalities not covered in the present document may be implemented. The requirements of which are considered outside of the scope of the present document are consequently outside the scope of the corresponding stage 2 and stage 3 standards. Such additional functionalities may be on a network-wide basis, or particular to one user or a group of users. Such additional functionalities do not compromise conformance to the core requirements of the service.

Personal Identification Number (PIN) security matters are outside the scope of the present document.

Furthermore, conformance to the present document is met by conforming to the protocol standards with the field of application appropriate to the equipment being implemented. Therefore no method of testing is provided for the present document.

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 and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

[1] ITU-T Recommendation I.130: "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".

[2] ETSI TS 122 140: "Universal Mobile Telecommunications System (UMTS); Multimedia Messaging Service (MMS); Stage 1 (3GPP TS 22.140)".

[3] ETSI TR 102 314-6: "Fixed network Multimedia Messaging Service (F-MMS); Part 6: Control strings (service codes) for MMS functions and MMS supplementary services".

[4] ETSI EN 300 650: "Integrated Services Digital Network (ISDN); Message Waiting Indication (MWI) supplementary service; Service description".

3   Definitions and abbreviations

3.1   Definitions

For the purposes of the present document, the following terms and definitions apply:

broadband access: covers access types like xDSL, Cable, Satellite, etc.

   NOTE: The MMS communication is independent of the way how this broadband access is provided.

destination MM-TE: terminal with MM functionalities on the receiving user's side which allows to receive an MM notification and is able to retrieve an MM from the MM-SC serving the receiving user

message element: message element is a part of an MM consisting of only one media type

media format: within one media type different media formats are applicable for the media presentation, e.g. a picture can be GIF or JPEG format

media type: media type refers to one form of presenting information to a user, e.g. voice or fax

Multimedia Message (MM): multimedia message is a message composed of one or more message elements

Multimedia Messaging Service Centre (MM-SC): function unit, which is responsible for the relaying and store-and-forwarding of a multimedia message between two multimedia messaging terminals

   NOTE: The MM-SC can functionally be separated from or integrated in the network.

Multimedia Messaging Service Environment (MM-SE): whole set of function units (e.g. MM-SC, gateway, database) which are necessary to perform the transmission of a multimedia message from an originating MM-TE to a destination MM-TE

Multimedia Messaging Terminal Equipment (MM-TE): terminal equipment which has appropriate capabilities to send, receive, store, display and delete multimedia messages

network: term network shall be considered to include the fixed network and any functionality which may exist outside the fixed network (i.e. mobile network, internet and multimedia technologies etc.)

originating MM-TE: terminal with MM functionalities on the sending user's side which allows to submit an MM to an MM-SC

receiving user: user who receives an MM notification on his/her destination MM-TE and can retrieve his/her MM from the MM-SC serving the receiving user

registration: process of registering a terminal to the respective server of the service provider/operator in order to be reachable by the service provider

   NOTE: The registration may be performed automatically by the terminal after the terminal has been switched on and established a connection to the IP network.

sending user: user who submits an MM from his/her originating MM-TE to an MM-SC

subscription: process of establishing a business relation between customer and service provider/operator. This process includes the provision of appropriate credentials to the user

3.2   Abbreviations

For the purposes of the present document, the following abbreviations apply:

   AMMR   Anonymous MM Rejection
   F-MMS   Fixed network Multimedia Messaging Service
   GIF   Graphics Interchange Format
   GSM   Global System for Mobile communications
   IMMBL   Incoming MM Black List

IMMWL	Incoming MM White List
IP	Internet Protocol
JPEG	Joint Photographic Experts Group
MM	Multimedia Message
MMC	Meet-Me Conference
MMD	MM Diversion
MMDL	Multimedia Message Distribution List
MMMID	Malicious MM Identification
MMS	Multimedia Messaging Service
MM-SC	Multimedia Messaging Service Centre
MM-SE	Multimedia Messaging Service Environment
MM-TE	Multimedia Messaging Terminal Equipment
NGN	Next Generation Network
OMMBL	Outgoing MM Black List
OMMWL	Outgoing MM White List
PIN	Personal Identification Number
PLMN	Public Land Mobile Network
SM	Short Message
SMS	Short Message Service
TE	Terminal Equipment
UMTS	Universal Mobile Telecommunications System
xDSL	x Digital Subscriber Line

4 Description

4.1 General

The Multimedia Messaging Service (MMS) enables a sending user to send a Multimedia Message (MM) to a receiving user via a Multimedia Messaging Service Centre (MM-SC).

The Fixed network Multimedia Messaging Service (F-MMS) described in the present document applies to broadband accesses. All transactions are conveyed via IP.
The Multimedia Messaging Service Centre (MM-SC) enables the interworking of MM between different networks.

A service registration/de-registration procedure shall be supported.

The user should have the possibility to choose a certain service provider, if available.

An MM can be initiated upon a request of the sending user or by the service provider itself, and shall be sent to the addressed receiving user. An MM is always conveyed via an MM-SC. The MM-SC receives the MM from an originating MM-TE (sending user) and stores the MM for a certain amount of time. The MM-SC informs the destination MM-TE about an existing MM by sending an MM notification. After receiving of an MM notification the MM may be retrieved from the MM-SC. This can be done by the MM-TE automatically or initiated by the receiving user.

The MMS shall support "core service features", available to all MMS users. In addition "additional service features" as well as features not described in the present document may be provided. In order to ensure compliance with 3GPP MMS, the implementation of the core and additional service features may supplement, but shall not contradict the respective specifications in 3GPP.

The terminal should provide capabilities for the user to read, store or delete the messages. The means by which the receiving user manages these features are outside the scope of the present document.

The preparation of an MM as well as the kind of data transmission between the sending or receiving users and the MM-SC are outside the scope of the present document.

4.2 Legacy support

The destination fixed network terminals to which MMs are addressed, would preferably be MMS-capable terminals. In the present document, these kinds of terminals are referred to as MM-TE. The MM-SC has to recognize and to manage MM-TEs connected via PSTN/ISDN and via IP networks.

However, MMs may also be addressed to non MMS-capable terminals. These kinds of terminals are referred to as "legacy terminals". The group of legacy terminals can be further divided into two subgroups, i.e. legacy terminals supporting SMS and legacy terminals not supporting SMS.

4.2.1 Legacy terminals supporting SMS

Users of legacy terminals supporting SMS are notified by the MM-SE using an informative message transmitted via SMS (e.g. a plain text short message like "You have received a new multimedia message. You can access this message within <X> days using the temporary password <ABCDE12345> on the website <http://www.provider.domain/location>.").

The receiving user may use this information to retrieve the respective MM e.g. via a PC connected to the internet.

4.2.2 Legacy terminals not supporting SMS

Users of legacy terminals not supporting SMS may be notified by the MM-SE using a computer voice announcement (e.g. via the Text-To-Speech functionality of a voice mailbox system), which notifies the receiving user in analogy to the plain text notification described in clause 4.2.1. In case that the addressed legacy terminal supports MWI, according to EN 300 650 [1], this plain text notification may also be conveyed via MWI.

The receiving user may use the received information to retrieve the respective MM e.g. via a PC connected to the internet.

4.3 Core service features

4.3.1 Address hiding

The sending user may request to hide the sender's identity from the recipient on a per MM basis. In this case the sending user's identity shall not be presented to the destination/receiving user; the MM-SC is responsible for the handling of this feature.

4.3.2 User identification

Since the MM-SC does not necessarily get the address (i.e. the E.164 number) of the user from the respective IP network operator or the ISP, the user identity is derived from the authentication of the user.

4.4 Additional service features

The features listed below are not exhaustive and further features are out of the scope of the present document or not yet defined for the time being.

4.4.1 MM Diversion (MMD)

MMD allows the diversion of all MMs addressed to the served user towards another destination.

MMD is an optional MM-SC function which can be activated, deactivated, modified and interrogated by the MMS user. The necessary control information can be conveyed by sending an MM from the MMS user to the MM-SC (according to TR 102 314-6 [3]) or using a WEB-Interface. The minimum information sent to the MM-SC is the request for MMD and the diverted-to-number/address which is applicable to all following MMs.

The medium of the diverted-to-number/address may differ from the MMS, e.g. email or fax.

The result of an interrogation is provided from the MM-SC to the MMS user within an SM or an MM.

4.4.2   MM Copy (MMC)

MMC allows to send a copy of all MMs addressed to the served user towards another destination.

MMC is an optional MM-SC function which can be activated, deactivated, modified and interrogated by the MMS user. The necessary control information can be conveyed by sending an MM from the MMS user to the MM-SC (according to TR 102 314-6 [3]) or using a WEB-Interface. The minimum information sent to the MM-SC is the request for MMC and the copied-to-number/address which is applicable to all following MMs.

The medium of the copied-to-number/address may differ from the MMS, e.g. email or fax.

The result of an interrogation is provided from the MM-SC to the MMS user within an SM or an MM.

4.4.3   Anonymous MM Rejection (AMMR)

AMMR allows the rejection of all anonymous MMs addressed to the served user. In this context, an MM containing the E.164 number of the originator shall not be considered as an anonymous MM. Whether an MM containing any other type of originating information than an E.164 number (e.g. email address, etc.) has to be considered as an anonymous MM or not, is a service provider issue.

AMMR is an MM-SC function which can be activated, deactivated and interrogated by the MMS user. The necessary control information is conveyed by sending an MM from the MMS user to the MM-SC (according to TR 102 314-6 [3]) or using a WEB-Interface. The minimum information sent to the MM-SC is the request for AMMR. After activating the AMMR service any anonymous incoming MM will be discarded by the MM-SC.

The result of an interrogation is provided from the MM-SC to the MMS user within an SM or an MM.

4.4.4   Malicious MM IDentification (MMMID)

The MMMID is an optional MM-SC function which can be provided by the MM-SC to the MMS user after prior arrangement with the service provider. This function allows the served user (in this case the receiving user) to identify a malicious MM. Usually, a received MM Notification or MM contains an identification of the sending user which enables the receiver of a malicious MM to take appropriate measures. However, an identification of the sending user may not be contained in a received malicious MM. In this case, it should also be possible to identify the sending user. If the sending user requests that the presentation of his/her identification shall be restricted to the receiving user and if the receiving user has requested the MMMID service, then a special MMS-ID is sent from the MM-SC to the receiving user instead of the sending user's number. The user can provide this special MMS-ID to an appropriate authority, so that the appropriate authority can request the sending user's number/identity from the MM service provider.

   NOTE: A feature like AMMR does not substitute MMMID, because with AMMR anonymous MMs are rejected,
              but not all anonymous MMs are necessarily malicious (it may happen that a receiving user, who does not
              want to receive malicious messages, accepts to receive anonymous MMS).

4.4.5   Outgoing MM White List/Black List (OMMWL/OMMBL)

The OMMWL/OMMBL are optional MM-SC functions which can be installed, removed, modified (i.e. adding or deleting numbers in a list, etc.) and interrogated by the MMS user. The necessary control information is conveyed by sending an MM from the MMS user to the MM-SC (according to TR 102 314-6 [3]) or using a WEB-Interface.

A PIN may optionally be necessary to control the OMMWL/OMMBL feature.

After installing and activating an OMMWL/OMMBL, outgoing MM from the MMS user can only be sent to certain destinations (white list) or can not be sent to certain destinations (black list).

In case of an activated OMMWL/OMMBL the MM-SC has to check for each outgoing MM from the MMS user whether the indicated destination is allowed or not. If it is allowed then the MM is processed and sent towards the receiving user. If it is not allowed to send an MM to the wanted destination, the MM will be discarded by the MM-SC and the MM-SC informs the sending user about the rejection.

The result of an interrogation is provided from the MM-SC to the MMS user within an SM or an MM.

NOTE 1: An outgoing MM white list is a list of numbers or addresses, defined and controlled by the user and stored within the MM-SC, to which an MM may be exclusively submitted.

NOTE 2: An outgoing MM black list is a list of numbers or addresses, defined and controlled by the user and stored within the MM-SC, to which it is not possible to submit an MM.

4.4.6 Incoming MM White List/Black List (IMMWL/IMMBL)

The IMMWL/IMMBL are optional MM-SC functions which can be installed, removed, modified (i.e. adding or deleting numbers in a list, etc.) and interrogated by the MMS user. The necessary control information is conveyed by sending an MM from the MMS user to the MM-SC (according to TR 102 314-6 [3]) or using a WEB-Interface.

A PIN may optionally be necessary to control the IMMWL/IMMBL feature.

After installing and activating an IMMWL/IMMBL, incoming MM to the MMS user can only be received from certain origins (white list) or can not be received from certain origins (black list).

In case of an activated IMMWL/IMMBL the MM-SC has to check for each incoming MM to the MMS user whether an MM from the indicated sending user is allowed or not. If it is allowed then the MM is forwarded towards the receiving user. If it is not allowed, the MM will be discarded by the MM-SC.

The result of an interrogation is provided from the MM-SC to the MMS user within an SM or an MM.

NOTE 1: An incoming MM white list is a list of numbers or addresses, defined and controlled by the user and stored within the MM-SC, from which an MM may be received.

NOTE 2: An incoming MM black list is a list of numbers or addresses, defined and controlled by the user and stored within the MM-SC, from which no MM can be received.

4.4.7 MM Distribution List (MMDL)

The MMDL is an optional MM-SC function which can be installed, removed, modified (i.e. adding or deleting numbers in a list, etc.) and interrogated by the MMS user. The necessary control information is conveyed by sending an MM from the MMS user to the MM-SC (according to TR 102 314-6 [3]) or using a WEB-Interface.

After installing an MMDL, outgoing MM from the MMS user addressed to a certain MMDL list will be distributed to all destinations of this distribution list.

The MMS user may have the possibility to interrogate his/her distribution lists, the content of a certain list and/or sending an MMDL to a certain receiving user or to another MMDL.

The result of any interrogation is provided from the MM-SC to the MMS user within an SM or an MM.

5 Procedures

5.1 Provision and withdrawal

The MMS shall be provided to the MMS user after prior arrangement with the MMS service provider or, as a service provider option, be generally available. The MMS shall be withdrawn on the MMS user's request or for service provider reasons.

5.1.1 Subscription

To be able to send or retrieve an MMS or to receive an MM notification, a subscription process shall be performed. Upon subscription, the service provider shall provide the subscriber with the appropriate credentials. This may be achieved e.g. by using a WEB-Interface.

Optionally, the MMS subscription may be implicitly obtained by subscribing to the IP network operator, e.g. for voice services.

The MMS service provider should provide a possibility (e.g. via a WEB-Interface) to the MMS subscriber to manage the subscription to the Multimedia Messaging Service.

5.2   Normal procedures

5.2.1   Registration and De-registration

5.2.1.1   Core requirements

Before registration can take place by authenticating the MMS user in the MM-SE, a prior subscription process had to be performed at the relevant MMS service provider.

Service registration and de-registration are controlled by the MM-SE. For administration reasons the service provider shall have access to the user profiles.

To be able to submit or retrieve MM via an IP network, the MM-TE has first to proceed a registration to the service provider/network operator. The registration may be performed automatically after attachment to the network.

5.2.1.2   Optional requirements

In conjunction with the registration procedure an authentication of the user may take place.

For authentication of the user during registration, the respective server of the service provider/network operator may refer to the authentication of the user performed when the MM-TE has connected to the IP network operator (bundled authentication).

5.2.2   Activation and deactivation

5.2.2.1   Core requirements

None.

5.2.2.2   Optional requirements

As a service provider option it should be possible to activate and deactivate the reception of MM notifications temporarily by the MMS user. This procedure shall cause no other changes in the user profile.

   NOTE 1:   To be able to activate or deactivate the reception of MM via an IP network, the MM-TE has first to be registered to the service provider/network operator.

Any activation or deactivation operation in the MM-SC may be realized by means of procedures (e.g. control codes inside an MM according to TS 122 140 [2]). In this case as a service provider option the MMS user may have to supply a password (e.g. PIN) when requesting the activation or deactivation of the MMS (MM notification).

Activation and deactivation may also be achieved by other means (e.g. by using a WEB-Interface). Security implications of such means are outside the scope of the present document.

   NOTE 2:   During a deactivation period any MM shall be stored at the MM-SC for a limited time. This time should follow the validity period if the validity period has been specified by the sending user. The maximum number of stored messages or the maximum overall memory space provided, respectively, is a service provider option.

5.2.3   Invocation and operation

5.2.3.1   Outgoing message (MM Submission)

The support for submission of MMs is optional for MM-TEs. The support for submission of MMs is mandatory for MM-SCs. If an MM-TE supports MM submission, the MMS user shall submit the MM from the MM-TE to the MM-SC. The MM-SC shall process the MM and shall send back a submit response to the originating MM-TE.

Since the MM-SC does not necessarily get the address (i.e. the E.164 number) of the user from the respective IP Network operator, the user identity is derived from the authentication of the user.

5.2.3.1.1   Core requirements

This procedure includes all necessary operations to:

1)   submit an MM from the originating MM-TE to the MM-SC;

2)   return a submit result from the MM-SC to the originating MM-TE.

5.2.3.1.2   Optional requirements

The user authentication may be implicitly obtained by registering to the IP network operator, e.g. for voice services.

5.2.3.2   Incoming notification (MM Notification)

The MM-SC, having successfully stored an MM from any originator, shall send an MM notification to the destination MM-TE. The MM notification is an indication for the MM-TE about an MM which is stored in the MM-SC ready for retrieval.

  NOTE: To receive any MM notification via broadband access, the MM-TE has first to be registered to the service
              provider/network operator.

To support terminals without MMS capabilities the following applies:

•   An MM information from the MM-SC to the destination terminal may be conveyed by a plain short text
      message (SMS), or as an announcement (text to speech).

5.2.3.3   Incoming message (MM retrieval)

The receiving user, having been informed by a notification that an MM is stored in the MM-SC, may retrieve the MM from the MM-SC within the indicated validity period of the MM using the message reference received in the MM notification. The MM-TE shall retrieve the MM from the MM-SC automatically or after a user confirmation.

Since the MM-SC does not necessarily get the address (i.e. the E.164 number) of the user from the respective IP Network operator, the user identity is derived from the authentication of the user.

5.2.3.3.1   Core requirements

This procedure includes all necessary operations to:

1)   retrieve an MM from the MM-SC;

2)   return a retrieval result from the retrieving MM-TE to the MM-SC.

5.2.3.3.2   Optional requirements

The user authentication may be implicitly obtained by registering to the IP network operator, e.g. for voice services.

5.2.3.3.3 Terminal capability negotiation

An MM-TE should support Terminal capability negotiation. An MM-SC shall support Terminal Capability Negotiation.

Within a request for retrieval of an MM the destination MM-TE should be able to indicate its capabilities towards the MM-SC (e.g. the maximum supported size of an MM, the maximum supported resolution of an image, list of supported character sets, etc.).

5.2.3.4 MM delivery report

If the sending user has optionally requested an MM delivery report and the receiving user permits an MM delivery report, the MM-SC shall send an MM delivery report to the originating MM-TE after the destination MM-TE has retrieved the MM.

The delivery report is an indication for the sending MM user that the receiving MM user has retrieved the MM.

NOTE: The transaction MM Delivery Report is not applicable to legacy terminals as this transaction is related to an MM which has been sent out previously by an MM-TE.

5.2.3.5 MM read report

If the sending user has optionally requested an MM read report and the receiving user permits an MM read report, the MM-SC shall send an MM read report to the originating MM-TE after having received a read reply information from the destination MM-TE.

The read report is an indication for the sending MM user that the receiving MM user has read the MM.

NOTE: The transaction MM Read Report is not applicable to legacy terminals as this transaction is related to an MM which has been sent out previously by an MM-TE.

5.2.4 Interrogation

5.2.4.1 Core requirements

None.

5.2.4.2 Optional requirements

As a service provider option it can be possible to give the MMS user knowledge of some or all the data in its service profile and to define the limit of interrogation and modification procedures. In this case the service profile of a registered MM-TE may be interrogated and partially modified by the MMS user (e.g. by sending control procedures according to TR 102 314-6 [3] or using a WEB-Interface). The requested information should be sent back within one or more MMs or SMs to the MMS user.

The MMS user may have the possibility to interrogate the status of the MMS. In response to interrogation the MMS user shall be given either an indication that the MMS is currently activated or not.

No PIN is required for the interrogation request. If a PIN is provided, it shall be ignored.

Since the SM-SC does not necessarily get the address (i.e. the E.164 number) of the user from the respective IP network operator, the user identity is derived from the authentication of the user.

The user authentication may be implicitly obtained by registering to the IP network operator, e.g. for voice services.

5.3 Exceptional procedures

5.3.1 Registration and erasure

Interactions, other than registration, from an unauthenticated entity shall be discarded.

5.3.2 Activation and deactivation

None.

5.3.3 Invocation and operation

5.3.3.1 Core requirements

5.3.3.1.1 Outgoing message (MM submission)

The service provider (MM-SC) shall reject an MM submission request from an MM-TE (sending user) with an appropriate failure indication for any of the following reasons:

- the originating subscriber is not authorized to use the selected service centre;

- the MM-SC is not able to authenticate the originator.

5.3.3.1.2 Incoming message (MM retrieval)

Stored MM at the user's terminal shall be deleted under user control.

> NOTE 1: In case of automatic retrieval, the terminal should not start the retrieval procedure in case that the expected message size exceeds the available memory of the terminal.

> NOTE 2: In case of manual retrieval, the terminal should warn the user when he/she tries to start the retrieval procedure in case that the expected message size exceeds the available memory of the terminal.

5.3.4 Interrogation

None.

6 Interworking requirements

6.1 Interworking between the MMS service provider's equipment and other networks

MMS service provider's equipment is required to interwork with existing deployments in other networks (e.g. PSTN, ISDN, PLMN, GSM, UMTS, xDSL, IP, 3GPP/3GPP2- based deployments).

6.2 Interworking with private networks

Public and private networks shall co-operate in the provision of this service. This implies that:

- the originating and/or the receiving user can be a user in a private network; and

- the MM-SC can be a user in a private network.

Interworking shall take place in a co-operative manner.

7   Interactions with supplementary services

For the MMS via IP networks there are no interactions with supplementary services since the Multimedia Messaging Service is an independent service.

Annex A (informative):
Bibliography

- ETSI ES 202 318-8: "Fixed network Multimedia Messaging Service (F-MMS); Part 8 : Combined PSTN/ISDN & broadband access; Service description".

- ETSI TS 102 507: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Fixed network Short Message Service (F-SMS) for IP networks; Service description".

History

Document history		
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