3GPP2 X.S0016-330-A

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Multimedia Messaging Service;

MM3 Stage 3 for Internet Mail Exchange

Revision History

Revision	Date	Description/Title
1.0 Rev. 0	January 2004	Initial Publication
1.0 Rev. A	September 2005	Revision A

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Foreword

(This foreword is not part of this document)

This Technical Specification has been produced by the 3rd Generation Partnership Project 2 (3GPP2).

This document was prepared by 3GPP2 TSG-X.

This standard contains significant technical changes from the previous edition of the standard. This standard replaces revision 0.

1 Introduction

Note that in the text of this document, a distinction is made between use of "SMTP" or "Simple Mail Transfer Protocol", and "ESMTP" or "Extended Simple Mail Transfer Protocol": when the term "ESMTP" or "Extended" is used, it indicates use of extended features of SMTP; that is, those beyond the facilities of RFC 821. (These extended facilities may be in RFC 2821 or in other RFCs, as indicated by the specific RFC reference used; note that the name of the RFC 2821 reference is "SMTP" because that is the official title of the RFC.)

1.1 Scope

This specification describes how to use MM3 to exchange messages with Internet mail systems. This includes translation between MMS and Internet Mail messages using Extended Simple Mail Transfer Protocol [SMTP] and Internet mail format [Msg-Fmt]. This protocol is a Stage 3 on reference point MM3 to exchange messages with systems in Internet Message format.

As an instance of an Internet Mail message, the MM3 interface defined herein includes support for voice messages specified by the Voice Profile for Internet Mail [VPIM]. The VPIM specification allows voice messages to be exchanged between voice mail systems using Internet mail format [Msg-Fmt] and transported via Extended Simple Mail Transfer Protocol [SMTP]. Thus, MM3 supports the ability to exchange voice messages between an MMSC and a voice mail system.

Note that MM3 can also be used for interworking with other systems, such as SMS and access to external mail stores. This specification does not address these other uses of MM3; it is only concerned with Internet

mail interworking and specifically exchange of messages between MMS and Internet mail systems.

1.2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this Specification. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

OMA

[OMA-MMS] OMA-WAP-MMS-ENC-v1_3-20030716

3GPP2

[Stage_2] X.S0016-200-A, MMS Stage 2 Functional Description

[Stage_1] S.R0064, Multimedia Messaging Services (MMS) Stage 1 Requirements.

IETF

[MAP] " Mapping Between the Multimedia Messaging Service (MMS) and Internet Mail, RFC 4356, January 2006.

[SMTP] “Simple Mail Transfer Protocol”, Klensin, RFC 2821, April 2001.

[Msg-Fmt] “Internet Message Format”, Resnick, RFC 2822, April 2001.

[VPIM] “Voice Profile Internet Mail – Version 2”, Vaudreuil, Parsons, RFC 2421, September 1998.

1.3 Terminology

This document uses the following “verbal forms” and “verbal form definitions”:

1. “shall” and “shall not” identify items of interest that are to be strictly followed and from which no deviation is recommended,
2. “should” and “should not” indicate items of interest that are highly desirable and particularly suitable, without identifying or excluding other items; or (in the negative form) indicate items of interest that are not desirable, are not particularly suitable, or are not recommended but not prohibited, and
3. “may” and “may not” indicate items of interest that are optional but permissible within the limits of this recommendation.

1.4 Assumptions

It is assumed that the reader is already familiar with the contents of the 3GPP2 MMS Stage 1 [Stage_1], and Stage 2 [Stage_2] documents. It is also assumed that the reader is familiar with Internet mail, especially RFC 2821 [SMTP] and RFC 2822 [Msg-Fmt].

2 Stage 2 Amendments

All MM3 Stage 2 [Stage_2] functions are supported except for reply charging. Sender address hiding may be used but is not recommended without security assurances which are beyond the scope of this specification.

The following abstract messages are defined for the Internet Email Exchange use of MM3:

Table 2-1: Abstract messages for exchanging MMs in MM3

MM3_forward.REQ	Request	Sending Server -> Receiving Server
MM3_forward.RES	Response	Receiving Server -> Sending Server

Note that relay of normal messages as well as relay and generation of delivery and disposition reports are handled within the forward request abstract message.

The forward request and forward response abstract messages are realized using an [SMTP] transaction; the forward request is realized using [SMTP] commands from the sending system to the receiving system; the forward response is realized using [SMTP] response codes, including the extended codes specified in [Codes].

3 MM3 Stage 3 Description

3.1 Introduction (Informative)

This section defines the interworking between MMS Relay/Servers and Internet Mail servers using ESMTP. That is, information elements are exchanged using standard Internet Message [Msg-Fmt] header fields and standard ESMTP [SMTP] elements to the maximum possible extent.

SMTP and Internet mail extensions are used for features such as delivery reports, message expiration, discovery of server support for optional features, etc.

3.2 Stage 3 Specification (Normative)

This specification defines the Internet Mail Exchange implementation option for MM3.

The Stage 3 specification shall be defined by [MAP].