Source: **SA1**

Title: **CR to 22.340 to remove deferred messaging requirements (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-27	SP-050062	22.340	002	-	Rel-6	F	Removal of Deferred Messaging Requirements	6.1.0	6.2.0	S1-050255

<table>
<tr><td colspan="5" align="right">CR-Form-v7.1</td></tr>
<tr><td colspan="5" align="center"><h2>CHANGE REQUEST</h2></td></tr>
<tr><td>⌘</td><td align="center">22.340 CR 002</td><td>⌘rev - ⌘</td><td>Current version:</td><td>6.1.0 ⌘</td></tr>
</table>

*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: ⌘	Removal of Deferred Messaging Requirements	
Source: ⌘	SA1 (Research In Motion)	
Work item code:⌘	IMSM-TS	***Date:*** ⌘ 20/01/2005
Category: ⌘	**F**	***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:
   Ph2   *(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)*
   Rel-7 *(Release 7)*

Reason for change: ⌘	IMS Deferred Messaging will not be part of Release 6 as agreed at TSG SA#26.
Summary of change:⌘	Requirements for IMS Deferred Messaging are removed from Release 6.
Consequences if not approved: ⌘	Unfulfilled and lonely requirements will remain.

Clauses affected: ⌘	1, 2, 3.1, 5, 6.7, 7.7, 10.

	Y	N		
Other specs ⌘		X	Other core specifications ⌘	
Affected:		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.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://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.

Foreword

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

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x   the first digit:

1   presented to TSG for information;

2   presented to TSG for approval;

3   or greater indicates TSG approved document under change control.

y   the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z   the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

In today's world there are many different types of messaging services available both in the wired and wireless worlds. Some messaging services are supported in both environments; others are only to be found in one. The expectations of the services differ in that some are designed to be used in what is perceived as 'real' time, whereas others are designed as a 'mailbox' service where the message is stored ready for collection or delivery at a later stage.

The 3GPP Technical Report TR22.940 identifies the issues and needs surrounding messaging solutions related to the 3GPP IP Multimedia Subsystem (IMS) taking into consideration use cases that illustrate the needs of both service providers and users. This Technical Specification takes the Technical Report into account when defining the requirements for the support of IMS Messaging.

IMS Messaging services incorporates one or more of the following messaging types Immediate messaging, ~~Deferred delivery messaging,~~ and Session based messaging. With Immediate messaging the sender expects immediate message delivery in what is perceived as real time ~~compared with Deferred messaging where the sender expects the network to deliver the message as soon as the recipient becomes available~~. With Session based messaging a communications association is established between two or more users before communication can take place. In the simplest form Session based messaging maybe a direct communication between two users. This specification defines the requirements for both the Immediate message type and the Session based message type.

The specification provides the ability to develop interoperable messaging services that use Immediate and/or Session based message types.

1 Scope

The present document specifies the stage one description of the IMS Messaging services. Stage one is an overall service description and defines service requirements, primarily from the subscriber's and service providers' points of view, and does not deal with the details of the human interface itself.

The present TS includes information applicable to network operators, service providers and terminal, switch and database manufacturers.

The present TS contains the requirements for IMS Messaging services, which are sufficient to provide a complete service. The messaging types identified in this document are: immediate messaging, and session based messaging. and deferred delivery messaging.
However, the requirements for the "deferred delivery messaging" type of IMS messaging are considered to be same as for the Multimedia Messaging Service (MMS) as described in TS 22.140 [2]. Therefore the present TS references TS 22.140 [2] for a description of requirements of the "deferred delivery messaging" type of IMS messaging.

It is highly desirable that technical solutions for IMS Messaging services should be sufficiently flexible to allow for possible enhancements. Additional functionalities not documented in this 3GPP TS may implement requirements which are considered outside the scope of this 3GPP TS. Such additional functionality shall not compromise conformance to the core requirements of the service.

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, edition number, version number, etc.) or non-specific.

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

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1]   3GPP TS 22.140: 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Stage 1, Multimedia messaging serviceVoid

[2]   3GPP TS 22.250: 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Stage 1, IMS Group Management

[3]   RFC 2486: "The Network Access Identifier"

[4]   3GPP TS 21.133; 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3G Security; Security Threats and Requirements

[5]   3GPP TS 26.140; 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Multimedia Messaging Service (MMS); Media formats and codecs

[6]   3GPP TS 26.234: "End-to-end transparent streaming Service (PSS); Protocols and Codecs".

[7]   3GPP TS 22.228; 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Service requirements for the Internet Protocol (IP) multimedia core network subsystem; Stage 1

[8]   3GPP TS 26.244: "Transparent end-to-end packet switched streaming service (PSS); 3GPP file format (3GP)";

[9]   3GPP TS 26.245: "Transparent end-to-end packet switched streaming service (PSS); Timed text format".

3 Definitions, symbols and abbreviations

3.1 Definitions

~~Deferred delivery messaging: A type of IMS Messaging service by which the sender expects the network to deliver the message as soon as the recipient becomes available~~

Immediate messaging: A type of IMS Messaging service by which the sender expects immediate message delivery in (near) real time fashion

IMS Messaging services: A group of services, supported by capabilities of the 3GPP IP Multimedia Subsystem 3GPP TS 22.228 [7], that allows an IMS user to send and receive messages to other users. IMS messaging services comprise of one or more types: Immediate messaging and~~,~~ Session based messaging ~~and Deferred delivery messaging~~.

Session based messaging: A type of IMS Messaging service by which the sender expects immediate message delivery in (near) real time fashion . In addition the sender(s) and the receiver(s) have to join to a messaging session e.g. chat room, before message exchange can take place

3.2 Abbreviations

IP	Internet Protocol
IMS	IP Multimedia Subsystem

**** Next Change ****

5 Informative description of messaging types

Messaging can be divided to two different main classes based on the expectation of the sender. The sender either expects the message to be delivered immediately or he does not care so much whether the message is delivered immediately or later. ~~In the latter (deferred delivery messaging) case, the sender assumes that message will be delivered to the recipient and network utilize store- and-forward capabilities to provide higher probability of reliable delivery or to support delivery time definitions set by the sender.~~

The immediate case can be further divided to two different sub-classes based on the actions required form the user before he can engage in a communication. The user can both send and receive messages without any prior actions or he may be required to join to a messaging session before the message exchange can take place.

The messaging types considered in this specification are

- **Immediate messaging**:

    Typically, sender is aware of the availability of the recipient(s) (possibly through the use of the Presence service) before sending this type of message as, if the recipient is not available, the message may be discarded or deferred. An immediate message may be deferred by the recipient's network based on the message filtering settings defined by the recipient or by the recipient's IMS service provider.

- **Session based messaging**:

    The sender and recipient expect near real time message delivery. Typically, recipients of the session based messaging that are not joined to a group or are not available will not receive the messages. Typically, a sender may send a message to all participants in the messaging session without addressing them individually.

- ~~**Deferred delivery messaging**:~~

    ~~The requirements for the deferred delivery messaging types are described in 3GPP TS 22.140 [1].~~

6.7 Message Filtering

It shall be possible for a subscriber to set up, modify, and delete filters in the network of the subscriber's IMS service provider, in order to control the treatment of a message by the network when an immediate message is received when the subscriber is either unavailable or when the subscriber does not currently want to receive messages. The filters shall also support the ability of the subscriber to specify the maximum size and type of message content etc that they are or are not willing to accept. The filters shall also support the ability of the subscriber to block (and unblock) messages from specific senders or anonymous senders.

Following specific requirements define the message filtering capabilities of the recipient.

  a) It shall be possible to define specific message treatment based on following criteria

  1) sender address (including anonymous senders);

  2) message size;

  3) message class (e.g. advertisement, private….);

  4) message priority;

  5) message content type (e.g. video, audio….);

  6) message content format (e.g. mpeg, jpeg….);

  7) message type (e.g. immediate message, deferred delivery message);

  8) message subject;

  9) availability of the recipient; and

  10) additional criteria maybe possible but are outside the scope of this document..

  b) It shall be possible to specify the following message treatments in a filter:

  1) Block the delivery of the message content.

  2) Store the message content and notify recipient.

  3) Store the message content for a specific time or until the recipient requests delivery.

  4) Store and push the message content to recipient when available.

  5) Redirect the message to another address.

  6) Additional treatments maybe possible but are outside the scope of this document.

The IMS service provider shall also be able to set and control the filter settings either on behalf of the subscriber or based on policy.

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   5) Redirect the message to another address.6)   Additional treatments maybe possible but are outside the scope of this document.

The IMS service provider shall also be able to set and control the filter settings either on behalf of the subscriber or based on policy.

10 Charging

Charging for IMS Messaging shall be based on existing IMS charging mechanisms as appropriate.

IMS Messaging shall be able to support various charging models, including:

  a) sender only pays;

  b) both sender and recipient pay their respective charges for message delivery; and

  c) recipient pays.; and

  d) sender pays for reply message on a per message basis in deferred delivery messaging type.

IMS Messaging shall be able to support different charging approaches:

  a) volume based charging;

  b) QoS based charging;

  c) service based charging;

  d) number of messages sent and/or received; and

  e) offline charging or/and online charging.

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

  a) message content type and length;
     Message content type should be declared using a standardised declaration [the note may need to be moved to a different section e.g. message filtering].

  b) roaming conditions;

  c) indication of charging;
     It is indicated to the recipient prior to the recipient downloading a deferred delivery message whether the sender or the recipient is expected to pay for the message.

  cd) prepaid subscriptions;

  de) time when the message is sent;

  ef) time when the message is delivered;
      [FFS, "delivered" could indicate message stored, message read, message received by the terminal and so on…]

  fg) message origin and destination;

  gh) access network employed; and

  hi) the charging information shall describe the amount of data sent and received to and from the external data network [Note: this is introduced to take into account the network(s) transited by message].