

ETSI TS 132 235 V5.5.0 (2005-09)

Technical Specification

**Universal Mobile Telecommunications System (UMTS);
Telecommunication management;
Charging management;
Charging data description for application services
(3GPP TS 32.235 version 5.5.0 Release 5)**



Reference

RTS/TSGS-0532235v550

Keywords

UMTS

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2005.
All rights reserved.

DECT™, PLUGTESTS™ and UMTS™ are Trade Marks of ETSI registered for the benefit of its Members.
TIPHON™ and the TIPHON logo are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://webapp.etsi.org/IPR/home.asp>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

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

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

Contents

Intellectual Property Rights	2
Foreword.....	2
Foreword.....	6
1 Scope	7
2 References	8
3 Definitions and abbreviations.....	9
3.1 Definitions	9
3.2 Abbreviations	9
4 Message Flow and CDR Definitions	10
4.1 Basic MMS Message Flow.....	10
4.1.1 Originator and Recipient MMS Relay Server are the same	10
4.1.2 Originator and Recipient MMS Relay Server are not the same	11
4.2 Record Description.....	12
4.2.1 MMS records for originator MMS Relay/Server	12
4.2.1.1 Originator MM1 Submission CDR	12
4.2.1.2 Originator MM4 Forward Request CDR (O4FRq-CDR).....	13
4.2.1.3 Originator MM4 Forward Response CDR (O4FRs-CDR).....	15
4.2.1.4 Originator MM4 Delivery report CDR (O4D-CDR).....	15
4.2.1.5 Originator MM1 Delivery report CDR (O1D-CDR).....	16
4.2.1.6 Originator MM4 Read reply report CDR (O4R-CDR)	16
4.2.1.7 Originator MM1 Read reply originator CDR (O1R-CDR)	17
4.2.1.8 Originator MM Deletion CDR (OMD-CDR).....	18
4.2.2 MMS records for recipient MMS Relay/server	19
4.2.2.1 Recipient MM4 Forward CDR (R4F-CDR).....	19
4.2.2.2 Recipient MM1 Notification Request CDR (R1NRq-CDR)	20
4.2.2.3 Recipient MM1 Notification Response CDR (R1NRs-CDR).....	21
4.2.2.4 Recipient MM1 Retrieve CDR (R1Rt-CDR)	22
4.2.2.5 Acknowledgement CDR (R1A-CDR).....	23
4.2.2.6 Recipient MM4 Delivery report Request CDR (R4DRq-CDR).....	23
4.2.2.7 Recipient MM4 Delivery report Response CDR (R4DRs-CDR).....	24
4.2.2.8 Recipient MM1 Read reply Recipient CDR (R1RR-CDR).....	24
4.2.2.9 Recipient MM4 Read reply report Request CDR (R4RRq-CDR)	25
4.2.2.10 Recipient MM4 Read reply report Response CDR (R4RRs-CDR).....	25
4.2.2.11 Recipient MM Deletion CDR (RMD-CDR)	26
4.2.3 MMS records for forwarding MMS Relay/Server	27
4.2.3.1 Forwarding CDR.....	27
4.2.4 Service records for MMS Relay/Server supporting MMBboxes.....	28
4.2.4.1 MMBbox MM1 Store CDR (Bx1S-CDR)	28
4.2.4.2 MMBbox MM1 View CDR (Bx1V-CDR)	29
4.2.4.3 MMBbox MM1 Upload CDR (Bx1U-CDR)	30
4.2.4.4 MMBbox MM1 Delete CDR (Bx1D-CDR)	31
4.2.5 MMS records for MMS VAS applications.....	31
4.2.5.1 MM7 Submission CDR (MM7S-CDR)	31
4.2.5.2 MM7 Deliver Request CDR (MM7DRq-CDR)	33
4.2.5.3 MM7 Deliver Response CDR (MM7DRs-CDR).....	33
4.2.5.4 MM7 Cancel CDR (MM7C-CDR)	34
4.2.5.5 MM7 Replace CDR (MM7R-CDR).....	34
4.2.5.6 MM7 Delivery Report Request CDR (MM7DRRq-CDR).....	35
4.2.5.7 MM7 Delivery Report Response CDR (MM7DRRs-CDR).....	35
4.2.5.8 MM7 Read reply report Request CDR (MM7RRq-CDR)	36
4.2.5.9 MM7 Read reply report Response CDR (MM7RRs-CDR)	36
5 Parameter Description	37
5.1 3GPP MMS Version.....	37

5.2	Access Correlation	37
5.3	Acknowledgement Request	37
5.4	Adapted MM Content.....	37
5.5	Attributes List.....	37
5.6	Charge Information	37
5.7	Content Type	38
5.8	Delivery Report Requested.....	38
5.9	Duration of Transmission	38
5.10	Earliest Time of Delivery	38
5.11	Forward Counter	38
5.12	Forwarding Address	38
5.13	Forwarding MMS Relay/Server Address	38
5.14	Limit.....	38
5.15	Linked ID	38
5.16	Local Record Sequence Number	39
5.17	Managing Address.....	39
5.18	Message Class	39
5.19	Message Distribution Indicator	39
5.20	Message ID.....	39
5.21	Message Reference.....	39
5.22	Message selection.....	39
5.23	Message Size	39
5.24	MMBox Storage Information	39
5.25	MM component list	40
5.26	MM Date and Time	40
5.27	MM Listing	40
5.28	MM Status Code.....	40
5.29	Original MM Content.....	40
5.30	Originator Address	40
5.31	Originator MMS Relay/Server Address	41
5.32	Priority.....	41
5.33	Quotas	41
5.34	Quotas requested	41
5.35	Read Reply Requested.....	41
5.36	Read Status	41
5.37	Recipient Address.....	41
5.38	Recipient MMS Relay/Server Address.....	41
5.39	Recipients Address List.....	41
5.40	Record Extensions	41
5.41	Record Time Stamp.....	41
5.42	Record Type	41
5.43	Reply Charging	42
5.44	Reply Charging ID	42
5.45	Reply Charging Size.....	42
5.46	Reply Deadline	42
5.47	Report allowed	42
5.48	Request Status code.....	42
5.49	Sender Address.....	42
5.50	Sender Visibility.....	43
5.51	Service code	43
5.52	Serving network identity	43
5.53	Start	43
5.54	Status Text.....	43
5.55	Submission Time.....	43
5.56	Time of Expiry	43
5.57	Totals.....	43
5.58	Totals requested.....	43
5.59	Upload Time.....	43
5.60	VAS ID.....	44
5.61	VASP ID	44
6	Charging Data Record Structure	45

6.1 ASN.1 definitions for CDR information45

7 Charging Data Record Transfer57

Annex A (informative): Change history58

History59

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.

1 Scope

The present document is part of a series of documents specifying charging functionality in UMTS network with application services. The UMTS core network charging principles are specified in document TS 32.200 [2], which provides an umbrella for other charging documents that specify the structure and content of the CDRs and the interface protocol that is used to transfer them to the collecting node. The document structure is defined in figure 1. The CDR content and transport for application services are described in the present document especially for MMS. As the basis and reference for this work is taken the functional description of the MMS specified for stage 1 in TS 22.140[3] and stage 2 in TS 23.140 [4].

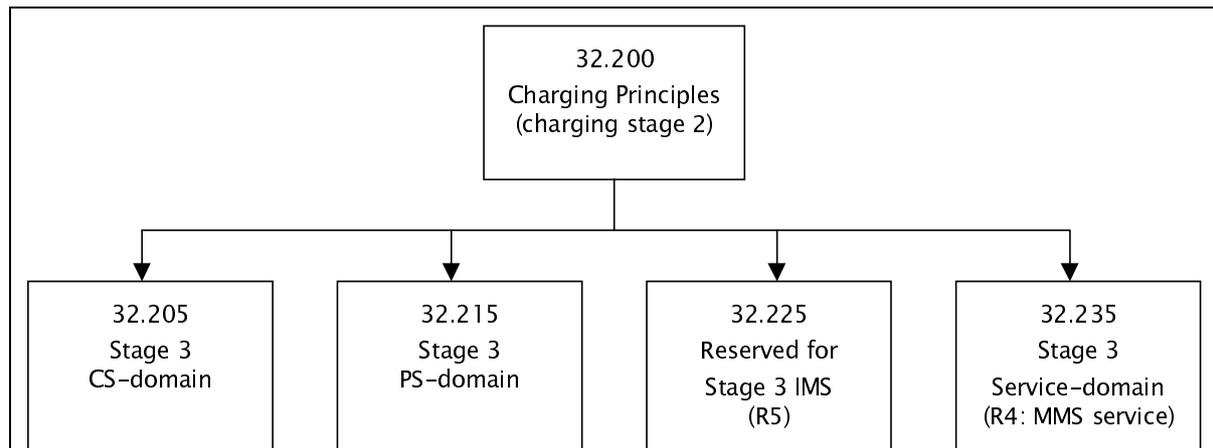


Figure 1 Charging Document Structure

All references, abbreviations, definitions, descriptions, principles and requirements that are common are defined in the 3GPP Vocabulary [1] and specialised to charging in UMTS domains or subsystems are provided in the umbrella document [2].