ETSI TS 132 253 V14.0.0 (2017-04)

Universal Mobile Telecommunications System (UMTS);
LTE;
Digital cellular telecommunications system (Phase 2+) (GSM);
Telecommunication management;
Charging management;
Control Plane (CP) data transfer domain charging
(3GPP TS 32.253 version 14.0.0 Release 14)

Reference
RTS/TSGS-0532253ve00

Keywords
GSM,LTE,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

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 (https://ipr.etsi.org/).

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.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Contents

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 that specify charging functionality and charging management in GSM/UMTS/LTE networks. The GSM/UMTS/LTE core network charging architecture and principles are specified in TS 32.240 [1], which provides an umbrella for other charging management TSs that specify:

- the content of the CDRs per domain / subsystem / service (offline charging);
- the content of real-time charging messages per domain / subsystem / service (online charging);
- the functionality of online and offline charging for those domains / subsystems / services;
- the interfaces that are used in the charging framework to transfer the charging information (i.e. CDRs or charging events).

The complete document structure for these TSs is defined in TS 32.240 [1].

The present document specifies the offline and online charging description for Control Plane (CP) data transfer domain, based on the functional stage 2 description in TS 23.682 [243] for Non-IP Data Delivery (NIDD) using SCEF procedures. This charging description includes the offline and online charging architecture and scenarios specific to Control Plane (CP) data transfer domain, as well as the mapping of the common 3GPP charging architecture specified in TS 32.240 [1] onto the Control Plane (CP) data transfer domain. It further specifies the structure and content of the CDRs for offline charging. The present document is related to other 3GPP charging TSs as follows:

- The common 3GPP charging architecture is specified in TS 32.240 [1].
- The parameters, abstract syntax and encoding rules for the CDRs are specified in TS 32.298 [51].
- A transaction based mechanism for the transfer of CDRs within the network is specified in TS 32.295 [54].
- The file based mechanism used to transfer the CDRs from the network to the operator's billing domain (e.g. the billing system or a mediation device) is specified in TS 32.297 [52].
- The 3GPP Diameter application that is used for Control Plane (CP) data transfer domain offline and online charging is specified in TS 32.299 [50].

Control Plane (CP) data transfer is also provided by Short Message Service (SMS), for which charging functionalities are not specified in the present document. SMS charging functionality is defined for Circuit Switched domain in TS 32.250 [10], for Packet Switched domain in TS 32.251 [11] and for SMS Nodes in TS 32.274 [34].

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 32.240: "Telecommunication management; Charging management; Charging architecture and principles".

[2] - [9] Void.

[10] 3GPP TS 32.250: "Telecommunication management; Charging management; Circuit Switched (CS) domain charging".