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Technical Specification

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Telecommunication management;
Charging management;
Charging principles
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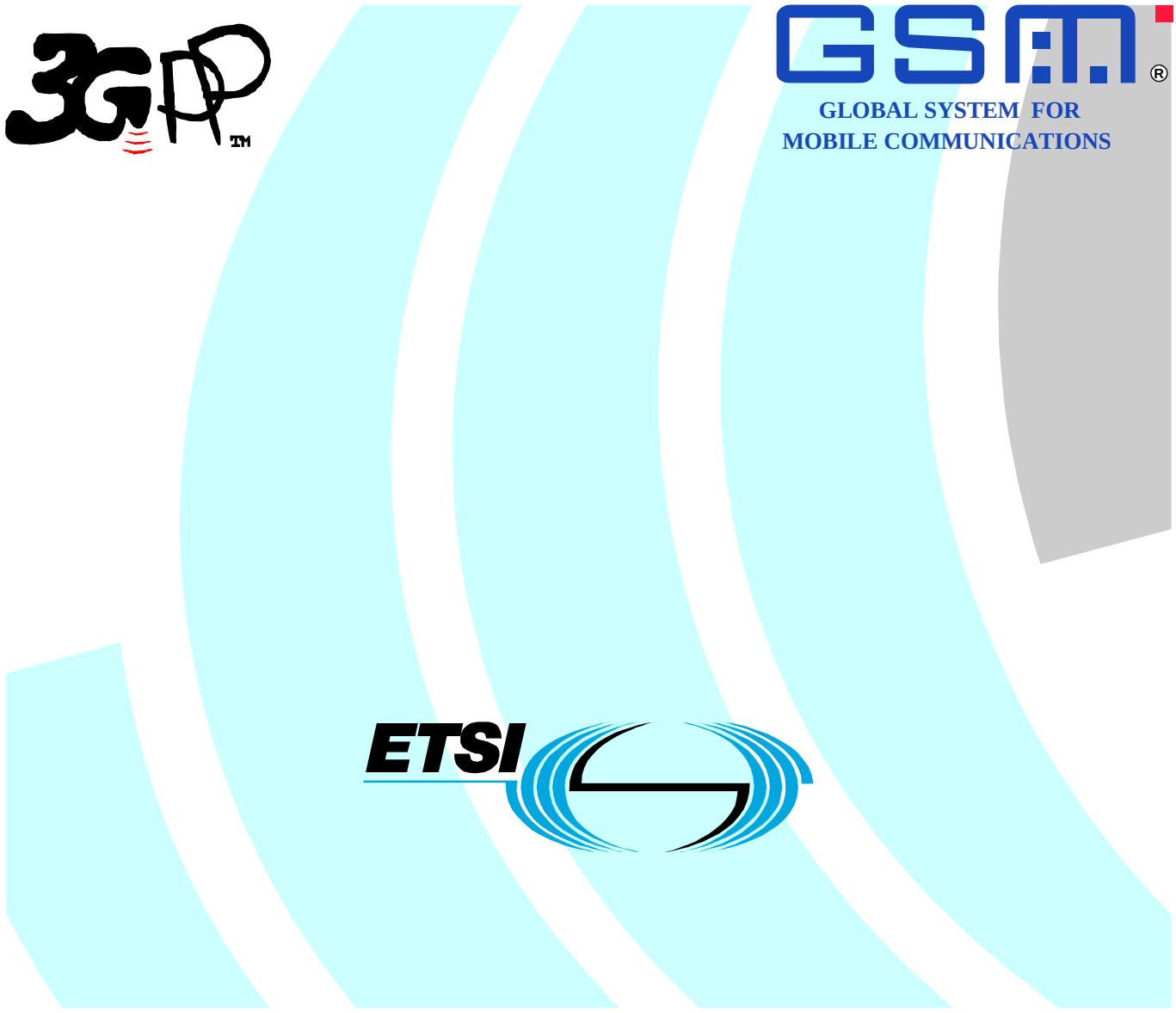

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Contents

Foreword

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Introduction

The present document is part of a set of TSs which describe the requirements and information necessary for the standardised charging of 3G system.

1 Scope

The present document describes the principles of charging and billing for the provision of service and services by a 3G-system.

The present document elaborates on the charging requirements described in the Charging Principles in 3GPP TS 22.101 [1]. It allows the generation of accurate charging information to be used in the commercial and contractual relationships between the parties concerned. The present document is not intended to duplicate existing standards or standards being developed by other groups on these topics, and references these where appropriate.

The Charging Data Records (CDRs) generated by the network elements of the 3G network, are required for a number of telecom management activities including, but not limited to, the following:

- the billing of home subscribers, either directly or via service providers, for network utilisation charges;
- the settlement of accounts for traffic carried or services performed by fixed network operators and other operators;
- the settlement of accounts with other PLMNs for roaming traffic via the transferred account procedure;
- statistical analysis of service usage;
- as archival information in dealing with customer service and billing complaints.

In addition to the information collected from network elements, network management functions are required for the administration of charging data.

The present document is part of a series of documents specifying charging functionality in UMTS networks. The UMTS charging architecture and principles are specified in the present document 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 CDRs used in the Circuit Switched (CS) domain are specified in document3GPP TS 32.205 [5]. The CDRs content and transport within the PS domain are described in3GPP TS 32.215 [6] document, while CDRs used for application services are defined in document3GPP TS 32.235 [17].

The relationship among these charging specifications is illustrated in figure 1.1.

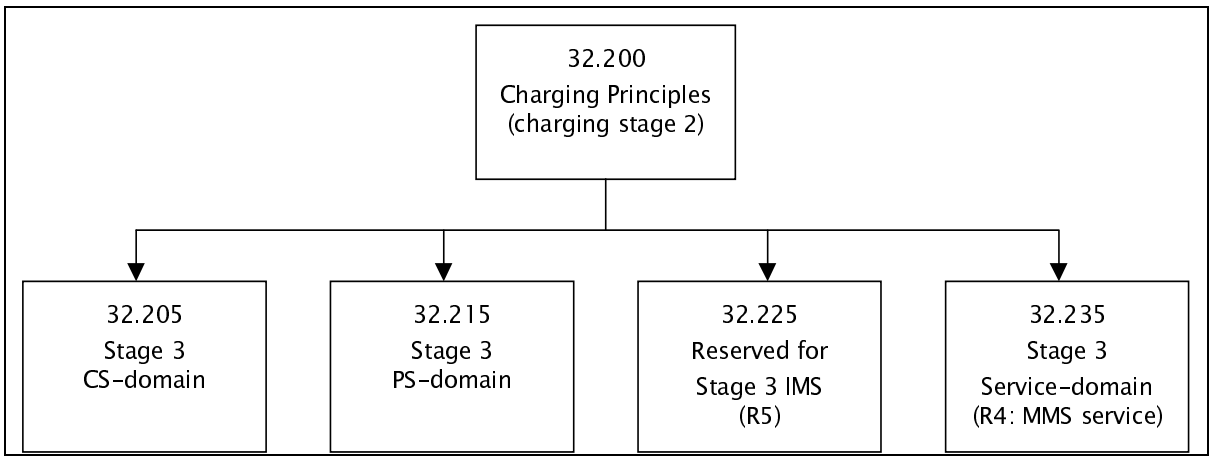

Figure 1.1: Charging Documents Structure

For the purpose of the present document, the charging data is considered to be generated and collected by charging functions in the network elements.

Charging data fields are collected and CDRs generated by the network elements for transfer to the billing system. For the packet switched domain, the CDRs are first sent to the Charging Gateway Function (CGF) for storage and further processing. The CGF may be a distinct network element or may be integrated into the packet domain network elements themselves.