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**Source:** SA5 (Telecom Management)  
**Title:** Proposal on NEW structure and content of the Charging TSs 32.2xx Rel-6  
**Document for:** Decision  
**Agenda Item:** 7.5.3

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SA5 agreed to the Siemens/T-Mobile proposal to discontinue the existing SA5 Charging Management Rel-5 TSs (32.200, 32.205, 32.215, 32.225, 32.235) and replace them in Rel-6 by a new TS-family.

**Reason:** with the advent of new TSs for on-line and off-line charging in the bearer and service levels in Rel-6 (e.g. WLAN, Push, Presence, LCS, Streaming) the problem of overlap, referencing and duplication (which exists to a lesser extent in the Rel-5 TSs) would be severely aggravated, yielding a set of TSs that would be very difficult to read, understand and implement correctly if the new structure were not adopted.

**Requests to SA:**

- to agree the new structure of the Rel-6 Charging TSs as per the following proposal.
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**3GPP TSG-SA5 (Telecom Management)  
Meeting #33, Phoenix, USA, 24-28 February 2003**

**S5-034146**

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**Source:** Siemens/T-Mobile  
**Title:** Proposal on structure and content of the Charging TSs 32.2xx Rel-6  
**Document for:** Discussion and Approval  
**Agenda Item:**  
**Work Item:** CH  
**WT addressed** all  
**Specs involved:** TS 32.2xx

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## 1. Introduction

The charging specifications in Rel-5 are divided into two main types:

- the general architecture and charging principles description, and
- the charging data description for CS, PS, IMS and MMS.

The specification of the data description for CS, PS and MMS itself is a collection of the charging data records including the detailed parameter description and the encoding rules for the record structure, the record parameters and the FTP transport parameters. In addition, the specification for IMS includes the detailed accounting and credit control application parameter description based on Diameter. Therefore these specifications contain a mixed online and offline charging descriptions including technical rules. As the consequence some technical overlap, mutual cross-references and duplicate definitions occur and cause some misinterpretations.

## 2. Proposal

First of all, the charging TS set for Rel-6 should be structured in the same way as the and the SWG-B BBs and the RGs,

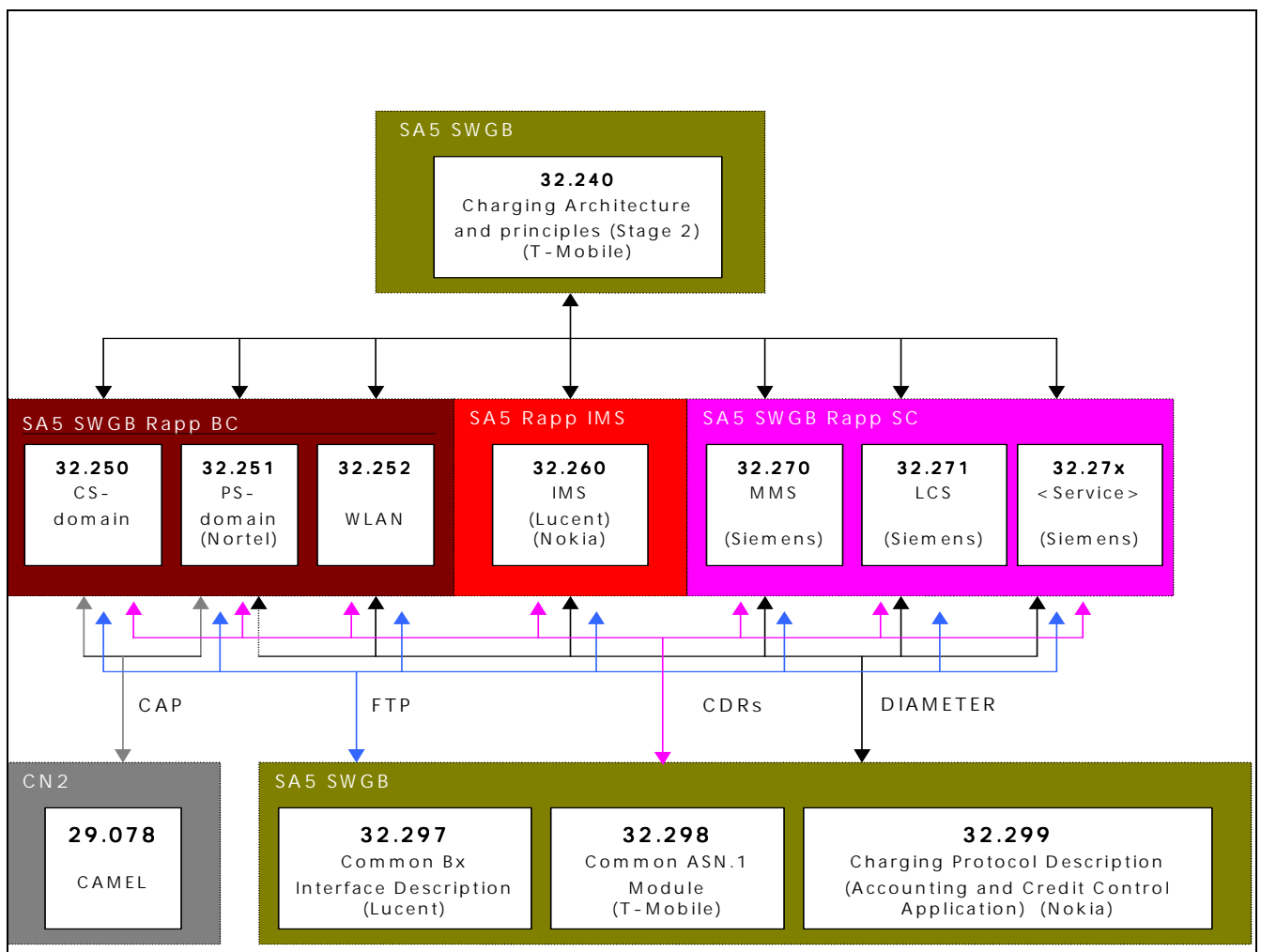
i.e. by bearer, session (IMS) and service levels. Secondly, for the work program proposed in Rel-6, new interfaces and CDR definitions should be introduced in addition to the existing specifications. Because the new online and offline charging descriptions should be consistent with the existing specifications, a common description that is applicable for all charging levels should be specified.

Two examples:

- the usage of the Diameter based Online Charging protocol Ro, as specified for IMS in Rel-5, is also proposed for MMS, WLAN and for the PS domain. Therefore a new technical specification should contain the common Accounting and Credit Control Application (ideally aligned with corresponding IETF work) which shall be used by all applicable nodes involved in bearer, IMS and service charging
- for the bulk transfer of CDRs to the billing system a common Bx interface for all domains and services is proposed. This interface should be combined with a unique ASN.1 object model in a new technical specification. The existing ASN.1 definitions from the Rel-5 specifications will be maintained, and the new ASN.1 definitions for WLAN, LCS and other new CDR types will be added in the new unique ASN.1 model.

The generation of these new specifications on the basis of the existing ones would be very awkward, and the result very inconsistent, if we were to try to achieve this goal while maintaining the existing set of TSs. There will be major changes necessary to all of them, e.g. removing of the ASN.1 part or Diameter description, therefore a new set of TS with a new numbering scheme, reflecting the new “spirit”, is proposed. It is important to note that overall, all of the content of the existing TSs will continue to exist and nothing will be lost, as backward compatibility with the older release is an ultimate requirement.

The following figure illustrates the proposed document structure and the responsibility, in terms of SWG-B RGs / plenary, for each of the specifications. An overview of the new location of the content of the exiting TSs is also presented.



\* to be confirmed by SA5#33bis.

**NOTE:** In the figure above the editors were assigned for the new specifications. The brackets imply a secondary priority, meaning that this will be handled at lower priority than the primary assignment.

The following list regarding the transfer from the chapters of the existing Rel-5 charging specifications to the proposed new ones should give an overview about the requested actions. The new TSs (WLAN in the bearer level, LCS and other new services in the service level) will be aligned accordingly.

TS 32.200: main part -> TS 32.240

Chapter 5.2 Collection of Charging Data Record -> TS 32.250

Chapter 6.2 Charging Data Collection -> TS 32.251

TS 32.205: main part -> TS 32.250

Chapter 7 Charging Data Record Transfer -> TS 32.297

Chapter 6 Charging Data Record Structure -> TS 32.298

TS 32.215: main part -> TS 32.251

Chapter 7.6 CGF - BS Protocol Interface -> TS 32.297

Chapter 6 Charging Data Record Structure -> TS 32.298

TS 32.225: main part -> TS 32.260

Chapter 5.2.5 Bi interface Conventions -> TS 32.297

Chapter 5.2.6 Abstract Syntax Description -> TS 32.298

Chapter 7 AVPs Used for Offline and Online Charging -> TS 32.299

TS 32.235: main part -> TS 32.270

Chapter 7 Charging Data Record Transfer -> TS 32.297

Chapter 6 Charging Data Record Structure -> TS 32.298