
Source: SA5 (Telecom Management)
Title: Draft Revised SP-020729 Rel-6 Feature WID on Charging Management
Document for: Approval
Agenda Item: 7.5.3

3GPP TSG-SA5 (Telecom Management)
Meeting #33, Phoenix, USA, 24-28 February 2003

S5-034147

Source: SA5 SWGB
Title: Work Item Description: [Charging Management] WI type: [Feature]
Document for: Decision
Agenda Item: 5.2

~~Technical Specification Group Services and System Aspects~~ **TSGS#18(02)0729**
~~Meeting #18, New Orleans, USA, 9-12 December 2002~~

~~**Source:** SA5 (Telecom Management)~~
~~**Title:** Rel-6 Feature WID: Charging Management~~
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Work Item Description

Title: Charging Management (Feature: CH)

1 3GPP Work Area

X	Radio Access
X	Core Network
X	Services
	Terminals

2 Linked work items

- (2499) Support of Presence Capability (SA1 Feature)
- (31028) Presence Service Enhancements (SA1 Feature)
- (31015) Priority Service (SA1 Feature)
- (32021) IMS Phase 2 (SA1 Feature)
- (15010) Rel 6 OSA Enhancements (SA1 Feature)
- (31012) WLAN-UMTS Inter-working (SA1 Feature)
- (2544) Multimedia Broadcast and Multicast Service (SA1 Feature)
- (32023) Location Services enhancements 2 (SA2 Feature)
- (2047) Interworking between IMS and CS networks (CN3 Feature)

- (32005) IMS Local services (SA2 Feature)
 - (31022) IMS Messaging (SA1 Feature)
 - (31025) IMS Group Management (SA1 Feature)
 - (1365) Support of Push Services (SA1 Feature)
 - (34001) Extended Transparent End-to-End PS Streaming Service (SA4 Feature)
 - (1826) MMS Enhancements (T2 Feature)
 - (31018) Network Sharing (SA1 Feature)
 - (35013) User Equipment Management (SA5 BB)
 - [\(31008\) Generic User Profile \(SA1 Feature\)](#)
 - [\(2062\) Subscription Management \(SA5 Feature\)](#)
 - [\(32030\) Overall Architectural Aspects of IP-Flow-based bearer level charging \(SA2 Feature\)](#)
- Charging Management for Bearer level (SA5 BB)
 - Charging Management for IM Subsystem (SA5 BB)
 - Charging Management for Service domain (SA5 BB)

3 Justification

The 3GPP specifications need to evolve in Rel-6 to allow Charging additions and enhancements. This comprises both the enhancements to existing services and access technologies that are further evolved in other 3GPP WGs, and the provision of charging capabilities for new Rel-6 services and access technologies.

4 Objective

The objective of this work item (Feature) is to continue to lay down the Charging Framework (stage 2 and stage 3 descriptions) for 3GPP Release 6 covering all aspects of Bearer, IMS and Service Charging as required by all other 3GPP Release 6 work items as well as enhancements to the existing framework. Harmonisation of interfaces and protocols across all domains and subsystems is sought. To better reflect the emerging network and service enhancements this work also includes a definition of the future structure of the charging TSs.

5 Service Aspects

Charging enhancements arising from Service Aspects (as defined by SA1) of Rel6.

6 MMI-Aspects

None identified at this time.

7 Charging Aspects

Charging Management - 32.2xx-series

The structure of the SA5.CB charging specifications (TSs) comprises:

- 1) a set of Implementers' Guides (stage3 level descriptions) and
- 2) an "umbrella" specification (TS 32.2400) that applies to all of the Implementers' Guides.
 TS 32.2400 is a tutorial (stage2 level description) to the charging systems to which the stage3 TSs apply and describes charging principles, scenarios, architecture, and requirements.

The Implementers' Guides are specialised according to several ~~criteria. Operating domains is one criterion, while another criterion is the differentiation between offline and online charging.~~ Currently, Implementers' Guides ~~has to be generate~~~~exist~~ for the CS Domain (TS 32.2650), the PS domain (TS 32.2451), the IMS (TS 32.26025), and MMS (TS 32.27035). Further Implementers Guides are foreseen for the new Rel-6 services, i.e. LCS (TS 32.271) and new WLAN access technologiestechnology TS 32.252 -as well as the addition of online charging, both for some existing and the new services and access technologies. The stage2 description for charging, i.e. TS 32.2400, will have to be enhanced and aligned accordingly.

8 Security Aspects

None identified at this time.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes			X (WLAN)	X	
No	X	X			
Don't know					X

WLAN AN may be affected if the AAA server is considered to be part of the AN.

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
32.xxx	Offline charging for domains, subsystems and services	SA5		TSG#20 (06/03)	TSG#21 (09/03)	
32.yyy	Online charging for domains, subsystems and services	SA5		TSG#20 (06/03)	TSG#21 (09/03)	
32.240	Charging Architecture and Principles	SA5		12/2003	03/2004	
32.250	CS domain Charging	SA5		06/2003	03/2004	
32.251	PS domain Charging	SA5		06/2003	03/2004	
32.252	WLAN Charging	SA5		12/2003	03/2004	
32.270	MMS Charging	SA5		06/2003	03/2004	
32.271	LCS charging	SA5		12/2003	03/2004	
32.27x	xxx service Charging	SA5		12/2003	03/2004	
32.297	Billing Domain Interface Description	SA5		06/2003	03/2004	
32.298	Encoding Rules Description	SA5		06/2003	03/2004	
32.299	Charging Protocol Description based on Diameter	SA5		09/2003	03/2004	
Affected existing specifications						
Spec No.	CR	Subject	Approved at plenary#	Comments		
32.200			TSG#21 (09/03)			
32.205			TSG#21 (09/03)			
32.215			TSG#21 (09/03)			
32.225			TSG#21 (09/03)			
32.235			TSG#21 (09/03)			

11 Work item rapporteurs

Karl-Heinz NENNER (SA5 SWGB Chair [karl-heinz.nenner@t-mobile.de])

12 Work item leadership

SA5

13 Supporting Companies

Ericsson, Lucent, Nokia, Nortel Networks, Siemens, T-Mobile, Orange, Telecom Italia, Cingular Wireless, [TeliaSonera](#), [AWS](#), [Amdocs](#).

14 Classification of the WI (if known)

X	Feature (go to 14a)
	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a **Feature**: List of **Building Blocks** under this **Feature**

SP-030048	S5-034149	5.2 SWGB	BB WID	Rel-6 BB (BB1): Charging Management for Bearer level
SP-030049	S5-034164	5.2 SWGB	BB WID	Rel-6 BB (BB2): Charging Management for the IM Subsystem
SP-030050	S5-034163	5.2 SWGB	BB WID	Rel-6 BB (BB3): Charging Management for the Service domain

15 Work Tasks under this Building Block/Feature

See WIDs for the above BB1 – BB3 ([SP-030048/49/50](#))

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The Implementers' Guides are specialised according to several operating domains. Currently, Implementers' Guides has to be generate for the CS Domain (TS 32.250), the PS domain (TS 32.251), the IMS (TS 32.260), and MMS (TS 32.270). Further Implementers Guides are foreseen for the new Rel-6 services, i.e. LCS (TS 32.271) and new WLAN access technology TS 32.252 as well as the addition of online charging, both for some existing and the new services and access technologies. The stage2 description for charging, i.e. TS 32.240, will have to be enhanced and aligned accordingly.

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32.251	PS domain Charging	SA5		06/2003	03/2004	
32.252	WLAN Charging	SA5		12/2003	03/2004	
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32.271	LCS charging	SA5		12/2003	03/2004	
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Spec No.	CR	Subject	Approved at plenary#	Comments		

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See WIDs for the above BB1 – BB3 (SP-030048/49/50)