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Title:	Status Report of SA WG2 (Architecture)
Document for:	Information
Agenda Item:	7.2.1

TSG SA WG2 STATUS REPORT

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1 General Overview of Progress

SA WG2 have held 2 meetings since TSG SA meeting #27. The SA WG2 meeting #45 was held in Beijing, P.R. China from the 4 - 8 April 2005, hosted by Huawei. A joint session with SA WG1 was held during this meeting on All IP Network issues.

The SA WG2 meeting #46 was held in Athens, Greece from the 9 - 13 May 2005, hosted by EF3. A joint meeting with RAN WG2 and RAN WG3 was also held on the afternoon 11 July 2005 on common topics regarding the feasibility studies on "3GPP System Evolution" and "Evolved UTRA and UTRAN".

The meetings were chaired by Mr Magnus Olsson (Ericsson). The secretary was Mr. Maurice Pope (MCC).

2 External Liaisons

The following liaison statements have been sent from SA WG2 to external bodies.

Meeting #45

TD number	Title	Attachments	ТО	CC
S2-050937	LS on exchange of radio capabilities in CSI	TS 23.279 v1.1.0	RAN WG2, GERAN WG2	-
S2-050941	Reply LS on Control of simultaneous	S2-050574 /	SA WG3, CT WG1,	-
	accesses for WLAN 3GPP IP access	S3-050179 (with	CT WG4	
		attached		
		S3-050151)		
S2-050943	Reply LS on Shared Public Identity	-	SA WG5-SWGA	CT WG4
S2-050944	LS reply on service based inter-system	-	CT WG1	SA WG1,
	hand over			GERAN WG2,
				CT WG3
S2-050945	Reply LS on Mandating functionality in	-	SA WG1, SA WG5,	SA WG3
	WLAN ANS		CT WG4	
S2-050946	Reply to LS on MBMS Session Duration	-	GERAN WG2, RAN WG3,	RAN WG2
	IE		CT WG3, CT WG4	
S2-050948	Reply LS on MBMS User Service	-	SA WG4	RAN WG1,
	finalization from SA4			RAN WG2,
				RAN WG3,
				RAN WG4,
				SA WG1,
				SA WG3,
				CT WG1,
				CT WG3
S2-050949	Reply LS on MBMS Session Repetition	-	SA WG4	RAN WG2,
	from SA4			RAN WG3,
				CT WG3,
				CTWG4,
00.050050	Deply I.C. on Llarmonization of CMC/MMC			GERAN WGZ
52-050950	Reply LS on Harmonization of SMS/MMS	TR 23.804 V1.1.0	ETSI TISPAN WG2,	-
S2 050051	Booly LS to OMA LOC on support for			
32-050951	velocity information in the OMA LOC	-		GERAN WG1,
	protocols			PAN WG2
	protocols			RAN WG2,
				CN WG4
\$2-050953	IS on 3rd party registration and shared		CT WG1	-
02-000300	public user identities	_		
S2-050954	LS, Reply to CT1 LS reply on protocol	TS 23.279 v1.1.0	CT WG1	-
	aspects for CSI			
S2-050958	LS on DCC session handling	-	SA WG5, CT WG3	-
S2-050959	LS on GPRS P-CSCF discovery	-	CT WG1, CT WG3	-
	procedure			
S2-050960	LS on Interconnection Models for IMS	TR 23.802 v0.5.0	GSMA IREG Packet,	GSMA IREG,
	networks in an End-to-End QoS context		GSMA IP Interconnection,	
			GSMA IWG/QoSI	
S2-050968	LS on MBMS Bearer Capability use	-	RAN WG2, CT WG1,	RAN WG3
			GERAN WG2	

Meeting #46

TD number	Title	Attachments	ТО	CC
S2-051411	LS on Definition of Public Service	S2-050988	TSG CT, CT WG4	-
S2-051414	Reply LS of Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	S2-051353	SA WG3	SA WG5
S2-051423	LS on Credit Management	-	SA WG5	-
S2-051447	Reply LS (to C4-050879) for clarification of SA2 requirement on Presence	-	CT WG4	TSG CT, SA WG1
S2-051448	LS reply on NAS actions in support of MBMS Reception	-	RAN WG2, CT WG1	SA WG1, RAN WG3, GERAN WG2
S2-051449	LS on enhancement of radio for VoIMS	S2-051445	RAN WG2, RAN WG3	-
e-mail approved :	LS to SA WG4, copied to CT WG1, SA WG1 on Capability exchange	S2-051435 (CSI TS 23.279)	SA WG4	CT WG1, SA WG1
S2-051460				

3 Change Requests for Release 1999

There are no CRs for Release 1999.

4 Change Requests for Rel-4

There are no CRs for Rel-4.

5 Change Requests for Rel-5

There are no CRs for Rel-5.

6 Change Requests for Rel-6

The following Change Requests were agreed for Rel-6 for presentation to TSG SA for approval:

TSG S	ISG SA Document: SP-050332												
S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD				
Mtg							Ver						
45	23.002	0154	-	Rel-6	Missing MBMS Architecture entities	F	6.7.0	MBMS	S2-050588				
Summary of change:				A	dds MBMS to architecture and links to TS 2	3.246							

Consequences if not approved: Inconsistent architecture descriptions across specifications. Clauses affected: 2, 4a.14 (new section), 5.9 (new section), 6a.10 (new section)

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.002	0156	1	Rel-6	Addition of Flow Based Charging architecture	F	6.7.0	CH- FBC	S2-051332

Summary of change:

ge: Descriptions of the charging rules function and of the related reference points (Gx and Rx) are added. The description of the application function and the figure 1 is also updated accordingly. References to relevant stage 2 specifications are added for flow based charging and service based local policy.

Consequences if not approved: The 3GPP architecture is not completely described in TS 23.002. Clauses affected: 2, 4a.11, 4a.14, 5.1, 6a.8, 6a.10

TSG SA Document:					SP-050333					
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
46	23.060	0527	2	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	TEI6	S2-051274	
Summary of change:					The text describing the relation of PDP conte a TFT is not always associated with a PDP c context activation. Some sentences are reph	exts an context rased	d TFT: during or mov	s is mo a sec ved to i	odified to clari ondary PDP mprove the	fy that

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understanding of the functionality related to the TFT.

Consequences if not approved: Contradicting statements in stage 2 and 3 may lead to wrong implementations, e.g. a GGSN could reject an Activate Secondary PDP context Request without TFT IE due to the statement in the second paragraph that a TFT is always associated with a PDP context during the Secondary PDP Context Activation procedure. 15.3

Clauses affected:

TSG S	SA Doci	iment:			SP-050334					
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
45	23.107	0154	2	Rel-6	RAB Allocation/Retention Priority	F	6.2.0	TEI6	S2-050727	
Summ	equence	hange: s if not	арр	roved:	The value range of the RAB attribute ARP is from GERAN when the Gb Bearer Service is bearer service attributes to the RAB ARP be specifying mandatory and optional rules for F the mandatory attributes for CS services are While for PS services three highest RAB prior and mostly lower RAB priorities are selected congestion, CS services could not be setup of normal PS services. TS 23.107 would not be 15 values. Moreover, with only 3 RAB ARP v possible to take into account number of case domain.	extend used. arer se S and also a orities a . Cons or coul aligne values es such	ded to The m rvice a CS do dded. are use equen d be e ed to T at lu in as en	15 pos apping attribut omains ed, for tly, und ven pro S 25.4 iterface nergen	sible values a g from UMTS e is described s. References CS services r der network e-empted by 13 which allo e it would not cy calls in the	apa d by for more ws f be e CS
Claus	es affect	ed:			2, 6.4.4.1, 6.5.2, 8.2					
S2 Mto	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD	

Mtg							Ver			1
45	23.107	0156	1	Rel-6	Addition of GERAN to the scope section	F	6.2.0	TEI6	S2-050911	
Summ	nary of cl	hange:		-	The scope section is updated by clarifying th	at TS 2	23.107	provic	les the frame	work
	•	Ū		á	and the architecture for QoS in the 3GPP Sy	stem.		•		
Conse	quences	s if not	app	roved:	The scope section of TS 23.107 may give the	e impre	ession	that it	does not cove	ər
	-			(QoS aspects for GERAN.	-				
Clause	es affect	ed:								

TSG SA Document: SP-050335

S2 Mta	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD		
45	23.125	0126	2	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	CH- FBC	S2-050930		
Summ	ary of ch	hange:	•		It is proposed to clarify that a bearer service of there was at least a single charging rule insta- charging rule was installed for this bearer ser service establishment. In situations where the successfully established bearer service at an service modification or due to an unsolicited CRF), the TPF may initiate a bearer service to	can be alled fo vice th ere is r y later provisi ermina	only s or this the TPF no cha point i oning of the	success bearer shall r rging ru in time of char	sfully establis service. If no reject the bea ule for a (due to a bea ging rules by	hed if arer arer the	
Conse	quences	s if not	app	roved:	It is possible to activate bearer services that cannot be used for any service because no charging rules will be installed at the TPF. Thus resources would be allocated and thus wasted and the enduser cannot be charged for this behaviour.						
Clause	es affect	ea:			6.2.4, 7.2.1, 7.2.2, 7.3						

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
45	23.125	0127	1	Rel-6	FBC Terminology amendments	F	6.4.0	CH- FBC	S2-050840	
Summ	Summary of change: Remove the abbreviation OCF, introducing the OFCS (Offline Charging Function System)									
Consequences if not approved: The TS 23.060 and TS 23.125 uses different designations for the same enti abbreviation OCF designates an offline charging function, which is in contra to what OCF designates in the TS 32.240.								e same entity is in contrad	. The iction	

Clauses affected:

3, 5.2, 5.8.2, 6.1.2, 6.2.3, 6.2.4, 7.2.1, D.2.1

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
45	23.125	0128	1	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	CH- FBC	S2-050838

Summary of change: Removes change in charging key and adds a note that the protocol may provide more events.

Consequences if not approved: The list of triggers for online charging re-authorisation is not correct Clauses affected: 57

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD		
INIT							ver				
46	23.125	0129	1	Rel-6	OCS initiated bearer removal	F	6.4.0	CH- FBC	S2-051369		
Summ	ary of ch	hange:		ŀ	A new section is added describing the depen	dencie	es betw	veen th	ne FBC		
				f t t	functionality and the related bearer service. The termination actions is deleted. Instead, it to initiate a bearer removal. Finally, a new more removal is added.	The sta is clari essage	itemen fied tha flow f	t abou at the (or a TI	t a dependen OCS shall be PF initiated be	able able earer	
Conse	quences	s if not	арр	roved: ⊺ i f	The TPF functionality is not completely described which could lead to different implementations. Especially it is not clear how the relation between FBC functionality and bearer removal should work.						
Clause	es affect	ed:		Ę	5.6, 5.9, 6.2.2, 6.2.4, 7.4						

TSG S	SA Docu	ument:			SP-050336							
S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD			
Mtg							Ver					
45	23.141	0071	2	Rel-6	Correction of description of PNA indirect control of	F	6.7.0	PRES	S2-050799			
					Presence Information flow			NC				
Summ	Summary of change: The text in 5.2.2.1 and in 5.2.2.2 is changed to indicate that this capability is limited to controlling the sending of Presence Information from network elements that have											
	the Presence Information subscriptions made via the HSS/HLR.											
Conse	consequences if not approved: There is a requirement that the Presence Information flow for all network elements											

ts can be "gated" as a result of communication between the PNA and the HSS/HLR and this is not always possible. 5.2.2.1, 5.2.2.2

Clauses affected:

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD		
46	23.141	0072	-	Rel-6	Alignment with Stage 3	F	6.7.0	PRES NC	S2-051180		
O	Numerican of above and the state of the stat										

Summary of change:

Text added in section 5.1 that the Presence Server shall be able to process partial publications if received from Presence User Agents.

Consequences if not approved: Misalignment between Stage 2 and Stage 3 and inconsistent specifications. Clauses affected: 5.1

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.141	0073	1	Rel-6	Update of references	F	6.7.0	PRES NC	S2-051319

Summary of change: In section 2 about references, [3] for Common Presence and Instant Messaging (CPIM) Internet Draft http://www.ietf.org/internet-drafts/draft-ietf-impp-cpim-pidf-05.txt, May 2002 is replaced by IETF RFC 3863: "Presence Information Data Format", August 2004. In sections 4.3.2, 4.3.3, 4.3.4, 4.3.14 about Pen, Pex, Pw and Pep interfaces, it is added that each interface shall support the transport of presence information under the PIDF format [3] possibly with its extensions. [4] for Presence extensions Internet Draft is replaced by IETF RFC 3856: "A Presence Event Package for the Session Initiation Protocol (SIP)", August 2004. Correction is made in section 5.3.4. [12] for Event Notification Extension for Resource ListsInternet-Draft is replaced by the current version, http://search.ietf.org/internetdrafts/draft-ietf-simple-event-list-07.txt March 2005.

Consequences if not approved: Wrong reference, inconsistency with stage 3 (TS 24.141 section 2 [21] and [27]) Incomplete specifications of Pen, Pex, Pw and Pep interfaces.

Clauses affected:

~ . ~ ~	100	404	4044	
	1 3 3	1 3 1	/ 3 1/	6 3 /
Z. 4.J.Z.	4.0.0.	4.0.4.	4.0.14.	0.0.4
_,,	,			

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.141	0074	1	Rel-6	Location of Presence entities	F	6.7.0	PRES NC	S2-051320

Summary of change:

It is clarified: in section 4.3.2 that the Pen interface is intra operator; in section 4.3.7 that the Px interface is intra operator; in section 4.3.15 that the Pwp interface is intra operator; in section 5.2.1 that the Network based Presence User Agent is in the presentity's home network; in section 5.2.2 that the Presence Network Agent is in the presentity's home network.

Consequences if not approved: Unclear specifications Clauses affected:

4.3.2, 4.3.7, 4.3.15, 5.2.1, 5.2.2

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD			
46	23.141	0075	-	Rel-6	Locating the Presence Server	F	6.7.0	PRES NC	S2-051183			
Summ	ary of ch	nange:			The access to the presence server from the when a Watcher application intends to access presentity, it first needs to contact its Watcher the Presentity Presence Proxy to find the Presention.	watche ss som er Pres esence	er is co le pres ence F Serve	rrectec ence ii Proxy w er conta	t in section 5. nformation of /hich will cont aining this	.3.2: a tact		
Conse	Consequences if not approved: Inconsistency within TS 23.141 with sections 4.2 and 5.3.4: no interface between the watcher application and the Presence Server with sections 5.3.2 and 5.3.3: determination of the address of the Presence server at the presentity proxy.											
Clause	es affect	ed:			5.3.2			-				
00	0	00.4	Des	D.L	Out is at	0-1	0	14/1		1		

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD
Mtg							Ver		
46	23.141	0076	1	Rel-6	UE based PUA/Network based PUA	F	6.7.0	PRES NC	S2-051321
<u></u>				١.			A 1		ما ، ! فام فام م

Summary of change: In section 5.2.1 figures 5.2.1-1 and 5.2.1-2, the PUA is interfaced with the Presentity Presence Proxy via Pep and with the PS via Peu. A figure 5.2.1-3 is added to show the PUA in IMS architecture. In section 5.3.4 figure 5.3.4-1, the P-CSCF is added in the Presentity Presence Proxy as well as its Pep=Gm interface with the UE based PUA, its Pep interface with the Network based PUA. Consequences if not approved: Incorrect (section 5.2.1) and incomplete (section 5.3.4) specifications

Clauses affected: 5.2.1, 5.3.4

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD			
Mtg							Ver					
46	23.141	0077	1	Rel-6	Modification about reference link in 24.141	F	6.7.0	PRES NC	S2-051318			
Summ	Summary of change: Delete Invalid reference link about Pr ref. point in section 4.3.12											
Conse	Consequences if not approved: Invalid reference link may be confusing											

Clauses affected: 4.3.12

TSG S	SA Docu	iment:			SP-050337							
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD			
46	23.207	0087	-	Rel-6	Update of binding information handling	F	6.4.0	TEI-6	S2-051275			
Summ	ary of cl	hange:			A sentence about the limitation is deleted. In sections that one or more sets of the binding for the same PDP context. The reference to the interface is updated.	stead, inform the sta	it is cla nation r ge 3 s	arified may ha pecific	in the relevant ave to be hand ation for the G	t dled 3q		
Conse	quences	s if not	арр	roved:	Contradicting statements in stage 2 and stage 3 specifications may lead to incorrect implementations.							
Clause	es affect	ed:			2, 5.2.1, 5.2.2, 5.3.2, 6.2							

TSG SA Document: SP-050338

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD
Mtg							Ver		
45	23.228	0483	1	Rel-6	Alignment of Session-based Messaging flows with	F	6.9.0	IMS2	S2-050918
					stage 3				
Summ	nary of ch	nange:		A	Aligns stage 2 Session-based messaging flow	ws with	n those	e in TS	24.247.
Conse	quences	s if not	app	roved: C	Confusion between stage 2 and stage 3 poss	sibly le	ading	to inter	operability
				р	problems in implementations				
Claus	es affect	ed:		5	.16.2.2.3				

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
45	23.228	0490	1	Rel-6	On AS forking	F	6.9.0	IMS2	S2-050919

The existing text in 4.2.7.2 is enhanced to clarify that an AS shall not use the UE's Summary of change: contact address(es) but the UE's public user ids to fork requests towards the S-CSCF. Forking of requests to the contact address(es) of an user should be done by the S-CSCF. Consequences if not approved: Existing text may be misunderstood and lead to incorrect AS and S-CSCF implementations. Clauses affected: 4.2.7.2

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	wi	SA WG2 TD
Mtg	•			1			Ver		
46	23.228	0491	-	Rel-6	Corrections to wildcarded PSIs	F	6.9.0	IMS2	S2-050988

Summary of change: Remove overlap with 3GPP TS 23.003. Also, a few grammatical improvements to the text have been made, as well as implementation of correct 3GPP terminology. Consequences if not approved: PSIs will be defined twice in the 3GPP specification set. This is bad as it will inevitably at some point in the future diverge and 3GPP will have conflicting definitions which lead to non-interoperability of equipment.

Clauses affected:

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.228	0494	3	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	IMS2	S2-051451
O				~		المعادية	المطلام	10	

Summary of change: Clarify how SIP signaling using TEL-URI is routed in the IMS network. Consequences if not approved: Routing of SIP singnalling in the IMS network using TEL URI is missing. Clauses affected: Add a new subclause 4.3.3.3b, 5.6.3

4.3.6, 5.4.12

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD		
46	23.228	0496	1	Rel-6	Session setup with media set to inactive	F	6.9.0	PoC	S2-051359		
Sumn	Summary of change: The use of inactive/active is added as a valid option when setting up an IMS session.										
Conse	equences	s if not	арр	roved: 3	I: 3GPP IMS will not contain sufficient enablers to support OMA PoC						
Claus	es affect	ed:		5	5.4a, 5.7.4, 5.7a						

S2 Mtq	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
46	23.228	0497	-	Rel-6	Correction to ENUM resolution for Infrastructure ENUM	F	6.9.0	IMS2	S2-051282	
Summ	ary of ch	nange:		 	Enable the domain name "e164.arpa." to be configurable domain name to enable operato implementations that do not break IETF guid ENUM currently being worked on by GSMA I WG4). Note that it is not for 3GPP to define t for Infrastructure ENUM as this is currently u ETSI TISPAN. Once these groups have mad set this domain name themselves. However, General tidying up of some text has also bee	replace rs to u elines REG E he alte nder d e their they n n done	ed with se priv (such ENUM ernative iscuss decisi eed th e.	an alt vate EN as the TF and top le top le ion in (on, op e funct	ernative, ope NUM Infrastructure d ETSI TISPA evel domain n GSMA IREG a erators can th tionality to do	rator N ame and nen this.
Conse	equences	s if not	арр	roved: (Operators will not be able to follow IETF guid citizens".	lelines	and b	e "resp	onsible IP	

	citize
Clauses affected:	4.3.5

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Clauses affected:
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SP-050339 **TSG SA Document:**

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD
Mtg							ver		
45 23.234 0122 1 Rel-6				Rel-6	Correction to Wn Reference Point	F	6.4.0	WLAN	S2-050859
Summ	nary of cl	hange:		٦ t	Γext added in 6.3.7 to clarify that it is out of s o implement Wn.	cope o	of 3GP	P to sp	becify the met
Consequences if not approved:				roved: S F	Stage 2 specifications will be inconsistent wit Reference Point.	th Stag	je 3 re	garding	g the Wn
Claus	Clauses affected:				5.3.7				

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD
Mtg							Ver		
46	23.234	0124	2	Rel-6	User authentication for tunnel establishement	F	6.4.0	WLAN	S2-051415

Summary of change:

Add explanatory text in section 7.9 to clarify that the WLAN Access Authentication and Authorisation procedure described in step 1 is not always necessary. Consequences if not approved: The relatioship between WLAN Direct access and WLAN 3GPP IP access remains

Clauses affected:

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.234	0125	-	Rel-6	Mandating Immediate Purging	F	6.4.0	WLAN	S2-051086
Summ	Summary of change:			Т	his CR makes the immediate purging of a u	ser fro	m the '	WIAN	AN a mandat

unclear.

7.9

I RIS UK makes the immediate purging of a user from the WLAN AN a mandatory Summary of change: function of WLAN ANs.

Consequences if not approved: The specification will contradict the SA1's and SA2's current understanding. Clauses affected: 6.3.1.2

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
46	23.234	0126	1	Rel-6	Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	F	6.4.0	WLAN	S2-051353	
Summ	ary of ch	nange:			The Diameter/RADIUS accounting start meson WLAN Direct IP Access session instead of E authenication can be allowed, while the frauco sessions can be stopped.	sages AP me I simul	are us essage tanous	ed to d s. In th WLAI	letect start of is way pre- N Direct IP Ac	a ccess
Conse	quences	s if not	арр	roved:	The specification will not be suitable to distin fraud simultanous WLAN Direct IP Access se between TS 23.234 and TS 33.234.	guish l ession:	betwee s. Ther	en pre- e will b	authenticatior be a contradic	n and tion
Clause	es affect	ed:			7.2					

TSG SA Document: SP-050340

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD					
46	23.246	0142	3	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	MBMS	S2-051418					
Summ	Summary of change: Correction to clarify further the existing text about the MBMS feature support indication and additionally to cover registration procedures i.e. normal GPRS attach and combined GPRS attach procedures. Consequences if not approved: The SGSN misses the opportunity to inform the UE about its MBMS capability at													
Conse	equences	s if not	арр	roved: ⁻ ı	The SGSN misses the opportunity to inform t egistration time.	the UE	about	its MB	MS capability	y at				
Clause	onsequences if not approved: The SGSN misses the opportunity to inform the UE about its MBMS capability at registration time. lauses affected: 5.2, 5.4, 8.10; 8.11 This CR collides with CR152 for changes in subclauses 8.9 and 8.9a. To treat this dependency, this CR has been revised to remove all the modification within subclauses 8.9 and 8.9a and 8.9a where the dependency exist. Furthermore CR152 has been revised to includes all the modifications that have been removed from this CR.													
S2	Snec	CR#	Rv	Rel	Subject	Cat	Cur	WI	SA WG2 TD	l				

Sz Mtg	Spec.	CR#	ĸv	Rei	Subject	Cat	Ver	VVI	SA WGZ ID	
46	23.246	0144	1	Rel-6	Clarification of the TMGI	F	6.6.0	MBMS	S2-051462	
Summ	ary of ch	nange:		F	Removal of duplicated information and an ad GPP TS 23.003.	dition	to the I	referen	ces section c	of
Conse	quences	s if not	app	roved: N s	Aultiple definitions of TMGI, although in align one stage in the future leading to mis aligned	ment t ed spe	today, cificati	will ulti ons.	mately diverg	je at
Clause	es affect	ed:		2	2, 6.4	•				

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD			
Mtg							Ver					
45	23.246	0148	3	Rel-6	MBMS Join clarification	F	6.6.0	TEI6	S2-050961			
Summ	ary of ch	nange:		F	A clarifying sentences and a new subclause are added to the MBMS Service							
				F	Priovision subclause.							
Consequences if not approved: Clauses affected:					Aisalignment between S2 and S4/S1 specific I.4.1.2, 4.4.1.3, 4.4.1.4, 4.4.3.1a, 4.4.3.2	ations						

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD				
Mtg							Ver						
46	23.246	0152	4	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	TEI6	S2-051417				
Summ	ary of cl	nange:		- (Text is added to clarify that the UE has to join MBMS bearer services which have been dea context synchronisation procedure.	n agair Ictivate	n if it w ed follo	ants to wing a	activate the n MBMS UE				
Conse	equences	s if not	арр	roved: 7	: The specification is unclear and may lead to incomplete or different implementat of MBMS								
Claus	es affect	ed:		8 - 1 	8.9, new 8.9a This CR collides with CR142r2 for changes in this dependency, this CR has been revised to imited to subclauses 8.9 and 8.9a. In additio remove the changes that are included in the	n subc o inclu n CR1 preser	lauses de mo 42r2 is 1t CR.	8.9 ar dificatio revise	nd 8.9a. To trea ons of CR142r2 ed in CR142r3				

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	wi	SA WG2 TD
46	23.246	0153	1	Rel-6	On Estimated Session Duration	F	6.6.0	MBMS	S2-051392
Summ	ary of ch	hange:		li	n sect. 8.3, it is clarified that MBMS Session	Durati	on IE i	s man	datory in the

MBMS SESSION START REQUEST (text "if available" is deleted). Consequences if not approved: The MS would perform random access on the (P)RACH of any re-selected cell supporting MBMS procedures, for the duration of the MBMS service, causing both battery consumption and potential (P)RACH congestion.

Clauses affected:

S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.246	0155	2	Rel-6	Corrections to MBMS	F	6.6.0	MBMS	S2-051416
Summ	ary of ch	hange:			 in section 4.2 and 5.7, OSA SCS is remov in section 6.3 an undefined term is replaced in 8.1.1 an abbreviation is replaced. in step 1 in section 8.2, text wrongly implied be used for MBMS IP signalling. Text in step text in section 8.3 is clarified and BSC beh a reference to Gmb is added to step 4 of step in section 8.5, (because 8.3 permits the SC no users) the BSC must acknowledge releas in section 8.7 step 9, an incorrect example requirements in section 8.8 are clarified. 	ed. ed. 15 is n aviour ection GSN to e whe e is cor	IMS si nade n made 8.4. o signa n it has rected	gnallin nandati more al to a E s no co	g PDP contex ory. exact. 3SC even if it ntext.
Conse	quences	s if not	арр	roved: \$	Stage 3 interworking problems may occur.				

Clauses affected:	4.2, 5.7, 6.3, 8.1, 8.2, 8.3, 8.4, 8.5, 8.7, 8.8,

8.3

TSG SA Document:					SP-050341						
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD		
46	23.251	0012	4	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	NTSh ar	S2-051453		
Summ	nary of cl	hange:			Domain coordination in RNC is described.						
Conse	equences	s if not	app	roved:	In absence of Gs interface, PS/CS registra	tion coo	rdinati	on is no	ot possible for		
					roaming from other PLMNs						
Clauses affected: 4.2.5; 7.1.4											

TSG S	SA Docu	ment:			SP-050342							
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD			
46	23.271	0303	2	Rel-6	Clarifications on the use of non-dialable callback number	F	6.11.0	LCS2	S2-051409			
Summ	Summary of change: Two new definitions are given, one for the SIM-less emergency call and another for											
	-	-			the non-registered (U)SIM emergency call, which is a case that is missing from the							
					TS. Some editorial changes are also needed, due to those two definitions.							
Conse	equences	s if not	app	roved:	: The missing definition of SIM-less emergency call and the missing case of non-							
					registered (U)SIM may lead the reader to wrong assumptions.							
Clauses affected: 3.1, 6.4.3, 9.1.1A, 9.1.3, 9.1.5, 9.1.5A.												

TSG S	SG SA Document:				SP-050343							
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD			
45	23.979	0004	1	Rel-6	Correction of OMA PoC references	F	6.1.0	POC	S2-050892			
Summ	nary of c equence	hange: s if not	арр	roved:	Replaces dated references to out of data OM references, corrects a reference to the OMA- abbreviations to subclause 3.2. Confusion as to whether the TR 23.979 is ba specifications or these obsolete work in prog implementors to use obsolete reference vers interoperability problems in implementations	IA Po(POC-I sed or ress ve ions p	C spec RD and the a ersions ossibly	ificatio d adds pprove and le leadir	ns with non-s the missing ed OMA PoC eading ng to	pecific 1.0		
Claus	es affect	ted:			2, 3.2, 4.2							

6.1 MBMS CRs which have conflicting changes (Rel-6)

TSG S	SG SA Document:				SP-050353							
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD			
45	23.246	0147	2	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	MBMS	S2-050913			
Summ	nary of c	hange:			 Add the description that the new SGSN in Context Request message in step 2). Add the Update MBMS UE Context proce 3. Add the assumption that MBMS Registra case the new SGSN indicated it is supportin 4. Word "clause" is modified to "subclause". reference procedures. 	ndicate: edure b tion pro ng MBM . Subcla	s it sup etweer ocedure 1S in st ause no	oports N n GGSI e can o tep 2) umber	MBMS in SGSN N and BM-SC. nly be happen i is added for the			
Conse	equence	s if not	app	roved:	ed: The Inter SGSN Routeing Area Update procedure is not correct.							

Consequences if not approved: The Inter SGSN Routeing Area Update procedure is not correct Clauses affected: 8.10

S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD					
Mtg							Ver							
46	23.246	0154	-	Rel-6	Combined CR on MBMS Trace and Charging Information	F	6.6.0	MBMS	S2-051241					
Summ	Summary of change: Adds text similar to TS 23.060 for PDP context activation procedure relating to													
	,	U			Trace to the MBMS multicast service activation	on at G	SPRS	level, a	nd adds addi	tional				
					MBMS specific tracing information for use at	the BN	/I-SC ii	ncludin	g standalone					
					messaging to activate BM-SC trace as a resu	ult of R	outein	g Area	Updates. Ad	ds				
					parameter transfer of IMEI-SV, RAT Type, User Location Information, MS Time									
					Zone from SGSN to GGSN, and subsequently to the BM-SC where possible along									
					the same principles as those implemented for TS 23.060. IMEI-SV is expected to									
					be used for accounting purposes only.									
Conse	quences	s if not	app	roved:	I: MBMS tracing will not be possible. The operator will not be able to use an									
					important tool for network monitoring. Specifi	c infor	mation	will be	missing fron	n the				
					BM-SC that is responsible for the service leve	el char	ging.							
Clause	es affecte	ed:			2, 6.1, 8.2, 8.10, 8.11									

The following 2 CRs are merged into 23.246 CR0154 and were agreed as an alternative if CR0154 (and CR0157, see section 6.2 below) is not approved. A contribution to TSG SA will be generated containing these CRs if neither CR0154 (nor the combined CR0157) are not approved.

S2 Meet #	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.246	0143	2	Rel-6	Modifications for MBMS tracing	F	6.6.0	MBMS	S2-051240

Summ	ary of ch	ange:			Adds text similar to TS 23.060 for PDP context activation procedure relating to Trace to the MBMS multicast service activation at GPRS level, and adds additional MBMS specific tracing information for use at the BM-SC including standalone messaging to activate BM-SC trace as a result of Pouteing Area Lindates.							
Consequences if not approved:					MBMS tracing will not be possible. The operator will not be able to use an important tool for notwork monitoring							
Clause	es affecte	ed:			2, 6.1, 8.2, 8.10, 8.11							
S2	Spec.	CR#	Rv	Rel	Subject	Cat	Cur.	WI	SA WG2 TD			

Meet #							Ver	-	
45	23.246	0145	1	Rel-6	Correction to charging information for MBMS	F	6.6.0	MBMS	S2-050888
Summ	nary of c	change	:		Adds parameter transfer of IMEI-SV, RAT Time Zone from SGSN to GGSN, and sub- along the same principles as those implem expected to be used for accounting purpos	Type, Us sequentl iented fo ses only.	ser Loo ly to th or TS 2	cation I e BM-S 3.060.	nformation, M SC where pos IMEI-SV is
Conse	equence	es if not	app	oroved:	Specific information will be missing from th	e BM-S	C that	is resp	onsible for the
0					service level charging.				
Clause	es affec	tea:			2, 8.2, 8.10, 8.11				

6.2 Alternative CR combining overlapping CRs in section 6.1 (Rel-6)

TSG S	G SA Document: 2 Spec. CR# Rv				SP-050355				
S2 Mtg	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
45	23.246	0157	-	Rel-6	Combined CR on MBMS Trace and Charging Information (Combining CR0147R2 and CR0154)	F	6.6.0	MBMS	S2-051463
Summ	ary of cl	hange:	app	roved:	 [Information (Combining CR014/R2 and CR0154) [CR 154] Adds text similar to TS 23.060 for PDP contect Trace to the MBMS multicast service activation MBMS specific tracing information for use at messaging to activate BM-SC trace as a result parameter transfer of IMEI-SV, RAT Type, U Zone from SGSN to GGSN, and subsequent the same principles as those implemented for be used for accounting purposes only. [CR 147] Add the description that the new SGSN in Context Request message in step 2). Add the Update MBMS UE Context procession. Add the assumption that MBMS Registratic case the new SGSN indicated it is support. Word "clause" is modified to "subclause". reference procedures. [CR 154] MBMS tracing will not be possible. important tool for network monitoring. Specific tracing transfer to the procession of the top of the procession. 	ext acti ion at (the BI ult of F lser Lo tly to th or TS 2 ndicate edure to tion pro- rting M Subcl The of ic infor	vation GPRS M-SC i Routein cation the BM- cation the BM- cation cation the ause petwee pocedur IBMS i ause n perator matior	procect level, a ncludir ig Area Inform SC wh IMEI-S pports n GGS e can o n step umber	dure relating to and adds addition og standalone Updates. Adds ation, MS Time ere possible alor SV is expected to MBMS in SGSN SN and BM-SC. only be happen in 2) is added for the at be able to use a missing from th
Clause	es affect	ed:			BM-SC that is responsible for the service lev [CR 147] The Inter SGSN Routeing Area Up 2, 6.1, 8.2, 8.10, 8.11	el cha date p	rging. rocedu	ire is n	ot correct.

7 Change Requests for Rel-7

The following Change Requests were agreed for Rel-7 for presentation to TSG SA for approval:

TSG S	SA Docu	ment:			SP-050338					
S2 Meet #	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
46	46 23.228 0498 - Rel-7 Support of Access Network NAT traversal F 6.9.0 FBI S2-051419									
Summ	equences	nange: s if not	арр	t roved: 3 d I t	One new subclauses introducing the technica traversing NATs between the IMS functionali 3GPP IMS will not provided sufficient suppor cellular access with similar characteristics as Introducing an area where divergence betwee the IMS core level.	al requ ty of a t for bo fixed l en 3G	iremer UE an oth fixe broadb PP and	nts for Id the I Id broa Dand a Dand TISP	the support of P-CSCFS. adband access, ccess networks AN may occur a	and at
Clause	es affect	ed:		2	4.12					

TSG S	SA Docu	iment:		:	SP-050342				
S2 Meet #	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.271	0304	1	Rel-7	Clarifications on the use of non-dialable callback number	A	7.0.0	LCS3	S2-051410
Summ	nary of cl	nange:		-	Two new definitions are given, one for the s	SIM-less	s emer	gency	call and anothe

the non-registered (U)SIM emergency call, which is a case that is missing from the TS. Some editorial changes are also needed, due to those two definitions.

for

Consequences if not approved: The missing definition of SIM-less emergency call and the missing case of non-

registered (U)SIM may lead the reader to wrong assumptions.

Clauses affected:

3.1, 6.4.3, 9.1.1A, 9.1.3, 9.1.5, 9.1.5A.

S2 Meet #	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD
46	23.271	0306	1	Rel-7	MT-LR without HLR query - appropriate clarifications for EU	С	7.0.0	LCS3	S2-051335
Summary of change: The clause that describes the MT-LR without HLR query is modified to i						fied to include			

The clause that describes the MT-LR without HLR query is modified to include the EU 112 case. The modification is in the text description at the beginning, where is specified that the PSAP gets the MSC number through location number parameter and the MSISDN (dialable or not dialable).

Consequences if not approved: There will not be a standard way on how the correct serving node is located. Clauses affected: 9.1.3

S2 Meet #	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD	
46	23.271	0307	3	Rel-7	NI-LR - appropriate clarifications for EU	С	7.0.0	LCS3	S2-051461	
Summ	ary of cl	nange:		- (t	The identity of PSAP, to which an emergency added to Subscriber Location Report for eme gives clarifications regarding the correlation i the serving node.	y call the ergenc nforma	hat trig y calls ation th	gered in the nat PS/	the NI-LR, is E.U. This CR AP uses to ide	also entify
Conse	quences	s if not	app	roved: ⁻ I	There will not be a standard way on how the PSAP that is connected.	GMLC	could	know	the identity of	f the
Clause	es affect	ed:			3.3, 9.1.5.1, 9.1.5.3					

S2 Meet #	Spec.	CR#	Rv	Rel	Subject	Cat	Cur. Ver	WI	SA WG2 TD		
46 23.271 0308 - Rel-7		Rel-7	Missing definition of the abbreviation for RTT	D	7.0.0	TEI-7	S2-051242				
Summary of change:				Т	The expansion of RTT is added						

Consequences if not approved: Possible cause for misunderstanding Clauses affected: 3.3

8 New TSs/TRs from SA WG2

SA WG2 have 4 TRs to present for information and 1 TR and 1 TS for approval.

8.1 TR 23.802 ver 1.0.0 on Architectural Enhancements for End-to-End Quality of Service (QoS) (Rel-7)

TSG SA Document: SP-050346

TR 23.802, "Architectural Enhancements for End-to-End Quality of Service (QoS)", investigates possible solutions to enhance the end-to-end QoS architecture as currently specified in 3GPP TS 23.207 to achieve improved end-to-end QoS in the case of interworking with IP network domains or backbone networks that provide IP QoS mechanisms and enhanced interworking with other next generation networks.

Changes since last presentation to TSG SA:

This is the first time that this technical report is being presented to TSG SA.

TSG SA2 has agreed to present the progress of the study to TSG SA.

Outstanding Issues:

The following issues remain:

- Several sections of the technical report need to be restructured and possibly reordered to improve readability.
- Multiple solutions, and possibly new solutions, for providing end-to-end QoS still need to be studied.
- More analysis must be performed before significant conclusions and recommendations can be agreed upon.

Contentious Issues:

- There is disagreement whether models or solutions should be the focus of the study.
- There is disagreement whether security should be analyzed in this Stage 2 TR.

This TR is being presented in document SP-050346 for information.

8.2 TR 23.803 ver 1.0.0 on Evolution of Policy Control and Charging (Rel-7)

TSG SA Document: SP-050354

During the course of Release 6 standards development some new features have been introduced to provide advanced core network capabilities for packet-based services:

- Enhanced policy control allows the operator to perform service based QoS policy control for their sessionbased PS applications;
- Flow-based charging allows more granularity for end-user charging, accounting and online credit control.

While some level of convergence between these functions has already been achieved in Release 6, a full harmonization of these functions is studied within the present document:

- 1) Complete harmonization and merger of the policy control and flow based charging architecture and procedures;
- 2) Possible architectures and solutions for adding end-user subscription differentiation and general policy control aspects to the policy- and charging control;
- 3) Alternative solutions for binding bearers to services (provided today by the authorization token). This includes studying solutions for the network to control bearer usage by service flows.

Changes since last presentation to TSG-SA Meeting:

This is the first time the document is presented to TSG SA.

Outstanding Issues:

- Further flows need to be introduced and the existing flows need to be fine-tuned.
- More detailed study and eventual conclusion is needed on alternative binding mechanisms.
- Description of the functional entities needs to be enhanced and completed.

Contentious Issues:

None identified.

This TR is being presented in document SP-050354 for information.

8.3 TR 23.806 ver 1.0.0 on Voice Call Continuity between CS and IMS Study (Rel-7)

TSG SA Document: SP-050347

TR 23.806 "Voice Call Continuity between CS and IMS Study" is a feasibility study into the architectural requirements and alternatives for the active voice call continuity between Circuit Switched (CS) domain and the IP Multimedia Subsystem (IMS).

Basic assumptions, architectural requirements and session and traffic scenarios have been defined that document the functionality that candidate architectures will need to provide. A number of alternative candidate architectures have been documented. They broadly fall into two approaches known as IMS controlled and Anchored Call Control and there is scope for merging several of the alternatives. The TR is structured such that each solution documents CS-IMS and IMS-CS inter-system handover, terminating network selection, call origination and termination and impact on supplementary services. Documentation of the architecture alternatives will continue in subsequent meetings.

TSG SA2 believes that this version of TR 23.806 is more than 50% complete.

Outstanding Issues:

- Requirements from SA1 have yet to be finalised and any necessary Basic Assumptions and Architectural Requirements resulting from additional SA1 requirements will need to be incorporated.
- The supported operator scenarios need to be agreed upon.
- The criteria for selection of a solution need to be agreed.
- There are proposals for an Anchored Call Control solution that should be aligned in subsequent meetings to identify commonalities and document differences.
- A proposal for Terminating Domain Selection currently documented within the IMS Controlled Handover solution section should be refined to allow operator policy control and investigated for more common applicability.
- Impacts of the solutions on accounting needs to be elaborated.
- A number of Editor's Notes which document identified open issues within the technical content have been created during the agreement of contributions in SA2#46 and these will need to be resolved and removed.
- The impacted standards have not yet been identified, and may be different depending upon the solution chosen.

Contentious Issues:

None identified.

This TR is being presented in document SP-050347 for information.

8.4 TR 23.867 ver 1.0.0 on Internet Protocol (IP) based IP Multimedia Subsystem (IMS) emergency sessions (ReI-7)

TSG SA Document: SP-050348

TR 23.867 investigates solutions for providing emergency sessions via the IMS. The TR investigates impacts on the IMS as well as on the PS domain.

Status of the study:

TR 23.867 is more than 50% completed and presented "for information" to SA #28 for the first time.

The mainly consolidated contents:

- Architectural requirements and architecture to support IMS emergency sessions;
- Emergency sessions with and without UICC;
- Security aspects;
- GPRS aspects

IMS and GPRS procedures:

- IMS emergency registration session establishment;
- GPRS emergency attach and detach;
- GPRS emergency PDP context activation;
- Location management procedures;
- LCS for emergency sessions.

Outstanding Issues:

- IMS registration procedure in the home network, if the UE is equipped with an UICC;
- The handling and structure of location information in the general case, e.g. for fixed broadband access; this encompasses retrieving of location information and routing based on location information.

Contentious Issues:

None identified.

This TR is being presented in document SP-050348 for information.

8.5 TR 23.804 ver 2.0.0 on Support of SMS and MMS over generic 3GPP IP access (Rel-7)

TSG SA Document: SP-050349

The TR investigates the architecture and high-level stage-2 procedure alternatives for providing SMS and MMS over generic IP access.

Changes since last presentation to TSG SA Meeting #27

The following conclusion and recommendations have been added:

- To fully exploit and re-use mechanisms that are already standardized, it is recommended to pursue the SIP/IMS based mechanism for SMS/MMS over IP access. In particular, it is recommended to utilize IMS-registration, and IMS Immediate Message capabilities for transparently delivering originating and terminating SMS over IP access (see Sections 8.7-8.10).
- For MMS, it is recommended to pursue utilizing SIP-based Push for notification (i.e. SIP would be used whenever SMS is used as transport), whilst continue using HTTP and SMTP for transfer of the MMS itself, as described in Section 8.11.3.
- It is assumed that the OMA SIP-based Push work will utilize IMS enablers.
- It is proposed to develop an IMS enabler providing IMS based deferred messaging.

Outstanding Issues:

- The applicability of the procedure to notify the network when the UE has memory available to receive additional SMS
- The logic for selecting route for message delivery.
- How to recognize SMS delivery reports
- Interworking aspects between SMS/MMS and IMS based messaging should be further studied.

Contentious Issues:

None identified.

This TR is being presented in document SP-050349 for approval.

8.6 TS 23.279 ver 2.0.0 on Combining CS and IMS services Stage 2 (Rel-7)

TSG SA Document: SP-050344

This TS provides architectural details to combine CS and IMS services for using them in parallel between the same two users. The document provides a description of how capabilities and identities are exchanged to enable the combination of CS and IMS services between the same two users.

It includes the following capabilities that enable the combination of CS and IMS services:

- Radio capability exchange.
- SIP based UE terminal capability exchange.
- MSISDN number exchange in SIP.
- Establishing an IMS session in parallel to an ongoing CS call between the same two users.
- Establishing a CS call in parallel to an ongoing IMS session between the same two users.

The individual CS call or IMS service that are combined are described in 24.008 and 23.228 respectively.

The TS is considered to be at least 80% complete and is presented for approval.

Changes since last presentation to TSG SA Meeting #27

- Section 7.3: Registration of UE Capabilities related to CS-Voice and CS-Video
- Introduction of a IMS media setup that requires resource reservation
- Significant editorial changes for clarification purposes.

Outstanding Issues:

- 1. Current Radio Environment information: What type of information and the benefit of exchanging this information need to be further motivated before it can be inserted in the current specification. The resolution of this issue waits upon a response to LS sent to RAN WG2 and GERAN.
- 2. Requirement added on the support of multiple devices in relation to cache information on a UE; some issues still need to be discussed around this.

Contentious Issues:

None identified.

This TS is being presented in document SP-050344 for approval.

9 WIs from SA WG2

9.1 New WID for IMS Communication Service Identifier (ServID)

TSG SA Document: SP-050350

The objective of this work item is to identify the architectural requirements and technical procedures as well as the administrative procedures for a communication service identifier. This includes at least the following aspects:

- A frame work description for the communication service identifier.
- Identifying the architectural requirements for a communication service identifier that enable the usage scenarios identified in the above justification section.
- Identifying requirements on compatibility and evolution of a communication service in relation to the communication service identifier. Describe the expected behaviour in the case that the service identifier in the requesting SIP method doesn't match with any of the service identifiers included when the registration process from the called UEs
- Identify the administrative procedures for a communication service identifier, including the requirements upon when a service identifier is required to be allocated.

It is assumed that a Building Block Work Item will exist for the stage-3 specification work.

It is presented in document SP-050350 for approval.

9.2 New WID for Feasibility study on enhancement of radio performance for VoIMS

TSG SA Document: SP-050351

Two radio optimization methods have been identified to provide radio optimisation for VoIMS: Unequal Error Protection (UEP) and Header Removal (HR). With the information currently available in RNC, RNC cannot use these optimisation methods, more study is then needed to describe which additional information are needed by RNC and how these information can be provided to RNC.

The objective of the Work Item is to describe architecture impact for provision of the additional information to the RNC to allow it to use these two optimisation methods.

Radio optimisations for the SIP signalling are out of the scope of this TR. The study will focus on the bearer optimisation for user data.

Radio optimisations with no architecture impact outside the UTRAN are out of the scope of this TR.

It is presented in SP-050351 for approval.

9.3 Revised WID for Voice call continuity between CS and IMS (incl. I-WLAN)

TSG SA Document: SP-050352

Update of the WID for Voice call continuity between CS and IMS (including I-WLAN) which:

- Adds "Multimedia Telephony Capabilities for IMS Stage 1" to the Linked work items
- Removes "(incl I-WLAN)" in the titles of the new TR and TS and includes "Study" in the title of the new TR.

- Removes the uncertain completion dates for the new TS, as it's creation is dependent on the results of the study TR.
- Adds LG Electronics to the list of Supporting companies
- Clarifies that this WI is a Feature

It is presented in SP-050352 for approval.

10 Other Issues

10.1 Secretary of SA WG2

The MCC-provided Secretary for SA WG2 has been changed, **Mr. Maurice Pope** took over from **Mr. David Boswarthick** from meeting #45.

10.2 Issues on Release 6

Overall Architecture (TS 23.002)

- Addition of the MBMS and FBC entities into the overall architecture

GPRS Stage 2 (TS 23.060)

- Clarification on the Activation of secondary PDP context without TFT

QoS stage 2 (TS 23.107)

- The scope is modified to clarify that GERAN is included in the scope
- Alignment between 25.413 on the value range of the RAB attribute ARP (extended to 15 possible values, apart from GERAN when the Gb Bearer Service is used).

IP Flow Based Bearer Level Charging (TS 23.125)

- TPF behavior in case of no charging rules for a bearer
- FBC Terminology amendments
- Alignment of Re-authorization triggers
- OCS initiated bearer removal

Presence (TS 23.141)

- Correction of description of PNA indirect control of Presence Information flow
- Alignment with Stage 3 on partial publications
- Clarification on the Location of the Presence Server and Presence entities
- Clarification on UE based PUA/Network based PUA
- Update of references

E2e QoS (TS 23.207)

- Update on the handling of binding information

IMS Phase 2 (TS 23.228)

- Alignment of Session-based Messaging flows with stage 3
- Clarification on AS forking
- Corrections to wild carded PSIs
- Clarification to the routing of SIP signaling within the IMS network
- Session setup with media set to inactive
- Correction to ENUM resolution for Infrastructure ENUM

WLAN (TS 23.234)

- Correction to Wn Reference Point
- Clarification on the need for user authentication at tunnel establishment
- Mandating the support of Immediate Purging

- Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages

MBMS Stage 2 (TS 23.246)

- Clarification on the use of MBMS support indication from SGSN to UE
- Modifications for MBMS tracing
- Clarification of the TMGI definition
- Correction to charging information for MBMS
- Corrections to Inter SGSN Routeing Area Update procedure
- Clarification of MBMS Join
- Clarification that a UE needs to join again for MBMS bearer service it has locally deactivated
- Clarification of Estimated Session Duration
- General corrections

Network Sharing (TS 23.251)

- Clarification of PS and CS domain registration coordination

Location Services Stage 2 (TS 23.271)

- Clarifications on the use of non-dialable callback number

PoC (TR 23.979)

- Correction of OMA PoC references

Load Redistribution between CN nodes in A/Gb/lu flex

- SA WG2 has, at the last 3 meetings, discussed the potential mechanisms to remove load from one CN node using A/Gb/lu flex in an orderly manner.
 - At the last SA WG2 meeting SA WG2 tried to conclude on the placement of 2 functionalities (RAN or CN):
 - The triggering functionality that determines that a new CN node needs to be selected.
 - And the selection functionality that performs the actual selection of a new CN node.
 - SA WG2 has agreed on a working assumption that selection functionality is placed in RAN.
- SA WG2 has not yet reached agreement on the placement of the triggering functionality (RAN or CN):
 - a show of hands at the last SA2 meeting indicated a slight majority for the CN based trigger (4 hands vs 3 hands).
- SA WG2 will continue the technical evaluation via e.g. phone conferences.
- SA WG2 also encourage the members to form an opinion on the issue, to facilitate an informed decision at the next SA WG2 meeting, if necessary via a show of hands.

10.3 Issues on Release 7

Selective disabling (TR 23.805)

- TR 23.805 is progressing well but decision on the mechanism to use is still pending.

FS on applicability of GALILEO for LCS

- SA WG2 propose to discontinue this feasibility study.

Policy Control Evolution (TR 23.803)

- TR 23.803 is presented to SA#28 for information.

I-WLAN (TR 23.836)

- TR 23.836 is started and progressing well.

3GPP System Architecture Evolution (TR 23.882).

3GPP System Architecture Evolution (TR 23.882)

- Joint Session with SA1 on AIPN.
- Joint Session with RAN2&3 on SAE/RAN LTE.
- Some requirements and a baseline architecture is agreed.
- In addition SA WG2 has documented two architecture proposals that represents on a high level the spectrum of various architecture proposals.
- See also <u>http://www.3gpp.org/ftp/Specs/html-info/23882.htm</u>.
- At the Joint Session with RAN WG2 and RAN WG3 in Athens companies presented their ideas for the new architecture and identify the key architecture issues.
- Due to lack of time it was not possible to agree on a list of key issues in the meeting but the Chairs were asked to take the issues raised into consideration when producing the agenda for the next meetings.
 - Guidance from RAN/SA would be appreciated on the following issues:
 - Is the evolved system envisioned to work on new and/or existing frequency bands?
 - Is it expected that the evolved system is primarily deployed in the same area as an existing UTRAN System or not?
 - In addition TSG RAN and TSG SA are asked to clarify if the SAE/RAN LTE work shall take into consideration that the "legacy" WCDMA RAN should be able to be connected to the new CN, and, to what extent should the WCDMA RAN benefit from the SAE/LTE work?

11 Meetings of SA WG2

11.1 Meetings since last SA

The following meetings have been held since SA #27.

Meeting	Date	Place	Host
SA2#45	04– 08 April 2005	Beijing, P.R. China	Huawei
SA2#46	09 - 13 May 2005	Athens, Greece	EF3
Joint SA2/RAN3	11 May 2005	Athens, Greece	EF3

11.2 Planned meetings

SA WG1 has the following meetings scheduled, so far:

SA WG2 Plenaries:

SA2#47	27 June - 01 July,	NA (Joint Sessions with RAN WG3).
SA2#48	05 - 09 September,	Sophia Antipolis
SA2#49	07 - 11 November,	Asia

Joint sessions and meetings:

Joint meeting with ETSI AT-F, 11 July (pm), Sophia Antipolis. (SMS/MMS over IP) Joint Meeting with TISPAN and CT WG1, 12-13 July, Sophia Antipolis. (Fixed BB Access contributions on 3GPP specifications). Joint Meeting with CT WG1, 14 July, Sophia Antipolis. (CSI and any outstanding FBI CRs to be discussed/edited) Joint meeting with RAN WGs, 1- 2 September, London Joint meeting with RAN WGs 19 - 20 September, Tallinn

Annex 1: Documents provided to this Plenary

Tdoc	Title	Source	Agenda	Doc for
SP-050330	Status Report from SA WG2 to TSG SA #28	SA WG2	7.2.1	Information
		Chairman		
SP-050331	Reports of SA WG2 meetings #45 and #46	SA WG2	7.2.1	Information
		Secretary		
SP-050332	CRs to TS 23.002: Missing MBMS Architecture entities	SA WG2	7.2.3	Approval
	and Addition of Flow Based Charging architecture (Rel-6)			
SP-050333	CR to TS 23.060: Activation of secondary PDP context without TFT (Rel-6)	SA WG2	7.2.3	Approval
SP-050334	CRs to TS 23.107: RAB Allocation/Retention Priority and Addition of GERAN to the scope section (Rel-6)	SA WG2	7.2.3	Approval
SP-050335	CRs to TS 23.125: Various Technical Corrections (Rel-6)	SA WG2	7.2.3	Approval
SP-050336	CRs to TS 23.125: Various Technical Corrections (Presence) (Rel-6)	SA WG2	7.2.3	Approval
SP-050337	CR to TS 23.207: Update of binding information handling (Rel-6)	SA WG2	7.2.3	Approval
SP-050338	CRs to TS 23.228: Various Technical Corrections (Rel-6) and 1 Release 7 CR: Support of Access Network NAT traversal (Rel-7)	SA WG2	7.2.3	Approval
SP-050339	CRs to TS 23.234: Various Technical Corrections (WLAN) (Rel-6)	SA WG2	7.2.3	Approval
SP-050340	CRs to TS 23.246: Various Technical Corrections (MBMS and TEI6) (Rel-6)	SA WG2	7.2.3	Approval
SP-050341	CR to TS 23.251: Clarification of PS and CS domain registration coordination (Rel-6)	SA WG2	7.2.3	Approval
SP-050342	CRs to TS 23.271: Clarifications on the use of non- dialable callback number (Rel-6, Rel-7), 3 Functional modification CRs Rel-7)	SA WG2	7.2.3	Approval
SP-050343	CR to TR 23.979: Correction of OMA PoC references (Rel-6)	SA WG2	7.2.3	Approval
SP-050344	TS 23.279 v2.0.0: Combining CS and IMS services; Stage 2 (Rel-7)	SA WG2	7.2.3	Approval
SP-050345	MCC Stautus report of SA WG2 inputs to TSG SA #28	SA WG2 Secretary	7.2.1	Information
SP-050346	Draft TR 23.802 v1.0.0: Architectural Enhancements for End-to-End Quality of Service (QoS) (Rel-7)	SA WG2	7.2.3	Information
SP-050347	TR 23.806 v1.0.0: Voice Call Continuity between CS and IMS Study (Rel-7)	SA WG2	7.2.3	Information
SP-050348	TR 23.867 v1.0.0: Internet Protocol (IP) based IP Multimedia Subsystem (IMS) emergency sessions (Rel- 7)	SA WG2	7.2.3	Information
SP-050349	TR 23.804 v2.0.0: Support of SMS and MMS over generic 3GPP IP access (Rel-7)	SA WG2	7.2.3	Approval
SP-050350	New WID: IMS Communication Service Identifier (ServID)	SA WG2	7.2.3	Approval
SP-050351	New WID: Feasibility study on enhancement of radio performance for VoIMS	SA WG2	7.2.3	Approval
SP-050352	Revised WID: Voice call continuity between CS and IMS (incl. I-WLAN)	SA WG2	7.2.3	Approval
SP-050353	CRs to TS 23.246: Corrections to Inter SGSN Routeing Area Update procedure and Combined CR on MBMS Trace and Charging Information (ReI-6)	SA WG2	7.2.3	Approval
SP-050354	TR 23.803 v1.0.0: Evolution of Policy Control and Charging (Rel-7)	SA WG2	7.2.3	Information
SP-050355	CR to TS 23.246: Combined CR on MBMS Trace and Charging Information (Combining CR0147R2 and CR0154) (Rel-6)	SA WG2	7.2.3	Approval

SA TD #	Spec	CR#	Rv	Rel	Subject	Ca t	Vers	Doc-2nd- Level	WI
SP-050332	23.002	0154	-	Rel-6	Missing MBMS Architecture entities	F	6.7.0	S2-050588	MBMS
SP-050332	23.002	0156	1	Rel-6	Addition of Flow Based Charging architecture	F	6.7.0	S2-051332	CH- FBC
SP-050333	23.060	0527	2	Rel-6	Activation of secondary PDP context	F	6.8.0	S2-051274	TEI6
SP-050334	23 107	0154	2	Rel-6	RAB Allocation/Retention Priority	F	620	S2-050727	TEI6
SP-050334	23.107	0156	1	Rel-6	Addition of GERAN to the scope section	F	6.2.0	S2-050911	TEI6
SP-050335	23.125	0126	2	Rel-6	TPF behaviour in case of no charging	F	6.4.0	S2-050930	CH-
SP-050335	23.125	0127	1	Rel-6	rules for a bearer FBC Terminology amendments	F	6.4.0	S2-050840	FBC CH-
SP-050335	23.125	0128	1	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	S2-050838	FBC CH-
SP-050335	23.125	0129	1	Rel-6	OCS initiated bearer removal	F	6.4.0	S2-051369	FBC CH-
SP-050336	23.141	0071	2	Rel-6	Correction of description of PNA indirect	F	6.7.0	S2-050799	FBC PRES
OD 050000	00.4.44	0070		Del C	control of Presence Information flow	-	0.7.0	00.054400	NC
SP-050330	23.141	0072	-	Rei-o		۲ -	0.7.0	52-051160	NC
SP-050336	23.141	0073	1	Rel-6	Update of references	F	6.7.0	S2-051319	PRES NC
SP-050336	23.141	0074	1	Rel-6	Location of Presence entities	F	6.7.0	S2-051320	PRES NC
SP-050336	23.141	0075	-	Rel-6	Locating the Presence Server	F	6.7.0	S2-051183	PRES NC
SP-050336	23.141	0076	1	Rel-6	UE based PUA/Network based PUA	F	6.7.0	S2-051321	PRES
SP-050336	23.141	0077	1	Rel-6	Modification about reference link in 24.141	F	6.7.0	S2-051318	PRES
SP-050337	23.207	0087	-	Rel-6	Update of binding information handling	F	6.4.0	S2-051275	TEI-6
SP-050338	23.228	0483	1	Rel-6	Alignment of Session-based Messaging	F	6.9.0	S2-050918	IMS2
SP-050338	23 228	0490	1	Rel-6	On AS forking	F	690	S2-050919	IMS2
SP-050338	23.228	0491	-	Rel-6	Corrections to wildcarded PSIs	F	6.9.0	S2-050988	IMS2
SP-050338	23.228	0494	3	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	S2-051451	IMS2
SP-050338	23.228	0496	1	Rel-6	Session setup with media set to inactive	F	6.9.0	S2-051359	PoC
SP-050338	23.228	0497	-	Rel-6	Correction to ENUM resolution for	F	6.9.0	S2-051282	IMS2
SP-050338	23.228	0498	-	Rol-7	Support of Access Network NAT traversal	F	690	\$2-051419	FRI
SP-050339	23.234	0122	1	Rel-6	Correction to Wn Reference Point	F	6.4.0	S2-050859	WLAN
SP-050339	23.234	0124	2	Rel-6	User authentication for tunnel	F	6.4.0	S2-051415	WLAN
SP-050339	23,234	0125	-	Rel-6	Mandating Immediate Purging	F	6.4.0	S2-051086	WLAN
SP-050339	23.234	0126	1	Rel-6	Detecting the start of a WLAN Direct IP Access session based on Wa/Wd	F	6.4.0	S2-051353	WLAN
SP-050340	23.246	0142	3	Rel-6	Extension of the use of MBMS support	F	6.6.0	S2-051418	MBMS
SP-050340	23.246	0144	1	Rel-6	Clarification of the TMGI	F	6.6.0	S2-051462	MBMS
SP-050340	23.246	0148	3	Rel-6	MBMS Join clarification	F	6.6.0	S2-050961	TEI6
SP-050340	23.246	0152	4	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	S2-051417	TEI6
SP-050340	23.246	0153	1	Rel-6	On Estimated Session Duration	F	6.6.0	S2-051392	MBMS
SP-050340	23.246	0155	2	Rel-6	Corrections to MBMS	F	6.6.0	S2-051416	MBMS
SP-050353	23.246	0147	2	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	S2-050913	MBMS
SP-050353	23.246	0154	-	Rel-6	Combined CR on MBMS Trace and Charging Information	F	6.6.0	S2-051241	MBMS
SP-050355	23.246	0157	-	Rel-6	Combined CR on MBMS Trace and Charging Information (Combining CR0147R2 and CR0154)	F	6.6.0	S2-051463	MBMS
SP-050341	23.251	0012	4	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	S2-051453	NTSh ar
SP-050342	23.271	0303	2	Rel-6	Clarifications on the use of non-dialable	F	6.11.0	S2-051409	LCS2
SP-050342	23.271	0304	1	Rel-7	Clarifications on the use of non-dialable	Α	7.0.0	S2-051410	LCS3
SP-050342	23.271	0306	1	Rel-7	MT-LR without HLR query - appropriate	С	7.0.0	S2-051335	LCS3
SP-050342	23.271	0307	3	Rel-7	NI-LR - appropriate clarifications for EU	С	7.0.0	S2-051461	LCS3

Annex 2: CRs provided to this Plenary

SA TD #	Spec	CR#	Rv	Rel	Subject	Ca t	Vers	Doc-2nd- Level	WI
SP-050342	23.271	0308	-	Rel-7	Missing definition of the abbreviation for RTT	D	7.0.0	S2-051242	TEI-7
SP-050343	23.979	0004	1	Rel-6	Correction of OMA PoC references	F	6.1.0	S2-050892	POC

The following CRs were agreed, but were combined in 23.246 CR0154 (and in combined CR0157) in order to resolve implementation problems, They may be presented if neither CR0154 (nor CR0157) are not approved by TSG SA:

SA TD #	Spec	CR#	Rv	Rel	Subject	Ca t	Vers	Doc-2nd- Level	WI
	23.246	0143	2	Rel-6	Modifications for MBMS tracing	F	6.6.0	S2-051240	MBMS
	23.246	0145	1	Rel-6	Correction to charging information for MBMS	F	6.6.0	S2-050888	MBMS

Annex 3: 3G&GSM TSs and TRs under SA2 responsibility

Spec	Title	Ph1	Ph2	R96	R97	R98	R99	Rel-4	Rel-5	Rel-6	Rel-7
03.01	Network Functions	3.1.1	4.0.4	5.1.0	6.1.0	7.0.0					
03.02	Network Architecture	3.1.4	4.2.1	5.3.0	6.1.0	7.1.0					
03.32	Universal Geographical Area Description (GAD)			5.2.0	6.0.0	7.2.0					
03.56	GSM Cordless Telephony System (CTS), Phase 1; CTS Architecture Description; Stage 2					7.1.1					
03.60	General Packet Radio Service (GPRS); Service description; Stage 2				6.11.0	7.9.0					
03.71	Location Services (LCS); Functional description; Stage 2					7.11.0	8.9.0				
10.00	Digital Cellular Telecommunication System Feature Description			5.2.1		7.1.0					
10.14	System overview for 14.4 kbit/s Work Item			5.0.0							
10.56	Project scheduling and open issues: GSM Cordless Telephony System CTS, Phase 1					7.0.0	8.0.0				
21.877	Radio optimization impacts on the Packet Switched (PS) domain architecture									0.7.0	
23.002	Network architecture						3.6.0	4.8.0	5.12.0	6.7.0	
23.032	Universal Geographical Area Description (GAD)						3.2.1	4.1.1	5.0.0	6.0.0	
23.060	General Packet Radio Service (GPRS); Service description; Stage 2						3.16.0	4.9.0	5.10.0	6.8.0	
23.101	General UMTS Architecture						3.1.0	4.0.0	5.0.1	6.0.0	
23.107	Quality of Service (QoS) concept and architecture						3.9.0	4.6.0	5.13.0	6.2.0	
23.110	UMTS Access Stratum Services and Functions						3.4.0	4.0.0	5.0.0	6.0.0	
23.121	Architectural requirements for Release 1999						3.6.0				
23.125	Overall high level functionality and architecture impacts of flow based charging; Stage 2									6.4.0	
23.127	Virtual Home Environment (VHE) / Open Service Access (OSA)						3.4.0	4.3.0	5.2.0		
23.141	Presence service; Architecture and functional description; Stage 2									6.7.0	
23.171	Location Services (LCS); Functional description; Stage 2 (UMTS)						3.11.0				
23.195	Provision of User Equipment Specific Behaviour Information (UESBI) to network entities								5.4.0		
23.207	End-to-end Quality of Service (QoS) concept and architecture								5.9.0	6.4.0	
23.221	Architectural requirements							4.2.0	5.11.0	6.3.0	
23.226	Global text telephony (GTT); Stage 2: Architecture								5.2.0	6.0.0	
23.227	Application and user interaction in the UE; Principles and specific requirements							4.2.0	5.1.0		
23.228	IP Multimedia Subsystem (IMS); Stage 2								5.13.0	6.9.0	
23.234	3GPP system to Wireles Local Area Network (WLAN) interworking; System description									6.4.0	

23.236	Intra-domain connection of Radio Access Network (RAN) nodes to multiple Core Network (CN) nodes					5.3.0	6.0.0	
23.240	3GPP Generic User Profile (GUP) requirements; Architecture (Stage 2)						6.7.0	
23.246	Multimedia Broadcast/Multicast Service (MBMS); Architecture and functional description						6.6.0	
23.251	Network sharing; Architecture and functional description						6.3.0	
23.271	Functional stage 2 description of Location Services (LCS)				4.13.0	5.13.0	6.11.0	7.0.0
23.279	Combining CS and IMS services; Stage 2							1.2.0
23.801	Potential mechanisms for Circuit Switched (CS) domain video and voice service improvements						1.0.0	
23.802	Architectural enhancements for end-to-end Quality of Service (QoS)							0.6.0
23.803	Evolution of policy control and charging							0.5.2
23.804	Support of SMS and MMS over generic 3GPP IP access							1.1.0
23.806	Voice call continuity between Circuit Switched (CS) and IP Multimedia Subsystem (IMS) Study							0.2.0
23.815	Charging implications of IMS architecture					5.0.0		
23.835	Study into applicability of Galileo in Location Services (LCS)						1.0.0	
23.836	Quality of Service (QoS) and policy aspects of 3GPP - Wirless Local Area Network (WLAN) interworking							0.1.0
23.841	Presence service architecture						6.0.0	
23.846	Multimedia Broadcast/Multicast Service (MBMS); Stage 2						6.1.0	
23.851	Network sharing; Architecture and functional description						6.1.0	
23.864	Commonality and interoperability between IP Multimedia System (IMS) core networks						0.6.0	
23.867	Internet Protocol (IP) based IP Multimedia Subsystem (IMS) emergency sessions						1.0.0	
23.871	Enhanced support for user privacy in Location Services (LCS)					5.0.0		
23.873	Feasibility study for transport and control separation in the PS CN domain				4.0.0			
23.875	Support of Push service					5.1.0		
23.877	Architectural aspects of speech-enabled services						6.0.0	
23.882	3GPP system architecture evolution: Report on							0.1.1
	technical options and conclusions							
23.895	Provision of UE specific behaviour information to						6.2.0	
	network entities							
23.898	Access Class Barring and Overload Protection (ACBOP)							7.0.0
23.899	Combining Circuit Switched (CS) bearers with IP						1.1.0	

	Multimeida Subsystem (IMS)							
23.903	Redial solution for voice-video switching						6.1.0	
23.923	Combined GSM and Mobile IP mobility handling in UMTS IP CN			3.0.0				
23.930	lu principles			3.0.0	4.0.0			
23.934	3GPP system to Wireless Local Area Network (WLAN) interworking; Functional and architectural definition						1.0.0	
23.976	Push architecture						6.1.0	
23.977	Bandwidth And Resource Savings (BARS) and speech enhancements for Circuit Switched (CS) networks						6.1.0	
23.979	3GPP enablers for Open Mobile Alliance (OMA) Push-to-talk over Cellular (PoC) services; Stage 2						6.1.0	
23.981	Interworking aspects and migration scenarios for IPv4-based IP Multimedia Subsystem (IMS) implementations					5.0.0	6.3.0	