SA2 Status Report

Chairman: Teuvo Järvelä, Nokia. MCC support: Alain Sultan, ETSI.

1. General

1.1. Meetings since SA#4

SA2 has met three times since last SA plenary: SA2#6: 26th to 30th of July, hosted by AT&T in Hazlet, USA SA2#7: 23rd to 27th of August (including two joint meetings), hosted by ETSI in Sophia Antipolis, France SA2#8: 13th to 17th of September, hosted by T-Mobil in Bonn, Germany

Moreover, S2 has participated to the following joint meetings:

- with R2, R3, N1 and S3 on August, 23rd
- with T3 and S3 on August, 24th
- with R2 on August, 27th
- with S1 on September, 14th

The number of participant at each meeting is higher than 80. In addition, 490 people are registered on the SA2 e-mail list (on October 6^{th} 1999).

1.2. S2 structure

The following S2 sub-groups have been created since last SA plenary:

- **Release 2000 ad-hoc**, created at SA2#6, in charge of making a first study on the network architecture for UMTS release 2000. This group has focussed on an all-IP based solution. It has elaborated the TR 23.922, presented in SP-99388.

- Six Inter-Group Co-ordination (IGCs), in charge of monitoring a dedicated topic at 3GPP, as detailed in TR 30.801 v.1.0.0, Overall Project Plan, in SP-99390. Each group reports his results in TR 30.80x and TR 30.81x (tdocs SP-99391 to 396).

The on-going S2 ad-hoc groups are:

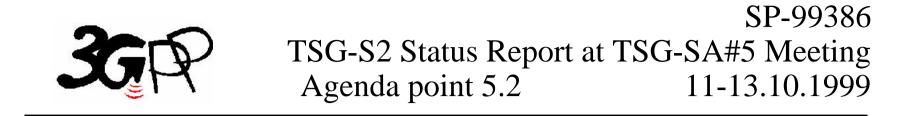
- **MIP** (**Mobile IP**), in charge of studying how Mobile IP can be incorporated in the PS-domain (i.e. GPRS). They handle the TR 23.923, presented in v.1 to SA#5 in SP-99389.

- **QoS** (**Quality of Service**), in charge of studying the QoS aspects of the network. They handle the TR 23.907, presented in v.1 to SA#4, and now proposed as TS 23.107 v.3 in SP-99387.

All these ad-hoc groups had dedicated physical meetings, some of them meeting up to five times (i.e. the R00 ad-hoc).

In addition, some dedicated meetings took place for drafting sessions on:

- 23.060
- LCS
- VHE/OSA









- **Events since last TSG-SA plenary**
 - □ SA2 has met three times:
 - SA2#6: 26th to 30th of July, AT&T in Hazlet, USA
 - SA2#7: 23rd to 27th of August (including two joint meetings), ETSI in Sophia Antipolis, France
 - SA2#8: 13th to 17th of September, T-Mobil in Bonn, Germany
 - □ Moreover, S2 has participated to the following joint meetings:
 - with N1, N2 and S1 on June 29th July 1st
 - with R2, R3, N1 and S3 on August 23rd
 - with T3 and S3 on August 24th (TSG-S2 was represented only by the Chairman)
 - with R2 on August 27th
 - with S1 on September 14th





Sub-groups / ad-hoc groups at SA2

Groups created since SA#4

□ Release 2000 ad-hoc, created at SA2#6

□ Six Inter-Group Co-ordination (IGCs), created between SA#4 and SA#5

On-going groups

□ MIP (Mobile IP)

QoS (Quality of Service)

In addition, dedicated drafting meetings on:

23.060

 \Box LCS

□ VHE/OSA

Lot of work handled by e-mail (chaired by Mr. Hiramatsu, TSG-S2 Vice-Chairman)





Participation at SA2

- The number of participant at each meeting is higher than 80.
- In addition, 490 people are registered on the SA2 e-mail list (on October 7th 1999).
- Documents handled this year at TSG-SA2 Plenary has exceeded one thousand
- Liaison Statements since previous TSG-SA Plenary:
 - □ SA2 received 52 LSs
 - SA2 sent 47 LSs





Main technical decisions (1/2)

Location/Routing Areas concepts

Same concepts as for GSM and GPRS release 97 (i.e. RA and LA are defined, with RA always being a subset of LA or RA equal to LA)

Use of combined MAP procedures

The use of combined location update procedures is not a high priority issue for Release 99

Mechanisms involved at HO/cell change

Both at inter-system (GSM/UMTS both senses) and within UMTS (for real time and non real time services). It was concluded that SRNC relocation procedure with packet forwarding is used for R99.





Main technical decisions (2/2)

Handling of multimedia calls

→H.323 is proposed as the single multimedia call control protocol for the PS domain in UMTS Release 99 (see CR 037 on 23.121).

All these decisions have lead to CRs on 23.121.

On other documents:

- ▼ A global view of the UMTS network Release 99 is proposed in 23.002 v.3.1.0
- ▼ A global view of the UMTS network Release 00 is proposed in 23.922 v.1.0.0
- ▼ QoS mechanisms detailed in TS 23.107
- MIP / GSM-GPRS relationship detailed in 23.923 v.1.0.0
- Stage 2 Service description for both GPRS and UMTS PS in 23.060





Involvement of S2 in GSM matters

SMG12 will not have dedicated meeting anymore:

→TSs 03.56, 03.73 and 23.060 transferred to common SA2/SMG12 responsibility.

Review of the GSM Stage 2 descriptions

□ S2 has reviewed and agreed with the TSG CN proposal of transfer of TSs from the 03 series to the 23 series (except for 03.71/23.071 on LCS, see later)





R00 Ad Hoc report

□ Scope of work

□ Meeting schedule and project info

Contents of Technical Report

□ Release 2000 Architecture for all-IP option

□ Key issues discussed

Proposal for next step





Scope of Work of R00 Ad Hoc(from TR)

"This technical report will propose an architecture that provisions an all-IP architecture option for release 00. The purpose of the technical report is to

- identify key issues and affected ongoing 3GPP work that need to be resolved and
- propose a high level work plan for completion of an all IP release 00 UMTS standard

in order to provide this architectural option within Release 2000."





- Meeting schedule and project info
 - Release 2000 architecture ad-hoc established during SA2#6 end July 1999
 - Five meetings were held, three during SA2 plenary meetings
 - □ 122 contributions prepared

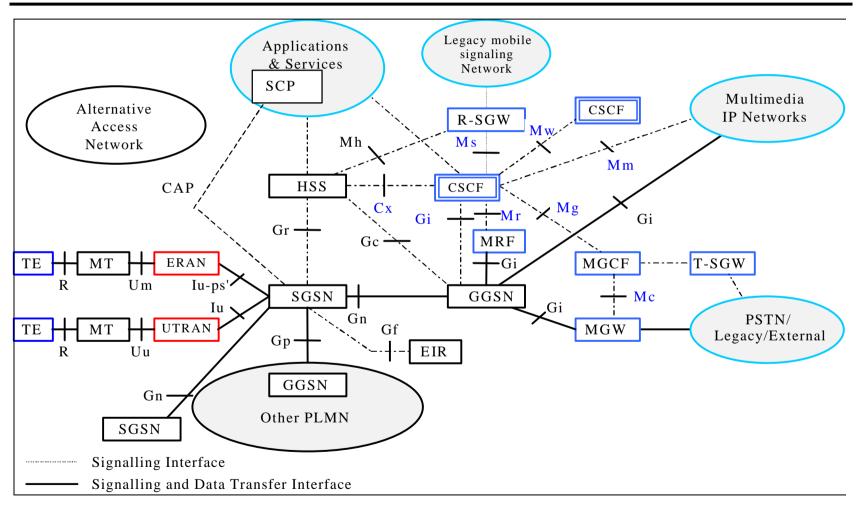




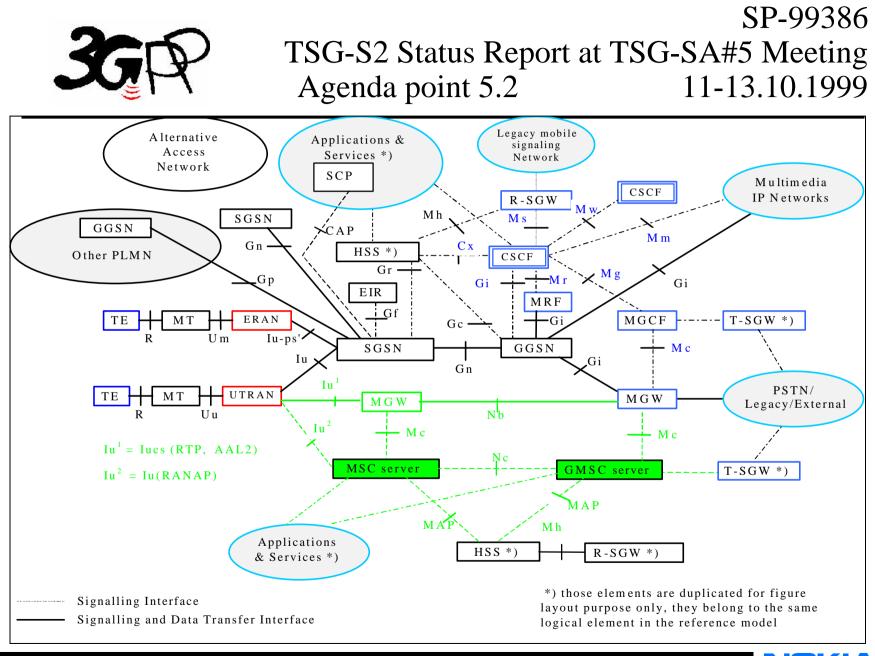
Contents of TR

- 1 Scope
- 2 References
- 3 Definitions and abbreviations
- 4 Requirements
- 5 Architecture for an all IP PLMN
- 6 QoS
- 7 Handover
- 8 Radio Aspects
- 9 Call Control
- **10 Service Platform Impacts**
- 11 Security
- 12 Work Plan









NOKIA



Key issues discussed

Should Release 99 CS-terminals be supported in Release 2000 networks?

 \Rightarrow Assumption is yes, architecture option proposed in the TR

□ What is the difference between R99 voice and VoIP in release 2000?

□ Many requirements to be clarified by S1





Proposal for further work

- □ S2 to start Release 2000 project planning, the all-IP option is part of this work
- □ S1 to start Release 2000 requirements definitions
- □ S2 to propose work packages
- When work packages have been agreed upon other TSGs and WGs can prepare detailed planning





Work co-ordination of 3GPP

- Six Inter-Group Co-ordination ad-hoc (IGCs) have been created to co-ordinate the overall work at 3GPP on dedicated tasks:
 - Bearer Services and QoS
 - GSM/UMTS Interoperation and Mobility Management
 - Location based services
 - Packet Architecture and Circuit Architecture
 - **D** Security
 - Services and Service platforms





IGC on Bearer Services and QoS

- □ The project plan is based on inputs from: S1, S2, R2, R3, N1 and N3. No reply so far from: S5, R1, N2, T2
- Work still required from CN groups to fullfil QoS requirements by December 99
- Discussions needed with T2





IGC GSM/UMTS Interoperation and Mobility Management for UMTS

- □ The Report has been sent to all involve groups end of September
 - Preliminary answer has been provided by N3
 - \Rightarrow N1 requested several clarification that were given during last week
 - \Rightarrow No other group has yet responded due to lack of time
 - ⇒ It is anticipated that the full report should be made available for the next TSG meeting for Release 99





IGC on Location and Broadcasting services

- The project plan is based on inputs from: S2, S5, R2, R3, N1 and N2. No reply so far from: S1 and S3
 Contact persons still missing for: S3, N1, N2, (proposal for S1), R4? Task descriptions still to be elaborated for S1, S3, N1, N2 and T2.
- **LCS** specifications to be completed in 1999:
- S1 has included UMTS LSC service requirements in the stage 1 specification 22.071 as "compatibility with future releases".
- The functional description of LCS in the whole System, Stage 2, TS 23.171 is being elaborated in S2
- The functional description of LCS in UTRAN Stage 2, TR 25.923 is being elaborated in R2
- Detailed descriptions of positioning methods: cell coverage based, OTDOA with configurable Idle periods, assisted GPS methods





- **LCS** specifications to be completed in 2000:
- Complete detailed (Stage 3) LCS specifications
- □ The goal is to maximize synergies between GSM and UMTS,
- **UMTS** will have less options in LCS architecture than GSM





CBS specifications to be completed in 1999:

- S1 work on the stage1 requirements is finished and the other working groups are informed. The editorial adaptation in 23.003 will be completed during the next meeting.
- RAN2 addresses the needed adaptations and changes for the radio interface. Work completion is targeted end of 99.
- S2 and T2 have proposed the architectural framework
 - T2 defines the requirements for the CBC-RNC protocol
 - Open Issue:
 - Specification of the CBC-RNC protocol based on the primitives contained in GSM 03.41 using the IP infrastructure of the "Iu" interface. The responsibility is not yet decided between RAN and CN.





IGC on PS and CS Architecture

- Overall architecture
- Determination of principle protocol stacks of user and control plane
- Call Control, session management related issues

Involved groups

- First feedback received: R2, R3, N1, N2, N3_Packet, S4
- Feedback pending: S1, S3, S5 (all little impact expected), T2 (scheduled 18.-22.10.9), N3_Circuit
- Groups not contacted: R1, R4, T1, T3

Critical issues

- Classmark issues (CS&PS, HO handling with GSM/GPRS) are not sufficiently addressed (several groups involved)
- In core network (N1) changes to 24.008 as due to the removal of LLC and stream identifier concept are essential for R99. In case of timing problem, multicall could be moved to future releases.





IGC on Security

- Some issues and milestones may not yet be identified in the project plan (SP-99395)
- □ Input received from: S2, S3, R3, N1, N2, N3
- □ No input received from: R2, T1, T2, T3, N-SS
- □ Still to nominate contact point: T3, N-SS
- □ S3 to specify security features, other groups to integrate features into relevant specifications
- Full integration of most security features on schedule but correction CRs to some R99 specifications envisaged until March/April 2000
- Special attention required on user identity confidentiality, network-wide confidentiality, secure GSM-UMTS interoperation, core network security and IP security
- Note that milestones in MS Word document are not aligned with milestones in MS Excel sheet (which is the master)





IGC on Services and Service Platforms

- □ No groups have been contacted, so no nominees for the ICG are available (except for those mentioned in the plan)
- □ VHE stage2 v.0.2.1
- □ VHE stage3 needs to be secured.
- **I** Suggested scope reduction for CAMEL might endanger status.





Involvement of the IGCs for R00

- □ For R99 work was started in June ----> reality check
- □ Target agreed (S1)
- Plan for the process (timelines, resources, tools, when frozen, Change control)
- Project Planning groups (are the current groups the right ones)
- **Commitment**
- Project plan for R00 as version 3.0.0 in March 2000





Proposed meeting dates for year 2000				
	TSG-S2#11	January 24-28, 2000		
	⇔Might cha	inge, possibly overlaping with T1P1		
	TSG-S2#12	March 6-9, 2000 (4 days)		
	TSG-S2#13	May 22-26, 2000		
	TSG-S2#14	September 4-8, 2000		
	TSG-S2#15	November 13-17, 2000		





Actions expected from SA#5 by SA2 (1/4)

- Approbation of new documents:
 - □ TS 23.107 v.2.0.0, QoS Concept and Architecture in SP-99387
 - This document was presented as Technical Report 23.907 v.1.0.0 at SA#4.
 - However, SA2 proposes to change it to Technical Specification at the same time it is proposed for approbation.





Actions expected from SA#5 by SA2 (2/4)

- Presentation of new technical documents:
 - TR 23.922 v.1.0.0, Architecture for an all-IP network, in SP-99388
 - □ TR 23.923 v.1.0.0, Combined GSM and Mobile IP Mobility Handling in UMTS IP CN, in SP-99389
 - □ TS 23.171 v.1.0.0, Location Services (LCS) in UMTS Stage 2, in SP-99408
 - Note that it is proposed to have two different TSs for LCS stage 2 CN for Release 99: one for GSM in 03.71 v.8.0.0 and one for UMTS, 23.171, presented here
 - TS 23.127 v.0.2.1, Virtual Home Environment (VHE)/Open Service Architecture (OSA) - Stage 2, in SP-99409 including a proposed process of way forward (TSG-SA approval for V.1.0.0 by correspondence proposed)





Actions expected from SA#5 by SA2 (3/4)

- Presentation of the reports from the IGCs:
 - TR 30.801 v.1.0.0, Overall Project Plan, in SP-99390
 - TR 30.802 v.1.0.0, Project plan on Bearer Services and QoS, in SP-99391
 - □ TR 30.804 v.1.0.0, Project plan on GSM/UMTS Interoperation and Mobility Management, in SP-99392
 - **TR** 30.806 v.1.0.0, Project plan on Location based services, in SP-99393
 - □ TR 30.808 v.1.0.0, Project plan on Packet Architecture and Circuit Architecture, in SP-99394
 - **TR** 30.810 v.1.0.0, Project plan on Security, in SP-99395
 - TR 30.812 v.1.0.0, Project plan on Services and Service Platforms, in SP-99396





Actions expected from SA#5 by SA2 (4/4)

Approval of the following CRs:
on 23.002 v.3.0.0, in SP-99397
on 23.060 v.3.0.0, in SP-99398
on 23.110 v.3.1.0, in SP-99399
on 23.121 v.3.0.0, in SP-99400
on 23.920 v.3.0.0, in SP-99401



Finally, a considerable amount of work has been handled by e-mail, supervised by Y. Hiramatsu, NTT (S2 vice-chairman).

2. Technical progress

2.1. Technical discussions

The main technical discussions at SA2 meetings since previous TSG-SA Plenary were on: - Location/Routing Areas concept

It was concluded to keep the same concepts as for GSM and GPRS release 97 (i.e. RA and LA are defined, with RA always being a subset of LA)

- use of combined MAP procedures

After some dialogue with N1, it was decided that the use of combined MAP procedures for CS and PS services is not a high priority issue for Release 99

- mechanisms involved at HO/cell change

Both at inter-system (GSM/UMTS both senses) and within UMTS (for real time and nonreal time services). It was basically concluded that the old RNC has to store and re-send the data to the new RNC.

- handling of multimedia calls

H.323 is proposed as the single multimedia call control protocol for UMTS Release 99 (see CR 037 on 23.121).

These results are detailed in CRs on 23.121.

- Definition of the UMTS network

SA2 is proposing a global view of the UMTS network in the proposed 23.002 v.3.1.0: it will consist in a Core Network (CN) and an Access Network (AN). The CN is common to UMTS and GSM. There is one AN specific to GSM (the BSS) and one AN specific to UMTS (the UTRAN). The CN is composed of a Circuit Switched (CS) domain, corresponding to the "old" GSM switching elements, and a Packet Switched (PS) domain, corresponding to the GPRS entities.

An important part of the technical discussions is now handled by the ad-hoc groups, i.e. Release 2000 ad-hoc, MIP ad-hoc and QoS ad-hoc. Each ad-hoc is handling one document, as explained above.

2.2. Involvement of S2 in GSM matters

S2 and SMG12 have jointly decided that SMG12 will not have dedicated meeting anymore: all the SMG12 meetings will now be joint with S2. The last dedicated SMG12 meeting took place in Newark, in July 99. This means that now SA2/SMG12 has the responsibility of TSs 03.56, 03.73 and 23.060.

2.3. Transfer of GSM Technical Specifications to UMTS Technical Specifications

S2 has reviewed and agreed with the TSG CN proposal of transfer of TSs from the 03 series to the 23 series.

3. Work co-ordination of 3GPP: creation of the Inter-Group Coordination ad-hoc (IGCs)

By delegation of TSG SA, SA2 is in charge the overall co-ordination of technical work within 3GPP.

For the accomplishment of this task, six IGCs have been created (plus one co-ordination entity), each one with their own ftp site and e-mail reflector:

0 General Coordinator: Alain Sultan, MCC (alain.sultan@etsi.fr) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC</u>

1 Bearer Services and QoS Chair: Oscar Lopez-Torres, T-Mobil (Oscar.Lopez@t-mobil.de) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC/Bearer&QoS</u> reflector address: 3GPP_TSG_SA_IGC_Bearer&QoS@list.etsi.fr

2 GSM/UMTS Interoperation and Mobility Management Chair: François Courau, Alcatel (francois.courau@alcatel.fr) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC/GUinterop&MM</u> reflector address: 3GPP_TSG_SA_IGC_GUinterop&MM@list.etsi.fr

3 Location based services Chair: Jan Kåll, Nokia (jan.kall@NOKIA.COM) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC/LCS</u> reflector address: 3GPP_TSG_SA_IGC_LCS@list.etsi.fr

4 Packet Architecture and Circuit Architecture Chair: Ulrich Dropmann, Siemens (Ulrich.Dropmann@ICN.SIEMENS.DE) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC/PS&CS</u> reflector address: 3GPP_TSG_SA_IGC_PS&CS@list.etsi.fr

5 Security

Chair: Chris Pudney, Vodafone (chris.pudney@VF.VODAFONE.CO.UK) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC/Security</u> reflector address: 3GPP_TSG_SA_IGC_Security@list.etsi.fr

6 Services and Service platforms Chair: Rob Schmersel, Ericsson (Rob Schr

Chair: Rob Schmersel, Ericsson (Rob.Schmersel@era.ericsson.se) Site: <u>ftp://ftp.3gpp.org/TSG_SA/WG2_Arch/IGC/Services</u> reflector address: 3GPP_TSG_SA_IGC_Services@list.etsi.fr

The results of these groups are presented separately.

4. Actions at SA#5

This section presents document per document all the actions solicited to SA#5 by SA2.

TS 23.002, " Network Architecture ", v.3.0.0 One huge CR on v.3.0.0 to incorporate the UMTS aspects in v.3.1.0 is presented in SP-99397.

TS 23.060, " General Packet Radio Service (GPRS); Service description; Stage 2 ", v.3.0.0 Lots of CRs on v.3.0.0 to incorporate the UMTS aspects are presented in v.3.1.0 in SP-99398.

TS 23.171, "Location Services (LCS) in UMTS - Stage 2 ", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99408.

TS 23.110, " Access Stratum (AS): Services and Functions ", v.3.1.0 2 CRs are presented in SP-99399 on v.3.1.0, which will become v.3.2.0.

TS 23.121, " Architectural Requirements for Release 1999 ", v.3.0.0 A lot of CRs are presented in SP-99400.

TS 23.127, "Virtual Home Environment (VHE)/ Open Service Architecture (OSA) - Stage 2", v.0.2.1

V.1.0.0 is proposed to be presented to SA by e-mail next week. The technical content should be very similar to the one of the version 0.2.1, presented here in SP-99409.

TS 23.107, " *QoS Concept and Architecture* ", v.2.0.0 V.2.0.0 to be presented to SA#5 in SP-99387. This TS was presented as TR 23.907 v.1.0.0 at SA#4. After carefully reviewing it, S2 has decided to propose it as Technical Specification. The content is exactly the same as in 23.907 v.1.4.1.

TR 23.920, "Evolution of the GSM platform towards UMTS", v.3.0.0 Some CRs to be presented in SP-99401.

TR 23.922, " Architecture for an all-IP network ", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99388.

TR 23.923, "Combined GSM and Mobile IP Mobility Handling in UMTS IP CN ", v.1.0.0 V.1.0.0 to be presented to SA#5 SP-99389.

TR 30.801, " Overall Project Plan ", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99390. v.3.0.0 expected for December SA plenary

TR 30.802, "*Project plan on Bearer Services and QoS*", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99391. v.3.0.0 expected for December SA plenary

TR 30.804, "Project plan on GSM/UMTS Interoperation and Mobility Management ",v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99392. v.3.0.0 expected for December SA plenary

TR 30.806, "*Project plan on Location based services*", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99393. v.3.0.0 expected for December SA plenary

TR 30.808, "Project plan on Packet Architecture and Circuit Architecture ", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99394. v.3.0.0 expected for December SA plenary

TR 30.810, "*Project plan on Security*", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99395. v.3.0.0 expected for December SA plenary

TR 30.812, "Project plan on Services and Service platforms", v.1.0.0 V.1.0.0 to be presented to SA#5 in SP-99396. v.3.0.0 expected for December SA plenary

5. Annex A: list of TRs and TSs handled by SA2

Number	Title	Editor	Current version (before SA#5)
TS 23.107	QoS Concept and Architecture	Kalliokulju Juha (Juha.Kalliokulju@ NMP.NOKIA.CO M)	v.2.0.0
TR 23.920	Evolution of the GSM platform towards UMTS	Liz Daniel (lizdaniel@LUCEN T.COM)	v.3.0.0
TR 23.922	Architecture for an all-IP network	Liz Daniel (lizdaniel@LUCEN T.COM)	v.1.0.0
TR 23.923	Combined GSM and MobileIP Mobility Handling in UMTS IP CN	Elisabeth Hubbard (Elisabeth.A.Hubba rd@telia.se)	v.1.0.0
TR 23.925	UMTS Core Network based on ATM Transport	Adel Rouz (A.Rouz@fujitsu.c o.uk)	v.0.2.0
TR 23.930	Iu Principles	Bo Axerud (bo.axerud@nokia. com)	v.3.0.0
TR 30.801	Overall Project Plan	Alain Sultan (alain.sultan@etsi.f r)	v.1.0.0
TR 30.802	Project plan on Bearer Services and QoS	Oscar Lopez-Torres (Oscar.Lopez@T- MOBIL.DE)	v.1.0.0
TR 30.804	Project plan on GSM/UMTS Interoperation and Mobility Management	François Courau (francois.courau@a lcatel.fr)	v.1.0.0
TR 30.806	Project plan on Location based services	Jan Kåll (jan.kall@NOKIA. COM)	v.1.0.0
TR 30.808	Project plan on Packet Architecture and Circuit Architecture	Ulrich Dropmann (Ulrich.Dropmann @ICN.SIEMENS. DE)	v.1.0.0
TR 30.810	Project plan on Security	Chris Pudney	v.1.0.0

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		(chris.pudney@VF.	
		VODAFONE.CO.	
		UK)	
TR 30.812	Project plan on Services and	Rob Schmersel	v.1.0.0
	Service platforms	(Rob.Schmersel@e	
		ra.ericsson.se)	
TS 03.56	CTS	Alcatel	v.7.1.0
TS 03.73	SoLSA		v.7.1.0
TS 23.002	Network Architecture	Alain Sultan	v.3.0.0
		(alain.sultan@etsi.f	
		r)	
TS 23.060	General Packet Radio Service	Hans-Petter Naper	v.3.0.0
	(GPRS);	(Hans-	
	Service description;	Petter_Naper@euro	
	Stage 2	pe34.mot.com)	
TS 23.101	General UMTS Architecture	Magnus Olsson	v.3.0.1
TS 23.110	Access Stratum (AS): Services	Oscar Lopez-Torres	v.3.1.0
	and Functions	(Oscar.Lopez@T-	
		MOBIL.DE)	
TS 23.121	Architectural Requirements for	Liz Daniel	v.3.0.0
	Release 1999	(lizdaniel@LUCEN	
		T.COM)	
TS 23.127	Virtual Home Environment	Erwin van Rijssen	v.1.0.0
	(VHE)/ Open Service	(etmehri@ETM.ER	
	Architecture (OSA) - Stage 2	ICSSON.SE)	
TS 23.171	Location Services (LCS) in	Jan Kåll	v.1.0.0
	UMTS - Stage 2	(jan.kall@NOKIA.	
		ČOM)	
		/	

6. Annex B: WIs handled by TSG SA WG2

Note:

S2 is in general shifting the focus to the Building Blocks and Work Packages identified by the IGC from the WIs concept as explained and endorsed during the previous TSG-SA Plenary.

The WIs impacting SA2 work are listed bellow and some documents are dedicated to the handling of one WI.

WIs handled by SA2:

- ETE UMTS QoS Management (impacts only 23.907)
- *IP-in-IP tunneling in GPRS backbone for UMTS phase 1* (impacts only 23.922)
- UMTS Open Service Architecture (impacts only 23.127)
- Support of non-realtime Multimedia Messaging Service

Work Items inherited from SMG12:

- UMTS Core Network based on ATM Transport (impacts only 23.925)
- Multimedia in UMTS
- provision of text telephony service in GSM and UMTS
- New Access Network to Core Network (BSS-NSS) interface
- Architecture overview of the GSM-UMTS System (impacts 23.002, 23.121, 23.920)
- Architecture the GSM-UMTS Platform (impacts 23.121 and 23.920)
- Support for real time services in the Packet domain for GSM/GPRS/UMTS R99

Work Items handled by other TSG but impacted by S2 work:

- Service Continuity and Provision of VHE via GSM/UMTS of S1 (impacts only 23.127)
- *Virtual Home Environment* of S1 (impacts only 23.127)

7. Annex C: List of incoming/outgoing LSs

7.1. At SA2#6:

Incoming LSs

S2-99654 T2 MExE LS on MExE support S2-99550 TSG N3 current status on N3 work on CS data services S2-99550 TSG R2 Liaison Statement regarding the Interactions between Mobi Management and Radio Mobility S2-99558 TSG R2 Liaison Statement on choosen Logical and Transport Chan on the Radio Interface for Cell Broadcast Service in UMTS S2-99552 TSG R3 LS about Overall Delay Budget within the Access Strat Results and Requirements S2-99575 TSG R3 Liaison Statement on CN Domain Identifiers used over the & Iur interfaces S2-99576 TSG R3 Reply to liaison statement from 3GPP TSG SA WG2 on a broadcast service in UMTS S2-99576 TSG R3 UMTS 25.832 Manifestations of Handover and SR Relocation v.2.1.1 S2-99578 TSG R3 UMTS 25.832 Manifestations of Handover and SR Relocation v.2.1.1 S2-9958 TSG S1 LS on User-to-User Signalling (UUS) Enhancements S2-99578 TSG S1 LS in Sot Statement concerning requirements for all-IP option release 2000 S2-99579 TSG S1 Answer to LS TSGS52(99)051: Work distribution charging & billing aspects between TSG S1 and TSG S5 S2-99530 TSG S3 Time constraints on the execution of cryptographic algorithr S2-99551 SG S3 Authenticatinto for Mobile IP Op	TDoc #	Source	Title		
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charging & billing aspects between TSG S1 and TSG S5S2-99536TSG S3Enhanced User Identity ConfidentialityS2-99539TSG S3TSG S3Evolution to UMTS & R99 Security FeaturesS2-99545TSG S3S2-99548TSG S3Authentication for Mobile IP Operations in UMTSS2-99501TSG SA #4S2-99554TSG T2Response to LS on 02.90 Version 8.0.0S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribu for packet switched bearer servicesS2-99573TSGN1, N2, N-SS, S1, S2 joint meetingS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingS2-99594TSGN1, N2, N-SS, S1, S2 joint meetingS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingS2-99594TSGN1, N2, N-SS, S1, S2 joint meetingS2-99594TSG-SA WG3S2-99534TSG-SA WG3			release 2000		
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S2-99539TSG S3Time constraints on the execution of cryptographic algorithmS2-99545TSG S3Evolution to UMTS & R99 Security FeaturesS2-99548TSG S3Authentication for Mobile IP Operations in UMTSS2-99501TSG SA #4System Architecture Issues identified to be solved urger within TSG-S2S2-99554TSG T2Response to LS on 02.90 Version 8.0.0S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribut for packet switched bearer servicesS2-99573TSGN1, N2, N-SS, S1, S2 joint meetingGR 001 on 23.121 on Architecture for multimedia in the domainS2-99534TSG-SA WG3Interoperation between UMTS and GSM			charging & billing aspects between TSG S1 and TSG S5		
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S2-99548TSG S3Authentication for Mobile IP Operations in UMTSS2-99501TSG SA #4System Architecture Issues identified to be solved urger within TSG-S2S2-99554TSG T2Response to LS on 02.90 Version 8.0.0USSD Enhancements in GS 02.90 Version 8.0.0S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribut for packet switched bearer servicesS2-99549TSGN1, N2, N-SS, S1, S2 joint meeting3GPP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99534TSG-SA WG3Interoperation between UMTS and GSM	S2-99539	TSG S3	Time constraints on the execution of cryptographic algorithms		
S2-99501TSG SA #4System Architecture Issues identified to be solved urger within TSG-S2S2-99554TSG T2Response to LS on 02.90 Version 8.0.0USSD Enhancements in GS 02.90 Version 8.0.0S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribut for packet switched bearer servicesS2-99549TSGN1, N2, N-SS, S1, S2 joint meeting3GPP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99534TSG-SA WG3Interoperation between UMTS and GSM	S2-99545	TSG S3	Evolution to UMTS & R99 Security Features		
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S2-99554TSG T2Response to LS on 02.90 Version 8.0.0USSD Enhancements in GS 02.90 Version 8.0.0S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribu for packet switched bearer servicesS2-99549TSGN1, N2, N-SS, S1, S2 joint meeting3GPP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingCR 001r1 on 23.121 on Architecture for multimediaS2-99534TSG-SA WG3Interoperation between UMTS and GSM	S2-99501	TSG SA #4	System Architecture Issues identified to be solved urgently		
S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribut for packet switched bearer servicesS2-99549TSGN1, N2, N-SS, S1, S2 joint meeting3GPP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingCR 001r1 on 23.121 on Architecture for multimediaS2-99534TSG-SA WG3Interoperation between UMTS and GSM			within TSG-S2		
S2-99555TSG T2 SWG6Liaison statement to TSG SA WG2 on Information attribution for packet switched bearer servicesS2-99549TSGN1, N2, N-SS, S1, S2 joint meeting3GPP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingCR 001r1 on 23.121 on Architecture for multimediaS2-99534TSG-SA WG3Interoperation between UMTS and GSM	S2-99554	TSG T2	Response to LS on USSD Enhancements in GSM		
S2-99549TSGN1, N2, N-SS, S1, S2 joint meetingGRP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingCR 001r1 on 23.121 on Architecture for multimediaS2-99534TSG-SA WG3Interoperation between UMTS and GSM			02.90 Version 8.0.0		
S2-99549TSGN1, N2, N-SS, S1, S2 joint meeting3GPP Call Set-up Requirements for Circuit Switch Multimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingCR 001r1 on 23.121 on Architecture for multimediaS2-99534TSG-SA WG3Interoperation between UMTS and GSM	S2-99555	TSG T2 SWG6	Liaison statement to TSG SA WG2 on Information attributes		
joint meetingMultimedia Telephony Service, version 1.1.0S2-99573TSGN1, N2, N-SS, S1, S2 joint meetingCR 001 on 23.121 on Architecture for multimedia in the domainS2-99592TSGN1, N2, N-SS, S1, S2 joint meetingCR 001r1 on 23.121 on Architecture for multimediaS2-99534TSG-SA WG3Interoperation between UMTS and GSM					
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joint meetingS2-99534TSG-SA WG3Interoperation between UMTS and GSM					
S2-99534 TSG-SA WG3 Interoperation between UMTS and GSM	S2-99592		CR 001r1 on 23.121 on Architecture for multimedia		
S2 00550 TSC T2 Implications of CSM LITDAN handower and CSM access			•		
the USIM	S2-99559	TSG-T3	Implications of GSM-UTRAN handover and GSM access on the USIM		
S2-99560 TSG-T3 Parameters to be stored in the USIM	S2-99560	TSG-T3	Parameters to be stored in the USIM		

7.1.1.Outgoing LSs

TDoc #	TDoc # Title P		Answer to	Conclusion	
S2-99587	Answer to S3 to the LS on Authentication for Mobile IP Operations in UMTS		S2-99548	approved.	
S2-99590	Forward to S3 and R2 (Cc T3) to T3's LS on Parameters to be stored in the USIM	-	S2-99560	Approved	
S2-99621	LS to R3 and N2 (CC S1, R2) on answer to Overall Delay Budget within the Access Stratum Results and Requirements		S2-99535	Approved.	
S2-99623	Answer to R3 (Cc N1, R2) on Clarification of RAB Sub Flows concept and associated definitions	S2-99591	S2-99576	Approved.	
S2-99633	Answer to S3, T3 (Cc N2) to the LS on Interoperation between UMTS and GSM	S2-99584	S2-99534	Approved.	
S2-99634	Answer to S3, T3 (Cc N2) to the LS on Enhanced User Identity Confidentiality (check)	S2-99629	S2-99536	Approved.	
S2-99635	Answer to S3, T3 (Cc N2) to the LS on Evolution to UMTS and R99 Security Features	S2-99630	S2-99545	Approved.	
S2-99636	LS to S3 (Cc T3, R2, R3, N1, and N2) on answer to the LS on the time constraints on the execution of cryptographic algorithms		S2-99539	Approved.	
S2-99637	Answer to R2 (Cc R3) to the LS on Interactions between Mobility Management and Radio Mobility	S2-99588, S2-99521	S2-99550	Approved.	
S2-99638	Answer to S5 (Cc S1) to the LS on Work distribution on charging & billing aspects	S2-99589.	S2-99556	Approved.	
S2-99641	LS to TSG N, N1 and N2 on the handling of 03.60	S2-99626	-	Approved	
S2-99648	Answer to R3 (Cc N2) to the LS concerning Paging Co-Ordination	S2-99620	S2-99578	Approved	
S2-99649	LS to S1 concerning requirements for all-IP option for release 2000	S2-99593	S2-99538	Approved	
S2-99659	Answer to R3 (Cc N2) to the LS on CN Domain Identifiers used over the Iu & Iur Interfaces	S2-99622	S2-99552	Approved	
S2-99660	LS to R2 and R3 concerning the Iu network layer services for the packet domain (CR A006r1 on 23.121 in S2-99612)		-	Approved	
S2-99663	LS to S1 and S5 on Conformance requirements for volume based charging for IP domain	S2-99611, S2-99508	-	Approved	
S2-99647	Answer to NSS and N3 on the LS on User-to-User Signalling (UUS) Enhancements	S2-99585	S2-99537	S2-99647 not available, S2-99585 sent instead	
S2-99659	Answer to R3 on LS on CN Domain Identifiers used over the Iu & Iur Interfaces			Approved	
S2-99657	Draft answer to T2SWG1 (on MExE) to the LS in S2-99655 on MExE support of QoS negotiation	-	S2-99655	Approved by e-mail	
S2-99615	LS to SMG2, TSG RAN, TSG CN, TSG T (Cc TSG SA, SMG) concerning the work plan for all-IP option for release 2000		-	Approved	
S2-99656	Draft answer to T2SWG1 (on MExE) to the LS in S2-99654 on MExE support of handover notifications		S2-99654	Not available (postponed)	
S2-99658	Draft answer to T2SWG6 on the LS in S2-99655 on Information attributes for packet switched bearer services		S2-99555	postponed to next meeting	

7.2. At SA2#7

7.2.1.Incoming LS

TDoc #	Source	Title	Conclusion
S2-99740	TIPIA	LS on IP telephony and multimedia applications	Noted.
S2-99728	N2	LS on tandem-free and out of band transcoder control	Some comments to be provided by e-mail.
S2-99730	S 3	LS on Security interoperation between UMTS and GSM	Noted.
S2-99729	T1P1	Liaison Statement Concerning requirements for all-IP Option for Release 2000	Noted.

7.2.2.Outgoing LS

TDoc #	Destinatio	Title	Answer	Comments	Action
	n		to		
\$2-99795	N1, N2, N3	LS on addition of APN parameter in Network- requested PDP context activation procedure.		Revision of S2-99746.	sent
S2-99793		LS on support of VHE/OSA stage 2	-	Revision of S2-99787.	sent
S2-99792	S1	LSon support of VHE/OSA stage 1 requirements in R99	-	Revision of S2-99786.	sent
S2-99796	N1 and N plenary	LS on Location Area concept	-	Revision of S2-99774.	sent
\$2-99798		LS on a Common Communication Mechanism to be used by the Cell Broadcast Service	-	Revision of S2-99779.	not available
S2-99790	NTT Commware	proposed LS to N1 on 24.007 and 24.011 responsibility	-	proposed LS based on S2-99756.	approved by e-mail

7.3. At SA2#8:

7.3.1.Incoming L	Ĵ
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TDoc #	Source	Title	
S2-99899	T2	LS (Cc S2) about Synchronisation	
S2-99898	T2	LS on CBS Functionality and Responsibility	
S2-99897	T2SWG1 (MExE)	LS on QoS parameters	
S2-99896	T2SWG6	TR21.904 v.0.0.4 Terminal Capabilities Report, interim version	
S2-99895	S4	LS on Tandem Free Operation, Transcoder Free Operation, DTMF Signalling	
S2-99894	S 4	LS on Comments on the revised version of ITU-R TG8/1 Recommendation M.1079	
S2-99900	T2	LS on ICG contact persons	
S2-99834	R2	LS to S2 cc T3, S3 on parameters to be stored in the USIM	
S2-99832	N1	Response to LSs on MExE support of QoS negotiation and handover notifications.	
S2-99831	R3	Answer to LS from CN2 (Cc SA2) on CN Domain Identifiers used over the Iu & Iur interfaces	

	1		
S2-99830	R3	LS to CN WG2 (Cc SA2) on the allocation of an SSN for RNSAP	
S2-99829	T2 SWG5	LS on Definitions for usage of Multi-mode/system terminals	
S2-99828	R3	Response liaison on Clarification of RAB Sub Flows concept and associated definitions	
S2-99827	R3	LS to SA2, SA4, N3 on the Iu User Plane (UP) specification status in RAN WG3	
S2-99826	R3	LS (Cc S2) regarding Relocation and GSM-UMTS handover	
S2-99825	S3	Response to the LS on Enhanced User Identity Confidentiality (S2- 99634/S3-99226d)	
S2-99967	N3	LS on RAB requirements for CS data	
S2-99835	R1	LS to R2 (Cc S2) on answer to LCS liaison (Cc SA2)	
S2-99954	N2B	LS to S2 and N1 on combined mobility management	
S2-99966	N1	Response to the LS to S2, CN, N3 (Cc R2) on Location Area concept	
S2-99937	N3	current status on N3 work on CS data services	

7.3.2.Outgoing LS

TDoc #	Title	Remark			Conclusion
S2-99902	LS to S4 (Cc S1, N2) on answer to the LS on Tandem Free Operation, Transcoder Free Operation, DTMF Signalling		on	S2-	Approved.
S2-99905	LS to T2 on IGC contact persons	Answer 99900.	to	S2-	Approved.
S2-99919	Ls to N1, N2, T2, S4 on Multimedia Call Control for UMTS R 99				Approved.
S2-99924	LS to S1 (Cc S5) on Liaison Statement: QoS Charging-Sensitive Parameters	23.907 s included LS.		be the	Approved.
S2-99934	LS to SMG2 to inform them on the status of all-IP development in S2				Approved.
S2-99947	LS to N2 on the combined MAP operations	Answer 99837.	to	S2-	Approved and sent during the meeting.
S2-99957	LS to N1 on ciphering of the initial message				Approved by e mail before th meeting
S2-99962	LS to S1, R2, R3 on SRNS Relocation and handover				Approved.
S2-99987	LS to TSG T WG2 SWG1 (MExE) (Cc N1) on Response to LS on QoS parameters	Answer 99897.	to	S2-	Approved.
S2-99988	LS to N3 (Cc S1, R2, R3, N1) on Response on RAB requirements for CS data and architecture for CS data services		to	S2-	Approved.
S2-99989	LS to R3 on Response on Clarification of RAB Sub Flows concept and associated definitions	Answer 99828.	to	S2-	Approved.
S2-99990	LS to N1,N3, S1, R2 and R3 on UMTS and RAB parameter value ranges and granularity				Approved.
S2-99992	LS to T2 on Answer to the LS on CBS Functionality and Responsibility	Answer 99898.	to	S2-	Approved.
S2-99993	LS to N2, N1, SMG2 WP A, RAN3 on inter-3G MSC				Approved.
S2-99995	LS to N1, TSG CN, RAN3 on Response to the LS on Location Area concept				Approved.
S2-99996	LS to N1, R3 (Cc R2) on registration areas and on hierarchical tracking concept specification status in SA WG2				Approved.
S2-99997	LS to N2, N1 on combined procedures Answer to LS S2-99954 (N2-99D32)				Approved.
S2-99999	LS to N1, N3 on the Iu UP protocol framing of NAS				Approved.

	user data	
S2-99A00	LS to S3 (Cc S1, C2, T3, N1, IGC on Security) on	Approved.
	Enhanced User Identity Confidentiality	

8. Annex D: List of SA#5 tdocs related to S2

SP-99386	Status report of SA WG2	5.2.1
SP-99387	TS 23.107 v.2.0.0, QoS Concept and Architecture	5.2.3
SP-99388	TR 23.922 v.1.0.0, Architecture for an all-IP network	5.2.3
SP-99389	TR 23.923 v.1.0.0, Combined GSM and Mobile IP Mobility	
	Handling in UMTS IP CN	5.2.3
SP-99390	TR 30.801 v.1.0.0, Overall Project Plan	5.2.3
SP-99391	TR 30.802 v.1.0.0, Project plan on Bearer Services and QoS	5.2.3
SP-99392	TR 30.804 v.1.0.0, Project plan on GSM/UMTS Interoperation	
	and Mobility Management	5.2.3
SP-99393	TR 30.806 v.1.0.0, Project plan on Location based services	5.2.3
SP-99394	TR 30.808 v.1.0.0, Project plan on Packet Architecture and	
	Circuit Architecture	5.2.3
SP-99395	TR 30.810 v.1.0.0, Project plan on Security	5.2.3
SP-99396	TR 30.812 v.1.0.0, Project plan on Services and Service Platform	ns
SP-99397	CRs on 23.002 v.3.0.0	
SP-99398	CRs on 23.060 v.3.0.0	
SP-99399	CRs on 23.110 v.3.1.0	
SP-99400	CRs on 23.121 v.3.0.0	
SP-99401	CRs on 23.920 v.3.0.0	
SP-99408	TS 23.171 v.1.0.0	
SP-99409	TS 23.127 v.0.2.1	