Technical Specification Group Services and System Aspects ***TSGS#12(01)0339***
Meeting #12, Stockholm, Sweden, 18-21 June 2001

Source: **TSG SA WG2**
Title: **Revised WI on:** An architecture for Call control and roaming to support IP-based multimedia services in UMTS
Agenda Item: **7.2.3**

Work Item Description

Title: An architecture for Call control and roaming to support IP-based multimedia services in UMTS

1 3GPP Work Area

	Radio Access
X	Core Network
X	Services

2 Linked work items

none identified

3 Justification

The work item describes the ongoing architectural work in 3GPP for ~~R00~~R5, which has been initially been tasked by SA to S2 under the "all-IP option" by SA#4 (6/99).

4 Objective

The objective is to define a new network subsystem (defined in S2 as *IP Multimedia CN subsystem*), which comprises all CN elements for provision of IP Multimedia services. This enables new services with multiple media components per call based on non-UMTS IP multimedia call control standards (e.g. H.323, SIP). Also, services comparable to that of the CS domain can be offered, e.g. pure voice calls. Terminals using the services of the IP Multimedia CN subsystem have to support the IP bearer services of the PS domain as it provides the IP transport between the terminal and the network. The PS domain bearer service offers the handover functionality for maintaining the service while the terminal changes the location. In order to separate the IP bearer (provided by the PS CN domain) and the call/service control there is a need to define a new concept of IP Multimedia CN subsystem (IM CN Subsystem), which is flexible to operate on any other IP access system, e.g. wired networks. The IM CN subsystem provides also supplementary services related to the multimedia call control and supports application services.

5 Service Aspects
New services which are provided by this network subsystem are currently defined by a separate work item in S1 ~~[Ed comment: Work item needs to be created by S1]~~

6 MMI-Aspects
yes, as new, IP-based based call control protocol will be used in the terminal

7 Charging Aspects
yes, charging of IP-based multimedia services must be addressed in UMTS

8 Security Aspects

yes, security mechanisms for IP-based multimedia must be addressed.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes		x		X	
No			x		
Don't know	x				

10 Expected Output and Time scale (to be updated at each plenary) (copied from S2-99C16)

Meeting	Date	Activity
SA2#9	October 25-29, 1999	Define overall workplan. Start work on identifying requirements and issues related to architectural and functional aspects as compared to R99 (TR 23.ywz)
SA2#10	Nov 29 –Dec 3, 1999	Identify additional requirements from architectural and functional aspects as compared to R99 (TR 23.ywz). Start definition of ~~R00~~R5 documents.
SA1#6	Nov 29 - Dec 3, 1999	Start work on ~~R00~~R5 Stage 1
SA#6	December 15-17, 1999	R99 finalized.
SA2#11	January 24-28, 2000	Refined version of TR. Review draft Stage 1 description. Start Project Plan work. Continue definition of ~~R00~~R5 documents.
SA1#7	Feb 7-11, 2000	Refine ~~R00~~R5 stage 1.
SA2#13	May 22-26th 2000	Continue Project Plan work. Finilize definition of ~~R00~~R5 documents.
SA2#13	May 22-26, 2000	Finalize Project Plan work. Finalize definition of ~~R00~~R5 documents.
SA2 Drafting	June 12-14th 2000	Finalise TR 23.821v1.0.0. Review for v1.0.0 on e-mail, prior to SA#8.
SA#8	June 21-23, 2000	TR 23.821 v 1.0.0. Stage 1, TR 22.976 finalised.
Post SA#8	End June 2000	CRs and drafts of new specifications to be generated from TR 23.821. TR 23.821 to be discontinued.
~~SA2#14~~	~~September 4-8, 2000~~	~~R00 Stage 2 at least 80% complete. Project Plan approved. Definition of R00 documents approved.~~
~~SA#9~~	~~September 27-29, 2000~~	~~R00 work approved.~~
~~SA2#15~~	~~November 13-17, 2000~~	~~Finalise R00 Stage 2 work. Start R01 work.~~
~~SA#10~~	~~December 13-15, 2000~~	~~R00 approved.~~
SA#11	March 2001	TS 23.228 Stage 2 for IMS R5 presented for approval.

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
23.821	Architecture Principles for Release 2000	S2		SA#8		This TR will be discontinued after SA #8.
23.~~xxx~~228	IP Multimedia Subsystem Stage 2	S2		SA#10~~9~~	SA#11~~0~~	
Ed comment: there will be potentially other new specs, including Stage 3s, yet to be identified						

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
Ed comment: further impacts to R99 specifications to be identified				
23.002		Network Architecture	SA#10	
23.107		QoS Concept and Architecture	SA#10	
23.~~121~~221		Architectural Requirements ~~for Release 99~~	SA#11~~0~~	
23.060		General Packet Radio Service, Stage 2	SA#10	

11 Work item raporteurs

Liz Daniel, Lucent

12 Work item leadership

S2

13 Supporting Companies

Alcatel, AT&T, Ericsson, Fujitsu, Lucent, Motorola, Nokia, Siemens, Telenor, Telia, T-Mobil, Vodafone-Airtouch

14 Classification of the WI (if known)

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

14b The WI is a Building Block: parent Feature

Provisioning of IP-based multimedia services in UMTS ~~[Ed comment: this is only a tentative title reflecting the work currently performed in S1, where a work item still has to be created]~~