Technical Specification Group Services and System Aspects ***TSGS#8(00)0288***
Meeting #8, Düsseldorf, Germany, 26-28 June 2000

Source: **TSG SA WG2**

Title: **Revised WI on Enable bearer independent circuit-switched network architecture**
Agenda Item: **6.2.3**

Editorial comment: Changes to the initial work item description are highlighted by revision marks.

Work Item Description

Title: Enable bearer independent circuit-switched network architecture

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

1. There is related work to enable different transport resources in the UTRAN for R00, in particular IP.
2. There exist an ongoing work item in SA WG 2 on "Speech Transcoder: Location and Control at the UMTS Core Network Border". Technically, the work on the transcoder location and the bearer independence are part of the same scenario.

3 Justification

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

4 Objective

The objective of the work item is to evolve the R99 circuit switched domain (CS domain), so that it is transport network independent to allow the use of different transport resources (ATM, IP, STM). The bearer independent circuit-switched network architecture comprises all core network functionality for provision of bearer- and teleservices in a circuit oriented manner. It includes the functions for the call control, related supplementary services, application services and mobility support. Maintaining calls while terminals change the location is handover functionality of the CS domain UMTS specific call control. Transport and control of the CS domain network are separated to enable service provision by different means of transport resources (ATM, IP, STM, ...) for better transport resource efficiency and convergence with the PS domain transport. An implementation option in the CS domain is the combination of transport and control in one network entity comparable to R99 MSCs. The main new characteristics of the R00 CS domain compared with the R99 CS domain is the flexibility for PLMN internal transport means, that allows for transport based on IP. Between the terminals and the network the protocols are the same as for

R99 to use the services offered by the CS domain. This means for example there is no need for IP enabled terminals if IP is the transport resource within the network.

5 Service Aspects

None identified.

6 MMI-Aspects

None identified

7 Charging Aspects

None identified

8 Security Aspects

Open.

9 Impacts

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

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 documents.
SA1#6	Nov 29 - Dec 3, 1999	Start work on R00 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 documents.
SA1#7	Feb 7-11, 2000	Refine R00 stage 1.
SA2#12	March 6-9, 2000	~~TR v 1.0.0. Review R00 Stage 1 description .~~ Continue Project Plan work. ~~Finilize definition of R00 documents~~. ~~Based on the TR, start the CR process for S2's technical specifications.~~
SA#7	March 15-17, 2000	R00 Stage 1 stable.
SA2#13	May 22-26, 2000	~~Work on TR discontinued.~~ Finalize Project Plan work. Finalize definition of R00 documents. ~~Continue the CR process.~~
SA2 drafting	12.-14. 2000	Finalise v1.0.0 of 23.821. Review for v1.0.0 on e-mail, prior to SA#8
SA#8	June 21-23, 2000	~~R00 Stage 2 at least 80% complete.~~ Project Plan approved. Definition of R00 documents approved. Stage 2 TR23.821v1.0.0. Stage 1 TR22.976 finalized
Post SA#8	End June 2000	CRs and draft of new specifications to be generated from TR23.821. TR23.821 to be discontinued.
SA2#14	September 4-8, 2000	R00 Stage 2 at least 80% complete. Project Plan approved. Definition of R00 documents approved.~~Finalise R00 Stage 2 work.~~
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.

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#~~7~~8		This TR will be discontinued after SA#8.
23.xxx	<Stage 2 for R00 CS domain>			SA#9	SA#10	<stage 3 on signalling for R00 CS domain>by S2
24.xxx	<stage 3 on signalling for R00 CS domain>			CN#9	CN#10	To be decided by CN
Ed comment: there will be potentially other new specs, yet to be identified						

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
Ed comment: there will probably various R99 specifications impacted, yet to be identified				
23.002				
23.121		Architectural Requirements for R 1999	SA#10	
23.107		QoS Concept and Architecture	SA#10	
24.xxx		<existing stage 3>	SA#10	To be identified

11 Work item raporteurs

Ulrich Dropmann, Siemens[1]

12 Work item leadership

S2

13 Supporting Companies

Alcatel, Ericsson, Fujitsu, Nokia, Siemens, Telenor, Telia, Tellabs, T-Mobil, Vodafone-Airtouch

14 Classification of the WI (if known)

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

14a The WI is a Feature: List of building blocks under this feature
The building blocks of this feature still have to be identified.
(list of Work Items identified as building blocks)

[1] Ulrich.Dropmann@icn.siemens.de
Tel.: +49 89 722 38 458