Technical Specification Group Services and System Aspects ***TSGS#27 (05)0089***
Meeting #27, Tokyo, Japan, 14-17 March 2005 Agenda Item: 7.4.3

3GPP TSG SA4#34 S4-0500240
Lisbon, Portugal, 21-25 February 2005 Agenda Item 16

Work Item Description

Title: **New Work Item Description on Performance Characterization of VoIMS over HSDPA\EUL channels (Release 7).**

1 3GPP Work Area

X	Radio Access
	Core Network
X	Services

2 Linked work items

None

3 Justification

A lot of work has focused on carrying voice services over dedicated channels in a circuit switch fashion as well as packet switch. Recently, the idea of carrying voice over shared resources such as HSDPA is becoming quite attractive due to the performance benefits and enhanced code utilisation.

TR 26.935 provides information on the performances of default speech codecs in packet switched conversational multimedia applications. The transmission of IP/UDP/RTP/AMR packets over the UMTS air interface (over DCH channels) was simulated using the Conversational PS RAB coming from TS 34.108 v4.7.0. It is not an optimal RAB to do PS conversational test but it was the only one available at the time the test bed and the air interface simulator were designed.

RAN2 has recently defined RABs for the support of Voice over IMS on HSDPA bearers. In order to allow testing for support of Voice over IP over HSDPA\EUL, optimized RABs would be required, that could carry RTP, RTCP and SIP.

4 Objective

This Work Item is about performing a similar set of tests as currently described in TR 26.935 in collaboration with relevant RAN WGs byusing HS-DSCH and E-DPDCH channels instead of DCH for carrying voice on downlink and uplink respectively. SA1 advice on service requirements is needed. The impact of jitter delay on the speech quality will be examined. The tests performed will be based on a generic scheduler (round-robin or proportional fair). This new Work Item is proposed for Release 7.

5 Service Aspects

Impact on Speech quality to be investigated

6 MMI-Aspects

No impact

7 Charging Aspects

No impact

8 Security Aspects

No impact

9 Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes		-			
No		X	X	X	
Don't know					

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

Finalization of the feasibility study is planned at TSG SA4 #38, February 2006.

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TR 26.935		Packet Switched (PS) conversational multimedia applications; Performance characterization of default codecs	SP-24	

11 Work item rapporteurs

Mr. Dimitris Vasilaras (Lucent Technologies)

12 Work item leadership

SA4

13 Supporting Companies

Lucent Technologies, France Telecom, Orange, Qualcomm

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

There are no building blocks under this feature.

14b The WI is a Building Block: parent Feature

N/A

14c The WI is a Work Task: parent Building Block

N/A