Technical Specification Group Services and System Aspects Meeting #28, 06 - 08 June 2005, Quebec, Canada

TSGS#28(05)0351

Source: **SA WG2**
Title: **New WID: Feasibility study on enhancement of radio performance for VoIMS**
Agenda Item: **7.2.3**
Document for: **Approval**

3GPP TSG-SA WG2 Meeting #46 **S2-051445**
Athens, Greece, 9-13 May 2005

Source: **Nortel Networks**
Title: **WID on FS on Enhancement of radio performance for VoIMS**
Document for: **Discussion and Approval**
Agenda Item **9.1**

Work Item Description

Title: Feasibility study on enhancement of radio performance for VoIMS

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

RAB support enhancement

3 Justification

There is interest on future usage of VoIMS compared to CS service. Operators are interested in optimising the current VoIMS bearer performances.
During the WI on RAB support enhancements and the study of VoIMS bearer performances , it has been shown that voice over PS domain in Release 6 on a dedicated channel, with ROHC compression and without Unequal Error Protection (UEP), will remain 20% to 30% less efficient compared to circuit-switched voice with UEP.
UEP is one of the methods which can be used to enhance radio performances. Header Removal (HR) is also in the scope of this study.

For Voice over IMS service, the introduction of such enhancement may bring architectural changes that have to be studied, in particular the way to provide the RAN with information allowing it to apply UEP.

4 Objective

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.

5 Service Aspects

To be clarified by the TR

6 MMI-Aspects

No

7 Charging Aspects

To be clarified by the TR

8 Security Aspects

No

9 Impacts

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

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

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 23.8xx	FS on Enhancement of radio performances for VoIMS	SA2		SA#30	SA#31	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments

11 Work item rapporteur

Laurence Lautier (Nortel Networks)

12 Work item leadership

SA2

13 Supporting Companies

Nortel Networks, Orange, Samsung, Alcatel, Lucent Technologies, NEC

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

14b The WI is a Building Block: parent Feature

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