TSG-RAN Meeting #17 RP-020670
3 – 6 September 2002, Biarriz, France

Title: **Proposed SI, Evolution of UTRAN Architecture**
Source: **Nokia**
Agenda Item **8.8**

Study Item Description

Title
Evolutiton of UTRAN Architecture

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work/study items

None

3 Justification

The first step of UTRAN architecture evolution was the introduction of the IP transport in Rel-5. The next step is to study the architecture evolution for UTRAN that could lead to better transport layer utilization. The study could for example consider new of distribution of some RAN functionalities e.g. Node Bs would contain more control operation. Also potential benefits for the radio capacity may be achieved from the proposed methods due e.g. reduced delay.

4 Objective

The objective of this study item is to study UTRAN architecture evolution considering a new functional split berween the nodes. It should be possible to introduce this evolved architecture together with the existing Release'99 based network elements. The study item should consider also impacts on the existing UTRAN interfaces and co-existence with the existing UTRAN architecture as well as potential benefits for the system performance, deployment and radio interface evolution.

The study item includes study on new distribution of some RAN functionalities between existing nodes e.g. between Node Bs and RNCs.

The new architecture to be considered shall be such there is no UE impacts i.e. support R99 and later radio interface.

5 Service Aspects

None/Text

6 MMI-Aspects

None/Text

7 Charging Aspects

None/Text

8 Security Aspects

None/Text

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes			X		
No	X	X			X
Don't know				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	Distributed RAN architecture	R3			RAN#20	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401				

11 Study item raporteurs

Woonhee Hwang, Nokia.

12 Study item leadership

TSG-RAN WG3

13 Supporting Companies

Nokia, H3G, NEC, T-Mobil, Sonera, mmO2, Siemens

14 Classification of the SI (if known)

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

14 The SI is a Work Task: parent Building Block

UTRAN Improvement Feature