

**RAN Plenary Meeting #12**

***RP-010699010711***

**Stockholm, Sweden, June 12<sup>th</sup> – 15<sup>th</sup>, 2001**

**Agenda Item: 9.10**

**Source: Nokia**

**Title: Proposed WI, Beamforming**

**Document for: Decision**

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## **1 Introduction**

Working groups RAN1, RAN2 and RAN4 have discussed based on the action points from TSG RAN#12 the use of beamforming, especially in the case with dedicated pilots. Also other issues, such as new UTRAN measurements have been proposed and are under consideration. This revised WI sheet covers all the activity expected to be done for the beamforming, including both UE and UTRAN side enhancements.

The attached WI is proposed to be approved.

## 2 Proposed WI, Beamforming

### Work Item Description

#### Title

Beamforming

#### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

#### 2 Linked work items

None

#### 3 Justification

Beamforming with dedicated pilot symbols or with S-CPICH has potential to improve system capacity. Also UTRAN RRM could be improved by defining support for measurements that take into account the possible use of beamforming with S-CPICH or with dedicated pilots only.

#### 4 Objective

This work item should define the Rel'5 performance requirements and potential new measurements for efficient support of beamforming in UTRAN. The work also covers necessary corrections for Rel'99/Rel'4 specifications for the physical layer procedures to enable support of the beamforming operation.

#### 5 Service Aspects

None/Text

#### 6 MMI-Aspects

None/Text

#### 7 Charging Aspects

None/Text

#### 8 Security Aspects

None/Text

**9 Impacts**

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X		
<b>No</b>	X			X	X
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
New TR	Beamforming Concept Clarification	TSG RAN WG1	TSG RAN WG4	TSG RAN#14	TSG RAN#15	
<b>Affected existing specifications</b>						
Spec No.	CR	Subject	Approved at plenary#		Comments	
TS 25.214			TSG RAN#16			
TS 25.133			TSG RAN#16			
TS 25.101			TSG RAN#16			
TS 25.433			TSG RAN#16			
TS 34.121			TSG T#16			
TS 25.215			TSG RAN#16			

Note: CRs correcting Release'99 for 25.214 shall be provided for TSG RAN as soon as completed by TSG RAN WG1.

**11 Work item raporteurs**

Jussi Kähtävä, Nokia.

**12 Work item leadership**

TSG-RAN WG1

**13 Supporting Companies**

Nokia, Motorola, Panasonic, Qualcomm

**14 Classification of the WI (if known)**

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

UTRAN Improvement Feature