3GPP TSG RAN Plenary #23 **Tdoc RP-040078**
Phoenix, USA, 10th – 12th March 2004

Agenda Item: 8.12
Source: Nokia, Philips, Siemens, Mitsubishi
Title: Proposed Work Item for HS-DPCCH Enhancement
Document for: Approval

A proposed Work Item Description for HS-DPCCH Enhancement is presented below, following from the Study Item TR on "HSDPA Enhancements" (TR25.899).

Work Item Description

Title: HS-DPCCH Enhancement

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

The Technical Report on "HSDPA Enhancements" under the Radio Link Performance Enhancements Study Item has shown that various techniques can improve the performance of the HS-DPCCH in UTRA FDD. This will enable HSDPA to achieve better performance, for example higher throughput, better coverage or reduced uplink interference and transmit power.

The RAN WG1 study showed specifically that:

1. Techniques for improving HS-DPCCH reception by transmission of a preamble and postamble can give benefits including improving ACK/NACK decoding reliability and reducing uplink transmission power and interference. Further resulting benefits would include improving cell coverage for HSDPA.

2. Techniques for enhancing CQI reporting can give benefits including improved selection of HS-DSCH transport block size, number of HS-PDSCH codes and modulation, as well as reduced interference from uplink signalling.

4 Objective

The objective of this work item is to introduce improvements to the transmission of ACK/NACK and CQI on the UTRA FDD HS-DPCCH, together with associated higher-layer signalling, with the aim of reducing uplink interference and transmit power, and enhancing HSDPA performance.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

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

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 endorsement at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.212				
25.214				
25.331				
25.433				

11 Work item raporteurs

Jussi Kähtävä (Nokia)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

Nokia, Philips, Siemens, Mitsubishi

14 Classification of the WI (if known)

	Feature (go to 14a)
X	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
RAB support enhancements
(one Work Item identified as a feature)

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

(one Work Item identified as a building block)