Agenda Item: 8.11
Source: Nokia, Philips, Mitsubishi, Siemens
Title: Proposed Work Item for HS-DPCCH ACK/NACK Enhancement
Document for: Approval

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

Work Item Description

Title: HS-DPCCH ACK/NACK 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 enhancements to the HS-DPCCH ACK/NACK transmission can improve the performance of HSDPA in UTRA FDD.

The transmission of a layer 1 preamble and postamble can improve ACK/NACK decoding reliability, enabling the current performance to be achieved with a lower HS-DPCCH transmit power. This would also lead to reduced uplink interference.

Further resulting benefits include improving cell coverage for HSDPA.

4   Objective

The objective of this work item is to introduce layer 1 improvements to the transmission of ACK/NACK on the UTRA FDD HS-DPCCH, together with associated higher-layer signalling to activate the improvements, with the aim of reducing uplink transmit power and interference, 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		Multiplexing and channel coding (FDD)			RAN#26	
25.214		Physical layer procedures (FDD)			RAN#26	
25.331		Radio Resource Control (RRC); Protocol Specification			RAN#26	
25.433		UTRAN Iub interface NBAP signalling			RAN#26	

11 Work item raporteurs

Jussi Kähtävä (Nokia)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

Nokia, Philips, Mitsubishi, Siemens, T-Mobile, TeliaSonera, 3, Orange

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)