

Palm Spring, U.S.A, March 13th - 16th, 2001

Title : Proposal of WI "Enhancement on the DSCH hard split mode"

Agenda Item : 6.11 "Others"

Source : Samsung Electronics, Co., Ltd

Document for : Approval

Supporting Company: Samsung Elec. Co. Ltd., ETRI, Hyundai Elec. Co. Ltd., SK Telecom.

This contribution contains the proposed WI sheet for new work item "Enhancement on the DSCH hard split mode".

In the last TSG-RAN WG1 #17, a new TFCI coding scheme for DSCH hard split mode was proposed [1]. In the contribution, it was pointed out that, when UE moves from one RNS to another, logical split should not be used or SRNC reallocation should be done for DSCH handover. Thus, hard split has an advantage over logical split in the sense that hard split can be supported over Iur when DSCH need to be transmitted on Iur. However, the current hard split can only support 5 bit long DSCH and DCH TFCIs. To enhance this, using the new TFCI coding scheme to support the variable bit length in hard split mode is proposed.

A liaison statement was sent to WG2 and WG3 asking for a confirmation of WG1's understanding of the problem and of the benefit of having more capable hard split mode TFCI, as a response to the comments made to the proposal during the meeting [2]. RAN WG2 and 3 commented that "it seems to be worthwhile that RAN1 begins to study the enhancement on hard split to support variable bit length TFCI for DCHs and DSCHs as Rel. 5 issue" and that "the proposed study would bring some functional benefit"[3][4].

A separate contribution is provided on the proposed way to initiate the work on this WI.

REFERENCE

[1] R1-00-1269, *Dynamic Split Mode for TFCI*

[2] R1-01-0172, *LS on DSCH TFCI Split Mode*

[3] R2-010243, *Response to "LS on DSCH TFCI Split Mode"*.

R3-010327, *Response LS on DSCH TFCI Split Mode*

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Palm Spring, U.S.A, March 13th - 16th, 2001Work Item Description

Title

Enhancement on the DSCH hard split mode

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items*none***3 Justification**

It was identified by RAN WG's (WG1, WG2 and WG3) that in the current Rel99 specification, logical split cannot be supported over Iur during the DSCH soft handover if DSCH scheduling should be done in DRNC. Furthermore, hard split has advantage over logical split in the sense that it can be supported over Iur. However, it was also identified that hard split has some limitation and therefore there is some need to study the enhancement for the DSCH hard split mode.

4 Objective

- The purpose of this work item is to specify the enhancements of DSCH hard split mode for UTRA FDD.

5 Service Aspects

Palm Spring, U.S.A, March 13th - 16th, 2001*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	
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 information 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 #14			
25.331		RRC Protocol Specification	RAN #14			
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #14			
25.433		UTRAN Iub Interface NBAP Signalling	RAN #14			

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11 Work item raporteurs

Jaeyoel.KIM, SAMSUNG Electronics.

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

This is a building block part of the radio interface improvement feature.

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

(one Work Item identified as a building block)