TSG-RAN Meeting #12 ***RP-01-0468***
***Stockholm*, Sweden, 12 – 15 June 2001**

Presentation of Specification to TSG or WG

Presentation to:	**TSG-RAN Meeting #12**
Agenda item:	**9.1.11 Enhancement on the DSCH hard split mode**
Document for presentation:	**TR 25.870 Version 0.1.0**
Presented for:	**Information**

Abstract of document:
This technical report is for the Release 5 work item "Enhancement on the DSCH hard split mode". It consists of two parts for two work tasks, "TFCI Coding on DSCH hard split mode" and "TFCI power control on DSCH hard split mode". For each work task, there are several sections for introduction, requirement, technical description, and specification impact according to the change request.

Changes since last presentation to TSG-RAN Meeting #11:

This is the first TR for the WI "Enhancement on the DSCH hard split mode".

In the TR, only the structure of technical report is introduced, and all section except "introduction" is empty. The content of each empty section will be filled according to the result of technical discussion.

Outstanding Issues:
None

Contentious Issues:
None

3G TR 25.870 V0.1.0 (2001-06)

Technical Report

3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Enhancement on the DSCH hard split mode

(Release 5)

Reference

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Intellectual Property Rights

Foreword

This Technical Report(TR) has been produced by the 3rd Generation Partnership Project (3GPP), Technical Specification Group RAN.

The contents of this TR are subject to continuing work within the 3GPP TSG and may change following formal TSG approval. Should the TSG modify the contents of this TR, it will be re-released with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The purpose of the present document is to help the TSG RAN WG1 group to specify the changes to existing specifications, needed for the introduction of the “Enhancement on the DSCH hard split mode” option for Release 5.

“Enhancement on the DSCH hard split mode” is proposed to specify the enhancements of TFCI coding and power control in DSCH hard split mode for UTRA FDD. Based on [1], this work item is composed of two work tasks.

1) TFCI coding in DSCH hard split mode
2) TFCI power control in DSCH hard split mode

The different WTs will be described in subsequent chapters. It is intended to gather all information in order to trace the history and the status of the WTs in RAN WG1. It is not intended to replace contributions and Change Requests, but only to list conclusions and make references to agreed contributions and CRs. When solutions are sufficiently stable, the CRs can be issued.

It describes agreed requirements related to the WTs.

It identifies the affected specifications with related Change Requests.

It also describes the schedule of the WTs.

This document is a ‘living’ document, i.e. it is permanently updated and presented to all TSG-RAN meetings.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.
References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

For a specific reference, subsequent revisions do not apply.

For a non-specific reference, the latest version applies.

[1] RP-010205, “Proposed WI Enhancement on the DSCH hard split mode”, approved at RAN#11

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

3.2 Symbols

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

TFCI Transport Format Combination Indicator

DSCH Downlink Shared Channel

4 TFCI coding in DSCH hard split mode

4.1 Introduction

In the current Rel99 specification, as identified by RAN WG's (WG1, WG2 and WG3), when DSCH scheduling be done in DRNC, logical split cannot be supported over Iur during the DSCH soft handover. 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 TFCI coding in the DSCH hard split mode

Currently DSCH hard split mode can support only 5 bit long DSCH and DCH TFCIs. As a result, the number of TFCI is limited upto 32 for DCH and DSCH in DSCH hard split mode. A new TFCI coding scheme to support the variable bit length can enhance the DSCH hard split mode.

4.2 Requirements

4.3 Study Areas

4.4 Agreements and associated contributions

4.5 Specification Impact and associated Change Request

4.5.1 WG1

4.5.2 WG2

4.5.3 WG3

4.6 Backward Compatibility

5 TFCI power control in DSCH hard split mode

5.1 Introduction

In Rel99 specification, TFCI2 (TFCI for DSCH) is not transmitted from all the cells in the active set when the UE is in soft handover. Furthermore, the power offset is always set to be high enough to detect TFCI bits reliably even if UE is not in soft handover. In the view of power resource management, it may be inefficient due to high power offset. Therefore, it is needed to study the enhancement for

TFCI power control in the DSCH hard split mode

The power offset for TFCI in current specification is not changed so that the power offset in the radio link setup is set to be high enough to detect TFCI bits reliably even if UE is not in soft handover. By the proposed power control scheme, we can improve the TFCI power control in the DSCH hard split mode.

5.2 Requirements

5.3 Study Areas

5.4 Agreements and associated contributions

5.5 Specification Impact and associated Change Request

5.6 Backward Compatibility

6 Project Plan

6.1 Schedule

Date	Meeting	Scope	[expected] Input	[expected]Output

6.2 Work Task Status

	Planned Date	Milestone	Status
1.			
2.			

7 History

Document history		
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