

**TSG-RAN Meeting #9**  
**Oahu, HI, USA, 20 - 22 September 2000**

**RP-000441**

**Source: Secretary**

**Title: Study Item sheets - latest situation**

This document contains Study Item sheets in TSG-RAN (latest situation) for all approved Study Items. Those of the approved WIs are provided in a separate document.

See RP-000331 (draft minutes of TSG-RAN #8 meeting) for comments on the sheets provided in **yellow**.

Sheets in **green** have been re-issued and (if indeed based on the comments in RP-000331) should be considered endorsed.

For the approved Study Items in **red**, there is not yet a Study Item sheet.

For the approved Study Items in **blue**, a sheet was re-issued, but comments by e-mail were possible.

The approved Study Items at the end of TSG-RAN #8 were:

1. Radio link performance enhancements
2. High speed downlink packet access
3. USTS
4. Feasibility Study for Improved Common DL Channel for Cell-FACH State

# 1 Radio link performance enhancements

Distributed as: RP-000181\_rev3

## Work Item Description

### Title

Radio link performance enhancements

#### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

#### 2 Linked work items

*none*

#### 3 Justification

After completion of Release –99, possible topics have been identified that could improve the radio link performance. In order to improve the performance it is felt necessary to continue related studies after Release –99 completion and to include possible agreed improvements during work in the coming meetings during year 2000 to Release –2000 specifications.

#### 4 Objective

- The purpose of this work item is to to study the radio link performance enhancements.

#### 5 Service Aspects

*None*

#### 6 MMI-Aspects

*None*

#### 7 Charging Aspects

*None*

#### 8 Security Aspects

*None*

**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	
<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 rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.211		Physical Channels and mapping of transport channels to physical channels (FDD)		RAN #10		
25.214		Physical Layer Procedures (FDD)		RAN #10		
25.303		Interlayer procedures in connected mode		RAN #10		
25.321		MAC Protocol Specification		RAN #10		
25.331		RRC Protocol Specification		RAN #10		
25.101		UE Radio transmission and reception (FDD)		RAN #10		
25.102		UE Radio transmission and reception (TDD)		RAN #10		
25.104		BTS Radio transmission and reception (FDD)		RAN #10		
25.105		BTS Radio transmission and reception (TDD)		RAN #10		
25.423		UTRAN Iur Interface RNSAP Signalling		RAN #10		
25.433		UTRAN Iub Interface NBAP Signalling		RAN #10		

**11 Work item raporteurs**

Antti Toskala, Nokia Networks

**12 Work item leadership**

TSG RAN WG1

**13 Supporting Companies**

InterDigital, Lucent Technologies, Motorola, Nokia, Nortel Networks, Qualcomm

**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)

## 2. High speed downlink packet access

Distributed as: RP-000032

### Work Item Description

#### Title

High Speed Downlink Packet Access

#### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

#### 2 Linked work items

*None*

#### 3 Justification

This work item proposes to study enhancements that can be applied to UTRA in order to provide very high speed downlink packet access. It's aim is to identify a long term evolution path for the UTRA air interface.

#### 4 Objective

It is proposed that the study should include, but not be restricted to, the following topics:

- Adaptive modulation and coding schemes
- Hybrid ARQ protocols
- Position of the scheduling function within UTRAN
- Other advanced techniques

[note: Technical details of one proposal can be found in TDoc 126]

#### 5 Service Aspects

*None– better support of existing packet data services*

#### 6 MMI-Aspects

*None*

#### 7 Charging Aspects

*None– uses existing packet data charging schemes*

**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
TR	Evaluation of High Speed Downlink Packet Data Service	R1	R2, R3, R4	RAN #9	RAN #10	New technical report
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

The technical report should present the results of the study and make a recommendation for which techniques should be incorporated into future releases of the standard. The report should also detail the work items descriptions necessary to continue this work.

**11 Work item raporteurs**

**Amitava Ghosh, Motorola**

**12 Work item leadership**

RAN WG2

**13 Supporting Companies**

Motorola, Nokia, BT/Cellnet, T-Mobil. NTT DoCoMo

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

	Feature (go to 14a)
	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

(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)

### **3 USTS**

Distributed as: WI Sheet for USTS.doc (originally RP-000291)

## **Uplink Synchronous Transmission Scheme (USTS)**

### **1 3GPP Work Area**

X	Radio Access
	Core Network
	Services

### **2 Linked work items**

*none*

### **3 Justification**

USTS is expected to provide good capacity in the uplink with low overhead and minimal impact on hardware and software resources at UE and in the UTRAN.

### **4 Objective**

The purpose of this work item is to increase the uplink capacity by means of making a cell receive orthogonalized signals from UEs.

### **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 information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.211		Physical channels and mapping of transport channels onto physical channels (FDD)		RAN #10		
25.213		Spreading and modulation (FDD)		RAN #10		
25.214		FDD : Physical layer procedures		RAN #10		
25.331		Radio Resource Control (RRC) Protocol Specification		RAN #10		
25.413		UTRAN Iu Interface RANAP Signalling		RAN #10		
25.423		UTRAN Iur Interface RNSAP Signalling		RAN #10		
25.433		UTRAN Iub Interface NBAP Signalling		RAN #10		

**11 Work item rapporteurs**

Duk Kyung Kim (kdk@sktelecom.com)

**12 Work item leadership**

TSG RAN WG1

**13 Supporting Companies**

ETRI, LGIC, Samsung, Shinsegi, SK Telecom

**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)

## 4 Feasibility Study for Improved Common DL Channel for Cell-FACH State

Distributed as: RP-000190rev1

### Work Item Description

#### 1.1.1 Title: Feasibility Study for Improved Common DL Channel for Cell-FACH State

##### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

##### 2 Linked work items

*none*

##### 3 Justification

This effort is motivated by the desire to provide an optimized wireless IP solution for interactive and real time applications. While the existing mechanisms are sufficient for non-real time uni-directional traffic, there is some need for optimization work for bi-directional real time or interactive traffic using Common Channels available in Cell-FACH state.

##### 4 Objective

This work item will study the feasibility of approach, perceived benefits, and scope of work for affected specifications to provide an improved common DL channel for Cell-FACH state. The study may consider an optimized FACH in the CPCH/FACH sub-state, a new use of DSCH as CPCH/DSCH in Cell-FACH state, and a new DL-CPCH. The objective is to optimize the common channel mechanism for various IP traffic including VoIP and other IP applications.

If any of the proposed alternatives are judged to be feasible and provide system benefits, a Technical Report with a new work item sheet will be drafted to propose additional new work to generate CRs for affected specifications. The new work item sheet will identify the affected specifications and scope of effort.

##### 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	
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	

This study item will produce a Technical Report which will summarise the results of the study and may propose a new work item which identifies specifications to be modified.

This study item will be completed at RAN#10. Any resulting new work items will be presented and discussed at RAN#9.

**11 Work item raporteurs**

Joe Kwak, GBT, will be the rapporteur for this study item.

**12 Work item leadership**

TSG RAN WG2

**13 Supporting Companies**

GBT, OKI, LGIC, BellSouth, Samsung, IDC, Seiko-Epson

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

This work item is a study item.

	Feature (go to 14a)
	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

N/A

14b The WI is a Building Block: parent Feature

N/A

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

N/A