TSG-RAN Meeting #16 ***RP-020271***
Marco Island, FL, USA, 4 - 7 June 2002

Source: **TSG-RAN**

Title: **Study Item sheets - history**

This document contains Study Item sheets in TSG-RAN for all approved Study Items that have been finished. The WI sheets of the approved and finished WIs are provided in a separate document, RAN_Work_Items_History. The SI sheets for current SIs can be found in RAN_Study_Items.

The finished Study Items at the end of TSG-RAN #15 are:

2. High speed downlink packet access
3. USTS
5. Feasibility Study of UE antenna efficiency test methods performance requirements
7. Improvement of Radio Resource Management across RNS and RNS/BSS
8. Mitigating the Effect of CPICH Interference at the UE
9. Re-introduction of the downlink SIR measurement

1. Radio link performance enhancements

This SI has not finished yet. See RAN_Study_Items.

2. High speed downlink packet access

Last distributed as: RAN_Study_Items_after_RAN_9 (originally RP-000032)

Study 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

Probably 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	R2	R1, R3, R4	RAN #10	RAN #11	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

TSG-RAN WG2

13 Supporting Companies

TSG-RAN

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

Last distributed as: RP-010914 (originally RP-000291)

Study Item Description

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
25.854	USTS	WG1		RAN #12	RAN #14	
25.839	USTS	WG3		RAN #12	RAN #14	

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 #14	
25.213		Spreading and modulation (FDD)	RAN #14	
25.214		FDD : Physical layer procedures	RAN #14	
25.331		Radio Resource Control (RRC) Protocol Specification	RAN #14	
25.413		UTRAN Iu Interface RANAP Signalling	RAN #14	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #14	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #14	

11 Work item raporteurs

Duk Kyung Kim (kdk@sktelecom.com)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

TSG-RAN

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. Void (originally Feasibility Study for Improved Common DL Channel for Cell-FACH State)

Last distributed as: RAN_Study_Items_after_RAN_13 (originally RP-000190)

This Study Item was deleted from the approved Study Items at TSG-RAN #14

5. Feasibility Study of UE antenna efficiency test methods performance requirements

Last distributed as: RAN_Study_Items_after_RAN_9 (originally in RP-000468 as R4-000732)

Study Item Description

Title

Feasibility study of UE antenna efficiency test methods performance requirements

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

This is parented to the RAN improvement feature.

3 Justification

Antenna performance of the UE is very critical to the operation of the network. RAN WG4 had agreed that this should be performed in future releases of its specifications.

4 Objective

To perform a feasibility study on antenna test methods to be used for evaluating the efficiency of UE antenna. The feasibility study will also consider different requirements on different UE types.

5 Proposed building blocks and work tasks:

6 Service Aspects
None

7 MMI-Aspects
None

8 Charging Aspects
None

9 Security Aspects

None

10 Impacts

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

11 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 RAN#	Approved at RAN	Comments
	TR on UE antenna test methods				RAN #12	

Affected existing specifications				
Spec No.	CR	Subject	Approved at RAN#12	Comments

12 Work item rapporteur

Olle Edvardsson, Allgon

13 Work item leadership

TSG-RAN WG4

14 Supporting Companies

TSG-RAN

15 Classification of the WI (if known)

	Feature (go to 15a)
	Building Block (go to 15b)
X	Work Task (go to 15c)

15c The WI is a Work Task: parent Feature: Radio interface improvement feature

6. Fast Cell Selection (FCS) for HS-DSCH

This SI has not finished yet. See RAN_Study_Items.

7. Improvement of Radio Resource Management across RNS and RNS/BSS

Last distributed as: RP-010480

Study Item Description

Title: **Study Item Description for an Improvement of RRM across RNS and RNS/BSS**

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None identified.

3 Justification

At the 3GPP UTRAN Evolution workshop, held in Helsinki, it was agreed to go forward with studies in the area of Multiradio support. To allow an easier load sharing and better quality of service management across RNS and RNS/BSS, a proper method should be studied.

4 Objective

The objective of this study item is to work out the functional grouping and the interface aspects in order to provide efficient resource management across RNS and RNS/BSS. The method which allows efficient resource management across RNS and RNS/BSS shall not affect UE/MS.

If there is a need to define new interface, then the possible interface shall be open.

The objective is also to look into the aspects between GERAN and UTRAN for this feature.

5 Service Aspects

None identified.

6 MMI-Aspects

None identified.

7 Charging Aspects

None identified.

8 Security Aspects

None identified.

9 Impacts

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

10 Expected Output and Time scale (to be updated at each plenary)

This is a Release 5 Study Item

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
25.881	Study Item Description for Improvement of RRM across RNS and RNS/BSS	RAN3	RAN2	RAN #13	RAN #14	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments

11 Study item raporteurs

Antti Toskala, Nokia, Helsinki, Finland

12 Study item leadership

RAN 3

13 Supporting Companies

Nokia, Orange PCS Ltd, Siemens, Vodafone Group,

14 Classification of the WI (if known)

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

14b The WI is a Building Block: Parent Feature: RAN Improvement

8. Mitigating the Effect of CPICH Interference at the UE

Last distributed as: RAN_Study_Items_after_RAN_14 (originally in RP-010431)

Study Item Description

Title:

Mitigating the Effect of CPICH Interference at the UE

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Because the CPICH is typically allocated a significant portion of the total Node-B transmit power, the interference impact of the CPICH is particularly strong. On the other hand, the information content and structure of the CPICH channels are completely known a priori at the receiver, which can considerably simplify efforts to mitigate the CPICH interference effect. Mitigating the effect of CPICH interference at the UE may significantly improve UE performance requirements and increase radio network capacity.

4 Objective

The objectives of this study are the verification of the benefits of this feature through additional simulation studies, and further evaluation of complexity issues. Depending on the results of this study, recommendations will be made as to whether to establish a 3GPP Work Item in order to incorporate this feature into the 3GPP standard. This would ultimately involve the establishment of appropriate test scenarios and procedures, as well as the derivation of improved UE performance requirements through physical layer simulations.

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			
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
25.991		R4		RAN#14	RAN#15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.101		UE Radio transmission and reception (FDD)	RAN #15	
34.121		Terminal Conformance Specification, Radio Transmission and Reception	T #15	

11 Work item raporteurs

Shimon Moshavi, Intel (Shimon.Moshavi@intel.com)

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

Cingular, T-Mobil, Telecom Italia, AWS, Omnitel/Vodafone, Lucent, Intel

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
Improvements of Radio Interface

14c The WI is a Work Task: parent Building Block
(one Work Item identified as a building block)

9. Re-introduction of the downlink SIR measurement

Last distributed as: RAN_Study_Items_after_RAN_13 (originally in RP-010434)

Study Item Description

Title

Introduction of SIR measurement

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

The SIR measurement is recognised to be a valuable tool to an operator, since it provides the ability to obtain an indication of intercell interference and hence coverage from subscriber UEs while in call within a network. This is a useful measure when trying to optimise the capacity and coverage of the cells.

4 Objective

The purpose of the study is to:

- elaborate the purposes of the SIR measurement,
- set performance requirements to meet those purposes,
- identify possible techniques to meet those requirements, including techniques that might already be used for other purposes,
- identify reporting procedures and signalling, and
- alignment with the O&M procedures.

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
					RAN#14	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.133 25.123 25.215 25.225 25.331 25.302				

11 Work item raporteurs

Torgny Palenius, Ericsson

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

Telecom Italia, Blu, Ericsson, Mobilkom Austria, One2One, Telefonica

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

RAN improvements

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

(one Work Item identified as a building block)

10. Feasibility Study on UTRA Wideband Distribution Subsystems (WDS)

This SI has not finished yet. See RAN_Study_Items.

11. SRNS Relocation Procedure Enhancement

This SI has not finished yet. See RAN_Study_Items.

12. Introduction of direct transport bearers between SRNC and Node-B

This SI has not finished yet. See RAN_Study_Items.

13. Feasibility Study considering the viable deployment of UTRA in additional and diverse spectrum arrangements

This SI has not finished yet. See RAN_Study_Items.

14. Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD

This SI has not finished yet. See RAN_Study_Items.

15. Feasibility study of UE antenna efficiency test methods performance requirements

This SI has not finished yet. See RAN_Study_Items.