TSG-RAN meeting #17 RP-020459
Biarritz, France, 3-6 September 2002

Source: TSG-RAN

Title: Work Item sheets - latest situation

This document contains WI sheets in TSG-RAN (latest situation) for all approved Work Items. Those of the approved study items are provided in a separate document, RAN_Study_Items. The WI sheets for finished WIs can be found in RAN_Work_Items_History (this is mentioned under the header of all relevant WIs).

See RP-020456 (draft minutes of TSG-RAN #16 meeting) for comments on the sheets provided in yellow.

Sheets in green have been re-issued where necessary and (if indeed based on the comments in RP-020456) should be considered endorsed.

For the approved Work Items in red, there is not yet a WI sheet.

WI sheets in blue are new or have changed since TSG-RAN #16 (other than because of comments at TSG-RAN #16) and also need to be endorsed.

WI sheets without background colour are for WIs that are no longer current (because they are finished or have been stopped).

The approved Work Items at the end of TSG-RAN #16 are:

1. Low chip rate TDD option
2. Base station classification
3. FDD Base station classification
4. TDD Base station classification
5. UE positioning in UTRA TDD (replaced by 34. and 35.)
6. UE positioning in UTRA FDD (replaced by 34. and 35.)
7. Void (originally Hybrid ARQ II/III)
8. NodeB Synchronisation for TDD
9. UTRA FDD Repeater Specification
10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces
11. Terminal power saving features
12. PS-Doma in handover for real-time services
13. RAB Quality of Service Negotiation/Renegotiation over Iu
14. RRM optimizations for Iur and Iub
15. Radio access bearer support enhancement
16. Improvement of inter-frequency and inter-system measurements
17. Improved usage of downlink resource in FDD for CCTrCHs of dedicated type
18. IP Transport in UTRAN
19. Transcoder Free Operations in UTRAN
20. Evolution of the transport in the UTRAN
21. Radio Interface Improvement Feature
22. RAN Improvement Feature
23. UE Positioning
24. Void (originally Radio Interface Testing)
25. Void (originally Requirement on Equipment)
26. Low Chip Rate TDD Physical Layer
27. Low chip rate TDD layer 2 and layer 3 protocol aspects
28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing
29. Void (originally Smart antenna)
30. Low Chip Rate TDD UE radio access Capability
31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects
32. RAB Quality of Service Negotiation over Iu
33. RAB Quality of Service Renegotiation over Iu
34. Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

35. UE positioning enhancements
36. RAN Technical Small Enhancements and Improvements
37. DSCH power control improvement in soft handover
38. Transport bearer modification procedure on Iub, Iur and Iu (originally Migration to Modification procedure)
39. UMTS 1800
40. RAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes
41. RAB Quality of Service Negotiation over Iu during relocation
42. Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning
43. High Speed Downlink Packet Access (HSDPA)
44. High Speed Downlink Packet Access (HSDPA) - *Physical Layer*
45. High Speed Downlink Packet Access (HSDPA) - *layer 2 and 3 aspects*
46. High Speed Downlink Packet Access (HSDPA) - *Iub/Iur Protocol Aspects*
47. High Speed Downlink Packet Access (HSDPA) - *RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing*
48. Multiple Input Multiple Output antennas (MIMO)
49. Void (originally Gated DPCCH Transmission)
50. UMTS 1900
51. Enhancement on the DSCH hard split mode
52. NodeB Synchronisation for 1.28 Mcps TDD
53. RL Timing Adjustment
54. Separation of resource reservation and radio link activation
55. Re-arrangement of Iub Transport Bearers (originally Traffic Termination Point Swapping)
56. Open interface between the SMLC and the SRNC within the UTRAN to support Rel-4 positioning methods
57. UE positioning enhancements for 1.28 Mcps TDD
58. Base Station Classification for 1.28 Mcps TDD
59. Iur Common Transport Channel Efficiency Optimisation
60. Iur Neighbouring cell reporting Efficiency Optimisation
61. Beamforming enhancements (originally Beamforming)
62. Beamforming requirements for UE
63. Improvement of RRM across RNS and RNS/BSS
64. Support of Site Selection Diversity Transmission in UTRAN
65. Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN (originally Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN)
66. Improving Receiver Performance Requirements for the FDD UE
67. UTRAN Sharing in Connected Mode

Relation between Work Items

Feature	Grp	Building Block	Grp	Work Task	Grp
22. RAN Improvement Feature	RP	14. RRM optimizations for Iur and Iub	R3	53. RL Timing Adjustment	R3
				54. Separation of resource reservation and radio link activation	R3
				59. Iur Common Transport Channel Efficiency Optimisation	R3
				60. Iur Neighbouring cell reporting Efficiency Optimisation	R3
		63. Improvement of RRM across RNS and RNS/BSS	R3		
		8. NodeB Synchronisation for TDD	R1		
		52. NodeB Synchronisation for 1.28 Mcps TDD	R1		
		15. Radio access bearer support enhancement	R2		
		55. Re-arrangement of Iub Transport Bearers (originally Traffic Termination Point Swapping)	R3		
		61. Beamforming enhancements (originally Beamforming)	R1		
		62. Beamforming requirements for UE	R1		
		64. Support of Site Selection Diversity Transmission in UTRAN	R1		
		67. UTRAN Sharing in Connected Mode (originally Shared Network support in Connected Mode)	R3		
21. Radio Interface Improvement Feature	RP	16. Improvement of inter-frequency and inter-system measurements	R1		
		2. Base station classification	R4	3. FDD Base station classification	R4
				4. TDD Base station classification	R4
				58. Base Station Classification for 1.28 Mcps TDD	R4
		17. Improved usage of downlink resource in FDD for CCTrCHs of dedicated type	R2		
		11. Terminal power saving features	R1		
		9. UTRA FDD Repeater Specification	R4		
		37. DSCH power control improvement in soft handover	R1		
		39. UMTS 1800	R4		
		50. UMTS 1900	R4		
		48. Multiple Input Multiple Output antennas (MIMO)	R1		
		51. Enhancement on the DSCH hard split mode	R1		
		66. Improving Receiver Performance Requirements for the FDD UE	R4		
20. Evolution of the transport in the UTRAN	RP	18. IP transport in UTRAN	R3		
		10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces	R3		
		38. Transport bearer modification procedure on Iub, Iur, and Iu (originally Migration to Modification procedure)	R3		
1. Low chip rate TDD option	R1	26. Low chip rate TDD physical layer	R1		
		27. Low chip rate TDD layer 2 and layer 3 protocol aspects	R2		
		30. Low Chip Rate TDD UE radio access Capability	R2		
		31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects	R3		

Feature	Grp	Building Block	Grp	Work Task	Grp
		28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing	R4		
43. High Speed Downlink Packet Access (HSDPA)	R2	44. High Speed Downlink Packet Access (HSDPA) - Physical Layer	R1		
		45. High Speed Downlink Packet Access (HSDPA) - layer 2 and 3 aspects	R2		
		46. High Speed Downlink Packet Access (HSDPA) - Iub/Iur Protocol Aspects	R3		
		47. High Speed Downlink Packet Access (HSDPA) - RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing	R4		
36. RAN Technical Small Enhancements and Improvements	RP				
Transcoder-Free Operation	N4	OoBTC solution	N4	19. Transcoder Free Operations in UTRAN	R3
Location Services enhancements	S2	23. UE Positioning	RP	34. Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99	R3
				35. UE positioning enhancements	R2
				57. UE positioning enhancements for 1.28 Mcps TDD	R2
				9. UTRA FDD Repeater Specification	R4
				42. Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning	R2
				56. Open interface between the SMLC and the SRNC within the UTRAN to support Rel-4 positioning methods	R2
Ensure reliable QoS for PS domain	S2	13. RAB Quality of Service Negotiation/Renegotiation over Iu	R3	32. RAB Quality of Service Negotiation over Iu	R3
				33. RAB Quality of Service Renegotiation over Iu	R3
				41. RAB Quality of Service Negotiation over Iu during relocation	R3
		12. PS-Domain handover for real-time services	R3		
Intra Domain Connection of RAN Nodes to Multiple CN Nodes	S2	40. RANwork for Intra Domain Connection of RAN Nodes to Multiple CN Nodes	R3		
Multimedia Broadcast and Multimedia Service	S1	65. Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN (originally Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN)	R2		

1. Low chip rate TDD option

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000191)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

2. Base station classification

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-000186)

Work Item Description

Title

Base station classification

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

This work item proposes a building block for new base station classifications

4 Objective

This is the parent building block for the TDD and FDD basestation classification work tasks. Technical details for the work tasks can be found in TDoc RP-000132, and RP-000183

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
		R4		RAN #18	RAN #18	

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

11 Work item raporteurs

Antti Toskala, Nokia

12 Work item leadership

TSG-RAN WG4

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)

14b The WI is a Building Block: parent Feature – Radio Interface Improvement

3. FDD Base station classification

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-000183)

Work Item Description

Title

FDD Base Station Classification

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

Current TSG RAN WG4 specifications have been done according to the requirements for the macrocell base stations (NodeBs). For the UTRA evolution requirements specific for other type of base stations are needed as well (e.g. micro, pico)

4 Objective

- definition of base station classes according to deployment scenarios (e.g. macro, micro, pico)
- identification, review and possible update of radio parameters dependent on deployment scenarios
- identification, review and possible update of UTRAN (Node B) measurement requirements and conformance where the maximum base station output power is reflected, dependent on deployment scenarios
- review and possible update of conformance test specifications
- recording of related information into RF System Scenarios

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
25.951	FDD Base station classification	R4		RAN #18	RAN #18	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.104		UTRA (BS) FDD, Radio Transmission and Reception	RAN #18	
25.141		Base Station Conformance Testing (FDD)	RAN #18	
25.133		Requirements for Support of Radio Resource Management (FDD)	RAN #18	?
25.942		RF System Scenarios	RAN #18	

11 Work item raporteurs

Antti Toskala, Nokia Networks

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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: Base Station Classification

(one Work Item identified as a building block)

4. TDD Base station classification

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-000185)

This WI was finished in TSG-RAN #16. The WI sheet can be found in RAN_Work_Items_History.

5. UE positioning in UTRA TDD

Last distributed as: (originally RP-000053)

This WI and WI 6. were replaced by WIs 34. and 35. in TSG-RAN #9.

6. UE positioning in UTRA FDD

Last distributed as: (originally RP-000135)

This WI and WI 5. were replaced by WIs 34. and 35. in TSG-RAN #9.

7. Void (originally Hybrid ARQ II/III)

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000054)

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

8. NodeB Synchronisation for TDD

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000055)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

9. UTRA FDD Repeater Specification

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000083)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces

Last distributed as: Revised WI sheet (QoS) (originally RP-000188)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

11. Terminal power saving features

Last distributed as: RP-010485 (originally RP-000189)

Work Item Description

Title: Terminal power saving

1. 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

The UE battery is an essential resource which has direct impact on standby and connected time and can be enhanced by new features defined for UTRA.

4 Objective

The objective of this Work Item is to define new features which can contribute to gains in terms of battery saving. This encompasses both enhancements on the radio interface or network interfaces which would allow a network to optimise battery utilisation.

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		?	?		
No					?
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

11 Work item rapporteurs

Denis Fauconnier, Nortel Networks

12 Work item leadership

TSG-RAN WG2

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)

14b The WI is a Building Block: parent Feature is "Radio Interface improvement"

12. PS-Domain handover for real-time services

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000127)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

13. RAB Quality of Service Negotiation/Renegotiation over Iu

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000137, major revision RP-000498, rest in WI 32. RAB Quality of Service Negotiation)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

14. RRM optimizations for Iur and Iub

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-000310)

Work Item Description

Title

RRM optimizations for Iur and Iub

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

This work item focuses on optimizing the existing procedures and functions of Iub and Iur.

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 defined on a per work task basis)
This is a generic task which will be valid for all major releases

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments

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

11 Work item raporteurs

Gert-Jan van Lieshout (Ericsson)

12 Work item leadership

TSG-RAN WG3

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

14b The WI is a Building Block: parent Feature

Radio Interface Improvement feature and UTRAN Improvement feature

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

15. Radio access bearer support enhancement

Last distributed as: RP-010915 (originally RP-000140)

Work Item Description

Title

Radio Access Bearer support enhancement

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

3 Justification

The increasing interest in IP based services demands special optimisation of the means by which a radio access bearer can be provided by UTRAN.

4 Objective

This work item should have the scope of adding necessary functionality to the Uu, Iur and Iu interface in order to efficiently support RT traffic, e.g. VoIP. Examples of such functionality are:

- Radio Access Bearer multiplexing in PDCP
- Support of variable formats over Iu and unequal error protection over Uu
- Channel type switching for logical channels
  - Today it is only possible to switch all logical channels of one UE, not individual. For DSCH it would be much better to be able to switch single logical channels
- IP header removal as developed within GERAN
- RFC3095 context relocation in SRNS relocation

5 Service Aspects

The intention with the work item is to better and more efficient support IP based services.

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 defined on a per work task basis)

This is a generic task which will be valid for all major releases

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

11 Work item raporteurs

TSG-RAN WG2: Ainkaran Krishnarajah (Ericsson)

12 Work item leadership

TSG-RAN WG2

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

(one Work Item identified as a feature)

- RAN Improvement

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

(one Work Item identified as a building block)

16. Improvement of inter-frequency and inter-system measurements

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-000180)

Work Item Description

Title

Improvement of inter-frequency and inter-system measurements

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

Compressed mode in Release-99 covers limited set of methods of implementing the compressed mode for enabling measurements on other frequencies. There have been methods suggested that potentially improve the system capacity and operational flexibility in addition to the existing methods.

- The following two technologies have been identified as candidates for Release 2000 for compressed mode improvements:

1. Compressed mode with puncturing and flexible positions
2. Combination of the existing methods (including method in point 1)

4 Objective

The purpose of this work item is to work on the compressed mode improvements for improved system 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	
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 #18	
25.215		Physical layer – Measurements (FDD)	RAN #18	
25.331		RRC Protocol Specification	RAN #18	Parameter update
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #18	Parameter update
25.433		UTRAN Iub Interface NBAP Signalling	RAN #18	Parameter update

11 Work item raporteurs

Antti Toskala, Nokia Networks

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 sub-building block part of the radio interface improvement building block.

(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)

17. Improved usage of downlink resource in FDD for CCTrCHs of dedicated type

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-000169)

Work Item Description

Title

Improved usage of downlink resource in FDD for CCTrCHs of dedicated type

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

In the RAN 1 specifications, one CCtrCH of dedicated type may be mapped onto several physical channels (channelisation codes). However these codes must have the same spreading factor in order to have an equal physical channel segmentation. In order to have some flexibility in the resource allocation in downlink, the possibility to have multiple CCtrCHs of dedicated type was introduced in the RAN 1 specifications for R99. This allows to have codes with different spreading factors and distribute transport channels onto separate CCtrCHs taking into account possibly very different QoS requirements, which results in some cases in a smaller amount of allocated resource. RAN 2 and RAN 3 specifications do not support multiple CCTrCHs of dedicated types in R99, limiting hence the flexibility on resource allocation.

4 Objective

Introduction of the possibility to map transport channels belonging to a radio link onto multiple codes with different spreading factors as a way to minimise the overall amount of allocated resource, while fulfilling possibly very different QoS requirements for each of the transport channels,

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 endorsement at plenary	Approved at plenary	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary	Comments
25.331			RAN #18	
25.423			RAN #18	
25.433			RAN #18	
25.212			RAN #18	?
25.214			RAN #18	
25.926			RAN #18	

11 Work item raporteurs

Claudiu Mihailescu (Nortel Networks)

12 Work item leadership

TSG-RAN WG2

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

radio interface improvement feature

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

(one Work Item identified as a building block)

18. IP transport in UTRAN

Last distributed as: RAN_Work_Items_after_RAN_14

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

19. Transcoder Free Operations in UTRAN

Last distributed as: RAN_Work_Items_after_RAN_10 (originally RP-000507)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

20. Evolution of the transport in the UTRAN

Last distributed as: RAN_Work_Items_after_RAN_9 (originally WI-EVUTRAN)

Work Item Description

Title: Evolution of the transport in the UTRAN

This work item intends to introduce mechanism necessary to allow an evolutuon of transport mechanism in the RNS following requirement put by the core network.

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

In order to cope with new requirement coming from new service definition, it is necessary to introduce mechanism to support new transport mechanisms or to improve the existing ones. Typical examples of such mechanisms are the following: introduction of an IP transport inside the RNS and AAL2 QoS optimisation

4 Objective

The main objective for this building block is to ensure that adequate mechanism are provided to handle the different type of traffic (i.e. signalling and user flow) inside the RNS to ensure that requirements in terms of QoS and delay are taken into account.

This shall be valid also for efficient O&M transport of the different interfaces inside the RNS. This includes the Iub, Iur and any protocol suites at the Iu reference point.

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 (1)	
No					
Don't know					

Note 1: **This cross indicates that as soon as there is an impact on the Iu supported protocol this also touch upon the Access stratum part situated in the Core network**

10 **Expected Output and Time scale (to be updated at each plenary)**
(to be defined on a per WT basis but all specifications 25 4x2 and 254x4)

11 **This is a generic task which will be valid for all major releases**

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

11 **Work item raporteurs**

Francois Courau (Alcatel)

12 **Work item leadership**

TSG-RAN WG3

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

Not Relevant

14b The WI is a Building Block: parent Feature

Evolution of Transport

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

Not Relevant

21. Radio Interface Improvement Feature

Last distributed as: RAN_Work_Items_after_RAN_15 (originally WI-Radio-if-improve2)

Work Item Description

Title: Radio Interface Improvement

This work item intends to introduce new mechanisms allowing improvements on the way the Radio Interface is used.

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

In order to cope with new techniques providing more efficient use of the bandwidth for the radio interface, it is necessary to ensure backward compatibility in terms of service offering.
When a new system is designed it is quite normal that some work is required also to enhance the already defined mechanism at the physical layer as well as at the signalling level. Thus this work item will cope with technical enhancement and improvement for the Radio path.

4 Objective

The main objective for this feature is to ensure that adequate mechanisms are provided to allow enhancement of the radio interface in a backward compatible manner.

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					

12 Expected Output and Time scale
(to be defined on a per building block basis but potentially all specifications and report of the 25 series)

13 This is a generic task which will be valid for all major releases

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

11 Work item raporteurs

TSG-RAN

12 Work item leadership

TSG-RAN

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

X	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

Not Relevant

14b The WI is a Building Block: parent Feature

Not Relevant

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

Not Relevant

22. RAN Improvement Feature

Last distributed as: RAN_Work_Items_after_RAN_15 (originally WI-RAN-improve2)

Work Item Description

Title: RAN Improvement

This work item intends to introduce new mechanisms allowing improvements on all aspects dealing with the RNS internal interfaces as well as the interface towards the core network. In addition this includes internal mechanisms to be introduced in the Technical Specification under responsibility of TSG RAN for the RNS part of the network, e.g., algorithms for QoS handling.

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

None

3 Justification

This work item has been created to collect all evolutions of the Radio Network System. This includes transport of user and signalling plane as well as protocols over all interfaces of the RNS. The Iu and Iur reference points are also covered by this Feature description.

4 Objective

The main objective of this Feature is to cover all evolution of the internal RNS architecture and protocol.

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					

14 Expected Output and Time scale (to be updated at each plenary)
(to be defined on a per Building block or WT basis but this may impact most of the specifications 25 .4 series and some of the 25.3 series)

15 This is a generic task which will be valid for all major releases

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

11 Work item raporteurs

TSG-RAN

12 Work item leadership

TSG-RAN

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

X	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

Not Relevant

14b The WI is a Building Block: parent Feature

Not Relevant

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

Not Relevant

23. UE Positioning

Last distributed as: UE_positioning.doc

Work Item Description

1. Title

UE positioning

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

- Location Based Services (LCS)
- Low Chip rate TDD option

3 Justification

UE positioning is a function of UE and UTRAN (Access Stratum) which can be useful for a number of purposes:

- Radio Resource Management
- Support for location based services (LCS)

4 Objective

UE positioning is a feature that allows:

- UTRAN to calculate the geographical co-ordinates of a UE known by UTRAN
- UTRAN to provide sufficient information so that capable UEs can calculate autonomously their geographical co-ordinates
- UTRAN to answer to Core Networks requests for UE position

UE positioning feature encompasses a collection of positioning methods, allowing different level of accuracy and operational scenarios.

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)

This is a feature which is supported in release 99. For output and timescales, refer to the appropriate building block under the feature.

11 Work item rapporteur

Denis Fauconnier, Nortel Networks

12 Work item leadership

TSG-RAN WG2

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

x	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

?? UE positioning enhancements
?? Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

14b The WI is a Building Block: parent Feature

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

24. Void (Radio Interface Testing)

Last distributed as: -

This Work Item was deleted from the approved Work Items at TSG-RAN #9

25. Void (Requirement on Equipment)

Last distributed as: -

This Work Item was deleted from the approved Work Items at TSG-RAN #10

26. Low chip rate TDD physical layer

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000311)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

27. Low chip rate TDD layer 2 and layer 3 protocol aspects

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000312)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000313)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

29. Void (Smart antenna)

Last distributed as: -(originally RP-000314)

This Work Item was deleted from the approved Work Items at TSG-RAN #10

30. Low Chip Rate TDD UE radio access Capability

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000315)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects

Last distributed as: Revised WI sheet (LCRTDD-IubIur) (originally RP-000316)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

32. RAB Quality of Service Negotiation over Iu

Last distributed as: RAN_Work_Items_after_RAN_9 (originally partly in RP-000137, revised in RP-000499)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

33. RAB Quality of Service Renegotiation over Iu

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000500)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

34. Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000509)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

35. UE positioning enhancements

Last distributed as: RP-010915 (originally RP-000509)

Work Item Description

2. Title

UE positioning enhancements

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

UE positioning is a function of UE and UTRAN (Access Stratum) which can be utilised for a number of purposes:

- Radio Resource Management
- Support for location based services (LCS)

Different accuracy can be requested when positioning a UE for these purposes.

4 Objective

The purpose of this work item are to increase the accuracy of the UE positioning or define methods allowing UE positioning with less complexity for a given accuracy.

Examples of enhancements are:

- Addition of IPDL for UE positioning in TDD
- Almanac corrections

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 defined on a per work task basis)

This is a generic task which will be valid for all major releases

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

11 Work item rapporteur

Mark Beckmann, Siemens AG

12 Work item leadership

TSG-RAN WG2

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

14b The WI is a Building Block: parent Feature

UE positioning

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

36. RAN Technical Small Enhancements and Improvements

Last distributed as: - (originally in RP-000468 as R4-000729)

This WI was replaced by a general WI for all TSGs established during TSG-SA #10 in Bangkok. No WI sheet was needed.

37. DSCH power control improvement in soft handover

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000442)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

38. Transport bearer modification procedure on Iub, Iur, and Iu (originally Migration to Modification procedure)

Last distributed as: Revised WI sheet (Mod) (originally RP-000446)

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

39. UMTS 1800

Last distributed as: RP-010915 (originally RP-000448)

This WI was finished in TSG-RAN #14. The WI sheet can be found in RAN_Work_Items_History.

40. RAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes

Last distributed as: RAN_Work_Items_after_RAN_14 (originaly RP-000689)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

41. RAB Quality of Service Negotiation over Iu during relocation

Last distributed as: RP-010168

This WI was finished in TSG-RAN #11. The WI sheet can be found in RAN_Work_Items_History.

42. Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning

Last distributed as: RP-010414

This WI was finished in TSG-RAN #13. The WI sheet can be found in RAN_Work_Items_History.

43. High Speed Downlink Packet Access (HSDPA)

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-010262)

Work Item Description

Title

High Speed Downlink Packet Access

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

HSDPA Physical Layer
HSDPA Layer 2 and 3 Protocol Aspects
HSDPA UTRAN Iub/Iur Protocol Aspects
HSDPA RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

3 Justification

In RAN#7 a study item on High Speed Downlink Packet Access was approved. The aim of the study was to look at the feasibility and potential of various techniques such as Adaptive Modulation and Coding and Hybrid ARQ for increasing throughput and peak data rates with reduction in concomitant delay. Since RAN#7, RAN WG1 and RAN WG2 have considered many contributions on this subject and have concluded on the feasibility and potential of various techniques and provided recommendations on the inclusion of these techniques for Rel-5. This work item is in line with the recommendations from WG2 and WG1.

4 Objective

The technical objective of this work item is the integration of HSDPA functionality in UTRA, in line with recommendations from WG1 and WG2, to increase the throughput and peak data rates while reducing the overall delay. The works tasks include support for both FDD and TDD. In those cases where differences between FDD and TDD are identified, they should be considered as separate work tasks.

?? For physical layer, the features include:
  ?? Physical and Transport Channels mapping
  ?? Higher Order Modulation
  ?? Multiplexing and Hybrid ARQ Channel Coding
  ?? Physical Layer procedures

?? For higher layers:
  ?? Architecture aspects
  ?? MAC entity (Scheduling and Hybrid ARQ protocol)

?? Interlayer procedures in connected mode
?? Control plane aspects
?? UE capabilities

?? For Iur/Iub interface:
For the adoption of HSDPA some modifications to the present Iub and Iur signalling and user data streams will need to be included.

?? For radio transmission and reception:
?? UE radio transmission and reception
?? BTS radio transmission and reception
?? BTS Conformance testing
?? Requirements for support of Radio Resource Management

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
25.855		R2			RAN#13	
25.308		R2			RAN#13	

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

The expected finalisation date is TSG-RAN #17

11 Work item raporteurs

Ravi Kuchibhotla (Motorola)

12 Work item leadership

TSG-RAN WG2

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

X	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)
HSDPA Physical Layer
HSDPA Layer 2 and 3 Protocol Aspects
HSDPA UTRAN Iub/Iur Protocol Aspects
HSDPA RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

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)

44. High Speed Downlink Packet Access (HSDPA) - *Physical Layer*

Last distributed as: RP-010915 (originally RP-010262)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

45. High Speed Downlink Packet Access (HSDPA) - *layer 2 and 3 aspects*

Last distributed as: RP-010915 (originally RP-010262)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

46. High Speed Downlink Packet Access (HSDPA) - *Iub/Iur Protocol Aspects*

Last distributed as: RP-010915 (originally RP-010262)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

47. High Speed Downlink Packet Access (HSDPA) - *RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing*

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-010262)

Work Item Description

Title

High Speed Downlink Packet Access - RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

HSDPA Physical Layer
HSDPA Layer 2 and 3 Protocol Aspects
HSDPA UTRAN Iub/Iur Protocol Aspects

3 Justification

The study item on HSDPA was concluded in RAN WG#11with recommendations on the techniques to be included in Rel-5. This work item supports the specifications of the various RF characteristics of the HSDPA feature as they impact the base station and mobile station performance and the radio resource management aspects.

4 Objective

The technical objective of this work item is the description of the HSDPA characteristics, the system performance requirements and conformance testing.

- For radio transmission and reception:
  - UE radio transmission and reception
  - BTS radio transmission and reception
  - BTS Conformance testing
  - Requirements for support of Radio Resource Management

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
TR 25.890	High Speed Downlink Packet Access: UE Radio Tranmission and Reception (FDD)	WG4		RAN#16	RAN #17 NOTE 1	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.101		UE Radio Transmission and Reception (FDD)	RAN#17 NOTE 1	
25.102		UE Radio Transmission and Reception (TDD)	RAN#17 NOTE 1	
25.104		UTRA (BS) FDD; Radio transmission and Reception	RAN#17 NOTE 1	
25.105		UTRA (BS) TDD; Radio transmission and Reception	RAN#17 NOTE 1	
25.123		Requirements for support of Radio Resource Management (TDD)	RAN#17 NOTE 1	
25.133		Requirements for support of Radio Resource Management (FDD)	RAN#17 NOTE 1	
25.141		Base station conformance testing(FDD)	RAN#17 NOTE 1	
25.142		Base station conformance testing(TDD)	RAN#17 NOTE 1	

NOTE 1: The expected finalisation date is TSG-RAN #17 for all aspects except Tx Diversity, for which the expected finalisation date is TSG-RAN #18

11 Work item raporteurs

Howard Benn (Motorola)

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

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

14b The WI is a Building Block: parent Feature
High Speed Downlink Packet Access (HSDPA)

48. Multiple Input Multiple Output antennas (MIMO)

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010267)

Work Item Description

Title

Multiple Input Multiple Output antennas (MIMO)

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

High Speed Downlink Packet Access

3 Justification

Within the HSDPA study item, it has been agreed that MIMO offers significant performance gains with acceptable impact to both UE and UTRAN. MIMO shall be optional at the UE.

4 Objective

The purpose of this work item is to improve the downlink performance by means of multiple antennas at both UE and UTRAN.

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
25.876	Multiple-Input Multiple Output Antenna Processing for HSDPA	WG1		RAN#18	RAN#19	

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 #19	
25.212		Multiplexing and channel coding (FDD)	RAN #19	
25.213		Spreading and modulation (FDD)	RAN #19	
25.214		FDD : Physical layer procedures	RAN #19	
25.215		Physical layer measurements (FDD)	RAN #19	
25.331		Radio Resource Control (RRC) Protocol Specification	RAN #19	

11 Work item raporteurs

Howard Huang (hchuang@lucent.com)

12 Work item leadership

TSG RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

This is a work task - part of the HSDPA building block.

49. Void (originallly Gated DPCCH Transmission)

Last distributed as: RP-010266

This Work Item was deleted from the approved Work Items at TSG-RAN #12

50. UMTS 1900

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-010234)

This WI was finished in TSG-RAN #14. The WI sheet can be found in RAN_Work_Items_History.

51. Enhancement on the DSCH hard split mode

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010469)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

52. NodeB Synchronisation for 1.28 Mcps TDD

Last distributed as: RP-010915 (originally RP-010216)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

53. RL Timing Adjustment

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010261)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

54. Separation of resource reservation and radio link activation

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-010487)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

55. Re-arrangement of Iub Transport Bearers (originally Traffic Termination Point Swapping)

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010465)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

56. Open interface between the SMLC and the SRNC within the UTRAN to support Rel-4 positioning methods

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-010719)

Work Item Description

Title: **Open interface between the SMLC and the SRNC within the UTRAN to support Rel-4 positioning methods**

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None identified.

3 Justification

In 3GPP standalone SMLC has been specified for A-GPS method and it is needed to consider also other Rel'4 positioning methods .

4 Objective

The objective of this work item is to extend the Iupc interface for the support of all Rel'4 positioning methods positioning, i.e. Cell ID based, OTDOA based and A-GPS

It shall be transparent for the UE whether standalone SMLC is used or not.

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 Work Item

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
New TR	SRNC – SMLC Location Protocol Architecture and Protocol Aspects	RAN 2	RAN 3	RAN #17	RAN #17	See Note 1.

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401		UTRAN architecture description; Stage 2	RAN #17	Extend current Iu-pc interface as defined in 25.305
25.305		UTRAN Stage 2	RAN #17	Modify Network Reference Model, to allow for Cell ID based, OTDOA and A-GPS positioning methods.

Note 1 : the TR should identify the architectural alternatives with their pros and cons from the SMLC/SRNC functional split point of view
The SMLC principle will be such that the SRNC can query the standalone SMLC for the position of the UE.

11 Work item raporteurs

Meik Kottkamp, Siemens, Germany

12 Work item leadership

TSG-RAN WG2

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

14b The WI is a Building Block: parent Feature UE positioning

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

57. UE positioning enhancements for 1.28 Mcps TDD

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-010215)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

58. Base Station Classification for 1.28 Mcps TDD

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010450)

This WI was finished in TSG-RAN #16. The WI sheet can be found in RAN_Work_Items_History.

59. Iur Common Transport Channel Efficiency Optimisation

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010473)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

60. Iur Neighbouring cell reporting Efficiency Optimisation

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010474)

This WI was finished in TSG-RAN #15. The WI sheet can be found in RAN_Work_Items_History.

61. Beamforming enhancements (originally Beamforming)

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010711)

Work Item Description

Title

Beamforming Enhancements

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Beamforming with dedicated pilot symbols or with S-CPICH has potential to improve system capacity. Also UTRAN RRM could be improved by defining support for measurements that take into account the possible use of beamforming with S-CPICH or with dedicated pilots only.

4 Objective

This work item should define potential new measurements for UTRA FDD for efficient support of of RRM in case beamforming is used in UTRAN.

5 Service Aspects

None/Text

6 MMI-Aspects

None/Text

7 Charging Aspects

None/Text

8 Security Aspects

None/Text

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes			X		
No	X	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
New TR	Beamforming Enhancements	TSG RAN WG1	TSG RAN WG4	TSG RAN#17	TSG RAN#18	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TS 25.133			TSG RAN#18	
TS 25.433			TSG RAN#18	
TS 25.215			TSG RAN#18	

11 Work item raporteurs

Jussi Kähtävä, Nokia.

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

UTRAN Improvement Feature

62. Beamforming requirements for UE

Last distributed as: RP-010950

This WI was finished in TSG-RAN #14. The WI sheet can be found in RAN_Work_Items_History.

63. Improvement of RRM across RNS and RNS/BSS

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-010947)

Work Item Description

Title: **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

Radio resource management across RNS and RNS/BSS is a necessary tool for operators with GSM and UMTS networks. The operator must be able to place traffic on the technology that meets the operator's strategy and requirements be it for coverage, service or load. .

4 Objective

The objective of this work item is to identify tools for facilitating an efficient and cost effective method for radio resource management across RNS and RNS/BSS. The method, which allows resource management across RNS and RNS/BSS shall not affect UE/MS. The method is targeted for operation between UTRAN & Iu mode GERAN.

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

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 6 work Item

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
New 3GPP TR	RRM between RNS and RNS/BSS	RAN WG3	TSG GERAN	RAN#17	RAN#18	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
				To be determined based on the method(s) agreed

11 Work item raporteurs

Antti Toskala, Nokia, Helsinki, Finland

12 Work item leadership

RAN 3

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

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

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

64. Support of Site Selection Diversity Transmission in UTRAN

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010951)

This WI was finished in TSG-RAN #16. The WI sheet can be found in RAN_Work_Items_History.

65. Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN (originally Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN)

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-010812)

Work Item Description

Title: Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

- TSG SA WG1 WI title: "**Enhancement of Broadcast and Introduction of Multicast**"

=> TS 22.146: "Multicast Broadcast Multimedia Service (MBMS)-Stage 1"

- TSG SA WG2 WI title: "**Multimedia Broadcast/Multicast Service Architecture**"

=> TS 23.846: "Multimedia Broadcast/Multicast Service; Architecture and Functional Description"

- TSG CN WG1 WI title "**Support of the Multicast Broadcast Multimedia Service (MBMS) in CN protocols**"

=> Approved during CN1#23 (in Tdoc N1-020739)

More WIs could be generated during the course of 2002.

3 Justification

TSG SA1 has been working on the service requirements of MBMS which is a new bearer service. TS 22.146 is the specification for the MBMS service requirements defined by TSG SA WG1.
TSG SA2 has already started discussions (SA WG2 #20 meeting) on the architectural issues of MBMS.
The intention of this WI is to address the RAN issues and required changes in order to accommodate MBMS.

4 Objective

The objective of this WI is to analyse and provide the necessary changes and additions required for the efficient support of MBMS in the current RAN specifications. Some possible study areas are listed below:

- analysis and creation/modification of UTRAN functions needed to be standardized for the efficient support of MBMS
- impact on the logical/transport/physical channels
- impact on the radio interface protocols
- impact on the "MBMS context" concept on RAB signalling
- impacts on Iub and Iur and Iu-ps

- ?? decision making process between point-to-point or point-to-multipoint configurations needed for MBMS Multicast mode
- ?? interaction between MBMS and Iu-flex
- ?? security aspects

5 Service Aspects

Multimedia Broadcast and Multicast service capabilities have been introduced.

6 MMI-Aspects

None

7 Charging Aspects

It shall be possible to charge the receiver of the MBMS multicast mode.

8 Security Aspects

It shall be possible to secure multicast.

9 Impacts

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

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
TR	Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN.	R2	R3, R1, R4	RAN #17	RAN #18	New Technical Report

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

11 Work item raporteurs

Nokia (Dimitris Koulakiotis)

12 Work item leadership

TSG-RAN WG2

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)

66. Improving Receiver Performance Requirements for the FDD UE

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-020124)

Work Item Description

Title:

Improving Receiver Performance Requirements for the FDD UE

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Feasible methods exist which can enable improved performance requirements for the UE.

4 Objective

The objective of this Work Item is to establish improvements in the currently existing UE performance requirements.

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 information at plenary#	Approved at plenary#	Comments
					RAN#18	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.101		UE Radio transmission and reception (FDD)	RAN #18	

11 Work item raporteurs

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

12 Work item leadership

TSG-RAN WG4

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

67. UTRAN Sharing in Connected Mode (originally Shared Network support in Connected Mode)

Last distributed as: RAN_Work_Items_after_RAN_16 (originally RP-020246)

Work Item Description

Title: UTRAN Sharing in Connected Mode

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Based on the Release-99 specifications, the CN+UTRAN have mechanisms available to provide UE-specific access restrictions for LA's of the current PLMN and other PLMN's when the UE is in Idle Mode[1]. These mechanisms can be used for implementing shared networks solutions in which, based on roaming agreements, the access restrictions to be applied might be different for different UE's.

Although the Release-99 specifications specify these mechanisms for handling the UE when in Idle Mode, insufficient mechanisms are specified to provide similar access restrictions in Connected Mode. In Connected mode the UE mobility is handled by the UTRAN and the UTRAN does not have the necessary information (e.g. roaming agreements) to provide a consistent access restriction handling in Connected Mode.

4 Objective

The objective of this WI is to enable the CN+UTRAN to provide a consistent UTRAN mobility access restriction handling based on roaming agreements in both Idle and Connected Mode.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

[1] Mechanisms include UE-specific LOCATION UPDATING ACCEPT/REJECT & inclusion of LA-specific/UE-specific equivalent PLMN information in LOCATION UPDATING ACCEPT.

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	2nd ary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401		UTRAN architecture description; Stage 2	RAN#17	
25.413		UTRAN Iu Interface RANAP Signalling	RAN#17	
25.423		UTRAN Iur interface RNSAP signalling	RAN#17	

11 Work item rapporteurs

Martin Israelsson, Ericsson

12 Work item leadership

TSG-RAN WG3

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

14b The WI is a Building Block: parent Feature

RAN Improvement feature

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

TSG-RAN meeting #17 RP-020459
Biarritz, France, 3-6 September 2002

Source: TSG-RAN

Title: Work Item sheets - history

This document contains WI sheets in TSG-RAN for all approved Work Items that have been finished (occasionally: WIs for which a particular part has finished). The WI sheets of the approved and finished study items are provided in a separate document, RAN_Study_Items_History. The WI sheets for current WIs can be found in RAN_Work_Items.

The finished Work Items at the end of TSG-RAN #16 are:

1. Low chip rate TDD option
4. TDD Base station classification
8. NodeB Synchronisation for TDD
9. UTRA FDD Repeater Specification
10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces
12. PS-Domain handover for real-time services
13. RAB Quality of Service Negotiation/Renegotiation over Iu
14. RRM optimizations for Iur and Iub (partly finished in TSG-RAN #11 and changed status)
15. Radio access bearer support enhancement (partly finished in TSG-RAN #11)
18. IP Transport in UTRAN
19. Transcoder Free Operations in UTRAN
26. Low Chip Rate TDD Physical Layer
27. Low chip rate TDD layer 2 and layer 3 protocol aspects
28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing
30. Low Chip Rate TDD UE radio access Capability
31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects
32. RAB Quality of Service Negotiation over Iu
33. RAB Quality of Service Renegotiation over Iu
34. Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99
35. UE positioning enhancements (partly finished in TSG-RAN #11)
37. DSCH power control improvement in soft handover
38. Transport bearer modification procedure on Iub, Iur and Iu (originally Migration to Modification procedure)
39. UMTS 1800
40. RAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes
41. RAB Quality of Service Negotiation over Iu during relocation
42. Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning
44. High Speed Downlink Packet Access (HSDPA) - *Physical Layer*
45. High Speed Downlink Packet Access (HSDPA) - *layer 2 and 3 aspects*
46. High Speed Downlink Packet Access (HSDPA) - *Iub/Iur Protocol Aspects*
50. UMTS 1900
51. Enhancement on the DSCH hard split mode
52. NodeB Synchronisation for 1.28 Mcps TDD
53. RL Timing Adjustment
54. Separation of resource reservation and radio link activation
55. Re-arrangement of Iub Transport Bearers (originally Traffic Termination Point Swapping)
57. UE positioning enhancements for 1.28 Mcps TDD
58. Base Station Classification for 1.28 Mcps TDD
59. Iur Common Transport Channel Efficiency Optimisation
60. Iur Neighbouring cell reporting Efficiency Optimisation
62. Beamforming requirements for UE
64. Support of Site Selection Diversity Transmission in UTRAN

Relation between Work Items

Feature	Grp	Building Block	Grp	Work Task
22. RAN Improvement Feature	RP	14. RRM optimizations for Iur and Iub	R3	**Error! Reference source not found.**
				54. Separation of resource reservation and radi
				59. Iur Common Transport Channel Efficiency C
				60. Iur Neighbouring cell reporting Efficiency Op
		63. Improvement of RRM across RNS and RNS/BSS	R3	
		8. NodeB Synchronisation for TDD	R1	
		52. NodeB Synchronisation for 1.28 Mcps TDD	R1	
		15. Radio access bearer support enhancement	R2	
		55. Re-arrangement of Iub Transport Bearers (originally Traffic Termination Point Swapping)	R3	

Feature	Grp	Building Block	Grp	Work Task
		Last distributed as: RAN_Work_Items_after_RAN_14 (originally **RP-010474)**	R1	

Work Item Description

Title

Iur Neighbouring cell reporting Efficiency Optimisation

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

In Rel99/Rel4, everytime a RL is established in a certain cell, the SRNC will get information about certain characteristics of cells neighbouring the cell in which the RL is established. This information is provided regardless of whether the SRNC already has received this information before e.g. as neighbouring cell information for a previous RL establishment.

A mechanism shall be studied and if it is considered beneficial introduced, which increases the efficiency of the neighbouring cell information reporting by avoiding the transport of information the SRNC is already aware of.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

Feature	Grp	Building Block	Grp	Work Task
		62. Beamforming requirements for UE	R1	
		64. Support of Site Selection Diversity Transmission in UTRAN	R1	
		67. UTRAN Sharing in Connected Mode (originally Shared Network support in Connected Mode)	R3	
21. Radio Interface Improvement Feature	RP	16. Improvement of inter-frequency and inter-system measurements	R1	
		2. Base station classification	R4	3. FDD Base station classification
				4. TDD Base station classification

Feature	Grp	Building Block	Grp	Work Task

Last distributed as: RAN_Work_Items_after_RA

Work Item **Description**

Title

UE positioning enhancements for 1

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

UE positioning is a function of UE
Stratum) which can be utilised for
?? Radio Resource Management
?? Support for location based servi
Different accuracy can be requested
UE for these purposes.

4 Objective

The purpose of this work item are t
of the UE positioning or define met
positioning with less complexity fo
Examples are refinement and adopt
defined for release 5.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects:	USIM	ME	AN
Yes		X	X

Feature	Grp	Building Block	Grp	Work Task
		17. Improved usage of downlink resource in FDD for CCTrCHs of dedicated type	R2	
		11. Terminal power saving features	R1	
		9. UTRA FDD Repeater Specification	R4	
		37. DSCH power control improvement in soft handover	R1	
		39. UMTS 1800	R4	
		50. UMTS 1900	R4	
		48. Multiple Input Multiple Output antennas (MIMO)	R1	
		51. Enhancement on the DSCH hard split mode	R1	
		66. Improving Receiver Performance Requirements for the FDD UE	R4	
20. Evolution of the transport in the UTRAN	RP	18. IP transport in UTRAN	R3	
		10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces	R3	
		38. Transport bearer modification procedure on Iub, Iur, and Iu (originally Migration to Modification procedure)	R3	
Error! Not a valid bookmark self-reference.	R1	26. Low chip rate TDD physical layer	R1	
		27. Low chip rate TDD layer 2 and layer 3 protocol aspects	R2	
		30. Low Chip Rate TDD UE radio access Capability	R2	
		31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects	R3	
		28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing	R4	
43. High Speed Downlink Packet Access (HSDPA)	R2	44. High Speed Downlink Packet Access (HSDPA) - Physical Layer	R1	
		Error! Reference source not found.	R2	
		Error! Reference source not found.	R3	
		47. High Speed Downlink Packet Access (HSDPA) - RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing	R4	
36. RAN Technical Small Enhancements and Improvements	RP			
Transcoder-Free Operation	N4	OoBTC solution	N4	19. Transcoder Free Operations in UTRAN
Location Services enhancements	S2	23. UE Positioning	RP	34. Iub/Iur interfaces for UE positioning methods interface release 99
				35. UE positioning enhancements
				57. UE positioning enhancements for 1.28 Mcps
				9. UTRA FDD Repeater Specification
				42. Open interface between the SMLC and the support A-GPS Positioning
				56. Open interface between the SMLC and the support Rel-4 positioning methods
Ensure reliable QoS for PS domain	S2	13. RAB Quality of Service Negotiation/Renegotiation over Iu	R3	32. RAB Quality of Service Negotiation over Iu
				33. RAB Quality of Service Renegotiation over
				41. RAB Quality of Service Negotiation over Iu
		12. PS-Domain handover for real-time services	R3	
Intra Domain Connection of RAN Nodes to Multiple CN Nodes	S2	40. RANwork for Intra Domain Connection of RAN Nodes to Multiple CN Nodes	R3	
Multimedia Broadcast and Multimedia Service	S1	65. Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN (originally Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN)	R2	

1. Low chip rate TDD option

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000191)

Work Item Description

Title

Low chip rate TDD option

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low Chip Rate TDD Physical Layer
Low chip rate TDD layer 2 and layer 3 protocol aspects
Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing
Low Chip Rate TDD UE radio access Capability
Low chip rate TDD UTRAN network Iub/Iur protocol aspects

3 Justification

The integration of TDD low chip rate option in Release 2000 is discussed and approved in RAN#6. This paper is to describe the work plan of the integration for low chip rate TDD in R00.

4 Objective

The technical objective of this work item is the integration of the low chiprate TDD functionality in UTRA TDD, in line with decisions at RAN#6.

?? For physical layer, the features include:
  ?? The frame structure and the burst structure
  ?? Channel description and mapping
  ?? Modulation and spreading
  ?? Channel coding and multiplexing
  ?? Physical layer procedures
  ?? Measurements by physical layer

?? For higher layers:
The work will focus on adding extensions and Add-Ons for low chip rate support.

?? For Iur/Iub interface:
For the adoption of some new features, e.g. the smart antenna, baton hand-over, some additional messages in Iur and Iub interface signalling for low chip rate TDD option should be taken into consideration.

?? For radio transmission and reception:

?? The system performance requirements supporting low chip rate services
?? The Rx characteristics requirement
?? The Transmitter characteristics requirement
?? The frequency bands and channel arrangements

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

The expected finalisation date is TSG-RAN #11

11 Work item raporteurs

Mr. Guiliang Yang (CATT/CWTS)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

X	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)
The building blocks should be discussed and approved via email discussion

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)

2. Base station classification

This WI has not finished yet. See RAN_Work_Items.

3. FDD Base station classification

This WI has not finished yet. See RAN_Work_Items.

4. TDD Base station classification

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-000185)

Work Item Description

Title

TDD Base Station Classification

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

Current TSG RAN WG4 specifications have been done according to the requirements for the macrocell base stations (NodeBs). For the UTRA evolution requirements specific for other type of base stations are needed as well (e.g. micro, pico)

4 Objective

- definition of base station classes according to deployment scenarios (e.g. macro, micro, pico)
- identification, review and possible update of radio parameters dependent on deployment scenarios
- identification, review and possible update of UTRAN (Node B) measurement requirements and conformance where the maximum base station output power is reflected, dependent on deployment scenarios
- review and possible update of conformance test specifications
- recording of related information into RF System Scenarios

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
25.952	TDD Base station classification	R4		RAN #16	RAN #16	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.105		UTRA (BS) TDD, Radio Transmission and Reception	RAN #16	
25.142		Base Station Conformance Testing (TDD)	RAN #16	
25.123		RF parameters in support of RRM (TDD)	RAN #16	?
25.942		RF System Scenarios	RAN #16	

11 Work item raporteurs

Antti Toskala, Nokia Networks

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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: Base Station Classification

(one Work Item identified as a building block)

5. UE positioning in UTRA TDD

Last distributed as: (originally RP-000053)

This WI and WI 6. were replaced by WIs 34. and 35. in TSG-RAN #9.

6. UE positioning in UTRA FDD

Last distributed as: (originally RP-000135)

This WI and WI 5. were replaced by WIs 34. and 35. in TSG-RAN #9.

7. Void (originally Hybrid ARQ II/III)

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000054)

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

8. NodeB Synchronisation for TDD

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000055)

Work Item Description

Title

NodeB Synchronisation for UTRA TDD mode

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

NodeB synchronisation is beneficial in UTRA TDD to minimise cross-interference in neighbouring cells. Currently, no method has been specified how NodeB synchronisation can be achieved with UTRAN's and UE's internal resources such as signalling via the air interface.

The following benefits of the introduction of NodeB synchronisation by means of internal resources are seen:

?? A substantial reduction of the cost of the transmission network.
?? An autonomous synchronisation procedure without the need of external references.
?? An easily extendable method for the purpose of inter-system NodeB synchronisation.

4 Objective

The purpose of this new work item is to enable the synchronisation of NodeBs in UTRA TDD by means of UTRAN's and UE's internal resources such as air interface signals and NodeB cross measurements. NodeB synchronisation involves

?? radio frame und multi frame synchronisation and
?? intra-system and inter-system synchronisation.

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 endorsement at plenary#	Approved at plenary#	Comments
25.836	NodeB synchronisation for TDD	WG1		RAN #10	RAN #11	
25.838	NodeB synchronisation for TDD	WG3		RAN #10	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.123		Requirements for Support of Radio Resource Management (TDD)	RAN #11	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)	RAN #11	
25.224		Physical Layer Procedures (TDD)	RAN #11	
25.225		Physical layer – Measurements (TDD)	RAN #11	
25.301		Radio Interface Protocol Architecture	RAN #11	
25.302		Services provided by the physical layer	RAN #11	
25.303		Interlayer procedures in connected mode	RAN #11	
25.321		MAC Protocol Specification	RAN #11	
25.331		RRC Protocol Specification	RAN #11	
25.402		Synchronisation in UTRAN Stage 2	RAN #11	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #11	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #11	

11 Work item raporteurs

Stefan Oestreich, Siemens AG

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

Radio Interface Improvements and RAN Improvements Features

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

(one Work Item identified as a building block)

9. UTRA FDD Repeater Specification

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000083)

Work item Description

Title:

UTRA FDD Repeater Specification

---

1 3GPP work area

Radio Access

2 Linked work items

None

3 Justification

Repeaters have proven to be useful for extending the coverage into buildings, train/car tunnels, subways, highways, etc in 2nd generation systems. Also, by installing repeaters at the sector borders or in highly dense areas, the transmitted power from the MS and the BS could possibly be lowered, leading to an improvement in C/I and thereby capacity.

For the installation of repeaters in cellular networks a specification is needed in e.g. Europe due to regulatory requirements.

For operators without the capability of handover to 2nd generation systems, extending the coverage of UTRA will be of importance especially at the initial rollout stage. For operators with capability of handover to 2nd generation systems, user requirements (e.g. high data rates) may not be met by those systems and extended UTRA coverage might be needed.

4 Objective

The objective of the work item is to create a technical specification of the UTRA repeater's minimum RF characteristics which, at least, should include:

- ?? Spurious emissions
- ?? Intermodulation products
- ?? Out of band gain
- ?? Frequency stability
- ?? Modulation accuracy
- ?? Blocking characteristics

In addition to the minimum RF characteristics, conformance requirements and Electro Magnetic Compatibility (EMC) shall also be specified.

5 Service Aspects

The use of repeater in a network may reduce the performance of the LCS method OTDOA. This is addressed in more detail in document R4-000012.

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects:	USIM	ME	Access Network	Core Network	Others
Yes			X		
No	X	X		X	
Don't know					

10 Expected Output and Time scales

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TS 25.106	UTRA Repeater; Radio transmission and reception	WG4		RAN#9	RAN#11	Repeater minimum RF characteristics
TS 25.143	UTRA Repeater; Conformance testing	WG4		RAN#9	RAN#11	Repeater conformance testing

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TS 25.113		UTRA Repeater EMC	RAN#11	Repeater EMC requirements

11 Work item rapporteurs

Martin Nilsson, Allgon AB
Thomas Kummetz, Mikom GmbH

12 Work item leadership

TSG-RAN WG4

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)

14b The WI is a Building Block:
This is a building block part of the radio interface improvement feature.
In addition there is a relation to the building block UE positioning in UTRA FDD.

10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces

Last distributed as: Revised WI sheet (QoS) (originally RP-000188)

Work Item Description

Title

QoS optimization for AAL type 2 connections over Iub and Iur interfaces

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

(list of linked Wis)

3 Justification

In Release 99, traffic like compressed voice (AAL type 2 connection) and traffic like data (AAL type 2 connection) are accommodated in common underlying VC(s) for AAL type 2 connections as real time traffics over Iub and Iur interfaces to ease management of CFN (Connection Frame Number) allocation to Down link data frame or scheduling at SRNC (Serving RNC). In addition to that, in sections with AAL type 2 switches, I.363.2 and Q.2630.1 referred in Release 99 have no capability to prioritize real time traffic like compressed voice or non-real time traffic like data.

In general, this requires much higher capacity underlying VC for AAL type 2 connections to meet the delay requirements for real time traffic like compressed voice especially in case of real time traffic data frame (smaller) right after non-real time traffic data frame (much bigger). Typical simulation on the case was given in TSG R3#8(99)e19 by Alcatel in Release 99 time frame. Higher capacity underlying VC for AAL type 2 connections over Iub interface impacts very much on initial and running costs of the Iub interface which usually consists of leased line.

4 Objective

This work item intends to introduce the capability to optimize the bandwidth of underlying VC for AAL type 2 connections over Iub and Iur interfaces in addition to the scheduling capability at SRNC in Release 4 time frame.

The capability should be realized with standardized solution(s) for multi-vendor environment, and the one(s) should cover all possible UTRAN transport network configurations.

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	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
25.934	QoS optimization for AAL type 2 connections over Iub and Iur interfaces	WG3		RAN #10	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TS 25.414	26	UTRAN Iu interface: data transport & transport signalling	RAN #11	
TS 25.415	51	UTRAN Iu interface: user plane protocols	RAN #11	
TS 25.420	11	UTRAN Iur interface: general aspects and principles	RAN #11	
TS 25.424	10	UTRAN Iur interface: data transport & transport signalling for common transport channel data streams	RAN #11	
TS 25.425	25	UTRAN Iur interface: user plane protocols for common transport channel data streams	RAN #11	
TS 25.426	13	UTRAN Iur and Iub interfaces: data transport & transport signalling for DCH data streams	RAN #11	
TS 25.430	17	UTRAN Iub interface: general aspects and principles	RAN #11	
TS 25.434	8	UTRAN Iub interface: data transport & transport signalling for common transport channel data streams	RAN #11	
TR 25.931	7	UTRAN functions, examples on signalling procedures	RAN #11	

11 Work item rapporteurs

Takayuki Yoshimura (Japan Telecom)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

Evolution of transport in UTRAN

11. Terminal power saving features

This WI has not finished yet. See RAN_Work_Items.

12. PS-Domain handover for real-time services

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000127)

Work Item Description

Title

PS-Domain handover for real-time services

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

(list of linked WIs)

3 Justification

In release 99, Relocation for services from PS domain is only optimised for non-real-time services. In current design, the content of the data buffers from the source RNC are fetched, which is not fully optimal for real-time services, and means that delay may exceed the requirement for real-time services. It is expected that real-time services from the PS domain, such as voice over IP would benefit from fully optimised handover.

4 Objective

This work item should design handover in RAN (mainly Iu) that supports real-time services from PS domain in an optimised way. The solution should be as simple as possible.

5 Service Aspects

The intention with the work item is to assure more optimised support for services such as voice over IP.

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
25.936	PS-Domain handover for real-time services	R3		RAN #10	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.413			RAN #11	

11 Work item raporteurs

Atte Länsisalmi (Nokia)

12 Work item leadership

TSG-RAN WG3

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

Radio Interface Improvement, RAN Improvement and Evolution of bearers on the radio to enable IP based multimedia in UMTS Features

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

(one Work Item identified as a building block)

13. RAB Quality of Service Negotiation/Renegotiation over Iu

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000137, major revision RP-000498, rest in WI 32. RAB Quality of Service Negotiation)

Work Item Description

Title

RAB Quality of Service Negotiation/Renegotiation over Iu

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

None

3 Justification

In release 99, UTRAN can only accept or reject a radio access bearer request from the core network. For services that could accept looser QoS requirements than those requested by the CN in the RAB establishment request there exist no means for UTRAN to propose alternative (looser) QoS. For such services the RAB establishment will fail, or alternatively the CN could re-attempt the RAB reestablishment with looser QoS requirements which would significantly increase the setup time.

Release 99 also does not allow the UTRAN to renegotiate RAB/QoS parameters for on-going calls/session. Since the UTRAN is responsible for managing the radio resources, it is necessary for the UTRAN to be able to initiate RAB renegotiation for efficient use of the radio interface.

4 Objective

This work item should enhance the Radio Access Bearer setup to something more sophisticated using e.g. QoS profiles to align with the already existing CN solution used in GPRS. However, it should be as simple as possible.

This work item should also enhance the management of Radio Access Bearers for on-going calls/session so that QoS parameters can be renegotiated by the UTRAN.

5 Service Aspects

The intention with the work item is to reduce the setup time of services.

The intention is also to allow continuation of service through UTRAN initiated QoS renegotiation.

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
25.413			RAN #11	
23.060				
24.008				

11 Work item raporteurs

Anders Molander, Ericsson

12 Work item leadership

TSG-RAN WG3

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

14b The WI is a Building Block: parent Feature

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

UTRAN Improvement Feature

14. RRM optimizations for Iur and Iub

Last distributed as: RP-010272 (originally RP-000310)

The Work Tasks finished in TSG-RAN #11 are mentioned in this WI description

Work Item Description

Title

RRM optimizations for Iur and Iub

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

This work item focuses on optimising the existing procedures and functions related to:

1) Congestion handling of DCH
   Currently a DRNC accepting a dedicated RL, in principle needs to reserve resources for the maximum bitrate which could possibly be required for the DCH's on this RL. This because the DRNC has a very limited view on the load statistics of the DCH's (source descriptor) and has no possibility to control the DL-rate of the DCH's in congestion situations.

2) Procedure parallelism on Iub/Iur
   Currently almost no procedure parallelism is allowed in NBAP/RNSAP (dedicated) procedures. As a result, an RRM procedure used for handling problems in a fast changing radio environment, could have to wait for termination of a procedure e.g. introducing a new service on the RL.

   In order to improve the capability of the UTRAN to respond to fast changes in the radio environment, the restrictions on parallelism between procedures coping with radio environment changes (e.g. RL_ADDITION/RL_DELETION) and other procedures (e.g. RL_RECONFIGURATION) should be decreased.

3) DPC Rate Reduction in soft handover
   Currently R1 describes two DPC_modes in 25.214, however mode change signalling is not supported by R3.

   By supporting DPC-mode change signalling in the UTRAN, the UTRAN should be better capable of combating power drifting in the DL.

4) Introduction of common measurements over Iur

It is proposed to study the usefulness of / possibilities for introducing common measurements on Iur. For example, at present an SRNC has no information regarding cell load information in neighbouring cells on a DRNC when making soft handover decisions. A study should indicate whether clear benefits exist of providing such load information to a neighbouring CRNC.

If this, or other possible measurements are identified, a common measurement procedure as currently supported on Iub could be introduced in RNSAP.

5) Extension of Radio Interface Parameters updating in the user plane
Currently the Iub/Iur DCH FP supports a fast update of the TPC Power Offset in the DL RL via user plane signalling.

It should be studied if more radio interface parameters would benefit from a similar handling. If such parameters are identified, the user plane should be extended for this purpose.

6) Separation of resource reservation and radio link activation
This work task aims at introducing the possibility to have dedicated resources reserved in UTRAN without transmitting energy on the corresponding radio link(s). Furthermore, a separate mecha-nism for activating and deactivating radio transmission related to the reserved resources shall be introduced.

The separation will enable the following optimisations in UTRAN:
- delayed activation of a radio link at soft handover for high bit rate users, thus avoiding a potential handover problem;
- quicker channel type switching back to Cell_DCH;
- quicker radio link additions of radio links that recently were part of the active set;

7) Triggering of the Common Transport Channel Resources Initiation procedure by DRNC
Currently the DRNC has no possibility to request an SRNC to move a UE from using one combination of RACH/FACH channels to other RACH/FACH channels. However this functionality is provided by R(99) RRC signalling and is considered beneficial for obtaining a good distribution of the common resource usage in the DRNS.

For R(00) an appropriate solution should be specified to provide this capability to the DRNC.

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					

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

It is proposed to maintain the "RRM optimizations for Iur and Iub Building Block" as a continuously ongoing Building Block.

It is also proposed to handle Release 5 worktasks under this BB in separate WI-sheets, and result in separate TR's. Therefore, TR25.935 can be brought to v4.0.0, finalising the 6 worktasks indicated below.

1) Congestion handling of DCH

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iub	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.423	339	RNSAP		RAN #11		

2) Procedure parallelism on Iub/Iur

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iub	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

Finalised without specification impact.

3) DPC Rate Reduction in soft handover

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iub	WG3		RAN #11	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.427	45	Iub/Iur dedicated transport channel user plane	RAN #11	
25.423	320	RNSAP	RAN #11	
25.433	373	NBAP	RAN #11	
25.433	387	NBAP	RAN #11	

4) Introduction of common measurements over Iur

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iub	WG3		RAN #11	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.420	12	Iur general aspects and principles	RAN #11	
25.423	323	RNSAP	RAN #11	

5) Extension of Radio Interface Parameters updating in the user plane

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iub	WG3		RAN #11	RAN #11	

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

Finalised without specification impact.

6) Separation of resource reservation and radio link activation

Not finalised; proposed to be handled in separate WI-sheet for Release 5.

7) Triggering of the Common Transport Channel Resources Initiation procedure by DRNC

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iub	WG3		RAN #11	RAN #11	

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

Finalised without specification impact.

11 Work item raporteurs

Gert-Jan van Lieshout (Ericsson)

12 Work item leadership

TSG-RAN WG3

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

14b The WI is a Building Block: parent Feature

Radio Interface Improvement feature and UTRAN Improvement feature

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

Starting from Release 5, each Work Task under this Building Block will be described in a separate WI-sheet.

15. Radio access bearer support enhancement

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000140)

"Robust Header Compression" was finished in TSG-RAN #11
"RFC 3095 context relocation in SRNS relocation" was finished in TSG-RAN #16

Work Item Description

Title

Radio Access Bearer support enhancement

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

3 Justification

The increasing interest in IP based services demands special optimisation of the means by which a radio access bearer can be provided by UTRAN.

4 Objective

This work item should have the scope of adding necessary functionality to the Uu and Iu interface in order to efficiently support RT traffic, e.g. VoIP. Examples of such functionality are:

- Radio Access Bearer multiplexing in PDCP
- Header compression for VoIP
  - Normally referenced from an IETF RFC
- Support of variable formats over Iu and unequal error protection over Uu
- Channel type switching for logical channels
  - Today it is only possible to switch all logical channels of one UE, not individual. For DSCH it would be much better to be able to switch single logical channels
- IP header removal as developed within GERAN

5 Service Aspects

The intention with the work item is to better and more efficient support IP based services.

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
25.331		RRC protocol specification	RAN#11	
25.323		PDCP protocol specification	RAN#11	
25.413		UTRAN Iu interface RANAP signalling	RAN#11	
25.415		UTRAN Iu interface user plane protocols	RAN#11	

11 Work item raporteurs

TSG-RAN WG2: Ainkaran Krishnarajah (Ericsson)
TSG-RAN WG3: Martin Israelsson (Ericsson)

12 Work item leadership

TSG-RAN WG2

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

(one Work Item identified as a feature)
- RAN Improvement
- Evolution of bearers on the radio to enable IP based multimedia in UMTS

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

16. Improvement of inter-frequency and inter-system measurements

This WI has not finished yet. See RAN_Work_Items.

17. Improved usage of downlink resource in FDD for CCTrCHs of dedicated type

This WI has not finished yet. See RAN_Work_Items.

18. IP transport in UTRAN

Last distributed as: RAN_Work_Items_after_RAN_14

Work Item Description

Title

IP-transport in UTRAN

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Release 2000 workplan includes, as an option, an all-IP transport architecture aimed at allowing operators to deploy IP technology to deliver 3rd generation services.

The foreseen benefits of the introduction of IP as transport technology inside the UTRAN are:

?? To give the operator the option to use IP transport as an alternative to AAL2/ATM transport within UTRAN.

?? In which networks, or parts of network, the IP option is beneficial over the AAL2/ATM option will vary between different operators, e.g. depending on existing transport network infrastructure, other applications using the same transport, available physical links, etc.

?? A consistent approach allowing for end-to-end IP transport solutions.

?? The more detailed requirements and expected benefits will be documented in the Technical Report.

4 Objective

The purpose of this new work task is to enable the usage of IP technology for the transport of signalling and user data over Iu, Iur and Iub in the UTRAN. This work task is only related to the transport aspects.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

Security aspects linked with the use of IP as transport technology.

9 Impacts

Affects :	USIM	ME	AN	CN	Others
Yes			X	X[1]	
No	X	X			
Don't know					

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

The first step of the work will consist in providing the necessary changes to the generic specifications (TS 25.401, TS 25.402). Then, the CRs to the other specs introducing the possibility to use IP as a transport mechanism will be generated.
The QOS aspects should be studied closely with IETF.

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
TR 25.933	IP Transport in UTRAN Work Task Technical Report	WG3		RAN #14	RAN #15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TS 25.401		UTRAN Overall Description	RAN #15	Only text related to Transport Network Layer.
TS 25.402		Synchronisation in UTRAN, Stage 2	RAN #15	To be confirmed during the study
TS 25.410		UTRAN Iu Interface: General Aspects and Principles	RAN #15	Only text related to Transport Network Layer.
TS 25.411		UTRAN Iu Interface Layer 1	RAN #15	
TS 25.412		UTRAN Iu interface signalling transport	RAN #15	
TS 25.413		UTRAN Iu Interface RANAP Signalling	RAN #15	Only parameters and interface related to the Transport Network Layer.
TS 25.414		UTRAN Iu interface data transport & transport signalling	RAN #15	
TS 25.415		UTRAN Iu interface user plane protocols	RAN #15	Only parameters and interface related to the Transport Network Layer.
TS 25.420		UTRAN Iur Interface: General Aspects and Principles	RAN #15	Only text related to Transport Network Layer.
TS 25.422		UTRAN Iur interface signalling transport	RAN #15	
TS 25.423		UTRAN Iur Interface RNSAP Signalling	RAN #15	Only parameters and interface related to the Transport Network Layer.
TS 25.424		UTRAN Iur interface data transport & transport signalling for CCH data streams	RAN #15	
TS 25.425		UTRAN Iur interface user plane protocols for CCH data streams	RAN #15	Only parameters and interface related to the Transport Network Layer.
TS 25.426		UTRAN I_{ur} and I_{ub} Interface Data Transport & Transport Signalling for DCH Data Streams	RAN #15	

[1] None of the TSG-CN specifications are impacted.

TS 25.430		UTRAN I_{ub} Interface General Aspects and Principles	RAN #15	Only text related to Transport Network Layer.
TS 25.432		UTRAN Iub interface signalling transport	RAN #15	
TS 25.433		UTRAN Iub Interface NBAP Signalling	RAN #15	Only parameters and interface related to the Transport Network Layer.
TS 25.434		UTRAN Iub interface data transport & transport signalling for CCH data streams	RAN #15	
TS 25.435		UTRAN Iub interface user plane protocols for CCH data streams	RAN #15	Only parameters and interface related to the Transport Network Layer.
TS 25.442		UTRAN Implementation Specific O&M Transport	RAN #15	
TR 25.931		UTRAN Functions, Examples on Signalling Procedures	RAN #15	Only messages related to transport bearers.
TR 25.932		Delay Budget within the Access Stratum	RAN #15	

11 Work item rapporteurs

Nicolas Drevon, Alcatel

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

Parent Building Block is "Evolution of the Transport in the UTRAN".

19. Transcoder Free Operations in UTRAN

Last distributed as: RAN_Work_Items_after_RAN_10 (originally RP-000507)

Work Item Description

Transcoder Free Operations in UTRAN

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Out of band Transcoder Control (CN Work Item)

3 Justification

This WI is the complementary part of the WI that has been agreed for TSG CN. It shall provide more details for the Radio Access Network standardisation that is required for the Transcoder Free Operation.

4 Objective

?? *The number of transcoders to be installed in the core network can be minimised.*

?? *The bandwidth to be provided in the core network may be reduced by TrFO or transcoder at the core network edge for both MS to MS calls and for MS from/to wireline calls.*

5 Service Aspects

The service aspects for Transcoder Free Operation are:

?? *Usage of the framing protocol as defined in TS 25.415 in the Core Network needs to be supported*

?? *Symmetrical set of RFCIs needs to be supported*

?? *The behaviour of an RNC for receiving RFCIs at Iu UP initialisation from the core network shall be changed to be applied for both uplink and downlink.*

?? *The mechanism to make the RFCIs available during TrFO Break needs to be supported (storage of RFCIs)*

?? *Specific adaptations of the inband rate control procedure needs to be performed ("distributed – ", "maximum – ", and "immediate rate control")*

?? *RNC behaviour on a RAB Assignment Request needs to be adopted for TrFO calls.*

?? *25.415 should in principle define the IuUP framing protocol in a way, that it covers its applicability for the Nb interface as well. This needs to be confirmed and co-ordinated with CN3.*

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					X

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
23.153	Out of Band Transcoder Control - Stage 2	CN4	RAN3	TSG-CN#7	TSG-CN#10	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TS 25.401			TSG-RAN#11	
TS 25.410			TSG-RAN#11	
TS 25.413		see “Service Aspects”	TSG-RAN#11	
TS 25.415		see “Service Aspects”	TSG-RAN#11	

11 Work item rapporteurs

Siemens, Alexander Vesely (alexander.vesely@siemens.at)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

Out of Band Transcoder Control

20. Evolution of the transport in the UTRAN

This WI has not finished yet. See RAN_Work_Items.

21. Radio Interface Improvement Feature

This WI has not finished yet. See RAN_Work_Items.

22. RAN Improvement Feature

This WI has not finished yet. See RAN_Work_Items.

23. UE Positioning

This WI has not finished yet. See RAN_Work_Items.

24. Void (Radio Interface Testing)

Last distributed as: -

This Work Item was deleted from the approved Work Items at TSG-RAN #9

25. Void (Requirement on Equipment)

Last distributed as: -

This Work Item was deleted from the approved Work Items at TSG-RAN #10

26. Low chip rate TDD physical layer

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000311)

Work Item Description

Title

Low chip rate TDD physical layer

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low Chip Rate TDD UE radio access capabilities
Low chip rate TDD Layer 2 and Layer 3 protocol aspects
Low chip rate TDD Iub/Iur protocol aspects
Smart Antenna
Low chip rate TDD RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing
Low Chip Rate TDD Inter-working with GERAN

3 Justification

For the low chip rate TDD, it has commonalties but also difference on physical layer with the high chip rate TDD option e.g. chip rate, frame structure, burst structure, some physical layer procedures etc. This paper is to describe one of the low chip rate TDD building blocks –physical layer.

4 Objective

The technical objective of this work item is to clarify the integration work to be done for the physical layer. And this work will affect the specifications for working group on physical layer. The integration work for low chip rate TDD with its properties should maximize the commonality with high chip rate TDD options.

?? For physical layer, it includes the following work tasks:
- ?? Physical Channels and Mapping of Transport Channels onto Physical Channels
- ?? Multiplexing and Channel Coding
- ?? Modulation and spreading
- ?? Physical layer procedures
- ?? Physical Layer Measurements

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
25.928	Low Chip Rate TDD Physical Layer	WG1		RAN #10	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.201		Physical layer – General description	RAN#11	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)	RAN#11	
25.222		Multiplexing and channel coding (TDD)	RAN#11	
25.223		Spreading and modulation (TDD)	RAN#11	
25.224		TDD; physical layer procedures	RAN#11	
25.225		Physical layer; measurements	RAN#11	
25.302		Services Provided by the physical layer	RAN#11	
25.944		Channel coding and multiplexing examples	RAN#11	

11 Work item raporteurs

Mr. Guiliang Yang (CATT/CWTS)

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

Low chip rate TDD

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

(one Work Item identified as a building block)

27. Low chip rate TDD layer 2 and layer 3 protocol aspects

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000312)

Work Item Description

Title

Low chip rate TDD layer 2 and layer 3 protocol aspects

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low Chip Rate TDD physical layer
Low chip rate TDD Iub/Iur protocol aspects
Smart Antenna
Low chip rate TDD RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing
Low Chip Rate TDD Inter-working with GERAN

Low chip rate TDD UE radio access capabilities

3 Justification

Although most of the L2/L3 features are common with high chip rate TDD option , there are some differences ,e.g. modification of signalling, baton handover etc., which should be described and clarified. Basically, most of them were originated from the differences of physical layer between low chip rate TDD and UTRA TDD and the involvement of Smart Antenna. This paper is to describe one of the low chip rate TDD building blocks – layer 2 and layer 3 protocol aspects.

4 Objective

The technical objective of this work item is to complete the low chip rate TDD L2/L3 functionality adaptation in UTRA TDD. And this work will affect the specifications for working group on L2/L3. The integration work for low chip rate TDD with its properties should follow the principle to maximize the commonality with high chip rate TDD.

- For layer 2 and layer 3 protocol aspects, it includes the following work tasks:
  - UE procedures in idle mode
  - Interlayer procedures in connected mode
  - Control plane protocol aspects
  - User plane protocol aspects
  - mobility aspects

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
25.834	Low chip rate TDD layer 2 and layer 3 protocol aspects	WG2		RAN #11	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.301		Radio interface protocol architecture	RAN#11	
25.302		Service provided by the physical Layer	RAN#11	
25.303		UE functions and Inter-layer procedures in connected mode	RAN#11	
25.304		UE procedures in idle mode and procedures for cell reselection in connected mode	RAN#11	
25.305		Stage 2 functional specification of location service in UTRAN (LCS)	RAN#11	
25.321		Medium access control (MAC) protocol specification	RAN#11	
25.322		Radio link control(RLC) protocol specification	RAN#11	
25.331		Radio resource control (RRC) protocol specification	RAN#11	

25.324		Radio Interface for Broadcast/Multicast Services	RAN#11	
25.925		Radio Interface for Broadcast/Multicast Services	RAN#11	
25.922		Radio Resource Management Strategies	RAN#11	

1.1.1 11 Work item raporteurs

Mr. Yanhui LIU (CATT/CWTS)

12 Work item leadership

TSG-RAN WG2

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

low chip rate TDD

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

(one Work Item identified as a building block)

14b The WI is a Building Block: parent Feature

low chip rate TDD

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

(one Work Item identified as a building block)

28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000313)

Work Item Description

Title

RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low chip Rate TDD physical layer
Low Chip Rate TDD UE radio access capabilities
Low chip rate TDD Layer 2 and Layer 3 protocol aspects
Low chip rate TDD Iub/Iur protocol aspects
Low Chip Rate TDD Inter-working with GERAN
Smart Antenna

3 Justification

For the low chip rate TDD, due to the difference on chip rate, the parameters for RF are affected like e.g. operation band width, mask, out of band emission, blocking, etc. This paper is to describe one of the low chip rate TDD building blocks - RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing.

4 Objective

The technical objective of this work item is the description of the low chiprate TDD RF characters, the system performance requirements and conformance testing. And this work will affect the specifications for working group on RF character and other working group related to the system performance and conformance testing and the work on UE radio access capability.

?? As a building block, it includes the following work task:
?? UE radio transmission and reception
?? BTS radio transmission and reception
?? BTS Conformance testing
?? BTS Electromagnetic compatibility
?? Requirements for support of Radio Resource Management

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
25.945		WG4		RAN #10	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.102		UE Radio Transmossion and Reception (TDD)	RAN#11	
25.105		BTS Radio Transmission and Reception (TDD)	RAN#11	
25.123		Requirements for support of Radio Resource Management (TDD)	RAN#11	
25.142		Base station conformance testing(TDD)	RAN#11	
25.942		RF system scenarios	RAN#11	
25.113		Base station EMC	RAN#11	
25.133		Requirements for support of Radio Resource Management (FDD)	RAN#11	

11 Work item raporteurs

Mr. Daijun Zhang (CATT/CWTS)

12 Work item leade rship

TSG-RAN WG4

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

Low chip rate TDD

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

(one Work Item identified as a building block)

29. Void (Smart antenna)

Last distributed as: -(originally RP-000314)

This Work Item was deleted from the approved Work Items at TSG-RAN #10

30. Low Chip Rate TDD UE radio access Capability

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000315)

Work Item Description

Title

Low chip rate TDD UE radio access capability

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low Chip Rate TDD physical layer
Low chip rate TDD Layer 2 and Layer 3 protocol aspectsLow chip rate TDD Iub/Iur protocol aspects
Smart Antenna
Low chip rate TDD RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing
Low Chip Rate TDD Inter-working with GERAN

3 Justification

For the low chip rate TDD, it has commonalties but also difference on radio access capabilities with the high chip rate TDD option e.g. usage of timeslots for different UE classes, usage of USCH /DSCH, etc. This paper is to describe one of the low chip rate TDD building block – UE radio access capabilities.

4 Objective

The technical objective of this work item is complete the UE radio access capabilities. And this work will affect the specifications for working group on UE radio access capability.

?? For UE radio access capability, it includes the following work tasks:
?? Definition of UE radio access capabilities for low chip rate option

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
25.926		UE Radio Access Capabilities	RAN #11	

11 Work item raporteurs

Mr. Yanhui LIU (CATT/CWTS)

12 Work item leadership

TSG-RAN WG2

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

Low chip rate TDD

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

(one Work Item identified as a building block)

31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects

Last distributed as: Revised WI sheet (LCRTDD-IubIur) (originally RP-000316)

Work Item Description

Title

Low chip rate TDD Iub/Iur protocol aspects

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low Chip Rate TDD physical layer
Low chip rate TDD layer2 and layer3 protocol aspects
Smart Antenna
Low chip rate TDD RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing
Low chip rate TDD UE radio access capabilities
Low Chip Rate TDD Inter-working with GERAN

3 Justification

In Iub and Iur interfaces, especially, low chip rate TDD will result in adaptations of Information Elements in radio link related signaling, to support the changed physical channel parameters. In addition, low chip rate TDD should define some procedures which are different from those of high chip rate TDD such as uplink synchronisation. This paper is to describe one of the low chip rate TDD building blocks – Low chip rate TDD Iub/Iur protocol aspects

4 Objective

The integration work for low chip rate TDD with its properties should follow the principle to maximize the commonality with high chip rate TDD.

?? For Low chip rate TDD Iub/Iur protocolaspects, it includes the following work tasks:
- ?? Iub aspects
- ?? Iur aspects

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	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
25.937	TR on Low chip rate TDD Iub/Iur protocol aspects	WG3		RAN #11	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401	23	UTRAN Overall Description	RAN#11	
25.402	14	Synchronisation in UTRAN Stage 2	RAN#11	
25.433	358, 359	UTRAN Iub Interface NBAP Signalling	RAN#11	
25.423	309	UTRAN Iur Interface RNSAP Signalling	RAN#11	
25.425	23	UTRAN Iur Interface User Plane Protocols for Common Transport Channel data streams	RAN#11	
25.427	42	UTRAN Iub/Iur Interface User Plane Protocols for DCH data streams	RAN#11	
25.430	14	UTRAN I_{ub} Interface: General Aspects and Principles	RAN#11	
25.435	37	UTRAN Iub Interface User Plane Protocols for Common Transport Channel data streams	RAN#11	

11 Work item raporteurs

Mr. Bing Xu (CATT/CWTS)

12 Work item leadership

TSG-RAN WG3

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

low chip rate TDD

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

(one Work Item identified as a building block)

32. RAB Quality of Service Negotiation over Iu

Last distributed as: RAN_Work_Items_after_RAN_9 (originally partly in RP-000137, revised in RP-000499)

Work Item Description

Title

RAB Quality of Service Negotiation over Iu

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

None

3 Justification

In release 99, UTRAN can only accept or reject a radio access bearer request from the core network. For services that could accept looser QoS requirements than those requested by the CN in the RAB establishment request there exist no means for UTRAN to propose alternative (looser) QoS. For such services the RAB establishment will fail, or alternatively the CN could re-attempt the RAB reestablishment with looser QoS requirements which would significantly increase the setup time.

4 Objective

This work item should enhance the Radio Access Bearer setup to something more sophisticated using e.g. QoS profiles to align with the already existing CN solution used in GPRS. However, it should be as simple as possible.

5 Service Aspects

The intention with the work item is to reduce the setup time of services.

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
25.413			RAN #11	
23.060				
24.008				

11 Work item raporteurs

Anders Molander, Ericsson

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

UTRAN Improvement Feature

33. RAB Quality of Service Renegotiation over Iu

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000500)

Work Item Description

Title

RAB Quality of Service Renegotiation over Iu

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

None

3 Justification

Release 99 also does not allow the UTRAN to renegotiate RAB/QoS parameters for on-going calls/session. Since the UTRAN is responsible for managing the radio resources, it is necessary for the UTRAN to be able to initiate RAB renegotiation for efficient use of the radio interface.

4 Objective

This work item should also enhance the management of Radio Access Bearers for on-going calls/session so that QoS parameters can be renegotiated by the UTRAN.

5 Service Aspects

The intention is also to allow continuation of service through UTRAN initiated QoS renegotiation.

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
25.413			RAN #11	
23.060				
24.008				

11 Work item raporteurs

Sania Irwin, Motorola

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

UTRAN Improvement Feature

34. Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000509)

Work Item Description

Title

Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

Currently, the UE positioning if a function of UTRAN where several methods are supported on the radio interface:

- cell coverage based positioning method;
- OTDOA method with network configurable idle periods; and
- network assisted GPS method.

Nevertheless, only the cell coverage based positioning method is supported on the Iub and Iur interface of release 99.

4 Objective

The purpose of this work item is to add on the Iub and Iur protocols the necessary support for the positioning methods defined for release 99.

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 information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401		UTRAN Overall Description	RAN #10	
25.420		UTRAN Iur Interface: General Aspects and Principles	RAN #10	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #10	
25.430		UTRAN Iub Interface: General Aspects and Principles	RAN #10	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #10	

11 Work item raporteurs

to be decided by RAN WG3

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

UE positioning

35. UE positioning enhancements

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000509)

"IPDLs for TDD" was finished in TSG-RAN #11

Work Item Description

1. Title

UE positioning enhancements

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

UE positioning is a function of UE and UTRAN (Access Stratum) which can be utilised for a number of purposes:

- Radio Resource Management
- Support for location based services (LCS)

Different accuracy can be requested when positioning a UE for these purposes.

4 Objective

The purpose of this work item are to increase the accuracy of the UE positioning or define methods allowing UE positioning with less complexity for a given accuracy.

Examples of enhancements are:

- Addition of IPDL for UE positioning in TDD [This was finished in TSG-RAN #11]
- Almanac corrections

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
25.305		Stage 2 Functional Specification of Location Services in UTRAN	RAN #11	
25.123		Requirements for Support of Radio Resource Management (TDD)	RAN #11	
25.224		Physical Layer Procedures (TDD)	RAN #11	
25.225		Physical layer – Measurements (TDD)	RAN #11	
25.302		Services provided by the physical layer	RAN #11	
25.303		Interlayer procedures in connected mode	RAN #11	
25.304		UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	RAN #11	
25.331		RRC Protocol Specification	RAN #11	
25.420		UTRAN Iur Interface: General Aspects and Principles	RAN #11	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #11	
25.430		UTRAN Iub Interface: General Aspects and Principles	RAN #11	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #11	

11 Work item rapporteur

Mark Beckmann, Siemens AG

12 Work item leadership

TSG-RAN WG2

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

14b The WI is a Building Block: parent Feature

UE positioning

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

36. RAN Technical Small Enhancements and Improvements

Last distributed as: - (originally in RP-000468 as R4-000729)

This WI was replaced by a general WI for all TSGs established during TSG-SA #10 in Bangkok. No WI sheet was needed.

37. DSCH power control improvement in soft handover

Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000442)

Work Item Description

Title

DSCH power control improvement in soft handover

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

After consideration in TSG RAN WG1 it was identified that DSCH power control operation in case of soft handover possibility (for the associated DCH is) needs improvement. This topic has been studied in TSG RAN WG1 as part of the study item "radio link performance improvements".

1.1.2 4 Objective

- The purpose of this work item is to specify improvement for the DSCH power control operation.
-

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
25.841	DSCH power control improvement in SHO	WG1		RAN #11	RAN #11	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.211		Physical Channels and mapping of transport channels to physical channels (FDD)	RAN #11	
25.214		Physical Layer Procedures (FDD)	RAN #11	
25.331		RRC Protocol Specification	RAN #11	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #11	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #11	
25.101			RAN #11	
25.104			RAN #11	
25.141			RAN #11	
34.121			RAN #11	

11 Work item raporteurs

Antti Toskala, Nokia

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)

38. Transport bearer modification procedure on Iub, Iur, and Iu (originally Migration to Modification procedure)

Last distributed as: Revised WI sheet (Mod) (originally RP-000446)

Work Item Description

Title

Migration to Modification procedure

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

(list of linked Wis)

3 Justification

Subclause 7.8 “Radio access bearer modification” of 3G TR 25.931 “UTRAN functions, examples on signalling procedures” (Release 99) utilizes Modification procedure of transport network bearer. But it is associated with a note that if the referred signalling protocol does not have the modification procedure, tentative procedure with establish new bearer and then release old one is applied to. The referred signalling protocol does not have the procedure.

The modification procedure has advantages to the tentative procedure in the transport network bearer bandwidth optimization and required number of signalling messages for the capability. Furthermore the procedure also becomes functionally less complex; A transport channel needs no longer be moved from one transport bearer to another. Especially in the unsynchronised reconfiguration case (e.g. subclause 7.14.1 (should be 7.14.2) "Unsyncronised transport channel reconfiguration" in TR 25.931), the current/tentative procedure seems quite complex with respect to the "moment of moving".

4 Objective

In Release 2000 time frame, the modification procedure is available in enhanced the referred transport network signalling protocol.

This work item is to make successful migration from the tentative procedure to the modification procedure.

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	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
		WG3			RAN #10	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
TS 25.410	15	UTRAN Iu interface: general aspects and principles	RAN #11	
TS 25.413	250	UTRAN Iu Interface RANAP Signalling	RAN #11	
TS 25.414	25	UTRAN Iu interface: data transport & transport signalling	RAN #11	
TS 25.420	10	UTRAN Iur interface: general aspects and principles	RAN #11	
TS 25.424	9	UTRAN Iur interface: data transport & transport signalling for common transport channel data streams	RAN #11	
TS 25.426	12	UTRAN Iur and Iub interfaces: data transport & transport signalling for DCH data streams	RAN #11	
TS 25.430	16	UTRAN Iub interface: general aspects and principles	RAN #11	
TS 25.434	7	UTRAN Iub interface: data transport & transport signalling for common transport channel data streams	RAN #11	
TR 25.931	6	UTRAN functions, examples on signalling procedures	RAN #11	

11 Work item rapporteurs

Takayuki Yoshimura (Japan Telecom)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

Evolution of transport in UTRAN

39. UMTS 1800

Last distributed as: RP-010915 (originally RP-000448)

Work Item Description

Title

UMTS 1800

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

A decision was made at WARC 00 to extend the current IMT 2000 frequency allocation to include the current 2G cellular bands.

4 Objective

The purpose of this work item is to add the following frequency band to the 3GPP specifications

UMTS 1 800 Band:

1 710 - 1 785 MHz: mobile transmit, base receive
1 805 - 1 880 MHz: base transmit, mobile receive

A report will be generated to study the radio compatibilities of DCS1800 and UMTS1800.

TSG RAN WG2 will be asked to study the terminal capabilities. TSG RAN WG3 will be asked to study any possible interface impacts.

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
25.101		UE Radio transmission and reception (FDD)	RAN #14	
25.104		UTRA (BS) FDD; Radio transmission and reception	RAN #14	
25.141		Base station conformance testing (FDD)	RAN #14	
34.121		Terminal Conformance Specification, Radio Transmission and Reception	T #14	

11 Work item raporteurs

Howard Benn (howard.benn@motorola.com)

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

Radio Interface Improvement Feature

40. RAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes

Last distributed as: RAN_Work_Items_after_RAN_14 (originaly RP-000689)

Work Item Description

Title

RAN work for
Intra Domain Connection of RAN Nodes to Multiple CN Nodes

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

F1 Intra Domain Connection of RAN Nodes to Multiple CN Nodes: Overall System Architecture
SA 2 is responsible for this.

BB3 GERAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes
[GERAN 2 is predicted to lead the work in GERAN]

BB4 CN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes
[CN 1 is predicted to lead the work in CN]

3 Justification

In the current network architecture, an RNC can only be connected to one MSC and/or one SGSN. The same restriction applies to BSCs. This has the following consequences:

a) when a BSC (or RNC) has a relatively large capacity compared to that of an MSC/SGSN there are frequently significant wastages of hardware. (For example, if a BSC has 40% of the capacity of an MSC, do you connect 2 or 3 BSCs to that MSC?)

b) as networks carry more traffic, the geographic area covered by one MSC or SGSN (of a given capacity) decreases. However, subscribers still tend to travel the same physical distances and therefore there are more inter-MSC/SGSN registration updates. The signalling associated with these inter MSC/SGSN updates causes additional load on MSCs, SGSNs, HLRs, the core network signalling networks and on the radio interface signalling channels.

The ability to connect RNCs and BSCs to more than one MSC and to more than one SGSN could reduce the above problems. In addition, the ability to provide load sharing between MSCs (SGSNs) would further improve the efficiency of hardware utilisation.

This work will focus on a solution where a routeing function is placed in the RNC (or BSC). This avoids most of the problems of a standalone node (TR 23.913 called it the Turbo Routeing Function), while retaining the other advantages of described in R'99, TR 23.913.

This Work Item (which is a Feature) proposes to provide a standardised mechanism for the connection of multiple MSCs (and SGSNs) to an RNC or a BSC (both A/Gb mode and Iu mode) which reduces mobility management signalling and permits improved efficiency in hardware utilisation.

It is intended that this new concept is an architectural option for any PLMN. Its deployment, or non-deployment, by one network operator should not place requirements on other network operators.

4 Objective

The objective of this Work Item is to produce the necessary updates to the RAN TSs.

The list of affected existing specifications is given in section 10.

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	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.875	RAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes	R3		RAN#14	RAN#15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.331		Inclusion of NAS routeing parameter in Initial Direct Transfer message.		
25.401		RAN architecture description		
25.413		Addition of "current MSC/SGSN load" message to RANAP		

11 Work item raporteurs

Brendan McWilliams, Vodafone

12 Work item leadership

RAN 3

13 Supporting Companies

Vodafone, Nokia, Ericsson, Nortel, Mannesmann

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: F1: Intra Domain Connection of RAN Nodes to Multiple CN Nodes: Overall

System Architecture

SA 2 is responsible for this.

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

(one Work Item identified as a building block)

41. RAB Quality of Service Negotiation over Iu during relocation

Last distributed as: RP-010168

Work Item Description

Title

RAB Quality of Service Negotiation over Iu during relocation

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

None

3 Justification

In release 99, for services that could accept looser QoS requirements than those requested by the CN in the relocation request, there exist no means for UTRAN to propose alternative (looser) QoS. For such services the relocation will fail.

4 Objective

This work item should enhance the relocation so that QoS parameters can be negotiated by the UTRAN during relocation. However, it should be as simple as possible.

5 Service Aspects

The intention of the work item is to allow continuation of service during relocation

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
25.413			RAN #11	
23.060				
24.008				

11 Work item raporteurs

Chenghock Ng, NEC

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

NEC, Siemens, Motorola, Telecom Italia, Alcatel

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

UTRAN Improvement Feature

42. Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning

Last distributed as: RP-010414

Work Item Description

Title: **Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning**

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None identified.

3 Justification

At the 3GPP LCS Work Shop held in London on 1/11/01and 1/12/01 it was agreed that for A-GPS positioning, sufficient functional separation existed with RNC functions to justify the opening the interface towards a standalone SMLC.

4 Objective

The objective of this work item is to provide for support of an open interface between the SMLC and the SRNC within the UTRAN for the support of A-GPS positioning. This new interface would be analogous to the Lb interface defined in the GSM LCS specifications with the exceptions that the positioning messages are terminated at the SRNC and mapped to release 99 RRC messages and that the positioning messages also support broadcast of LCS assistance data in support of the RRC broadcast messages.

The addition of the interface should be compatible the release 99 Iu, Iur and Iub and radio interfaces. The addition of this interface does not preclude the A-GPS to be supported in the SRNC.

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)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
3GPP TS 25.453	Positioning Calculation Application Part (PCAP)	RAN 2	RAN 3	RAN #12	RAN #12	
3GPP TS 25.452	UTRAN I_{upc} Interface: Signalling Transport	RAN 2	RAN 3	RAN #13	RAN #13	
3GPP TS 25.451	UTRAN I_{upc} Interface: Layer 1	RAN 2	RAN 3	RAN #12	RAN #12	
3GPP TS 25.450	UTRAN I_{upc} Interface: General Aspects and Principles	RAN 2	RAN 3	RAN #12	RAN #12	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401		UTRAN architecture description; Stage 2	RAN #12	Add new Iupc interface and new stand alone A-GPS SMLC network entity.
25.305		UTRAN Stage 2	RAN #11	Modify Network Reference Model to show stand alone A-GPS SMLC and add stage 2 call flows for A-GPS positioning.

11 Work item raporteurs

Ie-Hong Lin (Qualcomm)
Vince Jolley (Qualcomm)

12 Work item leadership

RAN 2

13 Supporting Companies

Qualcomm, SBC, Cingular Wireless, Samsung Electronics Research Institute, Hutchison 3G, NEC, Orange PCS, and Vodafone Group

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 UE positioning

xxx1 Provision of SRNC - SMLC Open Interface

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

43. High Speed Downlink Packet Access (HSDPA)

This WI has not finished yet. See RAN_Work_Items.

44. High Speed Downlink Packet Access (HSDPA) - *Physical Layer*

Last distributed as: RP-010915 (originally RP-010262)

Work Item Description

Title

High Speed Downlink Packet Access - Physical Layer

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

HSDPA Layer 2 and 3 Protocol Aspects
HSDPA UTRAN Iub/Iur Protocol Aspects
HSDPA RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

3 Justification

The study item on HSDPA was concluded in RAN WG#11with recommendations on the techniques to be included in Rel-5. This work item enables the inclusion of the identified techniques at the physical layer.

4 Objective

The technical objective of this work item is the integration of HSDPA physical layer functionality in UTRA, while maintaining commonality with the R99 general physical layer aspects to the maximum extent possible.

?? For physical layer, the features include:
?? Physical and Transport Channels mapping
?? Higher Order Modulation
?? Multiplexing and Hybrid ARQ Channel Coding
?? Physical Layer procedures

The work task for physical layer procedures will also consider additional physical layer measurements that may be required.

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
25.858		R1		RAN#14		
Affected existing specifications						
Spec No.	CR	Subject			Approved at plenary#	Comments
25.201		Physical layer – General description			RAN#15	
25.211		Physical channels and mapping of transport channels onto physical channels (FDD)			RAN#15	
25.212		Multiplexing and channel coding (FDD)			RAN#15	
25.213		Spreading and modulation (FDD)			RAN#15	
25.214		Physical layer procedures(FDD)			RAN#15	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)			RAN#15	
25.222		Multiplexing and channel coding (TDD)			RAN#15	
25.223		Spreading and modulation (TDD)			RAN#15	
25.224		Physical layer procedures(TDD)			RAN#15	

The expected finalisation date is TSG-RAN #15

11 Work item raporteurs

Amitava Ghosh (Motorola)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

Motorola, Nokia, Ericsson, Vodafone Group, Mannesmann Mobilfunk

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

High Speed Downlink Packet Access (HSDPA)

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

45. High Speed Downlink Packet Access (HSDPA) - *layer 2 and 3 aspects*

Last distributed as: RP-010915 (originally RP-010262)

Work Item Description

Title

High Speed Downlink Packet Access - layer 2 and 3 aspects

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

HSDPA Physical Layer
HSDPA UTRAN Iub/Iur Protocol Aspects
HSDPA RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

3 Justification

The study item on HSDPA was concluded in RAN WG#11with recommendations on the techniques to be included in Rel-5. This work item enables the inclusion of the identified techniques at layers 2 and 3.

4 Objective

The technical objective of this work item is the integration of HSDPA physical layer functionality in UTRA, while maintaining commonality with the R99 general layer 2 and 3 aspects to the maximum extent possible. While most of the control aspects will be identical to those for R99, some additional signaling for the configuration of HSDPA channels will need to be defined. Also, in order to enable the support of fast scheduling, support for a new MAC-HSDSCH entity shall be included. This new entity at the Node B will handle all the scheduling and HARQ (non-physical layer aspects) of the HSDPA feature. UE capabilities will need to be updated to indicate support of HSDPA. Physical Layer aspects of UE capabilities will be handled by WG1.

?? For layers 2 and 3, the features include:
- ?? Architecture aspects
- ?? MAC entity (Scheduling and Hybrid ARQ protocol)
- ?? Interlayer procedures in connected mode
- ?? Control plane aspects
- ?? UE capabilities

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
25.301		Radio interface protocol architecture	RAN#15	
25.302		Service provided by the physical Layer	RAN#15	
25.303		UE functions and Inter-layer procedures in connected mode	RAN#15	
25.306		UE Radio Access Capabilites	RAN#15	
25.321		Medium access control (MAC) protocol specification	RAN#15	
25.331		Radio resource control (RRC) protocol specification	RAN#15	

The expected finalisation date is TSG-RAN #15

11 Work item raporteurs

Ravi Kuchibhotla (Motorola)

12 Work item leadership

TSG-RAN WG2

13 Supporting Companies

Motorola, Nokia, Ericsson, Vodafone Group, Mannesmann Mobilfunk

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

High Speed Downlink Packet Access (HSDPA)

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

46. High Speed Downlink Packet Access (HSDPA) - *Iub/Iur Protocol Aspects*

Last distributed as: RP-010915 (originally RP-010262)

Work Item Description

Title

High Speed Downlink Packet Access - Iub/Iur Protocol Aspects

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

HSDPA Physical Layer
HSDPA Layer 2 and 3 Protocol Aspects
HSDPA RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing

3 Justification

The study item on HSDPA was concluded in RAN WG#11with recommendations on the techniques to be included in Rel-5. This work item enables support of the identified techniques over the Iub and Iur.

4 Objective

The technical objective of this work item is the integration of HSDPA physical layer functionality in UTRA, while maintaining commonality with the R99 general Iub and Iur aspects to the maximum extent possible. While most of the control aspects will be identical to those for R99, some additional signaling for the configuration of HSDPA shared channels will need to be defined. Also frame protocol for the user data stream will need to be defined for the HSDPA shared channels. Flow control for the HSDPA channels on the Iub will need to be supported.

?? For Iub and Iur, the features include:
- Iub and Iur architecture aspects
- Iub and Iur control plane aspects
- Iub and Iur user plane aspects

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
TS 25.401		UTRAN Overall Description	RAN #15		
TS 25.420		UTRAN Iur Interface: General Aspects and Principles	RAN #15		
TS 25.422		UTRAN Iur interface signalling transport	RAN #15		
TS 25.423		UTRAN Iur Interface RNSAP Signalling	RAN #15		
TS 25.424		UTRAN Iur interface data transport & transport signalling for CCH data streams	RAN #15		
TS 25.425		UTRAN Iur interface user plane protocols for CCH data streams	RAN #15		
TS 25.426		UTRAN I_{ur} and I_{ub} Interface Data Transport & Transport Signalling for DCH Data Streams	RAN #15		
TS 25.430		UTRAN I_{ub} Interface General Aspects and Principles	RAN #15		
TS 25.432		UTRAN Iub interface signalling transport	RAN #15		
TS 25.433		UTRAN Iub Interface NBAP Signalling	RAN #15		
TS 25.434		UTRAN Iub interface data transport & transport signalling for CCH data streams	RAN #15		
TS 25.435		UTRAN Iub interface user plane protocols for CCH data streams	RAN #15		
TS 25.442		UTRAN Implementation Specific O&M Transport	RAN #15		

The expected finalisation date is TSG-RAN #15

11 Work item raporteurs

Mike Diesen, Motorola

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

Motorola, Nokia, Ericsson, Vodafone Group, Mannesmann Mobilfunk

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

High Speed Downlink Packet Access (HSDPA)

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

47. High Speed Downlink Packet Access (HSDPA) - *RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing*

This WI has not finished yet. See RAN_Work_Items.

48. Multiple Input Multiple Output antennas (MIMO)

This WI has not finished yet. See RAN_Work_Items.

49. Void (originally Gated DPCCH Transmission)

Last distributed as: RP-010266

This Work Item was deleted from the approved Work Items at TSG-RAN #12

50. UMTS 1900

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-010234)

Work Item Description

Title:

UMTS 1900

For consideration under agenda item 6.11.

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

A decision was made at WARC 00 to extend the current IMT 2000 frequency allocation to include the bands currently occupied by PCS-1900. It is noted that Release 99 does not provide complete support for these bands. In addition, coexistence with other technologies has not been evaluated.

4 Objective

The purpose of this work item is to generate a report summarizing a study of co-existence of UTRA FDD and PCS1900, TIA/EIA-136, TIA/EIA/IS-95 in the following bands:

1850 – 1910 MHz: Up-link (UE transmit, Node B receive)
1930 – 1990 MHz: Down-link (Node B transmit, UE receive)

Based on the report the RF characteristics for both UE and BTS supporting this band will need to be added/corrected compared to Release 99.

TSG RAN WG2 will be asked to study the terminal capabilities. TSG RAN WG3 will be asked to study any possible interface impacts.

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

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
25.101		UE Radio transmission and reception (FDD)	RAN#14	
25.104		UTRA (BS) FDD; Radio transmission and reception	RAN#14	
25.113		Requirements for Support of Radio Resource Management (FDD)	RAN#14	
25.133		Base Station Electromagnetic compatibility (EMC)	RAN#14	
25.141		Base station conformance testing (FDD)	RAN#14	
25.331		RRC Protocol	RAN#14	
25.942		RF System Scenarios	RAN#14	
25.306		Radio UE capability	RAN#14	
34.121		Terminal Conformance Specification, Radio Transmission and Reception	T#14	

11 Work item raporteurs

Howard Benn

12 Work item leadership

RAN WG 4

13 Supporting Companies

Cingular, AWS, Motorola, Nortel Networks, Nokia, Ericsson, VoiceStream Wireless

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

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

51. Enhancement on the DSCH hard split mode

Last distributed as: RP-010915 (originally RP-010216)

Work 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

1) 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 identifed 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
2) And also, it was identified by RAN WG1, that in the current 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, in the current specification, the power offset should be set high enough to always detect TFCI bits reliably even if UE is not in soft handover.

4 Objective

The purpose of this work item is to specify the enhancements of TFCI coding and power control in DSCH hard split mode for UTRA FDD. This work item is composed of two work tasks.
1) TFCI coding in 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.
2) TFCI power control in DSCH hard split mode
Currently the reliability of TFCI cannot be guaranteed when the UE is in soft handover. As well, in the current specification, the power offset should be set high enough to always detect TFCI bits reliably even if UE is not in soft handover. New power control scheme for TFCI can enhance the DSCH hard split mode.

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 endorsement at plenary#	Approved at plenary#	Comments
TR 25.870				RAN # 14	RAN # 16	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.212		Multiplexing and channel coding (FDD)	RAN #16	
25.214		Physical Layer Procedure (FDD)	RAN #16	
25.331		RRC Protocol Specification	RAN #16	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #16	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #16	

11 Work item raporteurs

Jaeyoel KIM, SAMSUNG Electronics. kimjy@samsung.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

Work Task 1:TFCI coding in DSCH hard split mode
Work Task 2 :TFCI power control in DSCH hard split mode

52. NodeB Synchronisation for 1.28 Mcps TDD

Last distributed as: RP-010915 (originally RP-010216)

Work Item Description

Title

NodeB Synchronisation for 1.28 Mcps TDD

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

NodeB synchronisation is beneficial in UTRA TDD to minimise cross-interference in neighbouring cells. Currently, for the 1.28 Mcps TDD option no method has been specified how NodeB synchronisation can be achieved with UTRAN's and UE's internal means such as signalling via the air interface.

The following benefits of the introduction of NodeB synchronisation by internal means are seen:

?? A substantial reduction of the cost of the transmission network.
?? An autonomous synchronisation procedure without the need of external references.
?? An easily extendable method for the purpose of inter-system NodeB synchronisation.

4 Objective

The purpose of this new work item is to enable the synchronisation of NodeBs in UTRA TDD for the 1.28 Mcps option by UTRAN's and UE's internal means such as air interface signals and NodeB cross measurements. NodeB synchronisation involves

?? radio frame and multi frame synchronisation and
?? intra-system and inter-system synchronisation.

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 endorsement at plenary#	Approved at plenary#	Comments
25.868	NodeB synchronisation for 1.28 Mcps TDD	WG1		RAN # 14	RAN # 15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.123		Requirements for Support of Radio Resource Management (TDD)	RAN # 15	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)	RAN # 15	
25.223		Spreading and modulation (TDD)	RAN # 15	
25.224		Physical Layer Procedures (TDD)	RAN # 15	
25.225		Physical layer – Measurements (TDD)	RAN # 15	
25.302		Services provided by the physical layer	RAN # 15	
25.331		RRC Protocol Specification	RAN # 15	
25.402		Synchronisation in UTRAN Stage 2	RAN # 15	
25.433		UTRAN Iub Interface NBAP Signalling	RAN # 15	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN # 15	

11 Work item raporteurs

Ms. Jinling HU (CWTS/CATT)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

CATT, China Mobile, Huawei, Motorola, Nortel Networks, Samsung, Siemens

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
Radio Interface Improvements and RAN Improvements Features

53. RL Timing Adjustment

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010261)

Work Item Description

Title

RL Timing Adjustment

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

WG1 has already expressed (outgoing liaison R1-010135) that in the event of RL adjustment being required, the Rel99/Rel4 process of deleting and re-establishing a RL temporarily causes additional DL interference in one or more cells due to loss of macro-diversity gain. In addition it slightly increases the risk of dropped calls. Therefore RAN WG1 asked RAN WG3 to consider implementing a RL adjustment procedure for a future release.

This work task aims at introducing this possibility to execute a timing adjustment of one individual RL, typically one of several RLs in the active set.

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					

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.xxx		WG3	WG2	RAN #15	RAN #15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.423		RNSAP	RAN #15	
25.433		NBAP	RAN #15	
25.331		RRC	RAN #15	

11 Work item raporteurs

Elena Voltolina (Ericsson)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

Ericsson, Nokia, Philips, Qualcomm

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

RRM optimizations for Iur and Iub

54. Separation of resource reservation and radio link activation

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-010487)

Work Item Description

Title

Separation of resource reservation and radio link activation

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

This work task aims at introducing the possibility to have dedicated resources reserved in UTRAN without transmitting energy on the corresponding radio link(s). Furthermore, a separate mechanism for activating and deactivating radio transmission related to the reserved resources shall be introduced. The study of this mechanism shall also consider the possibility to reserve resources without allocating them to a particular UE. In this case, the actual allocation of the reserved resources to a particular UE would be delayed until the activation of the radio transmission.

The separation will enable the following optimisations in UTRAN:

- delayed activation of a radio link at soft handover for high bit rate users, thus avoiding a potential handover problem;
- quicker channel type switching back to Cell_DCH;
- quicker radio link additions of radio links that recently were part of the active set;
- benefit from statistical multiplexing at RRM level (by reserving resources on a given cell based on HO probability laws, Busy Hour Call Attempts statistics,…).

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	X
Don't know					

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.xxx		WG3		RAN #15	RAN #15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.420		Iur general aspects and principles	RAN #15	
25.423		RNSAP	RAN #15	
25.430		Iub general aspects and principles	RAN #15	
25.433		NBAP	RAN #15	

11 Work item raporteurs

Gert-Jan van Lieshout (Ericsson)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

RRM optimizations for Iur and Iub

55. Re-arrangement of Iub Transport Bearers (originally Traffic Termination Point Swapping)

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010465)

Work Item Description

Title: **Work Item Description for the Re-arrangement of Iub Transport Bearers**

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None identified.

3 Justification

In the current NBAP specification (TS25.433) there is no mechanism to change the D-NBAP link for the given Node B Communication Context and secondly there is no mechanism to switch the existing transport bearers from one physical termination point to another. Fixing of the transport resources may cause the transport resource fragmentation problem in the implementation where the physical resources are distributed. In the worst case the transport resource fragmentation may cause the rejection of some large capacity call. To solve this problem there is a need for a new procedure allowing the Node B to initiate transport resource reallocation. This new procedure allows the use of distributed physical resources more efficiently by allowing a defragmentation of the resources and it may be used also due the O&M reasons.

4 Objective

The objective of this work item is to introduce a new procedure in the NBAP enabling Node B to initiate switching of the transport bearers and a Communication Control Port from one physical termination point to another.

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 Work Item

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
25.433		UTRAN Iub Interface NBAP Signalling		RAN #15		

11 Work item raporteurs

Antti Toskala, Nokia, Helsinki, Finland

12 Work item leadership

RAN 3

13 Supporting Companies

Nokia, Nortel Networks, InterDigital, Siemens

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:

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

56. Open interface between the SMLC and the SRNC within the UTRAN to support Rel-4 positioning methods

This WI has not finished yet. See RAN_Work_Items.

57. UE positioning enhancements for 1.28 Mcps TDD

Last distributed as: RAN_Work_Items_after_RAN_13 (originally RP-010215)

Work Item Description

Title

UE positioning enhancements for 1.28 Mcps TDD

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

UE positioning is a function of UE and UTRAN (Access Stratum) which can be utilised for a number of purposes:

?? Radio Resource Management

?? Support for location based services (LCS)

Different accuracy can be requested when positioning a UE for these purposes.

4 Objective

The purpose of this work item are to increase the accuracy of the UE positioning or define methods allowing UE positioning with less complexity for a given accuracy.
Examples are refinement and adoption of methods that are defined for release 5.

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 endorsement at plenary#	Approved at plenary#	Comments
25.859	UE positioning enhancements for 1.28 Mcps TDD	WG2		**RAN # 13**	**RAN # 15**	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.305		Stage 2 Functional Specification of Location Services in UTRAN	RAN # 15	
25.123		Requirements for Support of Radio Resource Management (TDD)	RAN # 15	
25.224		Physical Layer Procedures (TDD)	RAN # 15	
25.225		Physical layer – Measurements (TDD)	RAN # 15	
25.302		Services provided by the physical layer	RAN # 15	
25.303		Interlayer procedures in connected mode	RAN # 15	
25.304		UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	RAN # 15	
25.331		RRC Protocol Specification	RAN # 15	
25.420		UTRAN Iur Interface: General Aspects and Principles	RAN # 15	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN # 15	
25.430		UTRAN Iub Interface: General Aspects and Principles	RAN # 15	
25.433		UTRAN Iub Interface NBAP Signalling	RAN # 15	

11 Work item rapporteur

Ms. Xiaohua MEI (CWTS/CATT)

12 Work item leadership

TSG-RAN WG2

13 Supporting Companies

CATT, China Mobile, Huawei, Motorola, Nortel Networks, Samsung, Siemens

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

UE positioning

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

58. Base Station Classification for 1.28 Mcps TDD

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010450)

Work Item Description

Title

Base Station Classification for 1.28 Mcps TDD option

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

Current TSG RAN WG4 specifications have been done according to the requirements for the general purpose base station (Node B). For the UTRA evolution requirements specific for other type of base stations are needed as well (e.g. local area base station).

4 Objective

- definition of base station classes according to deployment scenarios (e.g. indoor, outdoor)
- identification, review and possible update of radio parameters dependent on deployment scenarios
- identification, review and possible update of UTRAN (Node B) measurement requirements and conformance where the maximum received signal level at the base station is reflected, dependent on deployment scenarios
- review and possible update of conformance test specifications
- recording of related information into RF System Scenarios

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
25.882	Base station classification for 1.28 Mcps TDD option	R4		RAN #16	RAN #16	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.105		UTRA (BS) TDD, Radio Transmission and Reception	RAN #16	
25.142		Base Station Conformance Testing (TDD)	RAN #16	
25.123		Requirements for Support of Radio Resources Management (TDD)	RAN #16	
25.942		RF System Scenarios	RAN #16	

11 Work item raporteurs

Meik Kottkamp, Siemens

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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: Base Station Classification

59. Iur Common Transport Channel Efficiency Optimisation

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010473)

Work Item Description

Title

Iur Common Transport Channel Efficiency Optimisation

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

Currently in RACH/FACH state, the SRNC will have to execute the RNSAP Common Transport Channel Resources Initialisation procedure every time the UE moves from one cell to another cell in the DRNS. This procedure is required to provide the SRNC with:

A) Information on supported MAC-C lengths;

B) Flow control information;

C) Possibility to request another bearer;

In many cases, many (all) S-CCPCH's in a DRNS will be configured with the same TB sizes. If in such a situation a UE moves from one cell to another cell under the same DRNS, there is no reason to update A).

If the DRNS can continue to use the same flow-control situation, there is no reason to update B).

If, in the case A) and B) are not required and the SRNC does not require the UE to start using a new transport bearer, there is no need to execute the CommonTransport Resource Initialisation procedure.

A mechanism shall be introduced which reduces the need for a Common Transport Resources Initialisation procedure where possible.

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	X
Don't know					

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.xxx		WG3		RAN #15	RAN #15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.423		RNSAP	RAN #15	

11 Work item raporteurs

Shahrokh Amirijoo (Ericsson)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

Ericsson, NEC, Nortel, Vodafone

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

RRM optimizations for Iur and Iub

60. Iur Neighbouring cell reporting Efficiency Optimisation

Last distributed as: RAN_Work_Items_after_RAN_14 (originally RP-010474)

Work Item Description

Title

Iur Neighbouring cell reporting Efficiency Optimisation

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 Objective

In Rel99/Rel4, everytime a RL is established in a certain cell, the SRNC will get information about certain characteristics of cells neighbouring the cell in which the RL is established. This information is provided regardless of whether the SRNC already has received this information before e.g. as neighbouring cell information for a previous RL establishment.

A mechanism shall be studied and if it is considered beneficial introduced, which increases the efficiency of the neighbouring cell information reporting by avoiding the transport of information the SRNC is already aware of.

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	X
Don't know					

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.xxx		WG3		RAN #15	RAN #15	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.423		RNSAP	RAN #15	

11 Work item raporteurs

Shahrokh Amirijoo (Ericsson)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

Ericsson, IDC, Nortel, Siemens, Vodafone

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

RRM optimizations for Iur and Iub

61. Beamforming enhancements (originally Beamforming)

This WI has not finished yet. See RAN_Work_Items.

62. Beamforming requirements for UE

Last distributed as: RP-010950

Work Item Description

Title

Beamforming requirements for UE

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Beamforming with dedicated pilot symbols or with S-CPICH has potential to improve system capacity.

4 Objective

This work item should define the Rel'5 UE performance requirements for efficient support of beamforming.

5 Service Aspects

None/Text

6 MMI-Aspects

None/Text

7 Charging Aspects

None/Text

8 Security Aspects

None/Text

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
TS 25.133	240	Active set size limitation for dedicated pilot		TSG RAN#14		
TS 25.101	142	Performance requirement for dedicated pilot		TSG RAN#14		

11 Work item raporteurs

Jussi Kähtävä, Nokia.

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

Nokia, Motorola, Panasonic, Qualcomm

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

UTRAN Improvement Feature

63. Improvement of RRM across RNS and RNS/BSS

This WI has not finished yet. See RAN_Work_Items.

64. Support of Site Selection Diversity Transmission in UTRAN

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010951)

Work Item Description

Title: Support of Site Selection Diversity Transmission in UTRAN

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None.

3 Justification

SSDT is defined in R99 and Rel4 specifications. In recent discussions in RAN#14 it was clarified that there is no full support of SSDT in the UTRAN. Indeed in R99 and Rel4 specifications it is assumed that the Qth parameter in Node B is set as an OAM parameter with vendor specific definition & signaling ranges. However support of Qth parameter over NBAP would be needed for multi-vendor NodeBs for deployment of SSDT and hence full support of SSDT on the UTRAN side. In addition the physical quantity (UTRAN measurement) used in combination with the Qth parameter should be defined in RAN 1 25.214 specification and performance requirements for the Node B defined.

4 Objective

The objective of this WI is to provide the necessary changes and additions required in the current RAN specifications to provide full support of SSDT in UTRAN. Specifically the work item should:

?? Specify the Qth parameter
?? Specify the physical measurement quantity at node B for use in combination with the Qth parameter
?? Specify performance requirements for Node B in RAN4 specifications
?? Specify signalling of the Qth parameter over the Iub and Iur interfaces

25 **Service Aspects**

None

25 MMI-Aspects

None

25 **Charging Aspects**

None

25 Security Aspects

None

25 **Impacts**

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

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.214		Physical Layer Procedures (FDD)	RAN#16	
25.104		Radio transmission and Reception (FDD)	RAN#16	
25.433		UTRAN Iub interface NBAP signalling	RAN#16	
25.423		UTRAN Iur interface RNSAP signalling	RAN#16	
25.141		Base Station Conformance Testing (FDD)	RAN#16	

11 Work item rapporteurs

NEC

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

RAN improvements

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

(one Work Item identified as a building block)

65. Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN (originally Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN)

This WI has not finished yet. See RAN_Work_Items.

66. Improving Receiver Performance Requirements for the FDD UE

This WI has not finished yet. See RAN_Work_Items.

67. UTRAN Sharing in Connected Mode (originally Shared Network support in Connected Mode)

This WI has not finished yet. See RAN_Work_Items.

TSG-RAN meeting #17 RP-020459
Biarritz, France, 3-6 September 2002

Source: TSG-RAN

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, RAN_Work_Items. The SI sheets for finished SIs can be found in RAN_Study_Items_History (this is mentioned under the header of all relevant SIs).

See RP-020456 (draft minutes of TSG-RAN #16 meeting) for comments on the sheets provided in yellow.

Sheets in green have been re-issued where necessary and (if indeed based on the comments in RP-020456) should be considered endorsed.

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

Study Item sheets in blue are new or have changed since TSG-RAN #16 (other than because of comments at TSG-RAN #16) and need to be endorsed.

SI sheets without background colour are for SIs that are no longer current (because they are finished or have been stopped).

The approved Study Items at the end of TSG-RAN #16 were:

1. Radio link performance enhancements
2. High speed downlink packet access
3. USTS
4. Void (originally Feasibility Study for Improved Common DL Channel for Cell-FACH State)
5. Feasibility Study of UE antenna efficiency test methods performance requirements
6. Fast Cell Selection (FCS) for HS-DSCH
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
10. Feasibility Study on UTRA Wideband Distribution Subsystems (WDS)
11. SRNS Relocation Procedure Enhancement
12. Introduction of direct transport bearers between SRNC and Node-B
13. Feasibility Study considering the viable deployment of UTRA in additional and diverse spectrum arrangements
14. Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD
15. Feasibility study of UE antenna efficiency test methods performance requirements
16. Enhancements to OTDOA Positioning using advanced blanking methods
17. Analysis of OFDM for UTRAN evolution

1. Radio link performance enhancements

Last distributed as: RP-010914 (originally RP-000181rev4)

Study 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 completition 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 completition and to include possible agreed improvements to the coming UTRA releases.

4 Objective

- The purpose of this study item is to to study the radio link performance enhancements for both UTRA FDD and TDD. This is a permanent study item to be repeated for every UTRA Release.

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 defined on a per work task basis)

This is a generic task which will be valid for all major releases

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
		WG1				

11 Work item raporteurs

Antti Toskala, Nokia Networks

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the SI (if known)

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

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

(list of Work Items identified as building blocks)

14b The SI is a Building Block: parent Feature

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

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

(one Work Item identified as a building block)

2. High speed downlink packet access

Last distributed as: RAN_Study_Items_after_RAN_9 (originally RP-000032)

This SI was finished in TSG-RAN #11. The SI sheet can be found in RAN_Study_Items_History.

3. USTS

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

This SI was finished in TSG-RAN #14. The SI sheet can be found in RAN_Study_Items_History.

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)

This SI was finished in TSG-RAN #13. The SI sheet can be found in RAN_Study_Items_History.

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

Last distributed as: RAN_Study_Items_after_RAN_15 (originally in RP-010227)

Study Item Description

Title

Fast Cell Selection (FCS) for HS-DSCH

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

In RAN#7 a study item on High Speed Downlink Packet Access was approved for consideration. FCS was one of the features for HS-DSCH. However, RAN1 recommended that both intra and inter Node-B FCS should be studied further during Release#5 HSDPA work so that it can be a part of Release-6 specification.

4 Objective

Initial simulation studies on HSDPA indicate that FCS provides some benefit in average throughput in certain cases. However, the results were not conclusive. As such, a FCS study item is proposed for Rel-5 so that its benefits w.r.t HSDPA can be fully evaluated. The following analysis should be part of the study item on FCS:

1. Investigate the benefits of FCS with full motion simulator instead of the quasi-motion simulator (users experience Rayleigh faded but do not move) as used in the previous study.
2. Model integrated voice and data, different traffic models (web browsing, WAP, video streaming etc.) and TCP/IP in the system simulator.
3. Model the handoff process in the system simulator.

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 endorsement at plenary#	Approved at plenary#	Comments
TR	Evaluation of FCS for HS-DSCH	R1	R2, R3, R4	RAN #17	RAN #18	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

Robert Love, Motorola

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the SI (if known)

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

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

(list of Work Items identified as building blocks)

14b The SI is a Building Block: parent Feature

(one Work Item identified as a feature)

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

(one Work Item identified as a building block)

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

Last distributed as: RP-010480

This SI was finished in TSG-RAN #14. The SI sheet can be found in RAN_Study_Items_History.

8. Mitigating the Effect of CPICH Interference at the UE

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

This SI was finished in TSG-RAN #15. The SI sheet can be found in RAN_Study_Items_History.

9. Re-introduction of the downlink SIR measurement

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

This SI was finished in TSG-RAN #14. The SI sheet can be found in RAN_Study_Items_History.

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

Last distributed as: RAN_Study_Items_after_RAN_15 (originally in RP-010488)

Study Item Description

Title Feasibility Study on UTRA Wideband Distribution Subsystems (WDS)

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

This study item shall assess the feasibility for a new class of equipment that would allow for improved flexibility of radio access network solutions; this is here called *Wideband Distribution Subsystem, or WDS* – and includes a generic interface to the UTRA FDD Node B. TDD applicability is possible and will also be considered as part of the feasibility study.
WDS are a capable of flexible remoting of multiple Node B's RF interface, on a possible multi-operator, multi-vendor scenario, both for indoor and outdoor applications while granting substantially compliant Node B performance.

In many cases existing 2G WDS were accepted for network integration under Operator's direct responsibility, as existing specifications were not addressable for clearly and neatly defining equipment reference specification and network integration techniques, with even more severe issues in case of a multi-operator application scenario.

4 Objective

The feasibility study should identify the WDS' requirements for interfacing to Node B and demonstrate that WDS doesn't impact negatively into radio network performances on a multioperator environment. Therefore it shall include a study on WDS RF multicarrier performances, e.g.:

Linearity
Transparency
Inter-operator Power Control and RF transmit power behaviour
Transmit characteristics
Receive characteristics

These characteristics will be identified while considering WDS as ancillary equipment on a multi-vendor Node B scenario. TDD applicability shall also be investigated and clarified.

End-to-end system performance shall also be studied to identify the application scenario for WDS.
Additionally the study shall identify the requirements and the impact for a communication interface (e.g. for O&M purposes) between WDS and other network elements. RAN WG3 and SA WG5 will be involved for evaluation of any impact in O&M aspects.
Submission of initial results is planned for RAN4 #18.

5 Service Aspects

There could be service aspects to be considered, e.g. impact on LCS. The Feasibility Study should clarify this aspect.

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes			X		O&M
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
25.867		WG4			RAN#19	TR on feasibility for WDS

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

11 **Work item rapporteurs**

Andrea Casini (Tekmar Sistemi)

12 **Work item leadership**

TSG-RAN WG4

13 **Supporting Companies**

TSG-RAN

14 **Classification of the SI**

	Building Block (go to 14b)

14b The SI is a Building Block: parent Feature is Radio Interface Improvement Feature

11. SRNS Relocation Procedure Enhancement

Last distributed as: RAN_Study_Items_after_RAN_16 (originally in RP-010490)

Study Item Description

Title

SRNS Relocation Procedure Enhancement

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

SRNS relocation is used to move the control of a UE connection from a source (old serving) RNC to a target (new serving) RNC. This means that both control and user plane are moved to the target (new serving) RNC.

The current SRNS relocation procedure requires that the Drift RNC maintains all the radio links prior to it becoming the target RNC. In addition it does not support the relocation of a UE to a Drift RNC when another Drift RNC is involved or when previous SRNC is involved. The Iu-r, while the relocation is taking place, is not allowed to establish connections from the new SRNC to the previously existing DRNCs or to the previous SRNC.

Both of these relocation scenarios are included in TR 25.832 Manifestations for Handover and SRNS Relocation (section 5.2.2), but are marked as unsupported by R99 procedures.

4 Objective

The purpose of this Study Item is to identify which enhancements could be made to the SRNS relocation procedure to remove some of the limitations applicable in release 99 and R4.

5 Service Aspects

None/Text

6 MMI-Aspects

None/Text

7 Charging Aspects

None/Text

8 Security Aspects

None/Text

9 Impacts

The Core Network part of Iu signalling (RANAP) is not affected by the changes implied in this Working Item.

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

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
TR		R3			RAN#17	

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

11 Work item raporteurs

Olivier Guyot, Nokia.

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the SI (if known)

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

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

14b The SI is a Building Block: parent Feature

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

UTRAN Improvement Feature

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

Last distributed as: RAN_Study_Items_after_RAN_15 (originally in RP-010492)

This SI was finished in TSG-RAN #16. The SI sheet can be found in RAN_Study_Items_History.

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

Last distributed as: RAN_Study_Items_after_RAN_16 (originally in RP-010718)

Study Item Description

Title

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

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

The present 3GPP specifications cover the IMT-2000 2 GHz band (Band I and II), in accordance with ITU-R Radio Regulations Article S5 Footnote S5.388, in R99 and Rel4 and the work is continuing with the UMTS1900 Band II improvements and UMTS 1800 Band III.

ITU-R WRC-2000 identified additional extension bands for IMT-2000 that requires further studies for the subsequent future deployment of UTRA in the whole or parts of the bands as indicated below:

?? 806 – 960 MHz (The whole band 806 – 960 MHz is not identified on a global basis for IMT-2000 due to variation in the primary Mobile Service allocation across the three ITU Regions)
?? 1710 – 1885 MHz, where the work is progressing under UMTS1800 SI.
?? 2500 – 2690 MHz (In ITU Region 1 the bands 2500 – 2520 MHz and 2670 – 2690 MHz is also allocated on a co-primary basis to the Mobile Satellite Service subject to market demand)

4 Objective

The viable deployment of UTRA in additional and diverse spectrum arrangements should be assessed, including

?? Duplex spacing arrangements other than for Bands I, II and III.
?? Arbitrary selectable or variable duplex spacing methods
?? Use of asymmetric spectrum arrangements considering the need for additional downlink traffic capacity
?? Terminal capabilities and signalling
?? Possible interface impacts

The work will result in a technical report.

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
25.889	FS considering the viable deployment of UTRA in additional and diverse spectrum arrangements	RAN4	RAN2 RAN3	RAN #16	RAN #18	

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

11 Work item raporteurs

Thomas Unshelm, Ericsson

12 Work item leadership

TSG-RAN WG4

13 Supporting Companies

TSG-RAN

14 Classification of the SI (if known)

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

14b The SI is a Building Block: parent Feature

Radio Interface Improvement Feature

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

Last distributed as: RAN_Study_Items_after_RAN_16 (originally in RP-010929)

Study Item Description

Title

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

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

In the case of 1.28Mcps TDD, some idle time slots due to discontinuous transmission can be used for monitoring GSM, FDD and 3.84 Mcps TDD as compressed mode in FDD mode. However, the current Rel-4 specification may not reserve enough time for each inter-system measurement. This may cause the relativey long measurement time and may result in the increase of terminal power consumption or a call drop in case that UE is locatesd at handover region.
A candidate for some improvement can be as follows:

- Enlarging the measurement window for inter-system measurement.
- Chanege the location of measurement window for inter-system measurement.

4 Objective

The purpose of this study item is to provide the enlarged measurement window and the change of the location of measurement window in 1.28 Mcps TDD for improved system 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	
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 25.XXX		WG1		RAN #17	RAN #17	

Affected existing specifications			
Spec No.	Subject	Approved at plenary#	Comments
25.222	Mulplexing and channel coding(TDD)		
25.224	Physical Layer Procedures (TDD)		
25.331	RRC Protocol Specification		
25.423 25.433	UTRAN Iur Interface RNSAP Signalling UTRAN Iub Interface NBAP Signalling		
25.123	Requirements for Support of Radio Mesource Management (TDD)		

11 Study item raporteurs

Li Xiao Qiang, SAMSUNG

12 Study item leadership

TSG-RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the SI (if known)

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

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

(list of Work Items identified as building blocks)

14b The SI is a part of the radio interface improvement features.

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

(one Work Item identified as a building block)

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

Last distributed as: RP-020253

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 #18	

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

12 Work item rapporteur

Alf Ahlström, Allgon

13 Work item leadership

TSG-RAN WG4

14 Supporting Companies

TSG-RAN

15 Classification of the SI (if known)

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

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

16. Enhancements to OTDOA Positioning using advanced blanking methods

Last distributed as: RP-020453

Study Item Description

Title

Enhancements to OTDOA Positioning using advanced blanking methods

1 3GPP Work Area

X	Radio Access Core Network
	Services

2 Linked work items

None.

3 Justification

Currently OTDOA and optionally IPDL are the supported OTD (Observed Time Difference) methods for UE positioning. The use of CDMA in the RAN introduces the problem of hearability, whereby a UE is unable to measure a distant Node B due to interference from a nearby Node B. To compute a position it is necessary to receive and measure signals from at least 3 geographically distinct Node Bs, although in practise it is necessary to receive many more than this if reliable and robust positioning is to be achieved in the presence of multipath.

Location Based Services are gaining momentum spurred on by requirements such as the FCC's E-911 directive. Phase 2 of this directive requires the UE to be located within 50m 67% of the time and within 150m 95% of the time. Any UE positioning technology adopted by RAN will need to meet this accuracy requirement.

IPDL was introduced to RAN in 1999 and the work on standardising it is now nearing completion. Several documents analysing the performance of IPDL have been presented to RAN4 recently. These indicate that it is probably able to meet the E-911 requirements, although it is likely to be some time before supporting field test results are available to verify its performance. Since IPDL's introduction three years ago considerable experience with the performance on E-OTD for GSM has been gathered and new Observed Time Difference techniques and methods have been developed.

In particular new software based approaches using interference cancellation algorithms have emerged. These promise much better performance than traditional IPDL without the need to physically blank the

downlink transmission. Being based on software signal processing methods they enable multiple Node Bs to be "blanked" and this results in a dramatic improvement to the positioning accuracy and robustness.

These methods should be studied as they have the following main benefits:-

- ?? Improved performance, compliant with E-911 phase 2,
- ?? No effect upon existing or legacy UEs, or downlink capacity
- ?? Algorithmic enhancements can be made in the network without affecting already deployed UEs.

4 Objective

The objectives of this Study Item are as follows:

- ?? To evaluate the performance of new interference cancellation techniques in comparison to IPDL for UE positioning using downlink OTDOA methods,
- ?? To identify the requirements and format of measurements that would be needed to support these algorithms, specifically avoiding specifying one particular algorithm,
- ?? To identify signalling requirements and message formats.

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					X

Note: Impact on the UE is only in so far as a UE implementing the methods will require support for the new measurements and signalling. UEs that do not implement the proposed methods are expected to be completely unaffected, irrespective of whether the network supports the methods or not.

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

New Technical Reports						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR	Enhancements to OTDOA positioning using advanced blanking techniques.	R2	R1	RAN#18	RAN#19	

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

11 Work item rapporteurs

David Bartlett, Cambridge Positioning Systems.

12 Work item leadership

TSG-RAN WG2 supported by WG1
Review by WG3 and WG4.

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)

14b The WI is a Building Block: parent Feature

WI 35, UE Positioning Enhancements.

17. Analysis of OFDM for UTRAN evolution

Last distributed as: RP-020442

Study Item Description

To be reviewed by TSG-RAN WG1 and revision to be provided for TSG-RAN #17

Title: **Analysis of OFDM for UTRAN evolution**

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

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

3 Justification

As the mobile radio systems evolve and become more integrated with daily activities, there is an increasing requirement for additional services requiring very high bit rates and higher system capacity. These include both services to individuals as well as multimedia broadcast services. OFDM (Orthogonal Frequency Division Multiplexing) is a technology that is proving itself well suited to mobile radio access for high rate and multimedia services (i.e. DAB, DVB-T, 802.11a). Given the availability of this radio technology, its applicability should be studied as part of the future mid-term or long term UTRAN evolution.

4 Objective

The objective of this Study Item is to consider the performance of OFDM in the mobile environment and to develop scenarios in which OFDM may be introduced in UTRAN evolution.

The following list provides examples of areas that may be considered in the study:

- ?? Support for very high bit rates e.g. 10 Mbps and above
- ?? Support for MIMO and other advanced antenna array techniques
- ?? Support for personal, multimedia and broadcast services
- ?? Applicability in new spectrum deployments

The study should consider performance aspects, aspects linked to the evolution of UMTS (high level architecture, spectrum), and aspects of capacity/cost/complexity.

The output of the study item will be a Technical Report containing an analysis of the feasibility and potential benefits of introducing OFDM in UTRAN, and a recommendation to RAN Plenary on a potential time-frame and work plan.

5 Service Aspects

No

6 MMI-Aspects

No

7 Charging Aspects

No

8 Security Aspects

No

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		WG1	WG4	RAN#19	RAN#20	

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

11 Work item raporteurs

Sarah Boumendil (Nortel Networks)

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)

14b The WI is a Building Block: parent Feature

TSG-RAN meeting #17 **RP-020459**
Biarritz, France, 3-6 September 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 #16 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
12. Introduction of direct transport bearers between SRNC and Node-B

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

Last distributed as: RAN_Study_Items_after_RAN_15 (originally in RP-010492)

Study Item Description

Title

Introduction of direct transport bearers between SRNC and Node-B; removing the artificial limitation present in the Rel99/Rel4 specifications.

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

SRNS relocation enhancement

3 Justification

Increased efficiency of the UTRAN and the quality of service to the end user.

4 Objective

In Rel99/Rel4, all Iub/Iur transport bearers used for the transport of Dedicated Transport Channels need to be terminated at the DRNC. However when accepting certain limitations, there is no reason why these transport bearers should not go directly from SRNC to Node-B.

Going directly from SRNC to Node-B has some obvious benefits like decreasing the processing required by the DRNC and decreasing the delay of UTRAN internal transport.

This objective with this study is to identify consequences resulting from removal of the artificial limitation which currently requires transport bearers to be terminated at the DRNC.

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 Don't know	X	X		X	X

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

New specifications						
Spec No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
		WG3			RAN #16	
Affected existing specifications						
Spec No.	CR	Subject			Approved at plenary#	Comments

11 Work item raporteurs

Risto Sepponen (Ericsson)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

14 Classification of the SI (if known)

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

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

RRM optimizations for Iur and Iub

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.

16. Enhancements to OTDOA Positioning using advanced blanking methods

This SI has not finished yet. See RAN_Study_Items.

17. Analysis of OFDM for UTRAN evolution

This SI has not finished yet. See RAN_Study_Items.