TSG-RAN Meeting #16 *RP-020268*
Marco Island, FL, USA, 4 - 7 June 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-020265 (draft minutes of TSG-RAN #15 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-020265) 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 #15 (other than because of comments at TSG-RAN #15) 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WI sheets without background colour are for WIs that are no longer current (because they are finished or have been stopped).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 #15 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-Domain 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. Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN
66. Improving Receiver Performance Requirements for the FDD UE
67. Shared Network support 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. 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		
		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		

Feature	Grp	Building Block	Grp	Work Task	Grp
		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. RAN work for Intra Domain Connection of RAN Nodes to Multiple CN Nodes	R3		
Multimedia Broadcast and Multimedia Service	S1	65. 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)

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)

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_15 (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 #16

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_15 (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

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.101		UE Radio Transmission and Reception (FDD)	RAN#16	
25.102		UE Radio Transmission and Reception (TDD)	RAN#16	
25.104		UTRA (BS) FDD; Radio transmission and Reception	RAN#16	
25.105		UTRA (BS) TDD; Radio transmission and Reception	RAN#16	
25.123		Requirements for support of Radio Resource Management (TDD)	RAN#16	
25.133		Requirements for support of Radio Resource Management (FDD)	RAN#16	
25.141		Base station conformance testing(FDD)	RAN#16	
25.142		Base station conformance testing(TDD)	RAN#16	

The expected finalisation date is TSG-RAN #16

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_15 (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 #16	RAN #16	See Note 1.

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.401		UTRAN architecture description; Stage 2	RAN #16	Extend current Iu-pc interface as defined in 25.305
25.305		UTRAN Stage 2	RAN #16	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

Antti Toskala, Nokia, Finland

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)

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)

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_15 (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#16	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)

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. Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-010812)

Work Item Description

Title: Enhancement of Broadcast and Introduction of Multicast Capabilities 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**"*

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 in the current RAN specifications.

- Analysis and enhancement of optimized solutions over the air interface for support of MBMS.
- Analysis and enhancement of the existing interfaces needed to support MBMS.
- Analysis and creation/modification of UTRAN functions needed to be standardized for the support of MBMS.

5 Service Aspects

Multicast service capabilities are introduced.

6 MMI-Aspects

None

7 Charging Aspects

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

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	Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN	R2	R3, R1, R4	RAN #16	RAN #17	New Technical Report

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
25.301				
25.302				
25.304				
25.306				
25.321				
25.322 25.324 25.331 25.419				

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_15 (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

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. Shared Network support in Connected Mode

Last distributed as: RAN_Work_Items_after_RAN_15 (originally RP-020246)

Work Item Description

Title: Shared Network support 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

9 Impacts

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

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 NOTE 1	
25.413		UTRAN Iu Interface RANAP Signalling	RAN#17 NOTE 1	
25.423		UTRAN Iur interface RNSAP signalling	RAN#17 NOTE 1	

NOTE 1 It is understood that TSG-RAN #16 should be the target (see report TSG-RAN #15)

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