

**TSG-SA Meeting #8**  
**Düsseldorf, Germany, 26 - 28 June 2000**

**SP-000340**

**Source: TSG-RAN**

**Title: Work Item sheets - situation at TSG-RAN #8**

**To: TSG-SA**

This document contains WI sheets in TSG-RAN (situation by the beginning of TSG-RAN #8) for all approved Work Items. Those of the approved study items are provided in a separate document (SP-000341). Revisions of nearly all WI sheets are necessary and the versions provided here are for information. See SP-000320 (draft minutes of TSG-RAN #8 meeting) for details.

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

1. Low chip rate TDD option
2. Base station classification
3. FDD Base station classification
4. TDD Base stations classification
5. UE positioning in UTRA TDD
6. UE positioning in UTRA FDD
7. Hybrid ARQ II/III
8. NodeB Synchronisation for TDD
9. UTRA Repeater Specification
10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces
11. Terminal power saving features
12. Handover for real-time services from PS-Domain
13. RAB Quality of Service Negotiation over Iu
14. RRM optimizations
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
19. TrFO
20. Evolution of the transport in the UTRAN
21. Radio Interface Improvement Feature
22. RAN Improvement Feature
23. Position Method Enhancement Feature
24. Radio Interface Testing
25. 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. Low Chip Rate TDD Smart antenna
30. Low Chip Rate TDD UE radio access Capability
31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects

# 1 Low chip rate TDD option

Distributed as: 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

*none*

#### 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. And this work will affect the specifications for each working group on physical layer, higher layers, Iur interface and also the RF specifications as well.

- 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 features. In addition, two documents concerning the Location and packet data services are also introduced for further study.

- 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

<b>Task</b>	<b>Planned Start</b>	<b>Planned Finish</b>
Create new TR on low chip rate TDD	01/2000	05/2000
RAN#8 decide whether new specification required	06/2000	06/2000
Drafting new specifications and CRs	06/2000	09/2000
Possible remaining corrections and clarifications	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X		
<b>No</b>	X			X	X
<b>Don't</b>					

know					
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**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
25.201		Physical layer – General description			RAN#9	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)			RAN#9	
25.222		Multiplexing and channel coding (TDD)			RAN#9	
25.223		Spreading and modulation (TDD)			RAN#9	
25.224		TDD; physical layer procedures			RAN#9	
25.225		Physical layer; measurements			RAN#9	
25.301		Radio Interface Protocol Architecture			RAN#9	
25.302		Services Provided by the physical layer			RAN#9	
25.303		UE functions and inter-layer procedures in connected mode			RAN#9	
25.304		UE procedure in idle mode			RAN#9	
25.305		Stage 2 Functional Specification of Location Services in UTRAN			RAN#9	
25.321		MAC protocol specification			RAN#9	
25.322		RLC protocol specification			RAN#9	
25.323		PDCP Protocol specification			RAN#9	
25.324		Broadcast/Multicast Control BMC			RAN#9	
25.331		RRC protocol specification			RAN#9	
25.921		Guidelines and Principles for protocol description and error handling			RAN#9	
25.922		Radio Resource Management Strategies			RAN#9	
25.924		Opportunity Driven Multiple Access (ODMA)			RAN#9	
25.925		Radio Interface for Broadcast/Multicast Services			RAN#9	
25.402		Synchronisation in UTRAN Stage 2			RAN#9	
25.423		UTRAN Iur interface RNSAP signalling			RAN#9	
25.433		UTRAN Iub interface NBAP signalling			RAN#9	

25.102	UE Radio Transmossion and Reception	RAN#9	
25.105	BTS Radio Transmission and Reception	RAN#9	
25.123	RF parameters in support of RRM	RAN#9	
25.142	Base station conformance testing(TDD)	RAN#9	
25.942	RF system scenarios	RAN#9	
34.122	Terminal Conformance Specification, Radio Transmission and Reception	TSG-T	
34.123	Mobile Station (MS) Conformance test	TSG-T	

**11 Work item raporteurs**

Mr. Guiliang Yang (CATT/CWTS)

**12 Work item leadership**

RAN WG1

**13 Supporting Companies**

Ericsson, Fujisu, IDC, LG, NTT DoCoMo, Panasonic, RFI, Samsong, Siemens

**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

Distributed as: RP-000186

### Work Item Description

#### Title

BS 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**

<b>Affects :</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>			X		
<b>No</b>	X	X		X	
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
		R4		RAN #9	RAN #10	
<b>Affected existing specifications</b>						
Spec No.	CR	Subject		Approved at plenary#	Comments	

**11 Work item raporteurs**

**Antti Toscala, Nokia**

**12 Work item leadership**

RAN WG4

**13 Supporting Companies**

Motorola, Nokia, Siemens, T-Mobil

**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

Distributed as: 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

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned Finish
Work Item Creation	3/2000	3/2000



Work Item Approval		3/2000
Update on TR 25.942	5/2000	9/2000
Submission to TSG RAN for approval		12/2000

**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	
25.104		UTRA (BS) FDD, Radio Transmission and Reception		RAN #10		
25.141		Base Station Conformance Testing (FDD)		RAN #10		
25.133		Requirements for Support of Radio Resource Management (FDD)		RAN #10	?	

25.942		RF System Scenarios	RAN #9	
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**11 Work item raporteurs**

To be decided by TSG RAN WG4

**12 Work item leadership**

TSG RAN WG4

**13 Supporting Companies**

Nokia, Motorola, Ericsson, T-Mobil

**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: None

(one Work Item identified as a building block)

## 4. TDD Base stations classification

Distributed as: 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

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned Finish
Work Item Creation	3/2000	3/2000

Work Item Approval		3/2000
Update on TR 25.942	5/2000	9/2000
Submission to TSG RAN for approval		12/2000

**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	
25.105		UTRA (BS) TDD, Radio Transmission and Reception		RAN #10		
25.142		Base Station Conformance Testing (TDD)		RAN #10		
25.123		RF parameters in support of RRM (TDD)		RAN #10	?	
25.942		RF System Scenarios		RAN #9		

**11 Work item raporteurs**

To be decided by TSG RAN WG4

**12 Work item leadership**

TSG RAN WG4

**13 Supporting Companies**

Motorola, Nokia, Siemens, InterDigital.

**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: None

(one Work Item identified as a building block)

## 5. UE positioning in UTRA TDD

Distributed as: RP-000053rev

### Work Item Description

#### Title

Support of Location Services in UTRA TDD

#### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

#### 2 Linked work items

Support of Location Services in UTRA FDD

#### 3 Justification

LoCation Services provide the mechanisms to support mobile location services for operators, subscribers and third party service providers. Currently, in UTRA TDD LoCation Services (LCS) are supported only based on the CellID or on external system assisted methods.

In order to fulfill higher requirements with respect to the accuracy of the positioning methods, additional capabilities to determine the (geographic) location of the user equipment (UE) mobile station, e.g. by making use of the UTRAN radio signals have to be provided.

#### 4 Objective

The purpose of this work item is to define the signal measurements, protocol elements and operations both in UTRAN and UE to support location methods with increased accuracy.

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned Finish
Work Item Creation	3/2000	3/2000
Work Item Approval		3/2000
Drafting and discussion, updates of specifications	4/2000	9/2000
Submission to TSG RAN for approval		9/2000

Possible remaining corrections and clarifications	09/2000	12/2000
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**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 resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.123		Requirements for Support of Radio Resource Management (TDD)		RAN #9		
25.224		Physical Layer Procedures (TDD)		RAN #9		
25.225		Physical layer – Measurements (TDD)		RAN #9		
25.301		Radio Interface Protocol Architecture		RAN #9		

25.302		Services provided by the physical layer	RAN #9	
25.303		Interlayer procedures in connected mode	RAN #9	
25.304		UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	RAN #9	
25.305		Stage 2 Functional Specification of Location Services in UTRAN	RAN #9	
25.321		MAC Protocol Specification	RAN #9	
25.331		RRC Protocol Specification	RAN #9	
25.401		UTRAN Overall Description	RAN #9	
25.420		UTRAN Iur Interface: General Aspects and Principles	RAN #9	
25.423		UTRAN Iur Interface RNSAP Signalling	RAN #9	
25.430		UTRAN Iub Interface: General Aspects and Principles	RAN #9	
25.433		UTRAN Iub Interface NBAP Signalling	RAN #9	

**11 Work item rapporteurs**

Armin Sitte, Siemens AG

**12 Work item leadership**

RAN WG2

**13 Supporting Companies**

Interdigital Communications, Nokia, NTT DoCoMo, Siemens

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

	Feature (go to 14a)
<b>X</b>	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

LCS feature

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

(one Work Item identified as a building block)

## 6. UE positioning in UTRA FDD

Distributed as: RP-000135

### Work Item Description

#### Title

"Support of Location Services in UTRA FDD"

#### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

#### 2 Linked work items

"Support of Location Services in UTRA TDD"

#### 3 Justification

"Support of LoCation Services in UTRA FDD" provides the necessary UTRAN functionality to support standard location services for operators, subscribers and third party service providers. Standard location services are defined as the:

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

It is essential to fulfil: higher requirements with respect to the accuracy of the positioning methods and lower UTRAN complexity. Consequently, additional capabilities to determine the (geographic) location of the user equipment (UE) mobile station, e.g. by making use of the UTRAN radio signals, have to be provided.

#### 4 Objective

The purpose of this work item is to define the signal measurements, protocol elements and operations both in UTRAN and UE to support location methods with increased accuracy and reduced UTRAN complexity.

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned Finish
Work Item Creation	3/2000	3/2000

Work Item Approval		3/2000
Drafting and discussion, updates of specifications	4/2000	9/2000
Submission to TSG RAN for approval		9/2000
Possible remaining corrections and clarifications	09/2000	12/2000

**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
25.133		Requirements for support of RRM (FDD)		RAN #9		
25.141		Base Station Conformance Testing (FDD)		RAN #9		

25.215	Physical layer – Measurements (FDD)	RAN #9	
25.301	Radio Interface Protocol Architecture	RAN #9	
25.302	Services provided by the physical layer	RAN #9	
25.303	Interlayer procedures in connected mode	RAN #9	
25.304	UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	RAN #9	
25.305	Stage 2 Functional Specification of Location Services in UTRAN	RAN #9	
25.321	MAC Protocol Specification	RAN #9	
25.331	RRC Protocol Specification	RAN #9	
25.401	UTRAN Overall Description	RAN #9	
25.420	UTRAN Iur Interface: General Aspects and Principles	RAN #9	
25.423	UTRAN Iur Interface RNSAP Signalling	RAN #9	
25.430	UTRAN Iub Interface: General Aspects and Principles	RAN #9	
25.433	UTRAN Iub Interface NBAP Signalling	RAN #9	

**11 Work item rapporteur**

Ian Corden (Lucent Technologies): icorden@lucent.com

**12 Work item leadership**

To be decided by TSG RAN

**13 Supporting Companies**

ERICSSON, LUCENT TECHNOLOGIES, NOKIA, NORTEL

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

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

	Work Task (go to 14c)
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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)

## 7. Hybrid ARQ II/III

Distributed as: RP-000054rev

### Work Item Description

#### Title

Hybrid ARQ type II/III

#### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

#### 2 Linked work items

*none*

#### 3 Justification

This feature has been shown to have the potential of efficiently enhancing the performance of packet data transmission by transmitting incremental redundancy at the request of the receiver.

#### 4 Objective

In order to support the general mechanism, required signalling, and combining of existing information with incremental redundancy, the specifications for physical layer, as well as for higher layers and testing will be changed and/or extended. Note that Hybrid ARQ type I with soft combining is a special case of Hybrid ARQ type II.

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned Finish
Work Item Creation	3/2000	3/2000
Work Item Approval		3/2000
Drafting and discussion	4/2000	6/2000
Updates of Specifications	6/2000	9/2000
Submission to TSG RAN for approval		9/2000
Possible remaining corrections and clarifications	09/2000	12/2000

#### 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	
25.211		Physical channels and mapping of transport channels onto physical channels (FDD)		RAN #9		
25.212		Multiplexing and Channel Coding (FDD)		RAN #9		
25.214		Physical Layer Procedures (FDD)		RAN #9		
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)		RAN #9		

25.222	Multiplexing and Channel Coding (TDD)	RAN #9	
25.224	Physical Layer Procedures (TDD)	RAN #9	
25.301	Radio Interface Protocol Architecture	RAN #9	
25.302	Services provided by the physical layer	RAN #9	
25.303	Interlayer procedures in connected mode	RAN #9	
25.304	UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	RAN #9	
25.321	MAC Protocol Specification	RAN #9	
25.322	RLC Protocol Specification	RAN #9	
25.331	RRC Protocol Specification	RAN #9	
25.401	UTRAN Overall Description	RAN #9	
25.420	UTRAN Iur Interface: General Aspects and Principles	RAN #9	
25.423	UTRAN Iur Interface RNSAP Signalling	RAN #9	
25.425	UTRAN Iur interface user plane protocols for CCH data streams	RAN #9	
25.430	UTRAN Iub Interface: General Aspects and Principles	RAN #9	
25.433	UTRAN Iub Interface NBAP Signalling	RAN #9	
25.435	UTRAN Iub interface user plane protocols for CCH data streams	RAN #9	

**11 Work item rapporteurs**

Armin Sitte, Siemens AG

**12 Work item leadership**

RAN WG2

**13 Supporting Companies**

Interdigital Communications, Nokia, NTT DoCoMo, Siemens



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

	Feature (go to 14a)
<b>X</b>	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

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

(one Work Item identified as a building block)

## 8. NodeB Synchronisation for TDD

Distributed as: RP-000055rev

### 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.

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned
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		<b>Finish</b>
Work Item Creation	3/2000	3/2000
Work Item Approval		3/2000
Drafting and discussion, updates of specifications	4/2000	9/2000
Submission to TSG RAN for approval		9/2000
Possible remaining corrections and clarifications	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>:</b>					
<b>Yes</b>		X	X		
<b>No</b>	X			X	
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.123		Requirements for Support of Radio Resource Management (TDD)		RAN #9		
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)		RAN #9		
25.224		Physical Layer Procedures (TDD)		RAN #9		
25.225		Physical layer – Measurements (TDD)		RAN #9		
25.301		Radio Interface Protocol Architecture		RAN #9		
25.302		Services provided by the physical layer		RAN #9		
25.303		Interlayer procedures in connected mode		RAN #9		
25.321		MAC Protocol Specification		RAN #9		
25.331		RRC Protocol Specification		RAN #9		
25.402		Synchronisation in UTRAN Stage 2		RAN #9		
25.433		UTRAN Iub Interface NBAP Signalling		RAN #9		
25.423		UTRAN Iur Interface RNSAP Signalling		RAN #9		

**11****Work item rapporteurs**

Anja Klein, Siemens AG  
Stefan Oestreich, Siemens AG

**12****Work item leadership**

RAN WG1

**13****Supporting Companies**

Interdigital Communications, Nokia, NTT DoCoMo, Siemens, Vodafone  
AirTouch

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

	Feature (go to 14a)
<b>X</b>	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 Repeater Specification**

Distributed as: RP-000083rev

### **Work Item Description**

#### **Title**

UTRA repeater specification

This document contains the description of the work item “UTRA repeater specification”.

A feasibility study of repeaters in UTRA have been performed and presented at RAN WG4 #10 meeting as document R4-000012. This document was endorsed by RAN WG4 in San Jose, US.

#### **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 2<sup>nd</sup> 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 2<sup>nd</sup> generation systems, extending the coverage of UTRA will be of importance especially at the initial rollout stage. For operators with capability of handover to 2<sup>nd</sup> 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.xxx	UTRA Repeater; Radio transmission and reception	WG4		RAN#8	RAN#10	Repeater minimum RF characteristics
TS 25.yyy	UTRA Repeater; Conformance testing	WG4		RAN#8	RAN#10	Repeater conformance testing
Affected existing specifications						
Spec No.	CR	Subject	Approved at plenary#		Comments	
TS 25.113		UTRA Repeater EMC	RAN#10		Repeater EMC requirements	

Note: This current separation of radio requirements and conformance testing into two separate specifications is in order to be inline with the 3GPP specification structure. In order to minimise the amount of new technical specifications these two specifications could also be merged into one based on opinion of the RAN delegates.

## 11 Work item rapporteurs

Martin Nilsson, Allgon AB  
Thomas Kummetz, Mikom GmbH

## 12 Work item leadership

3GPP TSG RAN WG4 (Radio)

## 13 Supporting companies

- Allgon AB
- BMWi
- Mikom GmbH
- Telenor AS

## 14 Classification of the WI (if known)

The work item is a building block.

Parent Features:

Radio Interface Improvements and Position Method Enhancement



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

Distributed as: 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 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 Q.2630.1 has no capability to prioritize real time traffic like compressed voice or non-real time traffic like data.*

This requires much broader underlying VC for AAL type 2 connections to achieve delay budget 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. Broader underlying VC for AAL type 2 connections over Iub interface impacts very much on initial and running costs of the Iub interface which usually consist of leased line.

It is expected to introduce prioritization capability of Q.2630.2 to optimize the bandwidth of underlying VC for AAL type 2 connections over Iub and Iur interfaces with saving CFN allocation to Down link data frame or scheduling at SRNC in Release 00 time frame. Down link data frame of non-real time traffic which can be smoothed may be assigned future CFN according to expected delay to be arrived on time at destination Node B(s).

#### 4 Objective

*Replacement of the referred ITU-T Recommendation Q.2630.1 AAL Type 2 Signalling Protocol (Capability Set 1) to Q.2630.2 AAL Type 2 Signalling Protocol (Capability Set 2) in the following Technical Specifications:*

TS 25.414 UTRAN Iu interface data transport & transport signalling,  
 TS 25.424 UTRAN Iur interface data transport & transport signalling for CCH data streams,  
 TS 25.426 UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams,  
 TS 25.434 UTRAN Iub interface data transport & transport signalling for CCH data streams.

Q.2630.2 has a capability to realize prioritization for AAL type 2 connections and was determined (means technically frozen) at 9<sup>th</sup> March 2000 ITU-T WP1/11 meeting and is planned to be decided (means finally approved) in November-December 2000. The objective is to optimize the bandwidth of underlying VC (virtual connection) for AAL type 2 connections over Iub and Iur interfaces with supporting delay budget for real time traffics, e.g. compressed voice.

The following time schedule is considered for TSG RAN:

1.1.1 Task	Planned start	Planned finish
Work task creation	03/2000	
Work task approval	03/2000	
Drafting and discussion	04/2000	09/2000
Corrections/Fine tuning	09/2000	12/2000
Submission to TSG RAN for approval	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

Affects	USIM	ME	AN	CN	Others
:					

<b>Yes</b>			X		
<b>No</b>	X	X		X	X
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject	Approved at plenary#		Comments	
25.414		UTRAN Iu interface data transport & transport signalling	RAN #10			
25.424		UTRAN Iur interface data transport & transport signalling for CCH data streams	RAN #10			
25.426		UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams	RAN #10			
25.434		UTRAN Iub interface data transport & transport signalling for CCH data streams	RAN #10			

**11 Work item rapporteurs**

Takayuki Yoshimura (Japan Telecom)

**12 Work item leadership**

TSG-RAN WG3

**13 Supporting Companies**

Japan Telecom, Ericsson, NTT DoCoMo, NEC

**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

(one Work Item identified as a building block)

## 11. Terminal power saving features

Distributed as: RP-000189

### Work Item Description

#### Title

Terminal power saving features

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 **Linked work items**

*None*

3 **Justification**

The UE battery saving, UL/DL interference reduction, and capacity increase are important for deploying the UMTS services. The gated DPCCH transmission can be one of the solutions.

4 **Objective**

Improving the terminal power saving features, UL/DL interference reduction, and capacity increase.

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)**

<b>New specifications</b>						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
						None
<b>Affected existing specifications</b>						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.214				RAN#9		
25.301				RAN#9		
25.302				RAN#9		
25.331				RAN#9		
25.101				RAN#9		
25.423				RAN#9		
25.433				RAN#9		

**11 Work item raporteurs**  
Michael Park (sipark@telecom.samsung.co.kr)

**12 Work item leadership**  
TSG RAN WG1

**13 Supporting Companies**  
Samsung  
LGIC  
SK Telecom  
ETRI  
KT  
Dacom

*Note: At the last RAN#6 meeting, the above companies supported that the gated DPCCH transmission should be included to the Release 2000 work item.*

**14 Classification of the WI (if known)**  
*Not known.*

## 12. Handover for real-time services from PS-Domain

Distributed as: RP-000127rev

### Work Item Description

#### **Title**

Handover for real-time services from PS-Domain

#### **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 information at plenary#	Approved at plenary#	Comments
		R3		RAN#8 or 9	RAN#10	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.413						

**11 Work item raporteurs**

Atte Länsisalmi (Nokia)

**12 Work item leadership**

R3

**13 Supporting Companies**

Nokia, BT, GBT and Motorola

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

	Feature (go to 14a)
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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 over Iu

Distributed as: RP-000137rev

### 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 #10		
23.060						
24.008						

**11 Work item rapporteurs**

Anders Molander, Ericsson

**12 Work item leadership**

RAN3

**13 Supporting Companies**

Ericsson, NEC, Nokia, Siemens.

**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

## 14. RRM optimizations

Distributed as: 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

*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 mechanism 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					

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

New specifications						
Spec No.	Title	Prime resp. WG	2 <sup>nd</sup> ary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Spec No.	CR	Subject	Approved at plenary#		Comments	
25.420		Iur general aspects and principles	RAN #10			
25.430		Iub general aspects and principles	RAN #10			
25.423		RNSAP	RAN #10			
25.433		NBAP	RAN #10			
25.427		Iub/Iur dedicated transport channel user plane	RAN #10			
25.425		Iur common transport channel user plane	RAN #10			
25.435		Iub common transport channel user plane	RAN #10			

**11 Work item rapporteurs**

Gert-Jan van Lieshout (Ericsson)

**12 Work item leadership**

WG3

**13 Supporting Companies**



Ericsson, Vodafone, BT, Nokia, Motorola, Nortel, 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

Radio Interface Improvement feature and UTRAN Improvement feature

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

The BB is considered to consist of 7 separate Work Tasks, corresponding to the headings 1) to 7) in section 4.

## 15. Radio access bearer support enhancement

Distributed as: RP-000140rev

### 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
- 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

#### 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 information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.331		RRC protocol specification		RAN#10		
25.323		PDCP protocol specification		RAN#10		
25.413		UTRAN lu interface RANAP signalling		RAN#10		
25.415		UTRAN lu interface user plane protocols		RAN#10		

**11 Work item raporteurs**

R2: Ainkaran Krishnarajah (Ericsson)

R3: Martin Israelsson (Ericsson)

**12 Work item leadership**

TSG-RAN WG2

**13 Supporting Companies**

(at least 4 companies)

Ericsson, Bosch, Nortel Networks, Telia AB

## 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

Distributed as: RP-000180rev

### 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 inter-frequency and inter-system measurement 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 inter-frequency and inter-system measurement improvements for improved system performance.

The following time schedule is considered for TSG RAN:

Task	Planned Start	Planned Finish
Work Item Creation	3/2000	3/2000
Work Item Approval		3/2000
Drafting and discussion, updates of	4/2000	9/2000

specifications		
Submission to TSG RAN for approval		9/2000

**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
25.212		Multiplexing and channel coding (FDD)		RAN #9		
25.215		Physical layer – Measurements (FDD)		RAN #9		
25.331		RRC Protocol Specification		RAN #9		Paramter update
25.423		UTRAN Iur Interface RNSAP Signalling		RAN #9		Parameter update
25.433		UTRAN Iub Interface NBAP Signalling		RAN #9		Parameter update

**11 Work item raporteurs**

To be decided by WG1

**12 Work item leadership**

TSG RAN WG1

**13 Supporting Companies**

Ericsson, Lucent Technologies, Nokia, Nortel Networks, Omnitel

**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 interfae 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 CCErCHs of dedicated type

Distributed as: RP-000169rev2

### Work Item Description

#### Title

Improved usage of downlink resource in FDD for CCErCHs 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 CCErCH 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 CCErCHs 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 CCErCHs 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 CCErCHs 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 information at plenary	Approved at plenary	Comments
	None					
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary	Comments	
25.331				RAN #8		
25.423				RAN #9		
25.433				RAN #9		
25.212					?	

**11 Work item rapporteurs**

RAN2 Claudiu Mihailescu (Nortel Networks)

RAN 3 Nathalie Pereira (Nortel Networks)

**12 Work item leadership**

RAN2

**13 Supporting Companies**

Nortel Networks, Nokia, Motorola, 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  
(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**

**Distributed as: -**

## **19. TrFO**

**Distributed as: -**

## **20. Evolution of the transport in the UTRAN**

**Distributed as: -**

## **21. Radio Interface Improvement Feature**

**Distributed as: -**

## **22. RAN Improvement Feature**

**Distributed as: -**

## **23. Position Method Enhancement Feature**

**Distributed as: -**



## **24. Radio Interface Testing**

**Distributed as: -**

## **25. Requirement on Equipment**

**Distributed as: -**

## 26. Low chip rate TDD physical layer

Distributed as: 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 UTRAN architecture aspects*  
*Smart Antenna*  
*RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing*

#### 3 Justification

The integration of TDD low chip rate option in Release 2000 was discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. For the low chip rate TDD, it has commonalities 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.

- 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

<b>Task</b>	<b>Planned Start</b>	<b>Planned Finish</b>
Create possible new TR on low chip rate TDD	01/2000	05/2000
RAN#8 decide whether new specification required	06/2000	06/2000
Drafting new specifications and CRs	06/2000	09/2000
Possible remaining corrections and clarifications	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects :</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X		
<b>No</b>	X			X	X
<b>Don't know</b>					

**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
25.201		Physical layer – General description			RAN#9	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)			RAN#9	
25.222		Multiplexing and channel coding (TDD)			RAN#9	
25.223		Spreading and modulation (TDD)			RAN#9	
25.224		TDD; physical layer procedures			RAN#9	
25.225		Physical layer; measurements			RAN#9	
25.302		Services Provided by the physical layer			RAN#9	
25.944		Channel coding and multiplexing examples			RAN#9	

**11 Work item raporteurs**

Mr. Guiliang Yang (CATT/CWTS)

**12 Work item leadership**

RAN WG1

**13 Supporting Companies**

Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, 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

(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

Distributed as: 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 UTRAN architecture aspects*

*Smart Antenna*

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

#### **Low chip rate TDD UE radio access capabilities**

#### 3 Justification

The integration of TDD low chip rate option in Release 2000 was discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. 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.

- 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
- Baton Handover and mobility aspects

<b>Task</b>	<b>Planned Start</b>	<b>Planned Finish</b>
Prepare technical inputs	04/2000	06/2000
Drafting, change request and possible new specs	06/2000	09/2000
Possible corrections	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X		
<b>No</b>	X			X	X
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject			Approved at plenary#	Comments
25.301		Radio interface protocol architecture			RAN#9	
25.302		Service provided by the physical Layer			RAN#9	
25.303		UE functions and Inter-layer procedures in connected mode			RAN#9	
25.304		UE procedures in idle mode and procedures for cell reselection in connected mode			RAN#9	
25.305		Stage 2 functional specification of location service in UTRAN (LCS)			RAN#9	
25.321		Medium access control (MAC) protocol specification			RAN#9	
25.322		Radio link control(RLC) protocol specification			RAN#9	
25.331		Radio resource control (RRC) protocol specification			RAN#9	
25.324		Radio Interface for Broadcast/Multicast Services			RAN#9	
25.925		Radio Interface for Broadcast/Multicast Services			RAN#9	
25.922		Radio Resource Management Strategies			RAN#9	

**1.1.2 11 Work item rapporteurs**

Mr. Yanhui LIU (CATT/CWTS)

**12 Work item leadership**

RAN WG2

**13 Supporting Companies**

Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, 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

(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)

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

Distributed as: RP-000313

### Work Item Description

#### Title

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

1                    **3GPP Work Area**

<b>X</b>	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 UTRAN architecture aspects*  
*Smart Antenna*

3                    **Justification**

The integration of TDD low chip rate option in Release 2000 was discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. 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

<b>Task</b>	<b>Planned Start</b>	<b>Planned Finish</b>
Create new TR on low chip rate TDD	01/2000	09/2000
RAN#9 decide whether new specification required	09/2000	09/2000
Drafting possible new specifications and CRs	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects :</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X		
<b>No</b>	X			X	X
<b>Don't know</b>					

**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
25.102		UE Radio Transmossion and Reception (TDD)			RAN#10	
25.105		BTS Radio Transmission and Reception (TDD)			RAN#10	
25.123		Requirements for support of Radio Resource Management (TDD)			RAN#10	
25.142		Base station conformance testing(TDD)			RAN#10	
25.942		RF system scenarios			RAN#10	
25.113		Base station EMC			RAN#10	

**11 Work item raporteurs**

Mr. Daijun Zhang (CATT/CWTS)

**12 Work item leadership**

RAN WG4

**13 Supporting Companies**

Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, 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

(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. Low Chip Rate TDD Smart antenna

Distributed as: RP-000314

### Work Item Description

#### Title

Smart antenna

#### 1 3GPP Work Area

<b>X</b>	Radio Access
	Core Network
	Services

#### 2 Linked work items

*Low Chip Rate TDD physical layer*

*Low chip rate TDD layer2 and layer3 protocol aspects*

*Low chip rate TDD UTRAN architecture aspects*

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

*Low chip rate TDD UE radio access capabilities*

#### 3 Justification

The integration of TDD low chip rate option in Release 2000 was discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. The smart antennas are the essential part of the low chip rate TDD option enhancing the system capacity, and this has particular impact on the physical and high layers. This paper is to describe one of the low chip rate TDD building blocks – smart antenna.

#### 4 Objective

The objective of this work item is to clarify the technology of smart antenna and the impact of smart antenna on other layers. And as a building block, it will most affect the physical layer specification.

<b>Task</b>	<b>Planned Start</b>	<b>Planned Finish</b>
Complete TR for physical layer	01/2000	05/2000
Approval of the TR	06/2000	06/2000
Possible Change Request or new	06/2000	09/2000

specification		
Possible remaining corrections and clarifications	09/2000	12/2000

**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
25.201		Physical layer – General description	RAN#9	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)	RAN#9	
25.222		Multiplexing and channel coding (TDD)	RAN#9	
25.223		Spreading and modulation (TDD)	RAN#9	

25.224		TDD; physical layer procedures	RAN#9	
25.225		Physical layer; measurements	RAN#9	
25.302		Services Provided by the physical layer	RAN#9	

**11 Work item raporteurs**

Mr. Guiliang Yang (CATT/CWTS)

**12 Work item leadership**

RAN WG1

**13 Supporting Companies**

Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, 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

(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)

## 30. Low Chip Rate TDD UE radio access Capability

Distributed as: RP-000315

### Work Item Description

#### Title

Low chip rate TDD UE radio access capability

#### 1 3GPP Work Area

<b>X</b>	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 UTRAN architecture aspects*

*Smart Antenna*

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

#### 3 Justification

The integration of TDD low chip rate option in Release 2000 is discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. For the low chip rate TDD, it has commonalities 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, usage of beamforming 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

Task	Planned Start	Planned
------	---------------	---------



		<b>Finish</b>
Complete the TR for WG1	01/2000	05/2000
Drafting new specifications and CRs	06/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

<b>Affects :</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X	X		
<b>No</b>	X			X	X
<b>Don't know</b>					

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

<b>New specifications</b>						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject			Approved at plenary#	Comments
25.926		UE Radio Access Capabilities			RAN #10	

**11 Work item raporteurs**

Mr. Yanhui LIU (CATT/CWTS)

**12 Work item leadership**

RAN WG2

**13**                    **Supporting Companies**  
Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, 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  
(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 lub/lur protocol aspects

Distributed as: RP-000316

### Work Item Description

#### Title

Low chip rate TDD UTRAN architecture aspects

#### 1 3GPP Work Area

<b>X</b>	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

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

Low chip rate TDD UE radio access capabilities

#### 3 Justification

The integration of TDD low chip rate option in Release 2000 is discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. 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 UTRA TDD to provide services such as location services, beamforming, and uplink synchronisation. This paper is to describe one of the low chip rate TDD building blocks – UTRAN architecture aspects

#### 4 Objective

- For UTRAN architecture aspects, it includes the following work tasks:
  - Iub aspects
  - Iur aspects

Task	Planned Start	Planned Finish
------	---------------	----------------

<b><i>prepare technical inputs</i></b>	06/2000	09/2000
drafting CR's and possible new specs	09/2000	12/2000

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

Affects :	USIM	ME	AN	CN	Others
<b>Yes</b>			X		
<b>No</b>	X	X		X	X
<b>Don't know</b>					

**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	
25.402		Synchronisation in UTRAN Stage 2			RAN#10	
25.433		UTRAN Iub Interface NBAP Signalling			RAN#10	
25.423		UTRAN Iur Interface RNSAP Signalling			RAN#10	
25.427		UTRAN Iub/Iur Interface User Plane Protocols for DCH data streams			RAN#10	
25.435		UTRAN Iub Interface User Plane Protocols for Common Transport Channel data streams			RAN#10	

**11 Work item raporteurs**

Mr. Yanhui Liu (CATT/CWTS)

**12 Work item leadership**

RAN WG3

**13 Supporting Companies**

Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, 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

(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)