# TSG-RAN Meeting #12 *RP-010297*
# Stockholm, Sweden, 12 - 15 June 2001

**Source:** **TSG-RAN**

**Title:** **Work Item sheets - history**

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

The finished Work Items at the end of TSG-RAN #11 are:

1. Low chip rate TDD option
8. NodeB Synchronisation for TDD
9. UTRA FDD Repeater Specification
10. QoS optimization for AAL type 2 connections over Iub and Iur interfaces
12. PS-Domain handover for real-time services
13. RAB Quality of Service Negotiation/Renegotiation over Iu
14. RRM optimizations for Iur and Iub (partly finished in TSG-RAN #11 and changed status)
15. Radio access bearer support enhancement (partly finished in TSG-RAN #11)
19. Transcoder Free Operations in UTRAN
26. Low Chip Rate TDD Physical Layer
27. Low chip rate TDD layer 2 and layer 3 protocol aspects
28. Low Chip Rate TDD RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing
30. Low Chip Rate TDD UE radio access Capability
31. Low chip rate TDD UTRAN network Iub/Iur protocol aspects
32. RAB Quality of Service Negotiation over Iu
33. RAB Quality of Service Renegotiation over Iu
34. Iub/Iur interfaces for UE positioning methods supported on the radio interface release 99
35. UE positioning enhancements (partly finished in TSG-RAN #11)
37. DSCH power control improvement in soft handover
38. Transport bearer modification procedure on Iub, Iur and Iu (originally Migration to Modification procedure)

# 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 | | |
| | | 8. NodeB Synchronisation for TDD | R1 | | |
| | | 52. NodeB Synchronisation for 1.28 Mcps TDD | R1 | | |
| | | 15. Radio access bearer support enhancement | R2 | | |
| | | **Error! Reference source not found.** | R3 | | |
| | | **Error! Reference source not found.** | R3 | | |
| | | 55. Traffic Termination Point Swapping | 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 |
| | | 7. Hybrid ARQ II/III | R2 | | |
| | | 17. Improved usage of downlink resource in FDD for CCTrCHs of dedicated type | R2 | | |
| | | 11. Terminal power saving features | R1 | | |
| | | 49. Gated DPCCH Transmission | 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 | | |
| **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 | | |
| | | 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 |

| Feature | Grp | Building Block | Grp | Work Task | Grp |
|---|---|---|---|---|---|
| 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 |
| | | | | **Error! Reference source not found.** | 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 | | |

# 1. Low chip rate TDD option

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000191)**

## Work Item Description

## Title

Low chip rate TDD option

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

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

**3 Justification**

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

**4 Objective**

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

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

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

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

- For radio transmission and reception:
  - The system performance requirements supporting low chip rate services
  - The Rx characteristics requirement

- The Transmitter characteristics requirement
- The frequency bands and channel arrangements

| | | |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 5 Service Aspects

*None*

## 6 MMI-Aspects

*None*

## 7 Charging Aspects

*None*

## 8 Security Aspects

*None*

## 9 Impacts

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| | | | | | | |
| **Affected existing specifications** | | | | | | |
| Spec No. | CR | Subject | | | Approved at plenary# | Comments |
| | | | | | | |

The expected finalisation date is TSG-RAN #11

## 11 Work item raporteurs

Mr. Guiliang Yang (CATT/CWTS)

## 12 Work item leadership

TSG-RAN WG1

## 13 Supporting Companies

## 14 Classification of the WI (if known)

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

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

(list of Work Items identified as building blocks)
The building blocks should be discussed and approved via email discussion

14b The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

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

(one Work Item identified as a building block)

## 2. Base station classification

**This WI has not finished yet. See RAN_Work_Items.**

## 3. FDD Base station classification

**This WI has not finished yet. See RAN_Work_Items.**

## 4. TDD Base station classification

**This WI has not finished yet. See RAN_Work_Items.**

## 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. Hybrid ARQ II/III

**This WI has not finished yet. See RAN_Work_Items.**

# 8. NodeB Synchronisation for TDD

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000055)**

## Work Item Description

## Title

NodeB Synchronisation for UTRA TDD mode

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

*none*

**3 Justification**

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

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

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

**4 Objective**

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

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

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

## 9 Impacts

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.836 | NodeB synchronisation for TDD | WG1 | | RAN #10 | RAN #11 | |
| 25.838 | NodeB synchronisation for TDD | WG3 | | RAN #10 | RAN #11 | |

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

## 11 Work item raporteurs

Stefan Oestreich, Siemens AG

## 12 Work item leadership

TSG-RAN WG1

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

Radio Interface Improvements and RAN Improvements Features

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

(one Work Item identified as a building block)

# 9. UTRA FDD Repeater Specification

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000083)**

Work item Description

## Title:

UTRA FDD Repeater Specification

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### 1 3GPP work area

Radio Access

### 2 Linked work items

None

### 3 Justification

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

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

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

### 4 Objective

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

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

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

### 5 Service Aspects

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

### 6 MMI-Aspects

None

## 7 Charging Aspects

None

## 8 Security Aspects

None

## 9 Impacts

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

## 10 Expected Output and Time scales

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

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

## 11 Work item rapporteurs

Martin Nilsson, Allgon AB
Thomas Kummetz, Mikom GmbH

## 12 Work item leadership

TSG-RAN WG4

## 13 Supporting companies

TSG-RAN

## 14 Classification of the WI (if known)

| | |
|---|---|
| | Feature (go to 14a) |

| | |
|---|---|
| X | Building Block (go to 14b) |
| | Work Task (go to 14c) |

14b The WI is a Building Block:

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

In addition there is a relation to the building block UE positioning in UTRA FDD.

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

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

## Work Item Description

## Title

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

### 1 3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

### 2 Linked work items

*(list of linked Wis)*

### 3 Justification

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

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

### 4 Objective

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

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

### 5 Service Aspects

*None*

### 6 MMI-Aspects

*None*

### 7 Charging Aspects

*None*

## 8 Security Aspects

*None*

## 9 Impacts

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.934 | QoS optimization for AAL type 2 connections over Iub and Iur interfaces | WG3 | | RAN #10 | RAN #11 | |
| | | | | | | |

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

## 11 Work item rapporteurs

Takayuki Yoshimura (Japan Telecom)

## 12 Work item leadership

TSG-RAN WG3

**13 Supporting Companies**

TSG-RAN

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

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

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

Evolution of transport in UTRAN

## 11. Terminal power saving features

**This WI has not finished yet. See RAN_Work_Items.**

# 12. PS-Domain handover for real-time services

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000127)**

## Work Item Description

## Title

PS-Domain handover for real-time services

### 1 3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| X | Core Network |
| | Services |

### 2 Linked work items

*(list of linked WIs)*

### 3 Justification

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

### 4 Objective

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

### 5 Service Aspects

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

### 6 MMI-Aspects

*None*

### 7 Charging Aspects

*None*

### 8 Security Aspects

*None*

### 9 Impacts

| Affects: | USIM | ME | AN | CN | Others |
|---|---|---|---|---|---|
| Yes | | | X | X | |

| | | | | | |
|---|---|---|---|---|---|
| **No** | X | X | | | X |
| **Don't know** | | | | | |

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.936 | PS-Domain handover for real-time services | R3 | | RAN #10 | RAN #11 | |
| | | | | | | |

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

## 11 Work item raporteurs

Atte Länsisalmi (Nokia)

## 12 Work item leadership

TSG-RAN WG3

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

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

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

(one Work Item identified as a building block)

# 13. RAB Quality of Service Negotiation/Renegotiation over Iu

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

## Work Item Description

**Title**

RAB Quality of Service Negotiation/Renegotiation over Iu

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| X | Core Network |
| | Services |

**2 Linked work items**

*None*

**3 Justification**

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

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

**4 Objective**

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

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

**5 Service Aspects**

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

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

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

## 9 Impacts

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

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

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

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.413 | | | RAN #11 | |
| 23.060 | | | | |
| 24.008 | | | | |
| | | | | |
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| | | | | |

## 11 Work item raporteurs

Anders Molander, Ericsson

## 12 Work item leadership

TSG-RAN WG3

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

14b The WI is a Building Block: parent Feature

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

UTRAN Improvement Feature

# 14. RRM optimizations for Iur and Iub

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

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

## Work Item Description

## Title

RRM optimizations for Iur and Iub

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

*None*

**3 Justification**

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

**4 Objective**

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

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

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

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

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

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

4) Introduction of common measurements over Iur
   It is proposed to study the usefulness of / possibilities for introducing common measurements on Iur. For example, at present an SRNC has no information regarding cell load information in

neighbouring cells on a DRNC when making soft handover decisions. A study should indicate whether clear benefits exist of providing such load information to a neighbouring CRNC.

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

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

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

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

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

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

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

## 5 Service Aspects

*None*

## 6 MMI-Aspects

*None*

## 7 Charging Aspects

*None*

## 8 Security Aspects

*None*

## 9 Impacts

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

| know | | | | | |
|---|---|---|---|---|---|

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

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

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

1) Congestion handling of DCH

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

2) Procedure parallelism on Iub/Iur

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

Finalised without specification impact.

3) DPC Rate Reduction in soft handover

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2nd ary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.935 | RRM optimizations for Iur and Iub | WG3 | | RAN #11 | RAN #11 | |
| | | | | | | |
| **Affected existing specifications** | | | | | | |
| Spec No. | CR | Subject | | | Approved at plenary# | Comments |
| 25.427 | 45 | Iub/Iur dedicated transport channel user plane | | | RAN #11 | |
| 25.423 | 320 | RNSAP | | | RAN #11 | |
| 25.433 | 373 | NBAP | | | RAN #11 | |
| 25.433 | 387 | NBAP | | | RAN #11 | |

4) Introduction of common measurements over Iur

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

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

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

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

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

Finalised without specification impact.

6) Separation of resource reservation and radio link activation

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

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

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

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

Finalised without specification impact.

**11 Work item raporteurs**

Gert-Jan van Lieshout (Ericsson)

**12 Work item leadership**

TSG-RAN WG3

**13 Supporting Companies**

TSG-RAN

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

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

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

14b The WI is a Building Block: parent Feature

Radio Interface Improvement feature and UTRAN Improvement feature

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

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

# 15. Radio access bearer support enhancement

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000140)**

**"Robust Header Compression" was finished in TSG-RAN #11**

## Work Item Description

## Title

Radio Access Bearer support enhancement

#### 1 3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

### 2 Linked work items

### 3 Justification

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

### 4 Objective

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

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

#### 5 Service Aspects

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

### 6 MMI-Aspects

*None*

### 7 Charging Aspects

*None*

### 8 Security Aspects

*None*

## 9 Impacts

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

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

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

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.331 | | RRC protocol specification | RAN#11 | |
| 25.323 | | PDCP protocol specification | RAN#11 | |
| 25.413 | | UTRAN Iu interface RANAP signalling | RAN#11 | |
| 25.415 | | UTRAN Iu interface user plane protocols | RAN#11 | |
| | | | | |
| | | | | |

## 11 Work item raporteurs

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

## 12 Work item leadership

TSG-RAN WG2

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature
(one Work Item identified as a feature)
- RAN Improvement
- Evolution of bearers on the radio to enable IP based multimedia in UMTS

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

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

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

## 18. IP transport in UTRAN

**This WI has not finished yet. See RAN_Work_Items.**

# 19. Transcoder Free Operations in UTRAN

**Last distributed as: RAN_Work_Items_after_RAN_10 (originally RP-000507)**

## Work Item Description

### Transcoder Free Operations in UTRAN

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

Out of band Transcoder Control (CN Work Item)

**3 Justification**

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

**4 Objective**

- *The number of transcoders to be installed in the core network can be minimised.*
- *The bandwidth to be provided in the core network may be reduced by TrFO or transcoder at the core network edge for both MS to MS calls and for MS from/to wireline calls.*

**5 Service Aspects**

*The service aspects for Transcoder Free Operation are:*

- *Usage of the framing protocol as defined in TS 25.415 in the Core Network needs to be supported*
- *Symmetrical set of RFCIs needs to be supported*
- *The behaviour of an RNC for receiving RFCIs at Iu UP initialisation from the core network shall be changed to be applied for both uplink and downlink.*
- *The mechanism to make the RFCIs available during TrFO Break needs to be supported (storage of RFCIs)*
- *Specific adaptations of the inband rate control procedure needs to be performed ("distributed – ", "maximum – ", and "immediate rate control")*
- *RNC behaviour on a RAB Assignment Request needs to be adopted for TrFO calls.*
- *25.415 should in principle define the IuUP framing protocol in a way, that it covers its applicability for the Nb interface as well. This needs to be confirmed and co-ordinated with CN3.*

**6 MMI-Aspects**

None

**7 Charging Aspects**

None

**8 Security Aspects**

None

**9 Impacts**

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| 23.153 | Out of Band Transcoder Control - Stage 2 | CN4 | RAN3 | TSG-CN#7 | TSG-CN#10 | |
| | | | | | | |

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

**11 Work item rapporteurs**

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

**12 Work item leadership**

TSG-RAN WG3

**13 Supporting Companies**

TSG-RAN

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

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

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

**14b** The WI is a Building Block: parent Feature

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

**Out of Band Transcoder Control**

## 20. Evolution of the transport in the UTRAN

**This WI has not finished yet. See RAN_Work_Items.**

## 21. Radio Interface Improvement Feature

**This WI has not finished yet. See RAN_Work_Items.**

## 22. RAN Improvement Feature

**This WI has not finished yet. See RAN_Work_Items.**

## 23. UE Positioning

**This WI has not finished yet. See RAN_Work_Items.**

## 24. Void (Radio Interface Testing)

**Last distributed as: -**

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

## 25. Void (Requirement on Equipment)

**Last distributed as: -**

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

# 26. Low chip rate TDD physical layer

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000311)**

**Work Item Description**

## Title

Low chip rate TDD physical layer

### 1 3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

### 2 Linked work items

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

### 3 Justification

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

### 4 Objective

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

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

| | | |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

### 5 Service Aspects

*None*

### 6 MMI-Aspects

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.928 | Low Chip Rate TDD Physical Layer | WG1 | | RAN #10 | RAN #11 | |

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

**11 Work item raporteurs**

Mr. Guiliang Yang (CATT/CWTS)

**12 Work item leadership**

TSG-RAN WG1

**13 Supporting Companies**
TSG-RAN

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

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

Low chip rate TDD

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

(one Work Item identified as a building block)

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

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000312)**

**Work Item Description**

## Title

Low chip rate TDD layer 2 and layer 3 protocol aspects

### 1 3GPP Work Area

| | |
|---|---|
| **X** | Radio Access |
| | Core Network |
| | Services |

### 2 Linked work items

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

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

### 3 Justification

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

### 4 Objective

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

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

| | | |
|---|---|---|
| | | |
| | | |
| | | |

### 5 Service Aspects

*None*

### 6 MMI-Aspects

*None*

## 7 Charging Aspects

*None*

## 8 Security Aspects

***None***

## 9 Impacts

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.834 | Low chip rate TDD layer 2 and layer 3 protocol aspects | WG2 | | RAN #11 | RAN #11 | |

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.301 | | Radio interface protocol architecture | RAN#11 | |
| 25.302 | | Service provided by the physical Layer | RAN#11 | |
| 25.303 | | UE functions and Inter-layer procedures in connected mode | RAN#11 | |
| 25.304 | | UE procedures in idle mode and procedures for cell reselection in connected mode | RAN#11 | |
| 25.305 | | Stage 2 functional specification of location service in UTRAN (LCS) | RAN#11 | |
| 25.321 | | Medium access control (MAC) protocol specification | RAN#11 | |
| 25.322 | | Radio link control(RLC) protocol specification | RAN#11 | |
| | | | | |
| 25.331 | | Radio resource control (RRC) protocol specification | RAN#11 | |
| 25.324 | | Radio Interface for Broadcast/Multicast Services | RAN#11 | |
| 25.925 | | Radio Interface for Broadcast/Multicast Services | RAN#11 | |
| 25.922 | | Radio Resource Management Strategies | RAN#11 | |

**1.1.1 11 Work item raporteurs**

Mr. Yanhui LIU (CATT/CWTS)

**12 Work item leadership**

TSG-RAN WG2

**13 Supporting Companies**
TSG-RAN

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

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

low chip rate TDD

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

(one Work Item identified as a building block)

14b The WI is a Building Block: parent Feature

low chip rate TDD

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

(one Work Item identified as a building block)

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

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000313)**

**Work Item Description**

## Title

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

**1 3GPP Work Area**

| | |
|---|---|
| **X** | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

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

**3 Justification**

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

**4 Objective**

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

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

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.945 | | WG4 | | RAN #10 | RAN #11 | |

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

**11 Work item raporteurs**

Mr. Daijun Zhang (CATT/CWTS)

**12 Work item 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

Low chip rate TDD

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

(one Work Item identified as a building block)

## 29. Void (Smart antenna)

**Last distributed as: -(originally RP-000314)**

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

# 30. Low Chip Rate TDD UE radio access Capability

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000315)**

**Work Item Description**

## Title

Low chip rate TDD UE radio access capability

### 1 3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

### 2 Linked work items

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

### 3 Justification

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

### 4 Objective

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

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

| | | |
|---|---|---|
| | | |
| | | |
| | | |

### 5 Service Aspects

*None*

### 6 MMI-Aspects

*None*

### 7 Charging Aspects

*None*

### 8 Security Aspects

*None*

### 9 Impacts

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

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

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

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.926 | | UE Radio Access Capabilities | RAN #11 | |

**11 Work item raporteurs**

Mr. Yanhui LIU (CATT/CWTS)

**12 Work item leadership**

TSG-RAN WG2

**13 Supporting Companies**

TSG-RAN

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

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

Low chip rate TDD

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

(one Work Item identified as a building block)

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

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

**Work Item Description**

## Title

Low chip rate TDD Iub/Iur protocol aspects

**1 3GPP Work Area**

| | |
|---|---|
| **X** | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

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

**3 Justification**

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

**4 Objective**

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

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

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

| Affect | USIM | ME | AN | CN | Others |
|---|---|---|---|---|---|

| s: | | | | | |
|---|---|---|---|---|---|
| **Yes** | | | X | | |
| **No** | X | X | | X | X |
| **Don't know** | | | | | |

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

| **New specifications** | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for endorsement at plenary# | Approved at plenary# | Comments |
| 25.937 | TR on Low chip rate TDD Iub/Iur protocol aspects | WG3 | | RAN #11 | RAN #11 | |

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

**11 Work item raporteurs**

Mr. Bing Xu (CATT/CWTS)

**12 Work item leadership**

TSG-RAN WG3

**13 Supporting Companies**

TSG-RAN

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

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

low chip rate TDD

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

(one Work Item identified as a building block)

# 32. RAB Quality of Service Negotiation over Iu

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

## Work Item Description

**Title**

RAB Quality of Service Negotiation over Iu

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| X | Core Network |
| | Services |

**2 Linked work items**

*None*

**3 Justification**

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

**4 Objective**

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

**5 Service Aspects**

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

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

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

| know | | | | | |
|---|---|---|---|---|---|

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

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

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.413 | | | RAN #11 | |
| 23.060 | | | | |
| 24.008 | | | | |
| | | | | |
| | | | | |
| | | | | |

## 11 Work item raporteurs

Anders Molander, Ericsson

## 12 Work item leadership

TSG-RAN WG3

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

14b The WI is a Building Block: parent Feature

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

UTRAN Improvement Feature

# 33. RAB Quality of Service Renegotiation over Iu

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000500)**

## Work Item Description

**Title**

RAB Quality of Service Renegotiation over Iu

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| X | Core Network |
| | Services |

## 2 Linked work items

*None*

## 3 Justification

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

## 4 Objective

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

**5 Service Aspects**

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

## 6 MMI-Aspects

*None*

## 7 Charging Aspects

*None*

## 8 Security Aspects

*None*

## 9 Impacts

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

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

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

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.413 | | | RAN #11 | |
| 23.060 | | | | |
| 24.008 | | | | |
| | | | | |
| | | | | |
| | | | | |

## 11 Work item raporteurs

Sania Irwin, Motorola

## 12 Work item leadership

TSG-RAN WG3

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

14b The WI is a Building Block: parent Feature

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

UTRAN Improvement Feature

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

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000509)**

## Work Item Description

## Title

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

### 1 3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

### 2 Linked work items

none

### 3 Justification

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

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

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

### 4 Objective

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

### 5 Service Aspects

*None*

### 6 MMI-Aspects

*None*

### 7 Charging Aspects

*None*

### 8 Security Aspects

*None*

### 9 Impacts

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| | | | | | | |
| | | | | | | |
| **Affected existing specifications** | | | | | | |
| Spec No. | CR | Subject | | Approved at plenary# | | Comments |
| 25.401 | | UTRAN Overall Description | | RAN #10 | | |
| 25.420 | | UTRAN Iur Interface: General Aspects and Principles | | RAN #10 | | |
| 25.423 | | UTRAN Iur Interface RNSAP Signalling | | RAN #10 | | |
| 25.430 | | UTRAN Iub Interface: General Aspects and Principles | | RAN #10 | | |
| 25.433 | | UTRAN Iub Interface NBAP Signalling | | RAN #10 | | |

## 11 Work item raporteurs

to be decided by RAN WG3

## 12 Work item leadership

TSG-RAN WG3

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

14b The WI is a Building Block: parent Feature

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

UE positioning

# 35. UE positioning enhancements

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000509)**

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

## Work Item Description

## 1. Title

UE positioning enhancements

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

none

**3 Justification**

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

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

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

**4 Objective**

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

Examples of enhancements are:

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

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

## 9 Impacts

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

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

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

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| 25.305 | | Stage 2 Functional Specification of Location Services in UTRAN | RAN #11 | |
| 25.123 | | Requirements for Support of Radio Resource Management (TDD) | RAN #11 | |
| 25.224 | | Physical Layer Procedures (TDD) | RAN #11 | |
| 25.225 | | Physical layer – Measurements (TDD) | RAN #11 | |
| 25.302 | | Services provided by the physical layer | RAN #11 | |
| 25.303 | | Interlayer procedures in connected mode | RAN #11 | |
| 25.304 | | UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode | RAN #11 | |
| 25.331 | | RRC Protocol Specification | RAN #11 | |
| 25.420 | | UTRAN Iur Interface: General Aspects and Principles | RAN #11 | |
| 25.423 | | UTRAN Iur Interface RNSAP Signalling | RAN #11 | |
| 25.430 | | UTRAN Iub Interface: General Aspects and Principles | RAN #11 | |
| 25.433 | | UTRAN Iub Interface NBAP Signalling | RAN #11 | |

## 11 Work item rapporteur

Mark Beckmann, Siemens AG

## 12 Work item leadership

TSG-RAN WG2

**13 Supporting Companies**

TSG-RAN

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

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

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

14b The WI is a Building Block: parent Feature

UE positioning

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

## 36. RAN Technical Small Enhancements and Improvements

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

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

# 37. DSCH power control improvement in soft handover

**Last distributed as: RAN_Work_Items_after_RAN_9 (originally RP-000442)**

## Work Item Description

## Title

DSCH power control improvement in soft handover

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

**2 Linked work items**

*none*

**3 Justification**

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

**1.1.2 4 Objective**

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

**5 Service Aspects**

*None*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None*

**8 Security Aspects**

*None*

**9 Impacts**

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| 25.841 | DSCH power control improvement in SHO | WG1 | | RAN #11 | RAN #11 | |
| | | | | | | |

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

## 11 Work item raporteurs

Antti Toskala, Nokia

## 12 Work item leadership

TSG-RAN WG1

## 13 Supporting Companies

TSG-RAN

## 14 Classification of the WI (if known)

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

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

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

(one Work Item identified as a building block)

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

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

## Work Item Description

## Title

Migration to Modification procedure

**1 3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| X | Core Network |
| | Services |

*2 Linked work items*

*(list of linked Wis)*

*3 Justification*

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

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

*4 Objective*

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

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

**5 Service Aspects**

*None*

*6 MMI-Aspects*

*None*

**7 Charging Aspects**

*None*

## 8 Security Aspects

*None*

## 9 Impacts

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

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| | | WG3 | | | RAN #10 | |
| | | | | | | |

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

## 11 Work item rapporteurs

Takayuki Yoshimura (Japan Telecom)

## 12 Work item leadership

TSG-RAN WG3

## 13 Supporting Companies

TSG-RAN

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

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

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

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

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

Evolution of transport in UTRAN

## 39. UMTS 1800

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

## 41. RAB Quality of Service Negotiation over Iu during relocation

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

## 43. High Speed Downlink Packet Access (HSDPA)

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

## 48. Multiple Input Multiple Output antennas (MIMO)

**This WI has not finished yet. See RAN_Work_Items.**

## 49. Gated DPCCH Transmission

**This WI has not finished yet. See RAN_Work_Items.**

## 50. UMTS 1900

**This WI has not finished yet. See RAN_Work_Items.**

## 51. Enhancement on the DSCH hard split mode

**This WI has not finished yet. See RAN_Work_Items.**

## 52. NodeB Synchronisation for 1.28 Mcps TDD

**This WI has not finished yet. See RAN_Work_Items.**

## 53. RL Timing Adjustment

**This WI has not finished yet. See RAN_Work_Items.**

## 54. Separation of resource reservation and radio link activation

**This WI has not finished yet. See RAN_Work_Items.**

## 55. Traffic Termination Point Swapping

**This WI has not finished yet. See RAN_Work_Items.**

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

**This WI has not finished yet. See RAN_Work_Items.**

## 57. UE positioning enhancements for 1.28 Mcps TDD

**This WI has not finished yet. See RAN_Work_Items.**