| Title: | Draft Report of the $27^{\text {th }}$ 3GPP TSG RAN meeting <br> (Tokyo, Japan, 9-11 March 2005) |
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## Executive summary

TSG RAN meeting \#27 took place in Shinjuku, Tokyo, Japan. The meeting started at 8:00 on Wednesday $9^{\text {th }}$ March 2005 and finished on Friday $11^{\text {th }}$ at 16:00. 116 participants were registered and 168 documents were submitted.

## Elections, organizational matters and Long Term Evolution

This is the last meeting of the current TSG RAN. TSG RAN and TSG T will be closed and merged in a new TSG, named TSG RAN. It will have five WGs: the existing RAN groups plus T WG1, which will become RAN WG5.

Elections were scheduled for the chair and vice chair positions of the new TSG RAN. Having only one candidature for the chair, and after the withdrawal of two of the five candidates for vice chair, a vote was not needed for any of the positions. The list of new officials, to be confirmed by 3GPP PCG, is as follows:


There was some discussion on whether the WGs are new, given that the TSG is. The decision was postponed to the short extraordinary meeting of the new TSG RAN held on Friday $11^{\text {th }}$. The Terms of Reference of the WGs were also discussed in that meeting (See separate report)

A joint meeting of RAN WGs for the Study on Long Term Evolution of UTRA/UTRAN was held the $7^{\text {th }}-8^{\text {th }}$ March, immediately before the TSG RAN meeting. This meeting agreed on the Work Plan of the Evolution Work, the first drafts of the requirements TR and the Study TR, and a first set requirements (section 9.10.1)

## Change Requests

The approved Change Requests (CRs) to TSG RAN specifications are summarized in the following table:

| Release | WG1 | WG2 | WG3 | WG4 | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Release 99 | 1 |  |  | 1 | 2 |
| Rel-4 CRs (Rel-4 excluding Cat A) | $1(0)$ | $2(2)$ |  | $1(0)$ | $4(2)$ |
| Rel-5 CRs (Rel-5 excluding Cat A) | $2(1)$ | $23(22)$ | $16(16)$ | $4(3)$ | $45(42)$ |
| Rel-6 CRs (Rel-6 excluding Cat A) | $21(21)$ | $61(45)$ | $59(45)$ | $19(17)$ | $160(128)$ |
| Total CRs (Total excluding Cat A) | $25(23)$ | $86(69)$ | $75(61)$ | $25(21)$ | $211(174)$ |

## Liaison Statements

ETSI MSG sent TSG RAN a LS on the issue of GSM on board aircraft, reminding that feedback to ECC is to be provided before June 2005. RAN WG4 and GERAN WG1 are currently looking at the potential interference of the embarked system to ground networks, GERAN and UTRAN. It is expected that a response to ECC will be ready for the deadline (RP-05029).

A LS was received from SA WG4 asking RAN to review the error patterns to be used for MBMS simulations. Also, it is asked that RAN WG4 and SA WG4 jointly discuss the MBMS performance requirements that are of interest of SA WG4. It is proposed to have a joint session during the RAN WG4 Ad Hoc in April. This was agreed and a communication was sent to SA WG4 (RP-050105)

## ITU-R matters

ITU-R WP8F has started Question 333-1/8 on IP solutions on mobile networks, covering transport and application layers. It was agreed that 3GPP RAN will contribute with the current developments in 3GPP specifications. RAN ITU-R Ad Hoc will coordinate the process, with review and contribution of RAN WGs and also CN/SA WGs (section 8.1).

## Release 99, Release 4 \& Release 5

As a response to the plea for simplification of the specifications expressed in the past, several companies presented a list of features that are not used in current field implementations and unlikely to be used in the future. The group agreed to consider the removal from the specifications and tasked the WGs to study the detail and come with the necessary CRs. It was agreed that Rel99 and Rel-4 shouldn't be affected (section 8)

As a part of the clean up exercise above, the group had agreed in December to proceed with the removal of TGPL2 and had tasked the WGs to produce the CRs. These CRs were available and approved in the meeting (RP-050038).

## Release 6 and beyond

See Annex D for the summary of Work Items under TSG RAN responsibility.
The Work Item Performance Requirements of Receive Diversity for HSDPA was completed and the last set of CRs approved (section 9.1.1.1)

The completion date of the UMTS900 WI is delayed to December 2005 to cope with a new set of scenarios, including the rural areas with large cell radius requested by ECC (section 9.1.4 \& RP050031)

The WI Description Sheet of UE Antenna Performance Evaluation Method and Requirements is updated to take into account that the Methods will also be used for 2G terminals, in line with the new WI created by GERAN (section 9.1.5 \& RP-050032)

The WI Optimisation of downlink channelisation code utilisation is completed and the CRs are approved (section 9.2.1.1)

The WI Optimisation of downlink channelisation code utilisation for 3.84 Mcps TDD is completed and the CRs are approved (section 9.2.1.2.1)

A proposal was presented to remove one or more of the combining schemes in MBMS in order to reduce complexity and UE production delays. It was agreed to remove RAKE combining, but the door is still open to remove one of the two remaining options. WGs are tasked to create the necessary CRs for the clean up (RP-050130).

FDD Enhanced Uplink WIs in WG1, WG2 and WG3 were closed. Changes will be needed in the future, but will be incorporated as corrections. The WI for Performance Requirements in WG4 remains open, intended for Rel-6, and due for June 2005 (section 9.6).

It was reported that several EDCH scheduling options have been discussed for some time in WG1 and WG2, without agreement. Three proposals for a way forward were introduced, aiming at discarding some of the options. The group tasked RAN WG2 to agree on a Stage 2 where no functionalities are duplicated with different options (section 9.6.1).

TR 25.808 FDD Enhanced Uplink physical layer aspects v2.0.0 was approved and put under change control (RP-050142).

The Feasibility Study for Uplink enhancements for UTRA TDD was completed. A Work Item follows (RP-050019).

TR 25.804 Feasibility Study on Uplink Enhancements for UTRA TDD v2.0.0 was approved and put under change control (RP-050116)

TSG SA had requested that a justification form is provided for the WIs to be included in Rel-6 but not finished by March 2005. The following TSG RAN Items fall into this case, the corresponding forms were presented and approved (section 12):

- RAB Support enhancements
- Improved Performance Requirements for HSDPA UE cat 7 \& 8
- EDCH performance requirements
- MBMS performance requirements

The following new Work Items were approved:

- 3.84 Mcps TDD Enhanced Uplink (RP-050100)
- CS and PS call setup delay improvement (RP-050162)
- Study item on Performance Evaluation of the UE behaviour in high speed trains with speeds up to 350 kmph (RP-050146)
- UE performance requirements for MBMS (TDD) (RP-050156)
- Improved support of IMS Realtime Services using HSDPA/EDCH (RP-050160)

A proposal for a WI for LCS enhancements was presented. Its motivation is to introduce the functionality in RAN that corresponds to the SA WG1 and SA WG2 Work Items on LCS for Rel-7. It was found that the proposed Sheet was not precise enough, and that the architecture enhancements in SA WG2 should be clearer in order to better frame the RAN WI. A more precise WI Description Sheet is expected in the next meeting (RP-050098)

## 1 Opening of the Meeting

Francois Courau, chairman, opened the meeting at $8: 10$ on Wednesday $9^{\text {th }}$. He gave the floor to Yoshihide Ishida from ARIB, who welcomed the participants to Tokyo on behalf of the Japanese Friends of 3GPP and highlighted the success of 3G in Japan.
The chairman reminded that formally speaking, this is the last meeting of TSG RAN. A very short meeting of the new TSG RAN, the group that comes out of the merge of current TSG RAN and TSG T, will be held on Friday $11^{\text {th }}$ after the closure of this meeting.

## 2 Election of officials

## RP-050131 Elections: a practical guide (3GPP Support)

John Meredith (3GPP Support) presented this guide to the election procedures, to be held the $9^{\text {th }}$ along the day, for both TSG RAN and TSG CT. Given the number of candidates, the process could take some time.
It is clarified that the lists of member companies for CT has been taken from TSG CN and TSG T, and the list for the new-RAN from TSG RAN and TSG T.

The attention was brought to article 22 of the Working Procedures:
Chairman and Vice Chairmen should not be from the same region, Organizational
Partner, or from the same group of companies, unless no other candidate is available.
RP-050132 Letters from candidates to RAN chairman and vice-chairman (3GPP Support)
For information of the group, this document contains the letters of support received for the candidate for chair, Francois Courau (Alcatel, ETSI), and the five candidates for vice chair: Denis Fauconnier (Nortel, ETSI), Alan Law (Vodafone, ETSI), Hyeon Woo Lee (Samsung, TTA), Takehiro Nakamura (NTT DoCoMo, ARIB) and Don Zelmer (Cingular, ATIS)

Election of chairman took place at 8:30. Only one candidate was presented, Francois Courau (Alcatel), current chairman. He was re-elected by acclamation.

Election of vice-chair positions where scheduled to take place in the afternoon.
The situation of the WGs was also discussed. The WG chair positions are due for election in their next meeting. Since TSG RAN is considered a new group, it has been debated if its WGs are also new or not. This impacts the election of chairmen in the WGs, since in principle it is not allowed that WG chairman apply for a $3^{\text {rd }}$ period of two years. This would be the situation in WG2 and WG4, where chairmen have already covered two periods or more. However, if the WGs are new, current chairmen are allowed to apply again.
According to 3GPP PCG, it is up to each TSG to decide on this. The chairman then asked the group for views, and reminded that the Terms of Reference of the majority of WGs have changed. He noted also that being TSG RAN a new group now after the merge with TSG T, there is some logic in considering its WGs new as well.

It is noted that TSG CT is also having the same debate about its WGs, but this shouldn't influence the decision in TSG RAN.

The chairman reminded that the WG chair position should be based on the technical competence of the person, not on political reasons. Companies should take the decision on this issue with this aim.

A show of hands gave a majority of companies supporting to consider the WGs new. However, some companies requested a more formal poll in this issue.

The discussion is postponed to the meeting of the new RAN scheduled for Friday $11^{\text {th }}$ in the afternoon.

In the afternoon of Wednesday, the elections for vice chairmen were to take place. However, after heated off line discussions, two of the five candidates decided to withdraw their candidatures: Denis Fauconnier (Nortel) and Alan Law (Vodafone). This leaves three candidates for three vice chair positions, no elections are needed and all the three candidates are elected:

- Don Zelmer (Cingular)
- Takehiro Nakamura (NTT DoCoMo)
- Hyeon Woo Lee (Samsung)

3GPP PCG will have to confirm the elected persons for chair and vice chair positions.
ARIB and TTA thanked Vodafone and Nortel for their decisions, which help maintain the regional balance in 3GPP.

## 3 Approval of the Agenda

## RP-050002 Draft agenda TSG RAN \#27 (Chairman)

The agenda was approved without comments

## 4 Approval of the meeting report on TSG-RAN \#26

RP-050003 Revised draft report TSG RAN meeting \#26 (3GPP Support)
The report is approved without comments

## 5 Reminder for IPR declaration

The chairman made the following call for IPRs:
The attention of the delegates to the meeting of this Technical Specification Group was drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.

The delegates were asked to take note that they were thereby invited:

- to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.
- to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/).


## 6 Chairman Report of meetings

### 6.1 TSG SA\#26

The chairman reported that a long discussion took place regarding the Long Term Evolution activity, TSG SA asked to consider it as part of the ongoing SA WG1 activities on Evolution. The agreement was to consider all these activities closely linked, SA WG2 will be involved in the architecture part of the UTRAN LTE.

### 6.2 New Terms of reference for RAN WGs after TSG RAN Reorganization

## RP-050051 Review of RAN1 Terms of reference (RAN WG1)

Dirk Gerstenberger (RAN WG1 chairman) presented this document
Howard Benn (RAN WG4 chairman) noted that the LT Evolution activity will pose new burden in WG1 and, looking at how the measurements are developed today, he proposed to envisage in the mid term to move the specification of provision of measurements to upper layers to WG4, and WG2 in part.
According to Dirk however, the current work split is correct, WG1 should be in charge of defining the measurements and WG4 should look at the accuracies.

Jussi Numminen (Nokia) reminded that in the past WG4 has spent much time reviewing and correcting the measurements previously developed in WG1, it is worth reconsidering now the work split. Concerning the modification proposed by RAN WG1 in this document (to add the physical layer parameters used in conformance testing), he noted that so far the work of WG1 in this area has been low and reduced to the definition of the bearers, it is mostly WG4 who liaises with and guides T WG1 on the testing issues; including physical layer parameters.

Given the terms of the discussion, Hans van der Veen (NEC) suggested to re-consider the merge of WG1 and WG4. The chairman acknowledged that this is not viable at this time, but he expected that the LT Evolution work will push the two groups to work closer and in a more coordinate manner.

## RP-050063 Proposal of Update of RAN WG2 terms of Reference (RAN WG2)

This document was briefly presented, a revision of RAN WG2 ToR was produced among the WG chairmen and presented to the new TSG RAN.

It was agreed that the ToRs of WGs will be reviewed all together in an Ad Hoc session with the participation of all the WG chairmen, also WG5 chairman. The outcome of this Ad Hoc will be discussed in the meeting of the new TSG RAN on Friday afternoon.

## 7 Liaisons from other groups

### 7.1 Groups outside 3GPP

RP-050028 LS from Q.1/19 to SDOs (ITU-T (Q1/19 Rapporteur))

ITU-T informs that it has started developing a recommendation on Network Architecture for Systems Beyond IMT-2000, and asks for related documentation. This involves mainly the Core Network, no actions for TSG RAN.

## RP-050029 LS on Use of GSM BS on board aircraft (ETSI MSG)

ETSI MSG reminds of the timeline for the work on this issue in ECC (June 2005) and asks GERAN WG1 and RAN WG4, the 3GPP groups involved in the impact analysis, to comment back.
Howard Benn (RAN WG4 chairman) reported that the group is reviewing the documentation presented by SITA, the organization developing the system, and has already provided some observations. The work will continue in next WG4 meeting.

The chairman asked companies from other regions to inform if similar activities are ongoing, this is the right moment to ensure that a common approach is adopted. Since aircraft equipped with this system would probably fly over other regions it is in everyone's interest to get a common worldwide agreement.

The chairman clarified that the contribution to be expected from 3GPP are on the technical field, the political aspects of the discussion in ECC are neither in 3GPP nor MSG scopes.

Hashem Madadi (Three) asked that WG4 endeavours to produce the technical output within the timeline required. Howard noted that measurements onboard planes are required, and this is not something that WG4 experts can do. The group is working with the information received as efficiently as possible. It was further clarified that WG4 is looking at the interference that the embarked jammer would produce on ground networks. Since this jammer is supposed to stop UEs on board from receiving signals from ground based networks, it will also have to jam UMTS frequencies. There is a risk that this jamming interferes with the ground UMTS networks, hence the interest of RAN WG4.

Since RAN WG4 is already working on this issue, there is no specific action for TSG RAN.
RP-050030 Sharing and compatibility studies for UMTS in 900 MHz band (ECC PT1) ECC PT1 asks to consider additional scenarios in the UMTS900 work, rural areas with large cell radius in particular. This LS has already been presented in RAN WG4 and the group has agreed on a number of new scenarios as explained in the LS below.

## RP-050031 LS on Additional simulation scenarios for UMTS900 (TSG RAN WG4)

WG4 has identified some additional scenarios, including the proposal from ECC PT1. Given the increase in the scope of the Work Item, it is envisaged that the work will take longer and RAN WG4 proposes to delay the conclusion date to December.
This LS is addressed to ECC PT1; following the practice of ECC, TSG RAN chairman will send it personally to ECC PT1 chairman
It is clarified that the 577 m cell radius of scenario 1 is the current assumption in WG4 for uncoordinated deployment.

### 7.2 TSG SA, TSG T, TSG CN, TSG GERAN

## RP-050032 LS on Antenna Performance Evaluation Method and Requirements (TSG GERAN)

GERAN informs that it has started a WI on Antenna Evaluation, similar to the WI underway in RAN WG4. Given the commonality on the measurement methods, GERAN has agreed to re-use the TR to be produced in RAN WG4. GERAN asks that the wording of the TR is adapted to allow applicability to 2 G terminals.
RAN WG4 has reviewed and agreed with this request. A revised WI Description Sheet is presented to TSG RAN for approval (RP-050122)

## RP-050033 Misalignment amongst the 3GPP specifications, "Re-authentication and key set change during inter-system handover" (TSG CN WG1)

CN WG1 has concluded that the inter-system handover from GERAN to UMTS procedures after reauthentication (i.e. 'late AKA') would always fail, if the handover occurred before the new keys were taken into use. Since this a rare event, CN WG1 agreed to correct it in Rel-5 onwards. This affects 25.331 , but RAN WG2 had declined to align because to introduce this change now would lead to many UEs which are using the current version of the specifications to suffer more problems whenever the proposed behaviour will occur.

In order to show the RAN understanding, it was suggested to forward to TSG SA the LS from RAN WG2 where the arguments are presented; this will allow TSG SA to decide having all the views on the table.

It was also agreed to task TSG SA WG3 to make the decision and inform the relevant groups of their decision.

## RP-050034 LS on network-initiated SCUDIF support (TSG CN WG3)

CN WG3 asks RAN WG3 to approve CRs implementing only the part of their proposal for network-initiated SCUDIF support that relates to a downgrade to an alternate configuration with lower bandwidth requirements.
No action required from TSG RAN.

## RP-050105 Reply to "Reply LS on guidance and error patterns for MBMS streaming simulations" (TSG SA WG4)

SA WG4 asks TSG RAN to request RAN WG4 to discuss the issue of the error patterns jointly with SA WG4 in its Ad Hoc in April. Also, TSGs RAN and GERAN to review and provide feedback on link level PDU error masks and RTP packet loss simulator.
Howard Benn (RAN WG4) chairman noted that the group has only recently agred simulation assumptions and hence has not been able yet to work on the error patterns. In order to speed the work, he agreed to have SA WG4 experts in the MBMS Ad Hoc, and he suggested that documentation from SA WG4 is circulated in RAN WG4's MBMS reflector in advance. Howard also requested that feedback on the decision on the FEC that TSG SA will adopt in its meeting next week is circulated for RAN experts.

Paolo Usai (SA WG4 secretary) clarified that the error masks provided in the LS are just examples and not the comprehensive set.

SA WG4 participants are encouraged to come to the Ad Hoc in order to advance in this issue.
Document RP- 050153 below will be forwarded to SA WG4 to ask for participation.

### 7.3 TSG RAN WGs

RP-050035 LS on ROHC testing (TSG RAN WG2)
RP-050036 LS on ROHC testing (TSG T WG1)
This two LSs are for information to TSG RAN and are noted

The following table summarizes the LSs received:

| Tdoc | Title | Source |  |
| :--- | :--- | :--- | :--- | :--- |
| RP-050028 | LS from Q.1/19 to SDOs | ITU-T (Q1/19 <br> Rapporteur) | COM19-LS004 |
| RP-050029 | LS on Use of GSM BS on board aircraft | ETSI MSG | M-05-015 |
| RP-050030 | Sharing and compatibility studies for UMTS in 900 MHz band | ECC PT1 | ECC <br> PT1(05)051_Ann <br> ex20 |
| RP-050031 | LS on Additional simulation scenarios for UMTS900 | TSG RAN WG4 | R4-050282 |
| RP-050032 | LS on Antenna Performance Evaluation Method and Requirements | TSG GERAN | GP-050541 |
| RP-050033 | Misalignment amongst the 3GPP specifications, "Re-authentication <br> and key set change during inter-system handover" | TSG CN WG1 | N1-050270 |
| RP-050034 | LS on network-initiated SCUDIF support | TSG CN WG3 | N3-050151 |
| RP-050035 | LS on ROHC testing | TSG RAN WG2 | R2-050296 |
| RP-050036 | LS on ROHC testing | TSG T WG1 | T1-050491 |
| RP-050105 | Reply to "Reply LS on guidance and error patterns for MBMS <br> streaming simulations" | TSG SA WG4 | S4-050214 |

## 8 Status Report and Approval of contributions on Release'99 and Release 4 and finished work items for Release 5

## RP-050125 Feature clean up (Nokia, Motorola, T-Mobile, Ericsson, Panasonic, NTT DoCoMo, Qualcomm, Telecom Italia)

## RP-050141 Feature removal CRs (Nokia)

Jussi Numminen (Nokia) presented this proposal to remove the list of features below. A set of CRs for discussion is presented in document RP-050141.

- 80 ms TTI for DCH
- SSDT
- TGPL2
- Observed time difference to GSM cell
- Support of dedicated pilot as sole phase reference
- Tx diversity closed loop mode2
- DSCH
- DRAC

Qualcomm also noted that compress mode by puncturing had also been discussed for possible elimination.
Jussi clarified that only DSCH in FDD is proposed to be removed.
Many companies suggested that CPCH could be added to the list.
On the Release of application, Jussi preferred that companies discuss and analyse off line the relevant Release. Hashem Madadi (Three) required that R99 and Rel-4 are not affected by this activity. However, the chairman clarified that if these changes do not affect existing
implementations, there is no reason why they cannot be incorporated to R99 or Rel-4; it is only up to the companies to check in house to what extent the removals affect their existing products.

NEC and Fujitsu supported Three and requested that the removals at least will not apply to R'99 and Rel-4. There was general agreement with this position and to go for Rel-5.

A revision of RP-050125 is provided in RP-050144 adding to the list the features mentioned.

## RP-050144 Feature clean up (Nokia, Motorola, T-Mobile, Ericsson, Panasonic, NTT DoCoMo, Qualcomm, Telecom Italia)

This is the outcome of the off line session on feature clean up. CPCH and compressed mode by puncturing are added to the list.
It is agreed that the removal would be Rel- 5 onwards.
The support of 80 ms TTI is only required when supporting SF512 in the terminal. In all other cases 80 ms TTI for DCH support is removed.
It is agreed to go ahead with the removal of TGPL2 in this meeting, given that the CRs are available. CRs for removal of the other features will be presented in next TSG RAN, with separate discussion on the WGs.

It is suggested that the discussion at WG level starts in the WG email reflectors, with the thread clearly identified in the email subject. The aim is to reach as much agreement as possible before the meetings to speed the decision on the CRs. Nokia will take the lead on this activity.

### 8.1 ITU-R Ad Hoc

Giovanni Romano (TelecomItalia) presented the three documents related to ITU-R.

## RP-050102 Status Report ITU-R Ad Hoc (ITU-R Ad Hoc Contact person)

Giovanni clarified that the discussions on IP solutions was not related to the choice between IPv4 and IPv6, but to providing IP services to mobile users.

## RP-050104 Proposal for the development of a contribution for ITU-R WP8F on IP solutions (ITU-R Ad Hoc)

Regarding the activity in ITU-R on IP over mobile systems, it is suggested that TSG RAN provides a contribution from the 3GPP work on IP in the UTRAN.
Steve Blust (Cingular) clarified that the scope of the ITU-R question 223-1/8 covers services but also the use of IP on lower layers and noted that the documents produced by MCC with the description of each Release could be used for this purpose.
Given the scope, the contribution requested from 3GPP will need to be contributed by TSG SA and TSG CN as well, not only TSG RAN. However, the chairman noted that most likely what WP8F needs is not a very technically detailed document, but a rather marketing-oriented material.

As a way forward, it is agreed that the ITU-R Ad Hoc will produce a document that will be checked by the WGs (deadline $4^{\text {th }}$ April, so it can be input to the WGs meeting the first week of April). Comments from the WGs should be produced before the $5{ }^{\text {th }}$ May.

It is observed that CT and SA WGs should also review and contribute, the document from ITU-R Ad Hoc will be also made available to them.

The approval process by the different TSGs will be done in parallel before the sending to the PCG for final approval and submission to ITU-R 8/F on the $27^{\text {Th }}$ of May 2005.

Based on that the following calendar was approved:

- Sending to the different working for review First week of April for comments Before May $5^{\text {th }} 2005$
- Elaboration of the final draft first week of May for sending to the TSG exploder on May 13th ${ }^{\text {th }} 2005$
- End of the approval period by TSG on May $17^{\text {th }} 2005$ and sending to the PCG exploder
- End Approval by the PCG on May $25^{\text {th }}$.

TSG RAN Chair will present the ITU-R liaison to the two TSGs during their current meetings in Tokyo.

After presentation to the TSG CN, TSG CN delegates supported the schedule.

## RP-050103 Proposed Update reminder for the OPs on the compliance with ITU-R procedures as it relates to Revision 5 of Recommendation ITU-R M. 1457 (ITUR Ad Hoc)

No comments, the document is approved.

### 8.2 TSG RAN WG1

### 8.2.1 Report from WG1 including report on actions required from the previous meeting

## RP-050020 Status Report WG1 (RAN WG1 Chairman)

Dirk Gerstenberger (RAN WG1 chairman) presented this report. RAN WG1 activity can be summarized as follows:

- One meeting: RAN1\#40 Feb 14-18 2005 Scottsdale, AZ, USA
- Agreed change requests
- 1 CR for R99 FDD (TEI), 1 CR for Rel5 FDD (TEI)
- 19 CRs for Rel6 FDD (TEI6, Enhanced UL, F-DPCH)
- 3 CRs for Rel6 TDD (LCR TDD, TDD Code optimisation)
- FDD Enhanced Uplink stage 3 progressing well
- Joint session with RAN WGs on RRM concept and worksplit
- 5 UE categories agreed
- Timing relations and number of HARQ processes agreed
- Total of 10 CRs on the L1 specifications on various details
- MBMS UE capability definition agreed
- LS sent to RAN2 for incorporation into a CR for 25.306
- Code optimisation CRs for FDD and 3.84Mcps TDD agreed
- F-DPCH (FDD) and HS-DSCH without DL DPCH (TDD)
- TDD Enhanced Uplink Study item completed

On the Fractional DPCH, Dirk clarified that it will be mandatory for Rel-6 HSDPA UEs.

## RP-050021 List of CRs from RAN WG1 (RAN WG1)

### 8.2.2 Discussions on decisions from WG1

No discussions

### 8.2.3 Approval of CRs to Rel'99 with linked CRs to Rel-4, Rel-5 \& Rel-6

RP-050092 CR(Rel-6 Category F) to TS25.215 for Clarification of the cell on SFN-SFN observed time difference (RAN WG1)
No comments, the CR is approved

## RP-050093 CR for TS25.215 R99, Rel4, Rel-5 Clarification of the cell on SFN-SFN observed time difference (Panasonic)

NEC \& Three objected the approval of R99 and Rel-4 CRs unless they implement essential requirements. Motorola noted that the reason of the R99 CRs is the clarification for T WG1 for the development of the tests. Finally, the CRs are approved

Note: The CR number in the coversheet of the Rel-5 CR in document RP-050093 is not correct; it is \#158 instead of \#156

### 8.2.4 Approval of independent CRs to Rel-4 with linked CRs to Rel-5 \& Rel-6

No contributions

### 8.2.5 Approval of independent CRs to Rel-5 with linked CRs to Rel-6

## RP-050094 CR (Rel-5 Category F) to TS25.214 for Correction to computed gain factors quantization (RAN WG1)

Sudeep Palat (Lucent) objected this CR on the basis that it is not an essential correction for Rel-5 and in his view the benefits haven't been sufficiently proved.
Edgar Fernandes (Motorola) noted that the CR is in contradiction with TS25.101 where it is required that the beta factors are round values.
It was suggested to review the CR in WG1 on the light of the contradiction raised. However, Dirk Gerstenberger (RAN WG1 chairman) noted that Lucent's objection will most likely remain hence he proposed to reject the CR completely and to focus on the beta factors quantization discussion for Rel-6.

As a conclusion, Lucent is asked to present the objections in RAN WG1, and RAN WG4 is tasked to review the current proposal and check for possible incompatibilities.

### 8.2.6 Approval of linked CRs where the leading one originated from WG1

No contributions

### 8.3 TSG RAN WG2

### 8.3.1 Report from WG2 including report on actions required from the previous meeting

## RP-050145 Status Report WG2 (RAN WG2 Chairman)

Denis Fauconnier (RAN WG2 chairman) presented this report. RAN WG2 activity can be summarized as follows:

- Release 99 corrections
- Occupied 0,25 day of last Quarter only
- Release 4 corrections
- Very minor
- Release 5
- Few corrections
- Results from a long activity on cell selection/re-selection
- Release 6
- MBMS
- Progress on the Stage 2: Corrections to the counting scheme in RRC connected states, Probably now close to being final
- Stage 3 corrections, Good progress in conference calls held prior to RAN2 meetings
- HSUPA
- Good progress in January, but February did not achieve its goals, and it became clear that the past agreements lead to more divergence between various scheduler operations
- Joint meeting with RAN1, RAN3 and RAN4 on RRM aspects, showing that the subject had been neglected
- Many contentious points on the Stage 2, Completion slipped by one quarter
- 2Q05 will have to prove as efficient as 4 Q 04 , Much more work outside of meetings to progress (e-mails, conf calls)
- Reduction of options is the target for the coming quarter, with Stage 2 completion
- Stage 3 should be fast after Stage 2 is completed
- IMS
- ACBOP
- TEI6
- WI under other WGs
- Release 7
- UTDOA

It was noted that among the many topics being dealt under TEI6 there is the default RAB set up configuration, Denis clarified that significant agreement has been reached and by June the CRs will be ready.

Per Beming (Ericsson) asked for more clarity on the issues that are going to be included in TEI6 for June. Denis explained that priority will be given to the topics that have been on already submitted. To Per, there is a risk of delaying the Rel-6 because of these items.

## RP-050023 List of CRs from RAN WG2 (RAN WG2)

This list is provided for information

### 8.3.2 Discussions on decisions from WG2

## RP-050124 Mandatory features reliability assurance (Nokia)

Jussi Numminen (Nokia) presented this document
This document discusses the current requirements for mandatory features. It highlights the advantages/disadvantages of making a given feature mandatory, but it does not concentrate on the need for mandatory features as such, but suggests a way of taking commercial pressures into account.
Vodafone commented than rather than a reliability flag, it would be better to clarify what features are mandatory, and will be tested and implemented by all, what features are optional.

TMobile also noted that there are already a number of possibilities that could be used for this purpose, like the Early UE flag. Also the ongoing initiative to reduce the number of options goes along the same line. More time should be spent in 3GPP looking at the links between features and the complexity issues, and on deciding what features are mandatory. Other companies also supported this view.

### 8.3.3 Approval of CRs to Rel'99 with linked CRs to Rel-4, Re-5 \& Rel-6

RP-050064 25.993 CR (R'99 affected, Rel-6 version) on Addition of asymetric RAB combinations with voice (RAN WG2)
No comments, the CRs is approved

### 8.3.4 Approval of independent CRs to Rel-4 with linked CRs to Rel-5 \& Rel-6

RP-050065 25.306 CRs to Rel-4 (with linked Rel-5 and Rel-6) on the support of DSCH (RAN WG2)
RP-050066 25.331 CRs to Rel-4 (with linked Rel-5 and Rel-6) on OTDOA Correction (RAN WG2)
No comments, the CRs are approved

### 8.3.5 Approval of independent CRs to Rel-5 with linked CRs to Rel-6

The CRs in the documents below, source RAN WG2, were approved without comments:

| Document | Title |
| :--- | :--- |
| RP-050067 | 25.301, 25.306, 25.323, 25.331 CRs to Rel-5 (and Rel-6) on Lossless Downlink <br> RLC PDU Size Change |
| RP-050068 | 25.322 CRs to Rel-5 (and Rel-6) on the removal of the EPC mechanism |
| RP-050069 | 25.331 CRs to Rel-5 (and Rel-6) -1 |
| RP-050070 | 25.331 CRs to Rel-5 (and Rel-6) -2 |
| RP-050071 | 25.993 CR (Rel-5 affected, Rel-6 version) on AMR-WB Reference RAB <br> Configurations |
| RP-050073 | 25.304 CRs to Rel-5 (and Rel-6) on Cell Reselection (HCS and non-HCS) |

## RP-050072 CRs to Rel-5 (and Rel-6) on Cell Reselection (RAN WG2)

These CRs are revised in the document below
RP-050128 CRs (Rel-5 \& Rel-6) to $\mathbf{3 5 . 3 0 4} \& 25.331$ for the Correction to cell selection and reselection parameters to enable enhanced cell reselection (NTT DoCoMo)
The category of the Rel-6 CRs should be B, this will be changed in 3GPP CR Database The CRs were approved

### 8.3.6 Approval of linked CRs where the leading one originated from WG2

No contributions

### 8.4 TSG RAN WG3

### 8.4.1 Report from WG3 including report on actions required from the previous meeting

## RP-050024 Status Report WG3 (RAN WG3 Chairman)

Alexander Vesely (RAN WG3 chairman) presented this report. RAN WG3 activity can be summarized as follows:

- RAN3 agreed CRs:
- no R99 / Rel-4 CRs
- 14 Rel-5 CRs (cat. F)
- 58 Rel-6 CRs (14 cat.A, 24 cat.F, 11 cat.B, 4 cat.D, 5 cat.C) including CRs for MBMS (8), E-DCH (4), F-DPCH (5), RET (18)
- Complete list of CRs in RP-050025
- RAN3 technically endorsed CRs:
- CRs for TGPL2 removal
- CR on MBMS Time Alignment
- MBMS: refinement of stage 3, network synchronisation
- E-DCH: refinement of stage 3 (ASN.1), Frame Protocol
- E-DCH/HSDPA Iur/Iub Congestion Control
- fractional DPCH: stage 3 finalised
- RET: further correction work, adhoc in April
- beamforming: enhancements for HSDPA
- TEI-6 work on network initiated SCUDIF (now in line with CN3) and other topics

Concerning the new TR for Iub/Iur for congestion control (slide 14), Alexander clarified that most of the work will be carried out off line by Vodafone, with little load in the meetings. He clarified also that the intention is not to select algorithms.

## RP-050025 List of CRs from RAN WG3 (RAN WG3)

This list is provided for information

### 8.4.2 Discussions on decisions from WG3

No contributions

### 8.4.3 Approval of CRs to Rel'99 with linked CRs to Rel-4, Rel-5 \& Rel-6

No contributions

### 8.4.4 Approval of independent CRs to Rel-4 with linked CRs to Rel-5 \& Rel-6

No contributions

### 8.4.5 Approval of independent CRs to Rel-5 with linked CRs to Rel-6

The CRs in the documents below, source RAN WG3, were approved without comments:

| Document |  |
| :--- | :--- |
| RP-050052 | CRs (Rel-5 and Rel-6 category A) to TS 25.415 and TS 25.413 |
| RP-050053 | CRs (Rel-5 and Rel-6 category A) which affect TS 25.423 and TS 25.433 |
| RP-050054 | CRs (Rel-5 and Rel-6 category A) to TS 25.427, TS 25.423 and TS 25.433 |
| RP-050055 | CRs (Rel-5 and Rel-6 category A) to TS 25.453 |

### 8.4.6 Approval of linked CRs where the leading one originated from WG3

No contributions

### 8.5 TSG RAN WG4

8.5.1 Report from WG4 including report on actions required from the previous meeting

## RP-050026 Status Report WG4 (RAN WG4 Chairman)

Howard Benn (RAN WG4 chairman) presented this report. RAN WG4 activity can be summarized as follows:

- 1 RAN WG4 meeting after the last RAN meeting
- Joint adhoc held with RAN $1 / 2 / 3$ on EUL Node B RRM
- Usual number of delegates (around 80)
- 285 input contributions, $30 \%$ increase
- But increase is greater due to very few cat A CRs
- Corrections to the specification (cat B \& F numbers)
- Release 99 - 1 CRs
- Release 4 - 0 CRs
- Release 5-1 CRs
- Release 6 - 15 CRs
- 2 technically endorsed R99 CRs
- There will be one WG meeting before the next plenary
- An Ad Hoc on MBMS/EDCH is scheduled for 4-6 April, location to be decided.

Nokia, Telecom Italia and Ericsson expressed clear preference to hold the Ad Hoc in Sophia Antipolis. It is clarified that the scope of the Ad Hoc is simulation work, not RRM issues. Additionally, and regarding the joint session with SA WG4, some companies found unclear what would be its subject and objective. For Howard, the intention of the joint session is to provide guidance and education to SA WG4 on the issue of the error patterns.

The chairman proposed as an alternative that SA WG4 delegates should be invited to the full Ad Hoc , to get a better understanding of the process in WG4. In principle, the EDCH part is of no interest to SA WG4 participants, but they could find useful the entire MBMS session.

Howard clarified that the fact of inviting SA WG4 doesn't mean that the scope of the MBMS Work Item in RAN, notably the scope of the simulations, would be modified to take into account additional simulations to cover SA WG4 needs. If this is requested, it will have to be decided by TSG RAN and the WI Description Sheet will have to be modified accordingly.

It was proposed that a liaison to inform TSG SA of this joint meeting should be drafted indicating that this is important for SA4 delegates to participate and request involved companies to ensure that they will send delegates to the dedicated session. See document RP-050153.

## RP-050027 List of CRs from RAN WG4 (RAN WG4)

This list is provided for information

### 8.5.2 Discussions on decisions from WG4

No discussions

### 8.5.3 Approval of CRs to Rel'99 with linked CRs to Rel-4, Rel-5 \& Rel-6

RP-050037 CRs (R99 \& Rel-4/Rel-5/Rel-6 CatA) to 25.133 for the Correction of DPCH_Ec/Ior level in Annex 7 (RAN WG4)
No comments, the CRs are approved

### 8.5.4 Approval of independent CRs to Rel-4 with linked CRs to Rel-5 \& Rel-6

No contributions

### 8.5.5 Approval of independent CRs to Rel-5 with linked CRs to Rel-6

RP-050039 CRs (Rel-5 \&Rel-6 CatA) to 25.101 on corrections to the HS-DPCCH time mask requirements (RAN WG4)
No comments, the CRs are approved

### 8.5.6 Approval of linked CRs where the leading one originated from WG4

RP-050038 Endorsed CRs (R99 \& Rel-4/Rel-5/Rel-6 CatA) to 25.101, 25.133, 25.215, 25.331, $\mathbf{2 5 . 4 2 3}, 25.433$ for the removal of TGPL2 (RAN WG1, WG2, WG3, WG4)
After the discussion on feature clean up, the R99 and Rel-4 CRs are rejected and Rel-5 and Rel-6 CRs are approved. The categories will be corrected in the CR data base to make the Rel-5 and Rel-6 CRs Cat C and not Cat A.

Hans van der Veen (NEC) made clear that NEC has no objection against the removal, as long as it is clear that the exact way of removal of TGPL2 is not taken as a model on how all other features will be removed.

## $9 \quad$ Release 6 and beyond: Status update and approval of CRs, reports

It was agreed in TSG SA \#26 that for all Work Items intended for inclusion in Rel-6 but not concluded in March a justification for needs to be produced and presented in TSG SA. This is implemented via a form containing a brief description of the pending work. The template can be found in document RP-050149.

### 9.1 Radio Interface Improvement Feature

9.1.1 Improved Receiver Performance Requirements for HSDPA

### 9.1.1.1 Performance Requirements of Receive Diversity for HSDPA

## RP-050004 Status Report for WI Performance Requirements of Receive Diversity for HSDPA (NTT DoCoMo)

Takehiro Nakamura (NTT DoCoMo) presented this report
The WI is complete with the CRs below.

RP-050040 CRs (Rel-6) to $\mathbf{2 5 . 1 0 1}$ for the WI improved performance requirements for HSDPA UE with RX diversity (RAN WG4)
The CRs are approved without comments

### 9.1.1.2 Performance Requirements for HSDPA UE categories 7 \& 8

## RP-050005 Status Report for WI Improved minimum performance requirements for HSDPA UE categories 7 \& 8 (Nokia)

Jussi Numminen (Nokia) presented this report
The WI is on progress and scheduled for completion in June 2006. Since this WI is intended for Release 6, a Late Submission form will have to be filled and presented to TSG SA.

### 9.1.2 UMTS2600 for FDD

## RP-050006 Status Report for WI UMTS 2.6GHz (Nokia)

Jussi Numminen (Nokia) presented this report
Jussi clarified that the new UE power class comes from the discussion on the possibility of having UE with a single duplexer to handle the additional DL, and this will have an impact on UE power. A proposal to cope with this the definition of a new UE power class.

## RP-050087 25.331 CR to Rel-6 on additional frequency bands (RAN WG2)

No comments, the CR is approved.

### 9.1.3 UMTS2600 for TDD

## RP-050007 Status Report for WI UMTS 2.6GHz TDD (IPWireless)

Derek Richards (IPWireless) presented this report
It is corrected that the "no changes had been agreed to 25.105 " statement in the report is incorrect. Concerning the request for clarification on the TDD option applicable to this WI, the chairman commented that independently of the regulatory decision in Europe, it should be taken into account that the band will be used for IMT2000 in other parts of the world, the WI shouldn't be restricted to an option. It was clarified that this WI was approved aligning with the FDD counter part and based on European regulatory requirements, and in principle restricted to the 3.84 Mcps .

Having this in mind, it is asked that the WI Sheet is clarified to make clear that it applies to Region 1 , but it was further observed that it is clear enough now.

Regarding the TDD option, it is agreed that if no contributions on 1.28 Mcps are presented in WG4, the WI Description Sheet should be modified to make clear that it only applies to 3.84 Mcps .

Regarding the question of guard bands raised in the report, Derek requested that WG4 is asked to spend some time on deciding on what guard band possibilities might be used. Howard Benn (RAN WG4 chairman) clarified that it is the regulatory bodies that decide on guard bands, as it is clearly written in the WI Sheet. However, the chairman reminded that the decision in the regulatory bodies will be based in inputs from the technical committees, notably in the case of Europe ETSI ERM RM. He suggested IPWireless to bring the discussion there.

### 9.1.4 UMTS 900

RP-050008 Status Report for WI UMTS 900 (Nortel)
Evelyn Lestrat (Nortel) presented this report
No comments, the completion date is moved from September 2005 to December 2005.

### 9.1.5 UE Antenna Performance Evaluation Method and Requirements

## RP-050009 Status Report for WI UE Antenna Performance Evaluation Method and Requirements (TeliaSonera)

Per Ernstrom (TeliaSonera) presented this report.
The WI Description Sheet needs to be revised to take onboard the GERAN WI.

## RP-050122 Revised WID for the work item: UE Antenna Performance Evaluation Method and Requirements (TeliaSonera/RAN WG4)

Per Ernstrom (TeliaSonera) presented this revised WIDS.
The new Sheet is approved, the chairman will bring it to the attention of TSG SA for coordination with GERAN.

### 9.2 RAN Improvement Feature

### 9.2.1 Radio access bearer support enhancement

## RP-050010 Status Report for WI RAB support enhancement (Nokia)

Benoist Sebire (Nokia) presented this report
The WI is to be kept in Rel-6, the late inclusion form is needed for TSG SA.
It is noted that the completion level is the same as 3 months ago, Benoist explained that this is due to additional issues that have appeared in the meantime.

## RP-050083 25.306 CR to Rel-6 on the support of ROHC mandatory (RAN WG2)

It was noted that all CRs to WI should be approved together, to avoid having to modify it when the rest of the CRs are introduced.
Jussi Numminen (Nokia) reminded of the discussion in last plenary where it was discussed that Rel5 and Rel-6 terminal should be able to support the same ROHC, with the approval of this CR is cannot be ensured that Rel-5 terminals will operate in the same manner. Denis Fauconnier (RAN WG2 chairman) clarified that the request from Jussi can be achieved if the tests and performance requirements for ROHC are included starting in Rel-5. New TSG RAN WG5 will be informed. The CR is approved

### 9.2.1.1 Optimization of downlink channelization code utilization (FDD)

RP-050011 Status Report for WI Optimisation of downlink channelisation code utilisation (Nortel)
Evelyn Lestrat (Nortel) presented this report

Antti Toskala (Nokia) reminded of a couple of open points and asked if the intention is to close the WI.
Edgar Fernandes (Motorola) questioned the approval of the RAN WG1 \& WG2 CRs given the status of the work in WG4, where the study may conclude on the need to change WG1 or WG2 agreements, notably in power control and synchronization aspects.
Other companies preferred to have CRs implemented now in order to have stable specifications as soon as possible. Regardless of eventual feedback coming from WG4, the WI is functionally stable in the other groups. Later modifications can be considered corrections
There was a long debate on this, Howard Benn (RAN WG4 chairman) reminded that rule is to have all the CRs under a WI approved at the same time. Since this is a single WI covering the work in all groups, and what WG4 produces may have an impact on the CRs of the other groups, Howard requested that rules are observed.
Edgar Fernandes (Motorola) noted that there is the wrong assumption that the result of the work of WG4 is only performance requirements, it has already happened in the past that the analysis in WG4 discovers that some of the assumptions made in other groups are incorrect, with the unfortunate conclusion that CRs already approved had to be changed. It would certainly be a better approach if the other groups hold the inclusion of the CRs until WG4 has checked the feasibility of some of the assumptions.

As a conclusion, Edgar agreed to approve these CRs but requested that in the future RAN WG4 is involved earlier in the process. Core requirements in WG4 should be completed in RAN WG4 at the same time.

It is agreed that the WI can be considered closed, noting that the performance aspects will be finished later. The CRs in the three documents below are approved:

| Document | Title | Source |
| :---: | :--- | :--- |
| RP-050056 | CRs (Rel-6 category B) for the introduction of fractional DPCH in <br> RAN3 specifications | RAN WG3 |
| RP-050074 | 25.302 and 25.331 CRs Rel-6 on the introduction of Fractional <br> DPCH | RAN WG2 |
| RP-050088 |  <br> TS25.213 \& TS25.214 \& TS25.215 for Introduction of F-DPCH | RAN WG1 |

### 9.2.1.2 Optimization of channelization code utilization for TDD

### 9.2.1.2.1 Optimization of Channelisation Code Utilisation for 3.84 Mcps TDD

## RP-050012 Status Report for WI Optimisation of channelisation code utilisation for 3.84 Mcps TDD (IPWireless)

Derek Richards (IPWireless) presented this report
Derek clarified that RAN WG1 had already taken a decision on the methods/procedures for out of sync detection, the wording of the report is unfortunate.
Concerning RAN WG4, it is unclear yet that a requirement for the out of sync is needed or not; this WI has not been presented there.

It is clarified that since this WI is removing the DL DPCH, it is already covered in the RAN WG3 specifications; no work is needed in that group.

It was clarified off line that the impact in WG4 is very small, it was hence agreed to go ahead with the CRs and to consider the WI closed.

## RP-050089 Linked CRs (Rel-6 Category B) to TS25.221 \& TS25.224 \& TS25.302 \& TS25.331 for Release 6 HS-DSCH operation without a DL DPCH for 3.84Mcps (RAN WG1, WG2)

The CRs are approved.

### 9.2.1.2.2 Optimization of Channelisation Code Utilisation for 1.28 Mcps TDD

RP-050013 Status Report for WI Optimisation of channelisation code utilisation for 1.28 McpsTDD (IPWireless)
Derek Richards (IPWireless) presented this report.
The feasibility of the completion date was questioned, Derek agreed that it is probably too optimistic, but preferred to make the formal change if needed in the next meeting, once that the concerns raised in smart antennas are solved.

The rapporteur has changed to Ka Leong Lo from UTStarcom

### 9.2.2 RRM optimizations for lur and lub

No report

### 9.3 UE Positioning

### 9.3.1 Inclusion of Uplink TDOA UE positioning method in the UTRAN specifications

RP-050014 Status Report for WI Inclusion of Uplink TDOA UE positioning method in the UTRAN specifications (TruePosition)
Robert Gross (TruePosition) presented this report.
It was noted that the level of completion hasn't progressed since last meeting. Robert noted that work has progressed, but also some additional issues have appeared in the meantime.

### 9.4 Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN

This WI is closed for RAN WG1, WG2 and WG3 work.
The CRs in the documents in the table below were approved without comments:

| Document | Title | Source |
| :--- | :--- | :--- |
| RP-050057 | CRs (Rel-6 category F) for MBMS in RAN3 specifications | RAN WG3 |
| RP-050075 | 25.301 CR (Rel-6) on the introduction of MBMS | RAN WG2 |
| RP-050076 | 25.302 CR (Rel-6) on the introduction of MBMS | RAN WG2 |
| RP-050077 | 25.304 CR (Rel-6) on MBMS scope (wording) | RAN WG2 |
| RP-050078 | 25.321 CR (Rel-6) on MBMS MAC header | RAN WG2 |
| RP-050079 | 25.331 CRs (Rel-6) on MBMS Corrections | RAN WG2 |
| RP-050080 | 25.346 CRs (Rel-6) on MBMS (Stage 2) | RAN WG2 |
| RP-050082 | 25.322 CR to Rel-6 on the inclusion of Transmitter Constraints | RAN WG2 |

## RP-050148 CR 1090r 2 to $\mathbf{2 5 . 4 3 3}$ on Time alignment in MBMS transmission channels (Siemens)

Alex Vesely (Siemens) presented this CR
Edgar Fernandes (Motorola) reported the comments expressed in RAN WG2 and WG1 on the solution proposed, RAN WG2 in particular had sent a LS on this issue that had been ignored by WG3.
Alex Vesely (Siemens) explained that the CR doesn't affect the UE-network signalling under the scope of WG2, it is a pure intra network issue.

Samsung and Qualcomm noted that the network part hadn't been studied in RAN WG2 and that, in principle, didn't see any problem with it. However, since an associated CR to RAN WG2 specs is needed to signal the frame offset to the UE, it is recommended to go back to the WGs for further discussion.

As a conclusion, RAN WG3 is tasked to review the scheme, and RAN WG2 will produce the CR for the signalling to the UE. The CR is not approved.

## RP-050130 Options for removal of unnecessary MBMS combining schemes (Vodafone)

Alan Law (Vodafone) presented this document
There has been discussion in WG4 on removing one of the combining schemes used for MBMS reception, in order to reduce complexity. Nokia had proposed there to remove selective combining. Vodafone proposes with this contribution to remove RAKE combining, on the basis of the network complexity and UE production delays that it will induce.

Gert-Jan van Lieshout (Samsung) noted that the additional complexity in the UE due to having RAKE is very limited.

Howard Benn (Motorola) supported Vodafone and noted that the removal will significantly simplify simulations in RAN WG4.

It was noted that RAN WG2 had recently considered signalling to the UE that a group of cells belongs to the same NodeB to increase the efficiency of the RAKE Combining. Vodafone noted that despite of this, the proposal to remove RAKE still made sense from an operator's perspective.

Denis Fauconnier (Nortel) explained that soft combining and RAKE combining should not be considered different schemes, the signalling so far is implemented only for soft combing and it is left open for UE implementations to have RAKE as an improved performance. Denis also reminded that the majority of companies in RAN WG2 support selective combining, which was the first combining scheme introduced in the group and in the specifications as well.

The following statement was proposed by Vodafone as a way forward:

TSG RAN agrees to remove the RAKE MBMS combining option to facilitate the faster completion of the MBMS minimum performance requirements.

Alan further clarified that this is a first step towards simplification, decision on removal of one of the remaining options is not precluded. Dirk Gerstenberger (Ericsson) noted however that RAKE is the less complex of the solutions and in fact very linked to soft combining, the real issue will be to remove selective combining.

The statement above was agreed, WGs are tasked to correct the specifications accordingly. RAN WG2 is asked to make efforts to agree on a single combining scheme.

### 9.4.1 MBMS performance requirements

## RP-050015 Status Report for WI UE Performance Requirements for MBMS (Ericsson)

Per Beming (Ericsson) presented this report
There was discussion on the applicability of this WI to TDD. The companies that supported the creation of this WI preferred to have a separate item for TDD, IPWireless was encouraged to produce one and to contribute to it in WG4.

### 9.5 Multiple Input Multiple Output Antennas (On hold)

## RP-050126 Status of MIMO (Lucent)

Sudeep Palat (Lucent) presented this short report.
No progress on MIMO, the WI is on hold. It was noted that the future of MIMO, (part of the LT Evolution or a separate Rel-7 item) would be clarified in the next RAN meeting as agreed in December.

### 9.6 FDD Enhanced Uplink

## RP-050016 Status Report for WI FDD Enhanced Uplink (Ericsson)

Per Beming (Ericsson) presented this report
Per estimated the level of completion in WG3 as $80 \%$, RAN WG3 chairman confirmed this figure.
Per proposed to consider RAN WG1, WG2, WG3 WIs closed and to go ahead with the approval of the CRs. Antti Toskala (Nokia) agreed that the physical layer part can be considered completed, but not WG2 and WG3 parts given the number of open issues reported. Edgar Fernandes (Motorola) noted that most of the CRs from WG2 are for Stage 2, and that the UE Capabilities are still not agreed in WG1. He questioned the closure of the WIs in such state.
Per noted that his approach is the same as followed for MBMS, which was closed without being at $100 \%$, and reminded that UE capabilities for MBMS are also still undefined.

The CRs in the documents in the table below were approved without comments:

| Document | Title | Source |
| :---: | :--- | :--- |
| RP-050043 | CRs (Rel-6 Category F) to TS25.211 for E-HICH/E-RGCH Signature <br> Sequences and Signature Sequence Hopping | RAN WG1 |
| RP-050044 | CR (Rel-6 Category F) to TS25.212 for PLnon-max and Pl max | RAN WG1 |
| RP-050045 | CR (Rel-6 Category C) to TS25.212 for HARQ bit collection for E- <br> DCH | RAN WG1 |
| RP-050046 | CR (Rel-6 Category F) to TS25.213 for Correction on E-DPCCH <br> power offset | RAN WG1 |
| RP-050047 | CR (Rel-6 Category F) to TS25.213 for Defining E-DPDCH power <br> offset | RAN WG1 |
| RP-050048 | CR (Rel-6 Category F) to TS25.214 for Gain factor setting for E- <br> DCH | RAN WG1 |
| RP-050049 | CR (Rel-6 Category F) to TS25.214 for Reliable E-RGCH/E-HICH <br> Detection | RAN WG1 |
| RP-050058 | CRs (Rel-6 category F) for corrections of Enhanced uplink in RAN3 <br> specifications | RAN WG3 |
| RP-050084 | 25.331 CRs to Rel-6 on Enhanced Uplink Corrections | RAN WG2 |
| RP-050090 | CR (Rel-6 Category F) to TS25.211 for E-HICH/E-RGCH/E-AGCH <br> timing | RAN WG1 |
| RP-050115 | 25.309 CR (Rel-6) on Enhanced Uplink (Stage 2) | RAN WG2 |

## RP-050091 CR (Rel-6 Category F) to TS25.214 for DL/UL timing association of E-DCH operation (RAN WG1)

The CR is revised in the document below

## RP-050140 CR (Rel-6 Category F) to TS25.214 for DL/UL timing association of E-DCH operation (Qualcomm, Nortel, Ericsson, Panasonic \& Samsung)

Lucent has noted that there is an inconsistency between this CR and the Stage 2. There will be further corrections in tis area for the Stage 2 and for WG1 specifications.
The CR is approved.

## RP-050119 CR (Rel-6 category F) to TS 25.427 on EDCH Frame format update (RAN WG3)

The CR is revised in the document below.

## RP-050137 CR102 TS25.427 Rel-6, E-DCH Frame format update (Nokia)

It is clarified that the spare byte in figure 11a is due to an open discussion where the maximum size of the value hasn't been agreed yet, but will fit within the current ASN. 1 description The CR is approved.

$$
\begin{array}{ll}
\text { RP-050085 } & \text { 25.306 CR to Rel-6 on the introduction of Enhanced Uplink (RAN WG2) } \\
\text { RP-050143 } & \text { CR 25.306 Rel-6 Inclusion of UE categories for Enhanced Uplink (Motorola, } \\
& \text { NEC, Nokia, Nortel Networks, NTT DoCoMo, Orange, Philips, Vodafone) }
\end{array}
$$

In RP-050085, Table 5.1 g proposes 8 UE categories where three are FFS, and clarifies that only a total of 6 categories should be finally approved. RP-050143 revises that table, removing two of the categories FFS and introducing the third as the last approved category.

RP-050143 however increases the max transport block size for the 10 ms TTI of the 5 categories agreed in WG1 from 20000 bits to 24000 bits. This modification was objected, as it hadn't been endorsed by WG1. It is agreed to revise RP-050085 with the categories in RP-050143 but to remove the 240000 bit TB size also proposed in RP-050143. The document below is the final revision.

RP-050154 25.306 CR to Rel-6 on the introduction of Enhanced Uplink (RAN WG2)
The CR is approved without comments

## RP-050142 TR 25.808 FDD Enhanced Uplink physical layer aspects v2.0.0 (Nokia)

Antti Toskala (Nokia) presented this TR
The TR is approved and will be put under change control.
After discussion, it was agreed that the WG1, WG2, WG3 WIs are closed, but a Status Report should still be produced for WG2 and WG3. WG1 open issues will be reported comprehensively by the chairman in his report.

In line with this approach, it was accepted that WG4 could agree on CRs even if its WI is less than $80 \%$ completed, provided that the CRs are related to RAN WG1, WG2 issues (like the power back off) and not to pure WG4 issues (performance requirements).

### 9.6.1 E-DCH Sheduling

RP-050129 E-DCH scheduling options: way forward (Vodafone Group, Motorola, TMobile, Nokia, Telecom Italia)
Volker Hoehn (Vodafone) presented this document
Vodafone explains there are three scheduling options under discussion in WG2, and a blocking situation has been maintained for some time. Having three options yields to specification complexity, and delays the completion of the feature.
Denis Fauconnier (Nortel) further explained that currently in WG2 there are two solutions for the same problem, a way forward could be to task WG2 to come back with only one proposal.

## RP-050147 EDCH scheduling simplification (NTT DoCoMo)

RP-050152 Way forward on Enhanced Uplink scheduling schemes (Ericsson, Qualcomm, Samsung)
These contributions present other proposals for simplification of the scheduling.
An off line discussion was held by the interested parties, taking the three documents above as inputs. The conclusion was the following statement that was presented to the group for endorsement:

TSG RAN has noted a general consensus on the fact that the current stage 2 describes two operating modes for the E-DCH scheduler (RG and non-RG based) which are in practice truly alternative options duplicating each other i.e. Network vendors are likely to choose to implement only one of the two, whereas the two are mandatory to the UE.

There was also general consensus on the fact that this is not acceptable and that this will lead to deployment delay and interoperability complexities.
As a consequence of these observations, RAN tasks RAN WG2 to reduce unnecessary options and come for the next RAN Plenary with a Stage 2 where no functionalities shall be unnecessarily duplicated, i.e. where all functions are useful in all network implementations. In line with this, RAN2 should continue their work based on the "RG based" mode as a starting point and to discuss the need for ramping.

The statement above was agreed, RAN WG2 is tasked to present to TSG RAN a simplified EDCH Stage 2 as explained above.

### 9.7 7.68 Mcps TDD Option

## RP-050017 Status Report for WI 7.68 Mcps TDD (IPWireless)

Derek Richards (IPWireless) presented this report.
Dirk Gerstenberger (RAN WG1 chairman) objected that WG1 is charged with this Stage 2 report.
Derek clarified that RAN WG1 has the primary responsibility for this WI, and at its approval, WG1 seemed the appropriate choice for the Stage 2.
It was agreed either TRs of the 25.8xxx series, or WG internal TRs like used in WG3, can be used to recollect the work.
The completion level hasn't changed much since last presentation in TSG RAN, it was asked if the date can be maintained. Derek expected that the date would be met, provided that there is time to discuss the documents in the WGs.

### 9.8 Technical Small Enhancements and Improvements

The CRs in the documents below were approved without comments:

| Document | Title | Source |
| :---: | :--- | :---: |
| RP-050041 | CRs (Rel-6) to 25.101, 25.133, 25.141, 25.942 under WI Small <br> Technical Enhancements and Improvements Rel-6 | RAN WG4 |
| RP-050050 | Linked CRs (Rel-6 Category B) to TS25.215 \& TS25.302 \& TS <br> 25.433 \& TS 25.133 for Introduction of 'DL Transmission Branch <br> Load' measurement | RAN WG1, WG2, <br> WG3 \& WG4 |
| RP-050081 | $25.304, ~ 25.331 ~ C R s ~ t o ~ R e l-6 ~ o n ~ t h e ~ c o r r e c t i o n ~ t o ~ " s e l e c t e d ~ P L M N " ~ i n ~$ <br> Access Stratum | RAN WG2 |
| RP-050059 | CRs (Rel-6 category B and F ) to TS 25.413, TS 25.423 and TS <br> 25.433 | RAN WG3 |
| RP-050110 | 25.331 CRs to Rel-6 for CN domain specific Access Class Barring | RAN WG2 |
| RP-050111 | $25.301 ~ C R ~ t o ~ R e l-6 ~ o n ~ u n c o m p l e t e ~ l o g i c a l ~ c h a n n e l ~ i d e n t i f i c a t i o n ~ f o r ~$ <br> FACH | RAN WG2 |
| RP-050112 | 25.304 CR to Rel-6 on H criterion in HCS high-mobility | RAN WG2 |
| RP-050113 | 25.322 CRs Rel-6 | RAN WG2 |
| RP-050114 | 25.331 CR to Rel-6 on Cell Updates | RAN WG2 |

## RP-050097 Linked CRs (Rel-6 Category C) to TS25.224 \& TS25.331 for Improvements to uplink closed-loop power control for 1.28 Mcps TDD (RAN WG1, WG2)

It was asked why RAN WG4 is not involved given the changes to the power control that these CRs introduce. Derek Richards (IPWireless) clarified that there is no impact to the power control specifications of WG4. The CRs are approved

## RP-050120 CR017 TS29.108 Rel-6, Full RANAP support of network initiated SCUDIF (Nokia, Siemens: Telecom Italia)

These CRs are part of the feature in RP-050059. The CRs are approved.
RP-050095 Linked CRs (Rel-6 Category C) to TS25.214 \& TS25.423 \& TS25.433 for Timing maintained Hard Handover (RAN WG1, WG3)
The WG2 part of the feature is introduced by the company CR below.
RP-050135 CR to 25.331 (Rel-6) on Timing Maintained Hard Handover (Ericsson)
Nokia noted that this is the first time the CR is available. RAN WG2 chairman clarified that the CR has been circulated in RAN WG2 reflector, where a question was raised, but not publicly solved; in his view it cannot be considered that the CR has been agreed in RAN WG2 reflector.

It is noted that there may be an impact in WG4 as well. RAN WG4 chairman explained that this feature hasn't been presented in WG4, it can't be assessed now what the impact could be.
Contributions are welcome.
Finally, it is agreed to postpone the whole set (RP-050095 \& RP-050135), pending the discussion in WG2 and the eventual need for a CR to 25.133 in WG4.

## RP-050096 CR (Rel-6 Category B) to TS25.214 for Faster L1 DCH synchronization (RAN WG1)

RP-050134 CR to 25.331 (Rel-6) on Faster L1 synchronization (Ericsson)
The WG2 part of this feature is introduced by the company CR in RP-050134. It is agreed to follow the same procedure as above, the WG2 CR is to be further analysed by the group. WG4 will have to study the impact as well.
The CRs in RP-050096 \& RP-050134 are postponed

## RP-050060 CR (Rel-6 category F ) to TS 25.415 on Clarification of Initialisation and Rate Control for Iu user plane version (RAN WG3)

The CR is revised in the company contribution below.
RP-050136 Revision of CR (Rel-6 category F ) to TS 25.415 on Clarification of Initialisation and Rate Control for Iu user plane version (Ericsson, NEC, Siemens)
The CR is approved

## RP-050106 Support of RT Services over HSDPA-HSDPA Mobility Enhancements (Cingular)

RP-050107 HSDPA Mobility Enhancements (HME) Solution to Support Real-Time Delay Sensitive Services (Cingular, Lucent)
Don Zelmer (Cingular) presented these documents
Cingular proposes to start the standardization effort to support conversational services based on IMS over HSDPA. For this, Cingular believes that a solution for fast and reliable cell change for HSDPA is needed to overcome the absence of SHO. Cingular presents a candidate solution and a preliminary set of CRs, with the intention to include the solution in Rel-6.
From a work program perspective, the chairman noted that this feature is based on the Enhanced Uplink, which is still in progress.
Han van Bussel (TMobile) agreed that conversational IP services over HSDPA is important for operators, but raised the concern of introducing a solution too fast in the specifications which may not be optimal; in his view the 3 months proposed are not enough to ensure that the correct choices are made. Vodafone, Ericsson and Nokia agreed with this view, a proper WI and Stage 2 analysis should be put in place before getting into the Stage 3.

Patrick Fisher (LG) asked if the goal is conversational services only or general HSDPA enhancements, also he asked for more evidence that the implementation of these services over HSDPA really brings the improvements claimed.

Serge Willenegger (Qualcomm) noted that the basic techniques proposed here are already being used commercially in other systems, and believed that completing the work can't take much longer than the proposed 9 months. He proposed to go ahead with the work and to discuss the Release when it is finished. He reminded that Rel-6 ASN. 1 isn't frozen yet.

The chairman however reminded that Rel-6 functionality and content has been frozen already. TSGs have been allowed to continue on work that was already started, and only with the approval of TSG SA, this is the reason for the required Submission Forms for each late WI.

Telefonica supported Cingular with this proposal but found that the end of the year would be a more accurate time frame.

Samsung noted that solutions to the problem may exist already in RAN WG2 specifications, and asked that a proper evaluation is performed before introducing this new one.

As a conclusion, it was agreed that a WI should be started on this feature. The WI Description Sheet can be presented to this group, approved in principle, and then revised by the WGs.

### 9.9 Closed Release-6 Work Items

The CRs in the documents below were approved without comments:

| Document | Title | Source |
| :--- | :--- | :--- |
| RP-050061 | CR (Rel-6 categories C,D,F ) to TS 25.460, TS 25.461, TS 25.462 <br> and TS 25.463 | RAN WG3 |
| RP-050062 | CR (Rel-6 category B) to TS 25.433 on Beamforming Enhancements | RAN WG3 |
| RP-050086 | 25.331 CRs to Rel-6 on Network Sharing | RAN WG2 |

### 9.10 Study Items

### 9.10.1 UTRA UTRAN Long term evolution

RP-050018 Status Report for FS on Evolved UTRA and UTRAN (NTT DoCoMo)
Takehiro Nakamura (NTT DoCoMo) presented this report
The report is noted

## RP-050150 Revised draft skeleton TR of Requirements for EUTRA and EUTRAN (SI Rapporteur)

Takehiro Nakamura (NTT DoCoMo) presented this TR
The TR skeleton is endorsed. However the Work Programme is missing and should be included in the TR, as agreed in the LTE meeting.

## RP-050155 Agreed Text proposals for the requirements TR (NTT DoCoMo)

The chairman clarified that approval and inclusion of this text in the TR will have to be done at the joint WGs meeting. In any case, the final text is still to be discussed in the joint WGs meeting. It was further clarified that this text was agreed during the LTE meeting, it is not a matter of TSG RAN to approve or endorse this text.
The text will be incorporated to the next version of the requirements TR.

## RP-050151 Revised Draft Skeleton TR of Feasibility Study for EUTRA and EUTRAN (SI Rapporteur)

The version of this and RP-050150 is 7.x.x, it should be $0 . x . x$.
The scope doesn't seem adequate to a TR that will be in between a traditional Feasibility Study TR and a Stage 2 TR. It was debated what kind of TR is this. To Qualcomm, this shouldn't be a Stage 2
style TR, but to the understanding of the chairman, companies in the LTE meeting rejected having a Feasibility Study TR (garbage collector).
There were some comments of the Release of the TR, this will be sorted out with MCC.
The skeleton of this TR is endorsed

## RP-050167 Long Term Evolution Work Plan (Ericsson)

Per Beming (Ericsson) presented this WP.
The WP is endorsed, the chairman will convey to TSG SA the schedule for the joint meetings with SA WG2.

### 9.10.2 Uplink Enhancements for UTRA TDD

RP-050019 Status Report for FS on Uplink enhancements for UTRA TDD (Interdigital)
Jim Miller (Interdigital) presented this report
The Study is finished and closed. A Work Item follows.

## RP-050116 TR 25.804 Feasibility Study on Uplink Enhancements for UTRA TDD v2.0.0 (Interdigital)

The TR is approved and will be put under change control

### 9.11 New Work Items/Study Items

## RP-050098 LCS/LBS Enhancements (SiRF Technology) <br> RP-050099 Proposed new WI: LCS Enhancements Related to Location-Based Services (SiRF Technology)

Ben Rodilitz (SiRF) presented these documents
In line with the WIs proposed by SA WG1, endorsed by WG2 and approved in TSG GERAN, it is proposed to enhance the LCS with the provision of continual position updates (not a single position report) and with improved performance.
It was asked what is intended by the provision of velocity, since this can be estimated from two measurements. Ben clarified that velocity obtained that way is not sufficiently accurate for certain services.
Ben clarified that the SA WG1 item was approved in December, SA WG2 item will be approved next week. Hans van der Veen (NEC) commented that the SA WG1 document was a general umbrella WI for LCS, not specifically an approval of this technology. Also, he underlined that the SA WG2 document has not yet been approved.

Antti Toskala (Nokia) commented that the service requirements are very much unclear. He asked if the intention is to make this mandatory for all UEs.
The chairman noted that the architecture should be agreed in SA WG2 before RAN WGs start dedicating time to an item.

Francesco Grilli (Qualcomm) clarified that it is not possible today to report velocity for the UE based positioning. He further explained that to get velocity at the application, it depends very much how the particular system is developed. It depends on the application incorporated in the UE, and whether it is capable of calculating velocity, or if the application resides in the network which processes the reporting from the UE. Francesco requested that as a way forward, the new WI is approved conditional to the approval in SA of the SA WG2 part.

Denis Fauconnier (Nortel) objected that for RAN WG2 to start working on this, the WI is too vague and broad. He would like to see a more focused WI Description to avoid a flood of papers each with a different proposal. This view was also supported by Motorola, the proposed Sheet doesn't say what needs to be done by the RAN groups; more detail is needed.

Finally, proponents are asked to come to next TSG RAN with a Sheet that details the work to be performed in RAN WGs.

## RP-050100 Proposed Work Item on 3.84 Mcps TDD Enhanced Uplink (IPWireless)

Derek Richards (IPWireless) presented this proposal This proposal is for a feature, with separate Sheets for the Building Blocks in each group. No objections, the WIDS for the new Feature is approved.

## RP-050162 Proposed WI on CS and PS call setup delay improvement (Three)

Hashem Madadi (Three) presented this proposal. Alcatel also supported the proposal
There was discussion if a Study Item phase is needed. To Motorola, it is clear what has to be done, but unclear how it has to be done, this falls within the frame of a Work Item.
An alternative was to have a Study that would conclude on TEI CRs.
The Description Sheet was approved in principle, it will later be decided whether it is a Study or a Work Item. In any case, it is agreed that it shall not delay the finalization of the already ongoing work for Release 6 targeting faster channel set-up times.

## RP-050146 Proposal of a new study item 'Performance Evaluation of the UE behaviour in high speed trains with speeds up to 350 kmph" (Vodafone)

Alan Law (Vodafone) presented this Study
IPWireless requested to take TDD into account. The proponents couldn't commit to perform the necessary simulations for TDD; Alan preferred that interested companies raise another WI for the TDD equivalent.
The WIDS is approved
RP-050156 Proposed WI for UE performance requirements for MBMS (TDD) (IPWireless) Derek Richards (IPWireless) presented this WI
No comments, the WIDS is approved

## RP-050160 Proposed WI: Improved support of IMS Realtime Services using HSDPA/EDCH (Cingular)

Don Zelmer (Cingular) presented this WI
It was asked if UEs that don't support IMS will have to implement this improvement. Ericsson clarified that this cannot be assessed now, if it is found that the improvement is beneficial for nonIMS UEs, its applicability will be evaluated.
It is clarified that this focuses in FDD.
The WI is approved

## 10 Technical co-ordination among WGs

No contributions

## 11 Outputs to other groups

## RP-050153 Joint meeting RAN4-SA4 on MBMS (Sophia Antipolis, 4-6 April 2005): <br> guidance for simulations and error patterns for the audio codec characterisation tests (TSG RAN Chairman and SA4 Secretary / SA4 SQ SWG Chairman)

This is a LS to remind TSG SA WG4 delegates of the meeting that RAN WG4 will held in Sophia Antipolis, where they are invited to participate in order to get the guidance on MBMS simulations and errors. The LS is approved and it will be presented by the chairman while discussing TSG WG4 matters during TSG SA plenary.

## 12 Project management

## RP-050108 Scope and Timeframes for Release 7 (Cingular)

Steve Blust (Cingular) presented this document
Having in mind the open Rel-7 items in RAN, Cingular proposes to aim at closing Rel-7 in March 2006. The chairman noted that this is a matter for discussion in TSG SA and Cingular confirmed that the document will be presented there as well.
Hashem Madadi (Three) also asked that the document is brought to the attention of TSG SA, as a recollection of RAN items for Rel-7.
Alan Law (Vodafone) noted that it is difficult to give any estimation looking at the list in Table 1, where most of the items are vague.

Antti Toskala (Nokia) noted that an official indication from TSG SA of the Rel-7 timeframe would be welcomed in RAN and its WGs to better organize and prioritise the work.

The 4 documents below are presented for information:
RP-050042 TSG RAN WI \& SI Description Sheets (3GPP Support)
This contribution contains all the Description Sheets of Work Items and Study Items under the responsibility of TSG RAN, active and closed.

## RP-050138 Specs per Release (3GPP Support)

The Excel table included in this contribution allows seeing at a glance the Releases that exist for a given specification and the current version for each.

## RP-050139 Status list before (3GPP Support)

This is the detailed list of 3GPP specifications.

## RP-050149 Template form for reporting of late WI to SA (3GPP Support)

This template needs to be filled and presented for any Work Item still unfinished but intended for inclusion in Release 6. The forms will be presented in TSG SA.

The 4 documents below are the forms to be presented in TSG SA for each of the TSG RAN Work Items that are not completed yet but that the group agrees that they belong to Release 6 . They were briefly presented and approved.
$\begin{array}{ll}\text { RP-050161 } & \text { Submission form for Rel-6 Late WI: RAB Support enhancements (Nokia) } \\ \text { RP-050159 } & \text { Submission form for late Rel-6 feature: Improved Performance Requirements } \\ & \text { for HSDPA UE cat } 7 \text { \& } 8 \text { (Nokia) }\end{array}$

# RP-050165 Submission form for Rel-6 Late WI: EDCH performance requirements (Ericsson) 

RP-050166 Submission form for Rel-6 Late WI: MBMS performance requirements (Ericsson)

## 13 Any other business

## RP-050101 Working Procedure (IPWireless)

Derek Richards (IPWireless) presented this contribution
Dirk Gerstenberger (RAN WG1) noted that a solution would be to schedule agendas in the different meetings of the same group in a way that topics that cannot be covered in one meeting are covered in the following meetings.
The document is noted

## RP-050158 INTRODUCTION OF CAUTION++ ARCHITECTURE FOR UTRAN EVOLUTION (IST CAUTION++ Consortium)

Ilkka Talvitie (Elisa) presented this document.
This document presents the results of the CAUTION++ project, a part of the European IST program and where some 3GPP members have participated. The project has specified a management system capable of monitoring heterogeneous networks (GSM, GPRS, UMTS \& WLAN), of detecting congestion and applying techniques locally to each network to alleviate the overloads. When this is not possible, inter network techniques are applied. The project has defined a number of nodes and its functions, together with the internal and external interfaces.

The chairman suggested the proponents to make a similar presentation to TSG SA and asked companies to contact Ilkka off line for additional clarification on this project; at first sight it seems an interesting proposal for discussion in the joint SA WG2-RAN WGs meeting.

## 14 Closing of the meeting

The chairman explained that this in fact the last meeting of TSG RAN, as from now on the group is the merge of the current TSG RAN and TSG T groups. He thanked all the participants and in particular Eisuke Fukuda, vice chair, who will not continue as official. He offered him a present in the name of the group and wished him all the best for the future. With this, the meeting was adjourned at 16:00.
Draft report of 3GPP TSG RAN \#27

| Annex A: List of participants |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
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## Annex B: List of documents

See main body of the report for clarification on documents partially approved.
Documents can be found at: http://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_27/

| Decision |
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| Revised in 2 |
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| Tdoc | Title | Source | Decision |
| :---: | :---: | :---: | :---: |
| RP-050018 | Status Report for FS on Evolved UTRA and UTRAN | NTT DoCoMo | Noted |
| RP-050019 | Status Report for FS on Uplink enhancements for UTRA TDD | Interdigital | Noted |
| RP-050020 | Status Report WG1 | RAN WG1 Chairman | Noted |
| RP-050021 | List of CRs from RAN WG1 | RAN WG1 | Noted |
| RP-050022 | Status Report WG2 | RAN WG2 Chairman | Revised in 145 |
| RP-050023 | List of CRs from RAN WG2 | RAN WG2 | Noted |
| RP-050024 | Status Report WG3 | RAN WG3 Chairman | Noted |
| RP-050025 | List of CRs from RAN WG3 | RAN WG3 | Noted |
| RP-050026 | Status Report WG4 | RAN WG4 Chairman | Noted |
| RP-050027 | List of CRs from RAN WG4 | RAN WG4 | Noted |
| RP-050028 | LS from Q.1/19 to SDOs | ITU-T (Q1/19 Rapporteur) | Noted |
| RP-050029 | LS on Use of GSM BS on board aircraft | ETSI MSG | Noted |
| RP-050030 | Sharing and compatibility studies for UMTS in 900 MHz band | ECC PT1 | Noted |
| RP-050031 | LS on Additional simulation scenarios for UMTS900 | TSG RAN WG4 | Noted |
| RP-050032 | LS on Antenna Performance Evaluation Method and Requirements | TSG GERAN | Noted |
| RP-050033 | Misalignment amongst the 3GPP specifications, "Re-authentication and key set change during intersystem handover" | TSG CN WG1 | Noted |
| RP-050034 | LS on network-initiated SCUDIF support | TSG CN WG3 | Noted |
| RP-050035 | LS on ROHC testing | TSG RAN WG2 | Noted |
| RP-050036 | LS on ROHC testing | TSG T WG1 | Noted |
| RP-050037 | CRs (R99 \& Rel-4/Rel-5/Rel-6 CatA) to 25.133 for the Correction of DPCH_Ec/lor level in Annex 7 | RAN WG4 | Approved |
| RP-050038 | Endorsed CRs (R99 \& Rel-4/Rel-5/Rel-6 CatA) to 25.101, 25.133, 25.215, 25.331, 25.423, 25.433 for the removal of TGPL2 | RAN WG1, WG2, WG3, WG4 | Partially approved |
| RP-050039 | CRs (Rel-5 \&Rel-6 CatA) to 25.101 on corrections to the HS-DPCCH time mask requirements | RAN WG4 | Approved |
| RP-050040 | CRs (Rel-6) to 25.101 for the WI improved performance requirements for HSDPA UE with RX diversity | RAN WG4 | Approved |
| RP-050041 | CRs (Rel-6) to 25.101, 25.133, 25.141, 25.942 under WI Small Technical Enhancements and Improvements Rel-6 | RAN WG4 | Approved |
| RP-050042 | TSG RAN WI \& SI Description Sheets | 3GPP Support | Noted |
| RP-050043 | CRs (Rel-6 Category F) to TS25.211 for E-HICH/E-RGCH Signature Sequences and Signature Sequence Hopping | RAN WG1 | Approved |
| RP-050044 | CR (Rel-6 Category F) to TS25.212 for PLnon-max and Plmax | RAN WG1 | Approved |
| RP-050045 | CR (Rel-6 Category C) to TS25.212 for HARQ bit collection for E-DCH | RAN WG1 | Approved |
| RP-050046 | CR (Rel-6 Category F) to TS25.213 for Correction on E-DPCCH power offset | RAN WG1 | Approved |
| RP-050047 | CR (Rel-6 Category F) to TS25.213 for Defining E-DPDCH power offset | RAN WG1 | Approved |
| RP-050048 | CR (Rel-6 Category F) to TS25.214 for Gain factor setting for E-DCH | RAN WG1 | Approved |
| RP-050049 | CR (Rel-6 Category F) to TS25.214 for Reliable E-RGCH/E-HICH Detection | RAN WG1 | Approved |
| RP-050050 | Linked CRs (Rel-6 Category B) to TS25.215 \& TS25.302 \& TS 25.433 \& TS 25.133 for Introduction of 'DL Transmission Branch Load' measurement | RAN WG1, WG2, WG3 \& WG4 | Approved |
| RP-050051 | Review of RAN1 Terms of reference | RAN WG1 | Withdrawn |
| RP-050052 | CRs (Rel-5 and Rel-6 category A) to TS 25.415 and TS 25.413 | RAN WG3 | Approved |
| RP-050053 | CRs (Rel-5 and Rel-6 category A) which affect TS 25.423 and TS 25.433 | RAN WG3 | Approved |


| Tdoc | Title | Source | Decision |
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| RP-050054 | CRs (Rel-5 and Rel-6 category A) to TS 25.427, TS 25.423 and TS 25.433 | RAN WG3 | Approved |
| RP-050055 | CRs (Rel-5 and Rel-6 category A) to TS 25.453 | RAN WG3 | Approved |
| RP-050056 | CRs (Rel-6 category B) for the introduction of fractional DPCH in RAN3 specifications | RAN WG3 | Approved |
| RP-050057 | CRs (Rel-6 category F) for MBMS in RAN3 specifications | RAN WG3 | Approved |
| RP-050058 | CRs (Rel-6 category F) for corrections of Enhanced uplink in RAN3 specifications | RAN WG3 | Approved |
| RP-050059 | CRs (Rel-6 category B and F ) to TS 25.413, TS 25.423 and TS 25.433 | RAN WG3 | Approved |
| RP-050060 | CR (Rel-6 category F ) to TS 25.415 on Clarification of Initialisation and Rate Control for lu user plane version | RAN WG3 | Revised in 136 |
| RP-050061 | CR (Rel-6 categories C,D,F ) to TS 25.460, TS 25.461, TS 25.462 and TS 25.463 | RAN WG3 | Approved |
| RP-050062 | CR (Rel-6 category B) to TS 25.433 on Beamforming Enhancements | RAN WG3 | Approved |
| RP-050063 | Proposal of Update of RAN WG2 terms of Reference | RAN WG2 | Withdrawn |
| RP-050064 | 25.993 CR (R'99 affected, Rel-6 version) on Addition of asymetric RAB combinations with voice | RAN WG2 | Approved |
| RP-050065 | 25.306 CRs to Rel-4 (with linked Rel-5 and Rel-6) on the support of DSCH | RAN WG2 | Approved |
| RP-050066 | 25.331 CRs to Rel-4 (with linked Rel-5 and Rel-6) on OTDOA Correction | RAN WG2 | Approved |
| RP-050067 | 25.301, 25.306, 25.323, 25.331 CRs to Rel-5 (and Rel-6) on Lossless Downlink RLC PDU Size Change | RAN WG2 | Approved |
| RP-050068 | 25.322 CRs to Rel-5 (and Rel-6) on the removal of the EPC mechanism | RAN WG2 | Approved |
| RP-050069 | 25.331 CRs to Rel-5 (and Rel-6) - 1 | RAN WG2 | Approved |
| RP-050070 | 25.331 CRs to Rel-5 (and Rel-6) - 2 | RAN WG2 | Approved |
| RP-050071 | 25.993 CR (Rel-5 affected, Rel-6 version) on AMR-WB Reference RAB Configurations | RAN WG2 | Approved |
| RP-050072 | CRs to Rel-5 (and Rel-6) on Cell Reselection | RAN WG2 | Withdrawn |
| RP-050073 | 25.304 CRs to Rel-5 (and Rel-6) on Cell Reselection (HCS and non-HCS) | RAN WG2 | Approved |
| RP-050074 | 25.302 and 25.331 CRs Rel-6 on the introduction of Fractional DPCH | RAN WG2 | Approved |
| RP-050075 | 25.301 CR (Rel-6) on the introduction of MBMS | RAN WG2 | Approved |
| RP-050076 | 25.302 CR (Rel-6) on the introduction of MBMS | RAN WG2 | Approved |
| RP-050077 | 25.304 CR (Rel-6) on MBMS scope (wording) | RAN WG2 | Approved |
| RP-050078 | 25.321 CR (Rel-6) on MBMS MAC header | RAN WG2 | Approved |
| RP-050079 | 25.331 CRs (Rel-6) on MBMS Corrections | RAN WG2 | Approved |
| RP-050080 | 25.346 CRs (Rel-6) on MBMS (Stage 2) | RAN WG2 | Approved |
| RP-050081 | 25.304, 25.331 CRs to Rel-6 on the correction to "selected PLMN" in Access Stratum | RAN WG2 | Approved |
| RP-050082 | 25.322 CR to Rel-6 on the inclusion of Transmitter Constraints | RAN WG2 | Approved |
| RP-050083 | 25.306 CR to Rel-6 on the support of ROhC mandatory | RAN WG2 | Approved |
| RP-050084 | 25.331 CRs to Rel-6 on Enhanced Uplink Corrections | RAN WG2 | Approved |
| RP-050085 | 25.306 CR to Rel-6 on the introduction of Enhanced Uplink | RAN WG2 | Revised in 154 |
| RP-050086 | 25.331 CRs to Rel-6 on Network Sharing | RAN WG2 | Approved |
| RP-050087 | 25.331 CR to Rel-6 on additional frequency bands | RAN WG2 | Approved |
| RP-050088 | Linked CRs (Rel-6 Category B) to TS25.211 \& TS25.212 \& TS25.213 \& TS25.214 \& TS25.215 for Introduction of F-DPCH | RAN WG1 | Approved |
| RP-050089 | Linked CRs (Rel-6 Category B) to TS25.221 \& TS25.224 \& TS25.302 \& TS25.331 for Release 6 HSDSCH operation without a DL DPCH for 3.84 Mcps | RAN WG1, WG2 | Approved |
| RP-050090 | CR (Rel-6 Category F) to TS25.211 for E-HICH/E-RGCH/E-AGCH timing | RAN WG1 | Approved |
| RP-050091 | CR (Rel-6 Category F) to TS25.214 for DL/UL timing association of E-DCH operation | RAN WG1 | Revised in 140 |

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| Tdoc | Title | Source | Decision |
| :---: | :---: | :---: | :---: |
| RP-050092 | CR(Rel-6 Category F) to TS25.215 for Clarification of the cell on SFN-SFN observed time difference | RAN WG1 | Approved |
| RP-050093 | CR for TS25.215 R99, Rel4, Rel-5 Clarification of the cell on SFN-SFN observed time difference | Panasonic | Approved |
| RP-050094 | CR (Rel-5 Category F) to TS25.214 for Correction to computed gain factors quantization | RAN WG1 | Not approved |
| RP-050095 | Linked CRs (Rel-6 Category C) to TS25.214 \& TS25.423 \& TS25.433 for Timing maintained Hard Handover | RAN WG1, WG3 | Not approved |
| RP-050096 | CR (Rel-6 Category B) to TS25.214 for Faster L1 DCH synchronization | RAN WG1 | Not approved |
| RP-050097 | Linked CRs (Rel-6 Category C) to TS25.224 \& TS25.331 for Improvements to uplink closed-loop power control for 1.28 McDs TDD | RAN WG1, WG2 | Approved |
| RP-050098 | LCS/LBS Enhancements | SiRF Technology | Noted |
| RP-050099 | Proposed new WI: LCS Enhancements Related to Location-Based Services | SiRF Technology | Not approved |
| RP-050100 | Proposed Work Item on 3.84 Mcps TDD Enhanced Uplink | IPWireless | Approved |
| RP-050101 | Working Procedure | IPWireless | Noted |
| RP-050102 | Status Report ITU-R Ad Hoc | ITU-R Ad Hoc Contact person | Noted |
| RP-050103 | Proposed Update reminder for the OPs on the compliance with ITU-R procedures as it relates to Revision 5 of Recommendation ITU-R M. 1457 | ITU-R Ad Hoc | Approved |
| RP-050104 | Proposal for the development of a contribution for ITU-R WP8F on IP solutions | ITU-R Ad Hoc | Approved |
| RP-050105 | Reply to "Reply LS on guidance and error patterns for MBMS streaming simulations" | TSG SA WG4 | Noted |
| RP-050106 | Support of RT Services over HSDPA-HSDPA Mobility Enhancements | Cingular | Noted |
| RP-050107 | HSDPA Mobility Enhancements (HME) Solution to Support Real-Time Delay Sensitive Services | Cingular, Lucent | Noted |
| RP-050108 | Scope and Timeframes for Release 7 | Cingular | Noted |
| RP-050109 | Removal of the Happy bit from 25.309 | Motorola | Withdrawn |
| RP-050110 | 25.331 CRs to Rel-6 for CN domain specific Access Class Barring | RAN WG2 | Approved |
| RP-050111 | 25.301 CR to Rel-6 on uncomplete logical channel identification for FACH | RAN WG2 | Approved |
| RP-050112 | 25.304 CR to Rel-6 on H criterion in HCS high-mobility | RAN WG2 | Approved |
| RP-050113 | 25.322 CRs Rel-6 | RAN WG2 | Approved |
| RP-050114 | 25.331 CR to Rel-6 on Cell Updates | RAN WG2 | Approved |
| RP-050115 | 25.309 CR (Rel-6) on Enhanced Uplink (Stage 2) | RAN WG2 | Approved |
| RP-050116 | TR 25.804 Feasibility Study on Uplink Enhancements for UTRA TDD v2.0.0 | Interdigital | Approved |
| RP-050117 | E-DCH scheduling options: way forward | Vodafone Group, Motorola, T-Mobile, NTT DoCoMo, Nokia, Telecom Italia | Revised in 129 |
| RP-050118 | Revision of CR (Rel-6 category F ) to TS 25.415 on Clarification of Initialisation and Rate Control for lu user plane version | Ericsson | Revised in 136 |
| RP-050119 | CR (Rel-6 category F) to TS 25.427 on EDCH Frame format update | RAN WG3 | Rejected |
| RP-050120 | CR017 TS29.108 Rel-6, Full RANAP support of network initiated SCUDIF | Nokia, Siemens: Telecom Italia | Approved |
| RP-050121 | CR102 TS25.427 Rel-6, E-DCH Frame format update | Nokia | Revised in 137 |
| RP-050122 | Revised WID for the work item: UE Antenna Performance Evaluation Method and Requirements | TeliaSonera/RAN WG4 | Approved |
| RP-050123 | Proposed WI on CS and PS call setup delay improvement | Three | Revised in 133 |
| RP-050124 | Mandatory features reliability assurance | Nokia | Noted |
| RP-050125 | Feature clean up | Nokia, Motorola, T-Mobile, | Revised in 144 |

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| Tdoc | Title | Source | Decision |
| :---: | :---: | :---: | :---: |
|  |  | Ericsson, Panasonic, NTT <br> DoCoMo, Qualcomm, <br> Telecom Italia |  |
| RP-050126 | Status of MIMO | Lucent | Noted |
| RP-050127 | CR 1090r1 to 25.433 on Time alignment in MBMS transmission channels | Siemens | Revised in 148 |
| RP-050128 | CRs (Rel-5 \& Rel-6) to 35.304 \& 25.331 for the Correction to cell selection and reselection parameters to enable enhanced cell reselection | NTT DoCoMo | Approved |
| RP-050129 | E-DCH scheduling options: way forward | Vodafone Group, Motorola, T-Mobile, Nokia, Telecom Italia | Noted |
| RP-050130 | Options for removal of unnecessary MBMS combining schemes | Vodafone | Noted |
| RP-050131 | Elections: a practical guide | 3GPP Support | Noted |
| RP-050132 | Letters from candidates to RAN chairman and vice-chairman | 3GPP Support | Noted |
| RP-050133 | Proposed WI on CS and PS call setup delay improvement | Three | Revised in 162 |
| RP-050134 | CR to 25.331 (Rel-6) on Faster L1 synchronization | Ericsson | Not approved |
| RP-050135 | CR to 25.331 (Rel-6) on Timing Maintained Hard Handover | Ericsson | Not approved |
| RP-050136 | Revision of CR (Rel-6 category F ) to TS 25.415 on Clarification of Initialisation and Rate Control for lu user plane version | Ericsson, NEC, Siemens | Approved |
| RP-050137 | CR 102 TS25.427 Rel-6, E-DCH Frame format update | Nokia | Approved |
| RP-050138 | Specs per Release | 3GPP Support | Noted |
| RP-050139 | status list before | 3GPP Support | Noted |
| RP-050140 | CR (Rel-6 Category F) to TS25.214 for DL/UL timing association of E-DCH operation | Qualcomm, Nortel, Ericsson, Panasonic \& Samsung | Approved |
| RP-050141 | Feature removal CRs | Nokia | Noted |
| RP-050142 | TR 25.808 FDD Enhanced Uplink physical layer aspects v2.0.0 | Nokia | Approved |
| RP-050143 | CR 25.306 Rel-6 Inclusion of UE categories for Enhanced Uplink | Motorola, NEC, Nokia, Nortel Networks, NTTDocomo, Orange, Philips, Vodafone | Not approved |
| RP-050144 | Feature clean up | Nokia, Motorola, T-Mobile, Ericsson, Panasonic, NTT DoCoMo, Qualcomm, Telecom Italia | Agreed |
| RP-050145 | Status Report WG2 | RAN WG2 Chairman | Noted |
| RP-050146 | Proposal of a new study item "Performance Evaluation of the UE behaviour in high speed trains with speeds up to $350 \mathrm{kmph} "$ | Vodafone | Approved |
| RP-050147 | EDCH scheduling simplification | NTT DoCoMo | Noted |
| RP-050148 | CR 1090r2 to 25.433 on Time alignment in MBMS transmission channels | Siemens | Rejected |
| RP-050149 | Template form for reporting of late WI to SA | 3GPP Support | Noted |
| RP-050150 | Revised draft skeleton TR of Requirements for EUTRA and EUTRAN | SI Rapporteur | Endorsed |
| RP-050151 | Revised Draft Skeleton TR of Feasibility Study for EUTRA and EUTRAN | SI Rapporteur | Endorsed |
| RP-050152 | Way forward on Enhanced Uplink scheduling schemes | Ericsson, Qualcomm, | Noted |

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| Tdoc | Title | Source | Decision |
| :---: | :---: | :---: | :---: |
|  |  | Samsung |  |
| RP-050153 | Joint meeting RAN4-SA4 on MBMS (Sophia Antipolis, 4-6 April 2005) : guidance for simulations and error patterns for the audio codec characterisation tests | TSG RAN Chairman and SA4 Secretary / SA4 SQ SWG Chairman | Approved |
| RP-050154 | 25.306 CR to Rel-6 on the introduction of Enhanced Uplink | Nokia | Approved |
| RP-050155 | Agreed Text proposals for the requirements TR | NTT DoCoMo | Noted |
| RP-050156 | Proposed WI for UE performance requirements for MBMS (TDD) | IPWireless | Approved |
| RP-050157 | Terms of Reference of RAN WG5 | RAN WG5 chairman | Dealt with in the newRAN meeting |
| RP-050158 | INTRODUCTION OF CAUTION++ ARCHITECTURE FOR UTRAN EVOLUTION | IST CAUTION++ Consortium | Noted |
| RP-050159 | Submission form for late Rel-6 feature: Improved Performance Requirements for HSDPA UE cat 7 \& 8 | Nokia | Approved |
| RP-050160 | Proposed WI: Improved support of IMS Realtime Services using HSDPA/EDCH | Cingular | Approved |
| RP-050161 | Submission form for Rel-6 Late WI: RAB Support enhancements | Nokia | Approved |
| RP-050162 | Proposed WI on CS and PS call setup delay improvement | Three | Approved |
| RP-050163 | Work Plan Slides | 3GPP Support | Noted |
| RP-050164 | 3GPP Work Plan | 3GPP Support | Noted |
| RP-050165 | Submission form for Rel-6 Late WI: EDCH performance requirements | Ericsson | Approved |
| RP-050166 | Submission form for Rel-6 Late WI: MBMS performance requirements | Ericsson | Approved |
| RP-050167 | Long Term Evolution Work Plan | Ericsson | Noted |
| RP-050168 | Terms of reference of RAN WG1, WG2, WG4 | RAN WG chairmen | Dealt with in the newRAN meeting |

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## Annex C: List of CRs presented at TSG RAN \#26

| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25.101 | 391 |  | Rel-6 | 6.6.0 | B | RP-050040 | Approved | Specification of enhanced performance requirements for HS-SCCH with open loop diversity based on receiver diversity | RInImp-HSPerfRxDiv | R4 | R4-050014 |
| 25.101 | 392 |  | Rel-6 | 6.6.0 | C | RP-050040 | Approved | Modification of enhanced performance requirements for HS-SCCH based on receiver diversity | RInImp-HSPerfRxDiv | R4 | R4-050015 |
| 25.101 | 393 |  | R99 | 3.17 .0 | C | RP-050038 | Rejected | Removal of TGPL2 | TEI | R4 | R4-050034 |
| 25.101 | 394 |  | Rel-4 | 4.11 .0 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R4 | R4-050035 |
| 25.101 | 395 |  | Rel-5 | 5.13 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R4 | R4-050036 |
| 25.101 | 396 |  | Rel-6 | 6.6 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R4 | R4-050037 |
| 25.101 | 397 |  | Rel-6 | 6.6.0 | F | RP-050041 | Approved | Minimum performance for constant BLER testcases | TEI6 | R4 | R4-050044 |
| 25.101 | 400 | 1 | Rel-6 | 6.6.0 | F | RP-050040 | Approved | Clarification of mapping of HS-DSCH requirements | RInImp-HSPerfRxDiv | R4 | R4-050229 |
| 25.101 | 401 | 1 | Rel-6 | 6.6 .0 | F | RP-050041 | Approved | OCNS definition for transmit diversity | TEI6 | R4 | R4-050265 |
| 25.101 | 402 |  | Rel-6 | 6.6 .0 | F | RP-050041 | Approved | Corrections to 9.2 demodulation of HS-DSCH | TEI6, HSDPA-RF | R4 | R4-050139 |
| 25.101 | 403 | 2 | Rel-5 | 5.13 .0 | F | RP-050039 | Approved | HS-DPCCH time mask requirements | HSDPA-RF | R4 | R4-050279 |
| 25.101 | 404 | 2 | Rel-6 | 6.6 .0 | A | RP-050039 | Approved | HS-DPCCH time mask requirements | HSDPA-RF | R4 | R4-050280 |
| 25.101 | 406 |  | Rel-6 | 6.6.0 | F | RP-050041 | Approved | Update UMTS FDD Receiver Blocking Specifications | TEI6 | R4 | R4-050204 |
| 25.101 | 407 | 1 | Rel-6 | 6.6.0 | B | RP-050040 | Approved | Enhanced performance requirements for HSDPA cat 7 \& 8 capable receivers | RInImp-HSPerfRxDiv | R4 | R4-050268 |
| 25.133 | 707 | 1 | Rel-6 | 6.8.0 | B | RP-050050 | Approved | Introduction of DL Transmission Branch Load Measurement | TEI6 | R4 | R4-050106 |
| 25.133 | 712 |  | R99 | 3.19 .0 | C | RP-050038 | Rejected | Removal of TGPL2 | TEI | R4 | R4-050038 |
| 25.133 | 713 |  | Rel-4 | 4.13 .0 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R4 | R4-050039 |
| 25.133 | 714 |  | Rel-5 | 5.13 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R4 | R4-050040 |
| 25.133 | 715 |  | Rel-6 | 6.8 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R4 | R4-050041 |
| 25.133 | 719 |  | Rel-6 | 6.8 .0 | F | RP-050041 | Approved | GSM BSIC reconfirmation | TEI6 | R4 | R4-050051 |
| 25.133 | 720 |  | Rel-6 | 6.8 .0 | F | RP-050041 | Approved | Cell Search Requirement | TEI6 | R4 | R4-050052 |
| 25.133 | 721 |  | Rel-6 | 6.8 .0 | F | RP-050041 | Approved | Correction of error in the implementation of CR502 | TEI6 | R4 | R4-050075 |
| 25.133 | 724 | 2 | R99 | 3.19 .0 | F | RP-050037 | Approved | Correction to DPCH_Ec/lor level in A.7.1 UE Transmit Timing | TEI | R4 | R4-050256 |
| 25.133 | 725 | 2 | Rel-4 | 4.13 .0 | A | RP-050037 | Approved | Correction to DPCH_Ec/lor level in A.7.1 UE Transmit Timing | TEI | R4 | R4-050257 |


| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25.133 | 726 | 2 | Rel-5 | 5.13.0 | A | RP-050037 | Approved | Correction to DPCH_Ec/lor level in A.7.1 UE Transmit Timing | TEI | R4 | R4-050258 |
| 25.133 | 727 | 2 | Rel-6 | 6.8.0 | A | RP-050037 | Approved | Correction to DPCH_Ec/lor level in A.7.1 UE Transmit Timing | TEI | R4 | R4-050259 |
| 25.141 | 362 |  | Rel-6 | 6.8.0 | F | RP-050041 | Approved | Test model usage for TX diversity test case | TEI6 | R4 | R4-050145 |
| 25.141 | 363 | 1 | Rel-6 | 6.8.0 | F | RP-050041 | Approved | Description of test procedure for Time alignment error in TX Diversity | TEI6 | R4 | R4-050283 |
| 25.211 | 197 | 1 | Rel-6 | 6.3 .0 | F | RP-050043 | Approved | E-HICH/E-RGCH Signature Sequences | EDCH-Phys | R1 | R1-050182 |
| 25.211 | 198 | 1 | Rel-6 | 6.3 .0 | F | RP-050043 | Approved | E-RGCH/E-HICH Sigunature Sequence Hopping | EDCH-Phys | R1 | R1-050195 |
| 25.211 | 200 | 1 | Rel-6 | 6.3.0 | B | RP-050088 | Approved | Introduction of F-DPCH without pilot field | RANimp-RABSECodeOptFDD | R1 | R1-050178 |
| 25.211 | 202 | 2 | Rel-6 | 6.3 .0 | F | RP-050090 | Approved | E-HICH/E-RGCH/E-AGCH timing | EDCH-Phys | R1 | R1-050223 |
| 25.212 | 193 | 1 | Rel-6 | 6.3.0 | B | RP-050088 | Approved | Introduction of F-DPCH | RANimp-RABSECodeOptFDD | R1 | R1-050080 |
| 25.212 | 198 | 1 | Rel-6 | 6.3 .0 | F | RP-050044 | Approved | PLnon-max and Plmax | EDCH-Phys | R1 | R1-050194 |
| 25.212 | 199 | - | Rel-6 | 6.3 .0 | C | RP-050045 | Approved | HARQ bit collection for E-DCH | EDCH-Phys | R1 | R1-050108 |
| 25.213 | 70 | 1 | Rel-6 | 6.1 .0 | B | RP-050088 | Approved | Introduction of F-DPCH | RANimp-RABSECodeOptFDD | R1 | R1-050081 |
| 25.213 | 72 | - | Rel-6 | 6.1 .0 | F | RP-050046 | Approved | Correction on E-DPCCH power offset | EDCH-Phys | R1 | R1-050064 |
| 25.213 | 73 | 1 | Rel-6 | 6.1 .0 | F | RP-050047 | Approved | Defining E-DPDCH power offset | EDCH-Phys | R1 | R1-050204 |
| 25.214 | 354 | 3 | Rel-6 | 6.4 .0 | C | RP-050095 | Postponed | Timing maintained Hard Handover | TEI6 | R1 | R1-050201 |
| 25.214 | 355 | 2 | Rel-6 | 6.4 .0 | B | RP-050096 | Postponed | Faster L1 DCH synchronization | TEI6 | R1 | R1-050173 |
| 25.214 | 362 | 2 | Rel-6 | 6.4 .0 | F | RP-050048 | Approved | Gain factor setting for E-DCH | EDCH-Phys | R1 | R1-050215 |
| 25.214 | 364 | 1 | Rel-6 | 6.4 .0 | F | RP-050049 | Approved | Reliable E-RGCH/E-HICH Detection | EDCH-Phys | R1 | R1-050198 |
| 25.214 | 365 | - | Rel-5 | 5.10 .0 | F | RP-050094 | Postponed | Correction to computed gain factors quantization | TEI5 | R1 | R1-050113 |
| 25.214 | 368 | 1 | Rel-6 | 6.4.0 | B | RP-050088 | Approved | Introduction of F-DPCH without pilot field | RANimp-RABSECodeOptFDD | R1 | R1-050179 |
| 25.214 | 369 | 2 | Rel-6 | 6.4 .0 | F | RP-050091 | Revised | DL/UL timing asscociation of E-DCH operation | EDCH-Phys | R1 | R1-050224 |
| 25.214 | 369 | 3 | Rel-6 | 6.4 .0 | F | RP-050140 | Approved | DL/UL timing assoication of E-DCH operation | EDCH-Phys | R1 |  |
| 25.215 | 147 | 4 | Rel-6 | 6.1 .0 | B | RP-050050 | Approved | Introduction of 'DL Transmission Branch Load' measurement | TEI6 | R1 | R1-050114 |
| 25.215 | 150 | 1 | R99 | 3.12 .0 | C | RP-050038 | Rejected | Removal of TGPL2 | TEI | R1 | R1-050110 |
| 25.215 | 151 | 1 | Rel-4 | 4.7 .0 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R1 | R1-050110 |
| 25.215 | 152 | 1 | Rel-5 | 5.5 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R1 | R1-050110 |
| 25.215 | 153 | 1 | Rel-6 | 6.1 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R1 | R1-050110 |
| 25.215 | 154 | - | Rel-6 | 6.1 .0 | F | RP-050092 | Approved | Clarification of cell on SFN-SFN observed time difference | TEI | R1 | R1-050082 |
| 25.215 | 155 | - | Rel-6 | 6.1 .0 | B | RP-050088 | Approved | Introduction of F-DPCH without pilot field | RANimp-RABSECodeOptFDD | R1 | R1-050133 |
| 25.215 | 156 | - | R99 | 3.12.0 | F | RP-050093 | Approved | Clarification of the cell on SFN-SFN observed time difference | TEI | R1 |  |
| 25.215 | 157 | - | Rel-4 | 4.7.0 | A | RP-050093 | Approved | Clarification of the cell on SFN-SFN observed time | TEI | R1 |  |


| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
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|  |  |  |  |  |  |  |  | difference |  |  |  |
| 25.215 | 158 | - | Rel-5 | 5.5.0 | A | RP-050093 | Approved | Clarification of the cell on SFN-SFN observed time difference | TEI | R1 |  |
| 25.221 | 118 | - | Rel-6 | 6.2 .0 | B | RP-050089 | Approved | Release 6 HS-DSCH operation without a DL DPCH for 3.84Mcps TDD | RANimp-RABSECodeOptTDD | R1 | R1-050227 |
| 25.224 | 140 | 2 | Rel-6 | 6.3 .0 | C | RP-050097 | Approved | Improvements to uplink closed-loop power control for 1.28 Mcps TDD | LCRTDD-Phys | R1 | R1-050096 |
| 25.224 | 141 | - | Rel-6 | 6.3 .0 | B | RP-050089 | Approved | Release 6 HS-DSCH operation without a DL DPCH for 3.84Mcps TDD | RANimp-RABSECodeOptTDD | R1 | R1-050228 |
| 25.301 | 072 | - | Rel-6 | 6.1 .0 | F | RP-050111 | Approved | Uncomplete logical channel identification for FACH | TEI6 | R2 | R2-050292 |
| 25.301 | 073 | - | Rel-5 | 5.3.0 | B | RP-050067 | Approved | Lossless DL RLC PDU size change | TEI5 | R2 | R2-050661 |
| 25.301 | 074 | - | Rel-6 | 6.3 .0 | B | RP-050067 | Approved | Lossless DL RLC PDU size change | TEI5 | R2 | R2-050662 |
| 25.301 | 075 | - | Rel-6 | 6.1 .0 | B | RP-050075 | Approved | Introduction of MBMS | MBMS-RAN | R2 | R2-050653 |
| 25.302 | 148 | - | Rel-6 | 6.2 .0 | B | RP-050089 | Approved | Release 6 HS-DSCH operation without a DL DPCH for 3.84 Mcps TDD | RANimp-RABSECodeOPTTDD | R2 | R2-050289 |
| 25.302 | 149 | - | Rel-6 | 6.2 .0 | B | RP-050074 | Approved | Introduction of F-DPCH | RANimp-RABSECodeOptFDD | R2 | R2-050634 |
| 25.302 | 150 | 1 | Rel-6 | 6.2 .0 | B | RP-050076 | Approved | Introduction of MBMS | MBMS-RAN | R2 | R2-050719 |
| 25.302 | 151 | - | Rel-6 | 6.2 .0 | B | RP-050050 | Approved | Introduction of 'DL Transmission Branch Load' measurement | TEI6 | R2 | R2-050705 |
| 25.304 | 125 | 1 | Rel-6 | 6.4 .0 | F | RP-050081 | Approved | Corrections to "selected PLMN" in access stratum | TEI6 | R2 | R2-050392 |
| 25.304 | 128 | 1 | Rel-5 | 5.7 .0 | F | RP-050073 | Approved | Reselection procedures (1235) | TEI5 | R2 | R2-050734 |
| 25.304 | 129 | 1 | Rel-6 | 6.4 .0 | A | RP-050073 | Approved | Reselection procedures (1235) | TEI5 | R2 | R2-050735 |
| 25.304 | 130 | 1 | Rel-5 | 5.7 .0 | F | RP-050073 | Approved | RSCP Thresholds | TEI5 | R2 | R2-050738 |
| 25.304 | 131 | 1 | Rel-6 | 6.4 .0 | A | RP-050073 | Approved | RSCP Thresholds | TEI5 | R2 | R2-050739 |
| 25.304 | 132 | 2 | Rel-6 | 6.4 .0 | A | RP-050073 | Approved | High-mobility measurement rules | TEI5 | R2 | R2-050745 |
| 25.304 | 133 | - | Rel-6 | 6.4 .0 | F | RP-050112 | Approved | H criterion in HCS high-mobility | TEI6 | R2 | R2-050670 |
| 25.304 | 134 | - | Rel-6 | 6.4 .0 | F | RP-050077 | Approved | MBMS Scope | MBMS-RAN | R2 | R2-050654 |
| 25.304 | 135 | 1 | Rel-5 | 5.7 .0 | F | RP-050073 | Approved | Intra frequency measurement rules for HCS | TEI5 | R2 | R2-050742 |
| 25.304 | 136 |  | Rel-5 | 5.7 .0 | F | RP-050072 | Revised | Correction to cell selection and reselection to enable enhanced cell reselection | TEI5 | R2 | R2-050730 |
| 25.304 | 136 | 1 | Rel-5 | 5.7 .0 | B | RP-050128 | Approved | Correction to cell selection and reselection parameters to enable enhanced cell reselection | TEI5 | R2 |  |
| 25.304 | 137 |  | Rel-6 | 6.4 .0 | A | RP-050072 | Revised | Correction to cell selection and reselection to enable enhanced cell reselection | TEI5 | R2 | R2-050731 |
| 25.304 | 137 | 1 | Rel-6 | 6.4 .0 | B | RP-050128 | Approved | Correction to cell selection and reselection parameters to enable enhanced cell reselection | TEI5 | R2 |  |
| 25.304 | 138 | 1 | Rel-5 | 5.7 .0 | F | RP-050073 | Approved | High-mobility measurement rules | TEI5 | R2 | R2-050744 |
| 25.304 | 139 | 1 | Rel-6 | 6.4 .0 | A | RP-050073 | Approved | Intra frequency measurement rules for HCS | TEI5 | R2 | R2-050743 |
| 25.306 | 099 | - | Rel-4 | 4.9 .0 | F | RP-050065 | Approved | Support of DSCH | TEI4 | R2 | R2-050256 |
| 25.306 | 100 | - | Rel-5 | 5.9.0 | A | RP-050065 | Approved | Support of DSCH | TEI4 | R2 | R2-050257 |
| 25.306 | 101 | - | Rel-6 | 6.3 .0 | A | RP-050065 | Approved | Support of DSCH | TEI4 | R2 | R2-050258 |


| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
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| 25.306 | 102 | - | Rel-5 | 5.9.0 | B | RP-050067 | Approved | Lossless DL RLC PDU size change | TEI5 | R2 | R2-050607 |
| 25.306 | 103 | - | Rel-6 | 6.3 .0 | B | RP-050067 | Approved | Lossless DL RLC PDU size change | TEI5 | R2 | R2-050608 |
| 25.306 | 104 | 1 | Rel-6 | 6.3.0 | B | RP-050085 |  | Inclusion of UE capabilities for Enhanced Uplink | EDCH-L23 | R2 | R2-050726 |
| 25.306 | 104 | 2 | Rel-6 | 6.3 .0 | B | RP-050154 | Approved | Inclusion of UE capabilities for Enhanced Uplink | EDCH-L23 | R2 |  |
| 25.306 | 105 | - | Rel-6 | 6.3 .0 | C | RP-050083 | Approved | Support of ROHC mandatory | RANimp-RABSE | R2 | R2-050706 |
| 25.306 | 106 | - | Rel-6 | 6.3.0 | B | RP-050143 | Rejected | Definition of Six UE categories for Enhanced Uplink | EDCH-L23 | R2 |  |
| 25.309 | 005 | - | Rel-6 | 6.1 .0 | B | RP-050115 | Approved | Introduction of Details for the scheduling operation, non-scheduled transmission and E-TFC selection | EUDCH-L23 | R2 | R2-050716 |
| 25.321 | 204 | - | Rel-6 | 6.3.0 | F | RP-050078 | Approved | Correction to MBMS header for MBMS | MBMS-RAN | R2 | R2-050655 |
| 25.322 | 260 | 1 | Rel-6 | 6.2 .0 | F | RP-050113 | Approved | Correction of MRW termination on reception of ACK SUFI | TEI6 | R2 | R2-050011 |
| 25.322 | 265 | - | Rel-6 | 6.2 .0 | F | RP-050113 | Approved | Correction to RLC Re-establishment | TEI6 | R2 | R2-050302 |
| 25.322 | 267 | - | Rel-6 | 6.2 .0 | F | RP-050113 | Approved | CRCLC-Config-Req in LOCAL_SUSPEND State | TEI6 | R2 | R2-050290 |
| 25.322 | 268 | - | Rel-6 | 6.2 .0 | F | RP-050113 | Approved | Protocol error detection and recovery | TEI6 | R2 | R2-050291 |
| 25.322 | 269 | - | Rel-5 | 5.9 .0 | F | RP-050068 | Approved | Removal of EPC mechanism | TEI5 | R2 | R2-050614 |
| 25.322 | 270 | - | Rel-6 | 6.2 .0 | A | RP-050068 | Approved | Removal of EPC mechanism | TEI5 | R2 | R2-050615 |
| 25.322 | 271 | - | Rel-6 | 6.2 .0 | F | RP-050082 | Approved | Inclusion of transmitter constraints | MBMS-RAN | R2 | R2-050651 |
| 25.323 | 058 | 2 | Rel-5 | 5.2 .0 | B | RP-050067 | Approved | Lossless DL RLC PDU size change | TEI5 | R2 | R2-050713 |
| 25.323 | 059 | 2 | Rel-6 | 6.0.0 | B | RP-050067 | Approved | Lossless DL RLC PDU size change | TEI5 | R2 | R2-050714 |
| 25.331 | 2488 | 2 | R99 | 3.21 .0 | C | RP-050038 | Rejected | Removal of TGPL2 | TEI | R2 | R2-050585 |
| 25.331 | 2489 | 2 | Rel-4 | 4.16 .0 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R2 | R2-050586 |
| 25.331 | 2490 | 2 | Rel-5 | 5.11 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R2 | R2-050587 |
| 25.331 | 2491 | 2 | Rel-6 | 6.4 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R2 | R2-050588 |
| 25.331 | 2498 | - | Rel-5 | 5.11.0 | F | RP-050069 | Approved | Minor HSDPA related corrections | HSDPA-L23 | R2 | R2-050252 |
| 25.331 | 2499 | - | Rel-6 | 6.4 .0 | A | RP-050069 | Approved | Minor HSDPA related corrections | HSDPA-L23 | R2 | R2-050253 |
| 25.331 | 2500 | - | Rel-5 | 5.11.0 | F | RP-050070 | Approved | Integrity protection related information in the SRNS relocation info | TEI5 | R2 | R2-050254 |
| 25.331 | 2501 | - | Rel-6 | 6.4.0 | A | RP-050070 | Approved | Integrity protection related information in the SRNS relocation info | TEI5 | R2 | R2-050255 |
| 25.331 | 2502 | - | Rel-5 | 5.11 .0 | F | RP-050069 | Approved | Number of timeslots that can be used for HSPDSCH resource for 3.84 Mcps TDD | HSDPA-L23 | R2 | R2-050259 |
| 25.331 | 2503 | - | Rel-6 | 6.4.0 | A | RP-050069 | Approved | Number of timeslots that can be used for HSPDSCH resource for 3.84 Mcps TDD | HSDPA-L23 | R2 | R2-050260 |
| 25.331 | 2504 | - | Rel-6 | 6.4.0 | B | RP-050089 | Approved | Release 6 HS-DSCH operation without a DL DPCH for 3.84 Mcps TDD | RANimp-RABSECodeOPTTDD | R2 | R2-050288 |
| 25.331 | 2506 | - | Rel-6 | 6.4.0 | F | RP-050114 | Approved | Removal of unnecessary cell updates on receiving "Frequency info" IE in CELL UPDATE CONFIRM message | TEI6 | R2 | R2-050301 |
| 25.331 | 2507 | - | Rel-5 | 5.11 .0 | F | RP-050069 | Approved | ASN. 1 clarification on Cell and Channel Identity info for 1.28 Mcps TDD | LCRTDD-L23 | R2 | R2-050590 |
| 25.331 | 2508 | - | Rel-6 | 6.4.0 | A | RP-050069 | Approved | ASN. 1 clarification on Cell and Channel Identity | LCRTDD-L23 | R2 | R2-050591 |


| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
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|  |  |  |  |  |  |  |  | info for 1.28 Mcps TDD |  |  |  |
| 25.331 | 2509 | - | Rel-5 | 5.11 .0 | F | RP-050070 | Approved | Handling of TM SRB's at radio link failure | TEI5 | R2 | R2-050592 |
| 25.331 | 2510 | - | Rel-6 | 6.4 .0 | A | RP-050070 | Approved | Handling of TM SRB's at radio link failure | TEI5 | R2 | R2-050593 |
| 25.331 | 2511 | - $\quad$ R | Rel-4 | 4.16.0 | F | RP-050066 | Approved | Correction of ASN. 1 comment concerning OTDOA correction | TEI4 | R2 | R2-050594 |
| 25.331 | 2512 | - | Rel-5 | 5.11 .0 | F | RP-050070 | Approved | Removal of the UARFCN uplink (Nu) in the informative Annex A. 3 | TEI5 | R2 | R2-050596 |
| 25.331 | 2513 | - | Rel-6 | 6.4.0 | A | RP-050070 | Approved | Removal of the UARFCN uplink (Nu) in the informative Annex A. 3 | TEI5 | R2 | R2-050597 |
| 25.331 | 2514 | 1 | Rel-5 | 5.11 .0 | F | RP-050070 | Approved | Correction on PRACH selection | TEI5 | R2 | R2-050693 |
| 25.331 | 2515 | 1 | Rel-6 | 6.4 .0 | A | RP-050070 | Approved | Correction on PRACH selection | TEI5 | R2 | R2-050694 |
| 25.331 | 2516 | 3 | Rel-5 | 5.11 .0 | B | RP-050067 | Approved | Lossless RLC PDU size handling | TEI5 | R2 | R2-050727 |
| 25.331 | 2517 | 3 | Rel-6 | 6.4 .0 | B | RP-050067 | Approved | Lossless RLC PDU size handling | TEI5 | R2 | R2-050728 |
| 25.331 | 2518 | - | Rel-5 | 5.11.0 | F | RP-050069 | Approved | Clarification of GERAN (P)SI message coding in NACC | TEI5 | R2 | R2-050609 |
| 25.331 | 2519 | - | Rel-6 | 6.4.0 | A | RP-050069 | Approved | Clarification of GERAN (P)SI message coding in NACC | TEI5 | R2 | R2-050610 |
| 25.331 | 2520 | - | Rel-5 | 5.11 .0 | F | RP-050070 | Approved | Unsupported RLC mode reconfigurations | TEI5 | R2 | R2-050612 |
| 25.331 | 2521 | - R | Rel-6 | 6.4 .0 | A | RP-050070 | Approved | Unsupported RLC mode reconfigurations | TEI5 | R2 | R2-050613 |
| 25.331 | 2522 | - R | Rel-5 | 5.11 .0 | F | RP-050070 | Approved | Correction to Inter RAT cell info indication | TEI5 | R2 | R2-050616 |
| 25.331 | 2523 | - | Rel-6 | 6.4 .0 | A | RP-050070 | Approved | Correction to Inter RAT cell info indication | TEI5 | R2 | R2-050617 |
| 25.331 | 2524 | - | Rel-6 | 6.4.0 | F | RP-050086 | Approved | Correction to network sharing functionality | NTSharUTRANEnh | R2 | R2-050618 |
| 25.331 | 2525 | - | Rel-6 | 6.4 .0 | F | RP-050086 | Approved | Network sharing corrections | NTSharUTRANEnh | R2 | R2-050619 |
| 25.331 | 2526 | 1 | Rel-6 | 6.4 .0 | C | RP-050110 | Approved | CN domain specific Access Class Barring | ACBOP | R2 | R2-050746 |
| 25.331 | 2527 | - | Rel-6 | 6.4.0 | F | RP-050081 | Approved | Corrections to "selected PLMN" in access stratum | TEI6, NTSharUTRANEnh | R2 | R2-050633 |
| 25.331 | 2528 | - | Rel-6 | 6.4 .0 | B | RP-050074 | Approved | Introduction of F-DPCH | RANimp-RABSECodeOptFDD | R2 | R2-050635 |
| 25.331 | 2529 | - | Rel-6 | 6.4 .0 | F | RP-050084 | Approved | Minor E-DCH related corrections | EUDCH-L23 | R2 | R2-050673 |
| 25.331 | 2530 | 2 | Rel-6 | 6.4 .0 | F | RP-050079 | Approved | Miscellaneous MBMS corrections | MBMS-RAN | R2 | R2-050747 |
| 25.331 | 2532 | - | Rel-6 | 6.4 .0 | C | RP-050087 | Approved | Additional Frequency Bands | UMTS900, UMTS2600 | R2 | R2-050691 |
| 25.331 | 2534 | - | Rel-6 | 6.4 .0 | B | RP-050084 | Approved | Introduction of E-DCH in the ASN. 1 | EUDCH-L23 | R2 | R2-050707 |
| 25.331 | 2535 | - | Rel-6 | 6.4.0 | B | RP-050097 | Approved | Improvements to uplink closed-loop power control for 1.28 Mcps TDD | LCRTDD-L23 | R2 | R2-050315 |
| 25.331 | 2536 | 1 | Rel-6 | 6.4 .0 | F | RP-050079 | Approved | MBMS Corrections to 25.331 ASN. 1 | MBMS-RAN | R2 | R2-050748 |
| 25.331 | 2537 | - | Rel-5 | 5.11.0 | F | RP-050072 | Revised | Correction to cell selection and reselection to enable enhanced cell reselection | TEI5 | R2 | R2-050732 |
| 25.331 | 2537 | 1 | Rel-5 | 5.b.0 | B | RP-050128 | Approved | Correction to cell selection and reselection parameters to enable enhanced cell reselection | TEI5 | R2 |  |

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| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
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| 25.331 | 2538 | - | Rel-6 | 6.4.0 | A | RP-050072 | Revised | Correction to cell selection and reselection to enable enhanced cell reselection | TEI5 | R2 | R2-050733 |
| 25.331 | 2538 | 1 | Rel-6 | 6.4.0 | B | RP-050128 | Approved | Correction to cell selection and reselection parameters to enable enhanced cell reselection | TEI5 | R2 |  |
| 25.346 | 010 | - | Rel-6 | 6.3 .0 | F | RP-050080 | Approved | Introduction of MBMS Frequency dispersion | MBMS-RAN | R2 | R2-050657 |
| 25.346 | 011 | - | Rel-6 | 6.3.0 | F | RP-050080 | Approved | Correction on MBMS multiplexing and soft combining in TDD | MBMS-RAN | R2 | R2-050658 |
| 25.346 | 012 | - | Rel-6 | 6.3.0 | F | RP-050080 | Approved | Clarification to UE capabilities to consider MCCH reception and selective/soft combining requirements | MBMS-RAN | R2 | R2-050649 |
| 25.346 | 013 | - | Rel-6 | 6.3.0 | F | RP-050080 | Approved | Extending the counting procedure for UEs in CELL_PCH/FACH state and introducing UE initialised p-t-p setup request | MBMS-RAN | R2 | R2-050647 |
| 25.346 | 015 | - | Rel-6 | 6.3.0 | F | RP-050080 | Approved | Introduction of new procedures in MBMS stage 2 spec | MBMS-RAN | R2 | R2-050709 |
| 25.402 | 046 |  | Rel-6 | 6.1 .0 | B | RP-050056 | Approved | Introduction of Fractional DPCH | RANimp-RABSECodeOptFDD | R3 | R3-050185 |
| 25.413 | 721 | 3 | Rel-6 | 6.4.1 | F | RP-050057 | Approved | MBMS Session Repetition Number on Session Start | MBMS-RAN | R3 | R3-050353 |
| 25.413 | 724 | 3 | Rel-6 | 6.4.1 | F | RP-050057 | Approved | MBMS RAB Management | MBMS-RAN | R3 | R3-050365 |
| 25.413 | 729 | 2 | Rel-5 | 5.10.0 | F | RP-050052 | Approved | Essential Correction on Direct Transfer Messages | TEI5 | R3 | R3-050348 |
| 25.413 | 730 | 2 | Rel-6 | 6.4 .1 | A | RP-050052 | Approved | Essential Correction on Direct Transfer Messages | TEI5 | R3 | R3-050349 |
| 25.413 | 731 | 2 | Rel-5 | 5.10 .0 | F | RP-050052 | Approved | Correction of RANAP Containers and CRRM | TEI5 | R3 | R3-050344 |
| 25.413 | 734 |  | Rel-6 | 6.4.1 | F | RP-050057 | Approved | MBMS Contexts | MBMS-RAN | R3 | R3-050182 |
| 25.413 | 737 | 3 | Rel-6 | 6.4.1 | F | RP-050057 | Approved | MBMS IE codings | MBMS-RAN | R3 | R3-050362 |
| 25.413 | 738 |  | Rel-6 | 6.4.1 | F | RP-050057 | Approved | MBMS Session Failure | MBMS-RAN | R3 | R3-050219 |
| 25.413 | 739 | 2 | Rel-6 | 6.4.1 | B | RP-050059 | Approved | Support of Network-initiated Scudif (revision of R3041734) | TEI6 | R3 | R3-050357 |
| 25.413 | 740 | 1 | Rel-6 | 6.4.1 | A | RP-050052 | Approved | Correction of RANAP Containers and CRRM | TEI5 | R3 | R3-050345 |
| 25.415 | 122 | 3 | Rel-5 | 5.4 .0 | F | RP-050052 | Approved | Negative Acknowledgement of Init procedure | TEI5 | R3 | R3-050358 |
| 25.415 | 123 | 2 | Rel-6 | 6.1 .0 | A | RP-050052 | Approved | Negative acknowledgment of Init procedure | TEI5 | R3 | R3-050341 |
| 25.415 | 124 | 1 | Rel-6 | 6.1 .0 | F | RP-050060 | Revised | Clarification of Initialisation and Rate Control for lu user plane version | TEI6 | R3 | R3-050301 |
| 25.415 | 124 | 2 | Rel-6 | 6.1 .0 | F | RP-050118 | Revised | Clarification of Initialisation and Rate Control for lu user plane version | TEI6 | R3 |  |
| 25.415 | 124 | 3 | Rel-6 | 6.1 .0 | F | RP-050136 | Approved | Clarification of Initialisation and Rate Control for lu user plane version one | TEI6 | R3 |  |
| 25.420 | 047 |  | Rel-6 | 6.2 .0 | B | RP-050056 | Approved | Introduction of Fractional DPCH | RANimp-RABSECodeOptFDD | R3 | R3-050186 |
| 25.423 | 1021 | 3 | Rel-6 | 6.4.1 | F | RP-050057 | Approved | Optimisation of MBMS channel type indication via lur | MBMS-RAN | R3 | R3-050354 |
| 25.423 | 1022 | 1 | R99 | 3.14.2 | C | RP-050038 | Rejected | Removal of TGPL2 | TEI | R3 | R3-050246 |


| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
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| 25.423 | 1023 | 1 | Rel-4 | 4.12 .1 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R3 | R3-050247 |
| 25.423 | 1024 | 1 | Rel-5 | 5.12 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R3 | R3-050248 |
| 25.423 | 1025 | 1 | Rel-6 | 6.4 .1 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R3 | R3-050249 |
| 25.423 | 1026 |  | Rel-5 | 5.12 .0 | F | RP-050053 | Approved | Wrong HS IE referenced | HSDPA-lublur | R3 | R3-050084 |
| 25.423 | 1027 |  | Rel-6 | 6.4.1 | A | RP-050053 | Approved | Wrong HS IE referenced | HSDPA-lublur | R3 | R3-050085 |
| 25.423 | 1028 |  | Rel-5 | 5.12.0 | F | RP-050054 | Approved | Measurement Power Offset IE procedure text missing | TEI5 | R3 | R3-050088 |
| 25.423 | 1029 |  | Rel-6 | 6.4.1 | A | RP-050054 | Approved | Measurement Power Offset IE procedure text missing | TEI5 | R3 | R3-050089 |
| 25.423 | 1034 | 1 | Rel-6 | 6.4.1 | F | RP-050058 | Approved | Correction of RNSAP E-DCH IEs | EDCH-lurlub | R3 | R3-050334 |
| 25.423 | 1035 | 2 | Rel-6 | 6.4.1 | F | RP-050057 | Approved | MBMS Identifiers Retrieval | MBMS-RAN | R3 | R3-050363 |
| 25.423 | 1036 | 1 | Rel-6 | 6.4.1 | B | RP-050056 | Approved | Introduction of Fractional DPCH | RANimp-RABSECodeOptFDD | R3 | R3-050276 |
| 25.423 | 1037 |  | Rel-6 | 6.4 .1 | B | RP-050059 | Approved | Initial Radio Link Timing Adjustment | TEI6 | R3 | R3-050191 |
| 25.423 | 1038 | 1 | Rel-5 | 5.12 .0 | F | RP-050053 | Approved | Clarification on HS-DSCH Information IE | TEI5 | R3 | R3-050335 |
| 25.423 | 1039 |  | Rel-6 | 6.4.1 | F | RP-050058 | Approved | EDCH RNSAP ASN. 1 | EDCH-lurlub | R3 | R3-050216 |
| 25.423 | 1040 |  | Rel-5 | 5.12.0 | F | RP-050053 | Approved | Interaction between Synchronised RL Reconfiguration and RL Deletion | TEI5 | R3 | R3-050222 |
| 25.423 | 1041 |  | Rel-6 | 6.4.1 | A | RP-050053 | Approved | Interaction between Synchronised RL Reconfiguration and RL Deletion | TEI5 | R3 | R3-050223 |
| 25.423 | 1042 | 2 | Rel-6 | 6.4.1 | C | RP-050095 | Postponed | Timing maintanied hard HO | TEI6 | R3 | R3-050368 |
| 25.423 | 1043 |  | Rel-6 | 6.4.1 | A | RP-050053 | Approved | Clarification on HS-DSCH Information IE | TEI5 | R3 | R3-050336 |
| 25.427 | 096 |  | Rel-5 | 5.3 .0 | F | RP-050054 | Approved | Reference for QE mapping is incorrect | TEI5 | R3 | R3-050092 |
| 25.427 | 097 |  | Rel-6 | 6.1 .0 | A | RP-050054 | Approved | Reference for QE mapping is incorrect | TEI5 | R3 | R3-050093 |
| 25.427 | 099 | 2 | Rel-6 | 6.1 .0 | F | RP-050119 | Rejected | EDCH Frame format update | EDCH-lurlub | R3 | R3-050366 |
| 25.427 | 102 |  | Rel-6 | 6.1 .0 | F | RP-050121 |  | EDCH Frame format update | EDCH-lurlub | R3 |  |
| 25.427 | 102 | 1 | Rel-6 | 6.1 .0 | F | RP-050137 | Approved | E-DCH Frame format update | EDCH-lurlub | R3 |  |
| 25.430 | 059 |  | Rel-6 | 6.3.0 | B | RP-050056 | Approved | Introduction of Fractional DPCH | RANimp-RABSECodeOptFDD | R3 | R3-050188 |
| 25.433 | 1068 |  | Rel-6 | 6.4.0 | F | RP-050059 | Approved | Measurement Recovery Behavior in Dedicated Measurement Procedures | TEI6 | R3 | R3-050069 |
| 25.433 | 1069 |  | Rel-5 | 5.11.0 | F | RP-050054 | Approved | Availability Status reference correction | TEI5 | R3 | R3-050070 |
| 25.433 | 1070 |  | Rel-6 | 6.4 .0 | A | RP-050054 | Approved | Availability Status reference correction | TEI5 | R3 | R3-050071 |
| 25.433 | 1071 | 1 | R99 | 3.14.2 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R3 | R3-050250 |
| 25.433 | 1072 | 1 | Rel-4 | 4.13 .0 | A | RP-050038 | Rejected | Removal of TGPL2 | TEI | R3 | R3-050251 |
| 25.433 | 1073 | 1 | Rel-5 | 5.11 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R3 | R3-050252 |
| 25.433 | 1074 | 1 | Rel-6 | 6.4 .0 | C | RP-050038 | Approved | Removal of TGPL2 | TEI5 | R3 | R3-050253 |
| 25.433 | 1075 |  | Rel-5 | 5.11 .0 | F | RP-050053 | Approved | Wrong HS IE referenced | HSDPA-lublur | R3 | R3-050086 |
| 25.433 | 1076 |  | Rel-6 | 6.4 .0 | A | RP-050053 | Approved | Wrong HS IE referenced | HSDPA-lublur | R3 | R3-050087 |
| 25.433 | 1077 |  | Rel-5 | 5.11 .0 | F | RP-050054 | Approved | Measurement Power Offset IE optionality at HSDSCH setup | TEI5 | R3 | R3-050090 |


| Spec | CR | Rev | Phase | Curr Ver | Cat | Doc 1st-Level | Status 1st-Level | Subject | Work Item | WG | Doc 2nd-Level |
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| 25.433 | 1078 |  | Rel-6 | 6.4.0 | A | RP-050054 | Approved | Measurement Power Offset IE optionality at HSDSCH setup | TEI5 | R3 | R3-050091 |
| 25.433 | 1080 | 1 | Rel-6 | 6.4.0 | B | RP-050050 | Approved | Introduction of 'DL Transmission Branch Load' measurement | TEI6 | R3 | R3-050300 |
| 25.433 | 1081 | 2 | Rel-6 | 6.4 .0 | F | RP-050058 | Approved | E-DCH NBAP ASN. 1 | EDCH-lurlub | R3 | R3-050359 |
| 25.433 | 1082 | 1 | Rel-6 | 6.4.0 | B | RP-050056 | Approved | Introduction of Fractional DPCH | RANimp-RABSECodeOptFDD | R3 | R3-050277 |
| 25.433 | 1083 |  | Rel-6 | 6.4 .0 | B | RP-050059 | Approved | Initial Radio Link Timing Adjustment | TEI6 | R3 | R3-050192 |
| 25.433 | 1084 | 1 | Rel-5 | 5.11 .0 | F | RP-050053 | Approved | Clarification on HS-DSCH Information IE | TEI5 | R3 | R3-050337 |
| 25.433 | 1085 | 2 | Rel-6 | 6.4.0 | B | RP-050062 | Approved | HSDPA Code Allocation/Measurement per Cell Portion | RANimp-BFE | R3 | R3-050317 |
| 25.433 | 1086 |  | Rel-5 | 5.11.0 | F | RP-050053 | Approved | Interaction between Synchronised RL Reconfiguration and RL Deletion | TEI5 | R3 | R3-050224 |
| 25.433 | 1087 |  | Rel-6 | 6.4.0 | A | RP-050053 | Approved | Interaction between Synchronised RL Reconfiguration and RL Deletion | TEI5 | R3 | R3-050225 |
| 25.433 | 1088 | 2 | Rel-6 | 6.4 .0 | C | RP-050095 | Postponed | Timing maintained hard HO | TEI6 | R3 | R3-050367 |
| 25.433 | 1089 |  | Rel-6 | 6.4 .0 | A | RP-050053 | Approved | Clarification on HS-DSCH Information IE | TEI5 | R3 | R3-050338 |
| 25.433 | 1090 | 1 | Rel-6 | 6.4.0 | F | RP-050127 | Revised | Time Alignment in MBMS transmission channels | TEI6 | Siem ens | R3-050364 |
| 25.433 | 1090 | 2 | Rel-6 | 6.4 .0 | C | RP-050148 | Rejected | Time alignment in MBMS transmission channels | MBMS-RAN | R3 |  |
| 25.453 | 077 | 1 | Rel-5 | 5.9.0 | F | RP-050055 | Approved | Corrections to descriptions of GPS Almanac and Ephemeris fields | TEI5 | R3 | R3-050261 |
| 25.453 | 078 | 1 | Rel-6 | 6.7 .0 | A | RP-050055 | Approved | Corrections to descriptions of GPS Almanac and Ephemeris fields | TEI5 | R3 | R3-050262 |
| 25.460 | 003 |  | Rel-6 | 6.1 .0 | D | RP-050061 | Approved | Editorial Corrections to 25.460 after RAN3\#45 | RANimp-TiltAnt | R3 | R3-050153 |
| 25.461 | 007 | 1 | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Minor Corrections and editorial changes to 25.461 | RANimp-TiltAnt | R3 | R3-050278 |
| 25.461 | 008 | 1 | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Power consumption clarification of RET | RANimp-TiltAnt | R3 | R3-050265 |
| 25.461 | 009 |  | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Modem Operating Bands | RANimp-Tilt | R3 | R3-050291 |
| 25.461 | 010 |  | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Modem Return loss | RANimp-Tilt | R3 | R3-050292 |
| 25.461 | 011 |  | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Modem Time Delay and Accuracy | RANimp-Tilt | R3 | R3-050293 |
| 25.461 | 012 |  | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Modem Insertion Loss | RANimp-Tilt | R3 | R3-050294 |
| 25.462 | 006 | 1 | Rel-6 | 6.1 .0 | D | RP-050061 | Approved | Editorial Corrections to 25.462 after RAN3\#45 | RANimp-TiltAnt | R3 | R3-050266 |
| 25.462 | 007 | 1 | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Correction of definition of Secondary Payload Transmit/Receive Length | RANimp-TiltAnt | R3 | R3-050267 |
| 25.462 | 008 |  | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Clarification on HDLC Parameter Negotiation | RANimp-TiltAnt | R3 | R3-050157 |
| 25.462 | 011 | 1 | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Correction of address assignment example | RANimp-TiltAnt | R3 | R3-050269 |
| 25.462 | 013 |  | Rel-6 | 6.1 .0 | C | RP-050061 | Approved | Reset in transport layer | RANimp-TiltAnt | R3 | R3-050272 |
| 25.462 | 014 | 1 | Rel-6 | 6.1 .0 | C | RP-050061 | Approved | Clarification on unique ID and device scan | RANimp-TiltAnt | R3 | R3-050342 |
| 25.463 | 020 |  | Rel-6 | 6.1 .0 | D | RP-050061 | Approved | Wrong numbering in table 6.7.6.2 | RANimp-TiltAnt | R3 | R3-050055 |
| 25.463 | 023 | 1 | Rel-6 | 6.1 .0 | D | RP-050061 | Approved | Editorial Corrections to 25.463 after RAN3\#45 | RANimp-TiltAnt | R3 | R3-050270 |
| 25.463 | 024 |  | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Minor Corrections to 25.463 after RAN3\#45 | RANimp-TiltAnt | R3 | R3-050158 |
| 25.463 | 025 | 2 | Rel-6 | 6.1 .0 | F | RP-050061 | Approved | Clarification on antenna movement during Set Tilt | RANimp-TiltAnt | R3 | R3-050287 |

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| Spec | CR | Rev | Phase | Curr Ver | Cat | $\begin{gathered} \text { Doc } \\ \text { 1st-Level } \end{gathered}$ | Status 1st-Level | Subject | Work Item | WG | $\begin{gathered} \text { Doc } \\ \text { 2nd-Level } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25.463 | 026 | 1 | Rel-6 | 6.1.0 | C | RP-050061 | Approved | Redefinition or the Software Reset procedure | RANimp-TiltAnt | R3 | R3-050271 |
| 25.931 | 025 | 1 | Rel-6 | 6.0.0 | B | RP-050057 | Approved | Signalling flows for MBMS | MBMS-RAN | R3 | R3-050284 |
| 25.942 | 018 |  | Rel-6 | 6.3.0 | F | RP-050041 | Approved | Scenarios for UE Receiver Blocking Specification | TEI6 | R4 | R4-050104 |
| 25.993 | 036 | - | Rel-6 | 6.7.0 | F | RP-050064 | Approved | Addition of asymmetric RAB-combinations with voice | TEI6 | R2 | R2-050589 |
| 25.993 | 037 |  | Rel-6 | 6.8 .0 | F | RP-050071 | Approved | AMR-WB reference RAB configurations | TEI6 | R2 | R2-050611 |
| 29.108 | 017 |  | Rel-6 | 6.1 .0 | B | RP-050120 | Approved | Full RANAP support of network initiated SCUDIF | TEI6 | R3 |  |
| TS 25.331 | 2539 | - | Rel-6 | 6.4.0 | B | RP-050134 | Postponed | Faster L1 DCH synchronization | TEI6 | R2 |  |
| TS 25.331 | 2540 |  | Rel-6 | 6.4 .0 | B | RP-050135 | Postponed | Timing Maintained Hard Handov | TEI6 | R2 |  |

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| Annex D: Summary of TSGRAN Work ltems |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RAN Work Items Update after meeting \#27. |  |  |  |  |  |  |
| Abbrevia | ations used: \%: Level of completion <br> Feat: Feature <br> WT: Work Task | WI: Work Item <br> BB: Building Block <br> WIDS: WI Description Sheet |  |  | SI: Study I <br> FS: Feasibi | tem |
| Type | WI Name | WI Code | Lead | \% | Finish Date | Remarks |
| Feat | Rel-6 Improvements of Radio Interface | RInImp | RP |  | June 2005 | Generic feature |
| BB | Improved Receiver Performance Requirements for HSDPA | RInImp-HSPerf | R4 |  | June 2005 |  |
| WT | Performance Requirements of Receive Diversity for HSDPA | RInImp-HSPerf-RxDiv | R4 | 100 | March 2005 | Status Report in RP-050004 WI completed |
| WT | Improved Minimum Performance Requirements for HSDPA UE categories 7 and 8 | RInImp-HSPerf10code | R4 | 50 | June 2005 | Status Report in RP-050005 |
| Feat | Rel-6 RAN improvements | RANimp | RP |  | March 2005 | Generic feature |
| BB | RAB support enhancement | RANimp-RABSE | R2 | 85 | June 2005 | Status Report in RP-050010 Completion date moved from March 2005 |
| WT | Optimisation of downlink channelisation code utilisation | RANimp-RABSECodeOptFDD | R1 | 100 | March 2005 | Status Report in RP-050011 WI completed |
| WT | Optimisation of channelisation code utilisation for 3.84 Mcps TDD | RANimp-RABSECodOptTDD | R1 | 100 | March 2005 | Status Report in RP-050012 WI completed |
| BB | Introduction of MBMS in RAN | MBMS-RAN | R2 |  | September 2005 |  |
| WT | UE Performance Requirements for MBMS | MBMS-RAN-RF | R4 | 20 | September 2005 | Status Report in RP-050015 |
| Feat | FDD Enhanced Uplink | EDCH | RP | 69 | June 2005 | Status Report in RP-050016 |
| BB | FDD Enhanced Uplink - Stage 2 | EDCH-Stage2 | R2 | 100 | December 2004 | WI completed |
| BB | FDD Enhanced Uplink - Physical Layer | EDCH-Phys | R1 | 100 | March 2005 | WI completed |
| BB | FDD Enhanced Uplink - Layer 2 and 3 Protocol Aspects | EDCH-L23 | R2 | 100 | March 2005 | WI completed |
| BB | FDD Enhanced Uplink - UTRAN Iub/lur Protocol Aspects | EDCH-lurlub | R3 | 100 | March 2005 | WI completed |
| BB | FDD Enhanced Uplink - RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing | EDCH-RF | R4 | 35 | June 2005 |  |
| Feat | Rel-7 Improvements of the Radio Interface | RInImp | RP | 3 | December 2005 | Generic feature |
| BB | UMTS 2.6 GHz | RInImp-UMTS2600 | R4 | 60 | June 2005 | Status Report in RP-050006 |
| BB | UMTS 2.6 GHz TDD | RInImpUMTS2600TDD | R4 | 5 | December 2005 | Status Report in RP-050007 |
| BB | UMTS 900 MHz | RInImp-UMTS900 | R4 | 10 | December 2005 | Status Report in RP-050008 |

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| Type | WI Name | WI Code | Lead | \% | Finish Date | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Completion date moved from September 2005 |
| BB | UE Antenna Performance Evaluation Method and Requirements | RInImp-UEAnt | R4 | 20 | September 2005 | Status Report in RP-050009 WIDS revised in RP-050122 |
| $\begin{gathered} \text { New } \\ \text { BB } \end{gathered}$ | Improved support of IMS Realtime Services using HSDPA/HSUPA |  | R2 | 0 | December 2005 | New Item, WIDS in RP-050160 |
| Feat | Rel-7 RAN improvements | RANimp | RP |  | September 2005 | Generic feature |
| WT | Optimisation of channelisation code utilisation for 1.28 Mcps TDD | RANimp-RABSECodOptLCRTDD | R1 | 35 | September 2005 | Status Report in RP-050013 |
| $\begin{gathered} \text { New } \\ \text { BB } \end{gathered}$ | CS and PS Call Setup Delay Improvement |  | R2 | 0 | December 2005 | New Item, WIDS in RP-050162 |
| BB | UE positioning Rel-7 | LCS3-UEpos | RP |  | June 2006 |  |
| WT | Inclusion of Uplink TDOA UE positioning method in the UTRAN specifications | LCS3-UEPos-UTDOA | R2 | 20 | June 2006 | Status Report in RP-050014 |
| New WT | UE Performance Requirements for MBMS (TDD) | MBMS-RAN-RF-TDD | R4 | 0 | March 2006 | New Item, WIDS in RP-050156 |
| Feat | Multiple Input Multiple Output antennas (MIMO) | MIMO | R1 | 12 | December 2005 | Work Item on hold |
| BB | MIMO - Physical layer | MIMO-Phys | R1 | 60 | March 2005 |  |
| BB | MIMO - Layer 2,3 aspects | MIMO-L23 | R2 | 0 | December 2005 |  |
| BB | MIMO - lub/lur Protocol Aspects | MIMO-lurlub | R3 | 0 | December 2005 |  |
| BB | MIMO - RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing | MIMO-RF | R4 | 5 | December 2005 |  |
| Feat | 7.68Mcps TDD option | VHCRTDD | RP | 5 | March 2006 | Status Report in RP-050017 |
| BB | 7.68Mcps TDD option: Stage 2 | VHCRTDD-Stage2 | R1 | 5 | September 2005 |  |
| BB | 7.68Mcps TDD option: Physical Layer | VHCRTDD-Phys | R1 | 5 | September 2005 |  |
| BB | 7.68Mcps TDD option: Layer 2 and layer 3 protocol aspects | VHCRTDD-L23 | R2 | 0 | September 2005 |  |
| BB | 7.68Mcps TDD option: UTRAN Iub/lur Protocol Aspects | VHCRTDD-Iurlub | R3 | 5 | September 2005 |  |
| BB | 7.68Mcps TDD option: RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing | VHCRTDD-RF | R4 | 10 | March 2006 |  |
| New Feat | 3.84 Mcps TDD Enhanced Uplink | EDCHTDD | RP | 0 | June 2006 | New Item, WIDS in RP-050100 |
|  | 3.84 Mcps TDD Enhanced Uplink: Stage 2 | EDCHTDD-Stage2 | R2 |  | December 2005 |  |
|  | 3.84 Mcps TDD Enhanced Uplink: Physical Layer | EDCHTDD-Phys | R1 | 0 | March 2006 |  |
|  | 3.84 Mcps TDD Enhanced Uplink: Layer 2 and 3 Protocol Aspects | EDCHTDD-L23 | R2 | 0 | March 2006 |  |
|  | 3.84 Mcps TDD Enhanced Uplink: UTRAN Iub/lur Protocol Aspects | EDCHTDD-lurlub | R3 | 0 | March 2006 |  |

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| Type | WI Name | WI Code | Lead | \% | Finish Date | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3.84 Mcps TDD Enhanced Uplink: RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing | EDCHTDD-RF | R4 | 0 | June 2005 |  |
| SI | FS on Uplink enhancements for UTRA TDD | RInImpFSUpEnhTDD | R1 | 100 | March 2005 | Status Report in RP-050019 |
| SI | FS on Evolved UTRA and UTRAN | RANFS-Evo | RP | 5 | June 2005 | Status Report in RP-050018 |
| New SI | Performance Evaluation of the UE behaviour in high speed trains with speeds up to 350 kmph |  | R4 | 0 | December 2005 | New Study, WIDS in RP-050146 |

## Annex E: Meeting schedule

## TSG RAN meetings

| Meeting \# | Date | Host | Location |
| :---: | :---: | :---: | :---: |
| 28 | $1-3$ June 2005 | North American Friends of 3GPP | Quebec, Canada |
| 29 | $21-23$ September 2005 | European Friends of 3GPP | Tallinn, Estonia |
| 30 | 30 Nov. -2 Dec. 2005 | European Friends of 3GPP | Malta |
| 31 | $08-10$ March 2006 |  | China |
| 32 | 31 May - 2 Jun 2006 |  |  |
| 33 | $20-22$ Sep 2006 |  |  |
| 34 | 29 Nov - 1 Dec 2006 |  |  |

## TSG RAN WG1 meetings

| Meeting \# | Date | Host | Location |
| :---: | :---: | :---: | :---: |
| 40 bis | $4-8$ April 2005 | Huawei | Beijing, China |
| 41 | $09-13$ May 2005 | European Friends of 3GPP | Athens, Greece |
| 42 | 29 Aug - 02 Sept 2005 | European Friends of 3GPP | London, UK |
| 43 | $07-11$ November 2005 | Samsung | Korea |

## TSG RAN WG2 \& WG3 meetings

| Meeting \# | Date | Host | Location |
| :---: | :---: | :---: | :---: |
| 47 | 09-13 May 2005 | European Friends of 3GPP | Athens, Greece |
| 48 | 29 Aug - 02 Sept 2005 | European Friends of 3GPP | London, UK |
| 49 | $07-11$ November 2005 | Samsung | Korea |

RAN WG2 \#46bis: 4-8 April 2005, Beijing, China, hosted by Huawei.
RAN WG2 \# 48bis: 10 - 14 October 2005, Cannes, France, hosted by EF3.

## TSG RAN WG4 meetings

| Meeting \# | Date | Host | Location |
| :---: | :---: | :---: | :---: |
| AH | $4-6$ April | ETSI | Sophia Antipolis, France |
| MBMS/EDCH |  |  |  |
| 35 | 09-13 May 2005 | European Friends of 3GPP | Athens, Greece |
| 36 | 29 Aug - 02 Sept 2005 | European Friends of 3GPP | London, UK |
| 37 | $07-11$ November 2005 | Samsung | Korea |

## TSG RAN WG5 meetings

| Meeting \# | Date | Host | Location |
| :---: | :---: | :---: | :---: |
| 27 | $25-29$ Apr 2005 | Aeroflex | Bath, UK |
| 28 | $22-26$ Aug 2005 | European Friends of 3GPP | Berlin, Germany |
| 29 | $7-11$ November 2005 | Samsung | Vancouver, Canada |

Note: RAN WG5 meeting numbering carries on the numbering of T WG1.

## Annex F List of actions

- TSG RAN chairman to forward the LS in RP-0500031 to the chairman of ECC PT1 (RP050031).
- TSG RAN chairman to raise in TSG SA the issue of the misalignment amongst RAN WG2 and CN specifications on the issue of the inter-system HO authentification (RP-050033).
- RAN WG1, WG2, WG3 \& WG4 to start discussions on removal of the features in RP-050144 as soon as possible and to produce the CRs for the next meeting.
- TSG RAN ITU-R Ad Hoc to produce the first version of the contribution to Q. 223 on IP Solutions and WGs to review and contribute to the document, following the schedule in section 8.1.
- RAN WG4 to review the CR in RP-050094 and to check the contradiction with TS25.101.
- TSG RAN chairman to present the new WI Sheet for UE Antenna Performance in TSG SA, as a way of coordination with TSG GERAN (RP-050122)
- RAN WG3 to review RP-050148 and RAN WG2 to produce the associated CR to its specifications.
- RAN WG1, WG2, WG3 \& WG4 to take into account the agreed removal of RAKE combining for MBMS reception and to modify their specifications accordingly (section 9.4)
- RAN WG2 to reduce unnecessary options for EDCH scheduling and come for the next RAN Plenary with a Stage 2 where no functionalities shall be unnecessarily duplicated (section 9.6.1)

