3GPP TSG RAN Meeting #28 **RP-050171**
Quebec, Canada, 1 - 3 June 2005

Title:	**Revised Draft Report of the 27th 3GPP TSG RAN meeting (Tokyo, Japan, 9 – 11 March 2005)**
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César Gutiérrez Miguélez
ETSI Mobile Competence Center
cesar.gutierrez@etsi.org

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Executive summary

TSG RAN meeting #27 took place in Shinjuku, Tokyo, Japan. The meeting started at 8:00 on Wednesday 9th March 2005 and finished on Friday 11th 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:

Chairman		
Official	**Organization**	**Partner**
Francois Courau	Alcatel	ETSI

Vice chairmen		
Official	**Organization**	**Partner**
Don Zelmer	Cingular	ATIS
Takehiro Nakamura	NTT DoCoMo	ARIB
Hyeon Woo Lee	Samsung	TTA

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 11th. 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 7th - 8th 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 & RP-050031)

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 9th. 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 11th 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 9th 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 3rd 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 11th 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 Re-organization

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~~ requested 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 those proposed~~al from~~by 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 577m 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 2G 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 re-authentication (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	Source File
RP-050028	LS from Q.1/19 to SDOs	ITU-T (Q1/19 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 PT1(05)051_Annex20
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 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 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 80ms 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. Concerning the SDR report in ITU-R, no comment was raised in RAN plenary

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 4th April, so it can be input to the WGs meeting the first week of April). Comments from the WGs should be produced before the 5th 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 27Th of May 2005.

Based on that the following calendar was approved:

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

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 (ITU-R 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)
This list is provided for information

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 4Q04, 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 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 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 35.304 & 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	Title
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, 25.423, 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 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 25.101 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 3.84Mcps.

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 Rel-5 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 RAN3 specifications	RAN WG3
RP-050074	25.302 and 25.331 CRs Rel-6 on the introduction of Fractional DPCH	RAN WG2
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

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 Iur and Iub

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 1090r2 to 25.433 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 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-DCH	RAN WG1
RP-050046	CR (Rel-6 Category F) to TS25.213 for Correction on E-DPCCH power offset	RAN WG1
RP-050047	CR (Rel-6 Category F) to TS25.213 for Defining E-DPDCH power offset	RAN WG1
RP-050048	CR (Rel-6 Category F) to TS25.214 for Gain factor setting for E-DCH	RAN WG1
RP-050049	CR (Rel-6 Category F) to TS25.214 for Reliable E-RGCH/E-HICH Detection	RAN WG1
RP-050058	CRs (Rel-6 category F) for corrections of Enhanced uplink in RAN3 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 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.

RP-050085 25.306 CR to Rel-6 on the introduction of Enhanced Uplink (RAN WG2)
RP-050143 CR 25.306 Rel-6 Inclusion of UE categories for Enhanced Uplink (Motorola, NEC, Nokia, Nortel Networks, NTT DoCoMo, Orange, Philips, Vodafone)

In RP-050085, Table 5.1g 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 10ms 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, T-Mobile, 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 Technical Enhancements and Improvements Rel-6	RAN WG4
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
RP-050081	25.304, 25.331 CRs to Rel-6 on the correction to "selected PLMN" in Access Stratum	RAN WG2
RP-050059	CRs (Rel-6 category B and F) to TS 25.413, TS 25.423 and TS 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 CR to Rel-6 on uncomplete logical channel identification for 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 1.28Mcps 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.

Juho Lee (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 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~~ on 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)
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 non-IMS 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): 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.

RP-050161 Submission form for Rel-6 Late WI: RAB Support enhancements (Nokia)

RP-050159 Submission form for late Rel-6 feature: Improved Performance Requirements for HSDPA UE cat 7 & 8 (Nokia)

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~~principle expressed in the contribution, namely that all approved WIs and SIs should be covered by RAN WG agendas with sufficient time allocated to them, was endorsed, noting that there may be a need for the occasional exception.

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.

Annex A: List of participants

Lastname, firstname	Organization	Status, partner	Country	Phone	Email
Member of 3GPP (ARIB)					
DEGUCHI Noritaka	TOSHIBA CORPORATION	3GPPMEMBER ARIB	JP	Ph: +81 44 549 2243	noritaka.deguchi@toshiba.co.jp
ELLSBERGER Jan	NIPPON ERICSSON K.K.	3GPPMEMBER ARIB	JP	Ph: +46 8 508 77965	jan.ellsberger@ericsson.com
FUKUDA Eisuke	FUJITSU LIMITED	3GPPMEMBER ARIB	JP	Ph: +81 44 754 8511	efukuda@jp.fujitsu.com
KURODA Nahoko	NEC CORPORATION	3GPPMEMBER ARIB	JP	Ph: +81 44 396 2577	n-kuroda@cj.jp.nec.com
LI Xiaoqiang	SAMSUNG ELECTRONICS CO.	3GPPMEMBER ARIB	JP	Ph: +86 10 68427711	xiaoqiang.li@samsung.com
MAKIHIRA Tsuneichi	MITSUBISHI ELECTRIC CO.	3GPPMEMBER ARIB	JP	Ph: +81 6 6495 6599	makihira@cew.melco.co.jp
NAKAMURA Takehiro	NTT DOCOMO INC.	3GPPMEMBER ARIB	JP	Ph: +81 468 40 3190	takehiro@wsp.yrp.nttdocomo.co.jp
NG Cheng Hock	NEC CORPORATION	3GPPMEMBER ARIB	JP	Ph: +81 45 939 2171	ngcheng@da.jp.nec.com
OHLSÉN Hakan	NIPPON ERICSSON K.K.	3GPPMEMBER ARIB	JP	Ph: +46 8 757 0656	hakn.ohlsen@lme.ericsson.se
SASAKI Tsukasa	FUJITSU LIMITED	3GPPMEMBER ARIB	JP	Ph: +81 44 754 8511	t.sasaki@jp.fujitsu.com
SEBIRE Benoist	NOKIA JAPAN CO, LTD	3GPPMEMBER ARIB	JP	Ph: +8613801309020	benoist.sebire@nokia.com
USHIROKAWA Akihisa	NEC CORPORATION	3GPPMEMBER ARIB	JP	Ph: +81-45-939-2672	a-ushirokawa@aj.jp.nec.com
LEE Juho	Samsung	3GPPMEMBER ARIB	JP		juho95.lee@samsung.com
Member of 3GPP (ATIS)					
BLUST Stephen	CINGULAR WIRELESS LLC	3GPPMEMBER ATIS	US	Ph: +1 404 249 5058	stephen.blust@cingular.com
CHENG Fang-chen	LUCENT TECHNOLOGIES	3GPPMEMBER ATIS	US	Ph: +2 973 386 4497	fcc@lucent.com
GERSTENBERGER Dirk	ERICSSON INC.	3GPPMEMBER ATIS	US	Ph: +46 8 585 33901	dirk.gerstenberger@ericsson.com
HAYES Stephen	ERICSSON INC.	3GPPMEMBER ATIS	US	Ph: +1 469 360 8500	stephen.hayes@ericsson.com
JONES Gary	T-MOBILE USA INC.	3GPPMEMBER ATIS	US	Ph: +1 202.654.5950	gary.jones@t-mobile.com
LE STRAT Evelyne	NORTEL NETWORKS	3GPPMEMBER ATIS	US	Ph: +44 1628 43 2000	elestrat@nortel.com
NG Put-fan	ROGERS WIRELESS INC.	3GPPMEMBER ATIS	CA	Ph: +14169356120	put.ng@rci.rogers.com
ZELMER Donald E.	CINGULAR WIRELESS LLC	3GPPMEMBER ATIS	US	Ph: +1 404 236 5912	don.zelmer@cingular.com
Member of 3GPP (CCSA)					
CUI Chunfeng	CHINA MOBILE COM. CORPORATION	3GPPMEMBER CCSA	CN	Ph: +86 10 66006688	cuichunfeng@chinamobile.com
FANG Min	ZTE CORPORATION	3GPPMEMBER CCSA	CN	Ph:	
FENG Qingguo	CATT	3GPPMEMBER CCSA	CN	Ph: +86-10-82029090-6575	fengqingguo@datangmobile.cn
ISRAELSSON Martin	NANJING ERICSSON PANDA COM LTD	3GPPMEMBER CCSA	CN	Ph: +46 8 7641199	martin.israelsson@ericsson.com
WANG Wei (victoria)	NANJING ERICSSON PANDA COM LTD	3GPPMEMBER CCSA	CN	Ph: +861065615566-10393	victoria.wang@ericsson.com
XU Bing	HUAWEI TECHNOLOGIES CO., LTD	3GPPMEMBER CCSA	CN	Ph: +86 21 50991864	xub@huawei.com
Member of 3GPP (ETSI)					
ALI-HACKL Markus	SIEMENS AG	3GPPMEMBER ETSI	DE	Ph: +49 89 722 61916	markus.ali-hackl@siemens.com
ANDERSEN Niels Peter Skov	MOTOROLA A/S	3GPPMEMBER ETSI	DK	Ph: +45 40 18 47 93	npa@qualcomm.com
AUSTIN Mark	OFCOM (U.K.)	3GPPMEMBER ETSI	GB	Ph: +44 20 7 783	mark.austin@ofcom.org.uk

Lastname, firstname	Organization	Status, partner	Country	Phone	Email
				4364	
BARNES Nigel	MOTOROLA LTD	3GPPMEMBER ETSI	GB	Ph: +44 1 256 790 169	nigel.barnes@motorola.com
BARTH Ulrich	ALCATEL S.A.	3GPPMEMBER ETSI	FR	Ph: +49 170 9261878	ulrich.barth@alcatel.de
BEAUDOU Patrice	AXALTO SA	3GPPMEMBER ETSI	FR	Ph: +33 1 46 00 70 83	pbeaudou@axalto.com
BENN Howard	MOTOROLA LTD	3GPPMEMBER ETSI	GB	Ph: +44 7802 361 664	howard.benn@motorola.com
BONNIN Frederic	ORANGE SA	3GPPMEMBER ETSI	FR	Ph: +33155225797	frederic.bonnin@orangefrance.com
COURAU François	ALCATEL S.A.	3GPPMEMBER ETSI	FR	Ph: +33 6 08 82 20 22	francois.courau@alcatel.fr
D'ANTONIO Luca	TELECOM ITALIA S.P.A.	3GPPMEMBER ETSI	IT	Ph: +39 06 3900 9245	ldantonio@mail.tim.it
DOIG Ian	MOTOROLA S.A.S	3GPPMEMBER ETSI	FR	Ph: +33 4 92 94 48 64	ian.doig@motorola.com
DREVON Nicolas	ALCATEL S.A.	3GPPMEMBER ETSI	FR	Ph: +33 1 30 77 09 16	nicolas.drevon@alcatel.fr
DUGERDIL Bernard	FREESCALE SEMICONDUCTORS	3GPPMEMBER ETSI	FR	Ph: +41 79 43 86179	b.dugerdil@freescale.com
ERNSTRÖM Per	TELIASONERA AB	3GPPMEMBER ETSI	SE	Ph: +46 8 713 8134	per.ernstrom@teliasonera.com
FAUCONNIER Denis	NORTEL NETWORKS (EUROPE)	3GPPMEMBER ETSI	GB	Ph: +33 1 39 44 52 87	dfauconn@nortel.com
FERNANDES Edgar	MOTOROLA LTD	3GPPMEMBER ETSI	GB	Ph: +44 1256 790 168	edgar.fernandes@motorola.com
GRILLI Francesco	QUALCOMM EUROPE S.A.R.L.	3GPPMEMBER ETSI	FR	Ph: +1 858 845 3742	fgrilli@qualcomm.com
GUSTRAU Joerg	SIEMENS MOBILE COMMUNICATIONS	3GPPMEMBER ETSI	IT	Ph: +49 30 386 23467	joerg.gustrau@siemens.com
HABERLAND Bernd	ALCATEL S.A.	3GPPMEMBER ETSI	FR	Ph: +49 711 821 46309	bernd.haberland@alcatel.de
HALLAM-BAKER Nick	UBINETICS LTD	3GPPMEMBER ETSI	GB	Ph: +44 1763 267030	nick.hallam-baker@ubinetics.com
HAYOUN Lionel	NEC TECHNOLOGIES (UK) LTD	3GPPMEMBER ETSI	GB	Ph: +33149072057	lionel.hayoun@nectech.fr
HOLLEY Kevin	MMO2 PLC	3GPPMEMBER ETSI	GB	Ph: +44 1473 782214	kevin.holley@o2.com
HOWELL Andrew	MOTOROLA GMBH	3GPPMEMBER ETSI	DE	Ph: +44 1452 623967	andrew.howell@motorola.com
KAINZ Andreas	TELEKOM AUSTRIA AG	3GPPMEMBER ETSI	AT	Ph: +43 1 33161 6331	a.kainz@mobilkom.at
KANERVA Mikko	NOKIA UK LTD	3GPPMEMBER ETSI	GB	Ph: +358 40 504 0735	mikko.j.kanerva@nokia.com
KLERER Mark	FLARION TECHNOLOGIES	3GPPMEMBER ETSI	US	Ph: +1 908 997 2069	klerer@flarion.com
KORHONEN Juha	TTP COMMUNICATIONS PLC	3GPPMEMBER ETSI	GB	Ph: +44 1763 266 266	juha.korhonen@ttpcom.com
LEBEUGLE Franck	ORANGE SA	3GPPMEMBER ETSI	FR	Ph: +33 6 82 13 84 49	franck.lebeugle@rd.francetelecom.com
LITZENBURGER Manfred	ALCATEL S.A.	3GPPMEMBER ETSI	FR	Ph: +49 711 821 32273	manfred.litzenburger@alcatel.de
LO Ka Leong	UTSTARCOM	3GPPMEMBER ETSI	US	Ph: +86755 26952899	kaleong.lo@utstar.com
LOVE Bob	MOTOROLA LTD	3GPPMEMBER ETSI	GB	Ph: +1 847 523 3702	ga2178@email.mot.com
MADADI Hashem	3	3GPPMEMBER ETSI	GB	Ph: +44.1628.765.000	hmadadi@attglobal.net
MILLER James	INTERDIGITAL COMMUNICATIONS	3GPPMEMBER ETSI	US	Ph: +1 631 622 4071	jim.miller@interdigital.com
MIRANDA Jose Luis	TELEFONICA S.A.	3GPPMEMBER ETSI	ES	Ph: +34 6800 19717	miranda_jl@tsm.es
MORENO Juan Antonio	TELEFONICA S.A.	3GPPMEMBER ETSI	ES	Ph: +34 68001 4050	moreno-ja@tsm.es
NOGUERA Juan	NEC EUROPE LTD	3GPPMEMBER ETSI	GB	Ph: +49 6221 905 1141	juan.noguera@netlab.nec.de
NUMMINEN Jussi	NOKIA CORPORATION	3GPPMEMBER ETSI	FI	Ph: +358 50 3131277	jussi.numminen@nokia.com
PALAT Sudeep	LUCENT TECHNOLOGIES N. S. UK	3GPPMEMBER ETSI	GB	Ph: +44 1793 736180	spalat@lucent.com
RICHARDS Derek	IPWIRELESS INC.	3GPPMEMBER ETSI	GB	Ph: +44 1249800071	drichards@ipwireless.com
ROBERTS Michael	TELECOM MODUS LTD.	3GPPMEMBER ETSI	GB	Ph: +33 149072006	michael.roberts@nectech.fr
RODILITZ Ben	SIRF TECHNOLOGY INC	3GPPMEMBER ETSI	US	Ph: +1 714 435-4922	brodilitz@sirf.com

Lastname, firstname	Organization	Status, partner	Country	Phone	Email
ROMANO Giovanni	TELECOM ITALIA S.P.A.	3GPPMEMBER ETSI	IT	Ph: +39 011 228 7069	giovanni.romano@telecomitalia.it
SCHMIDL Tim	TEXAS INSTRUMENTS	3GPPMEMBER ETSI	FR	Ph: +1 214 480 4460	schmidl@ti.com
SHARP Iain	NORTEL NETWORKS (EUROPE)	3GPPMEMBER ETSI	GB	Ph: +44 1628 43 42 87	isharp@nortel.com
SIMMONS Paul	NORTEL NETWORKS (EUROPE)	3GPPMEMBER ETSI	GB	Ph: +33 1 39 44 55 95	simmonsp@nortelnetworks.com
SUZUKI Takashi	DOCOMO EUROPE S.A.	3GPPMEMBER ETSI	FR	Ph: +81 46 840 6453	suzukitak@docomo-tech.co.jp
TALVITIE Ilkka	ELISA CORPORATION	3GPPMEMBER ETSI	FI	Ph: +3585065235	ilkka.talvitie@elisa.fi
TOSKALA Antti	NOKIA UK LTD	3GPPMEMBER ETSI	GB	Ph: +358 0 718030746	antti.toskala@nokia.com
VAN BUSSEL Han	T-MOBILE INTERNATIONAL AG	3GPPMEMBER ETSI	DE	Ph: +49 228 936 18416	han.van.bussel@t-mobile.de
VAN DE BEEK Jaap	HUAWEI TECHNOLOGIES CO. LTD.	3GPPMEMBER ETSI	CN	Ph: +46 739200851	jaap.vandebeek@huawei.com
VAN DER VEEN Hans	NEC EUROPE LTD	3GPPMEMBER ETSI	GB	Ph: +49 (0)6221 905 1135	hans.vanderveen@netlab.nec.de
VESELY Alexander	SIEMENS NV/SA	3GPPMEMBER ETSI	BE	Ph: +43 5 1707 21318	alexander.vesely@siemens.com
WILDE Andreas	TELECOM MODUS LTD.	3GPPMEMBER ETSI	GB	Ph: +49-6221-90511-37	andreas.wilde@netlab.nec.de
WILLENEGGER Serge	QUALCOMM EUROPE S.A.R.L.	3GPPMEMBER ETSI	FR	Ph: +41 244 363 541	sergew@qualcomm.com
WOLF Guy	INTEL CORPORATION SARL	3GPPMEMBER ETSI	FR	Ph: +972-3-9207006	guy.wolf@intel.com
YOUNG Gordon	RESEARCH IN MOTION LIMITED	3GPPMEMBER ETSI	CA	Ph: +44 7841899393	gyoung@rim.com
ZHU Haobing	HUAWEI TECHNOLOGIES CO. LTD.	3GPPMEMBER ETSI	CN	Ph: +86 138 1669 3163	zhuhaobing@huawei.com
Gross, Robert	TruePosition, Inc.	ETSI	US	Ph: +1 610 680 1119	rlgross@trueposition.com
Member of 3GPP (TTA)					
AHN Joon-kui	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82 31 450 4131	jkan@lge.com
CHUN Sungduck	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82-31-450-7859	duckychun@lge.com
FISCHER Patrick	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +33 1 41 59 93 11	pfischer@lge.com
KHAN Farooq	SAMSUNG ELECTRONICS CO., LTD	3GPPMEMBER TTA	KR	Ph: +1 972 747 7929	f.khan@samsung.com
KIM Dong Hoi	ETRI	3GPPMEMBER TTA	KR	Ph: +82 42 860 1133	donghk@etri.re.kr
KIM Jae-heung	ETRI	3GPPMEMBER TTA	KR	Ph: +82 42 860 6806	kimjh@etri.re.kr
LEE Hee Joung	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82 31 450 4540	heejoung@lge.com
LEE Hyeon Woo	SAMSUNG ELECTRONICS CO., LTD	3GPPMEMBER TTA	KR	Ph: +82 31 279 5120	woojaa@samsung.com
LEE Youngdae	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82-31-450-2920	leego@lge.com
PARK Andy	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82-31-450-2951	bbique@lge.com
PARK Byoung Seong	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82 31 450 7304	tethaja@lge.com
PARK Jisoo	ETRI	3GPPMEMBER TTA	KR	Ph: +82 42 860 5748	jsp@etri.re.kr
RYU Byung-han	ETRI	3GPPMEMBER TTA	KR	Ph: +82-42-860-6799	rubh@etri.re.kr
RYU Youngkwon	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +82 31 450 4135	ykry47@lge.com
VUJCIC Dragan	LG ELECTRONICS INC.	3GPPMEMBER TTA	KR	Ph: +33 1 41 59 93 78	dvujcic@lge.com
YEO Kunmin	ETRI	3GPPMEMBER TTA	KR	Ph: +82-42-860-5438	kunmin@etri.re.kr
Member of 3GPP (TTC)					
ITO Akira	FUJITSU LIMITED	3GPPMEMBER TTC	JP	Ph: +81 46 839 5374	aito@jp.fujitsu.com
KOIZUMI Yoshiko	FUJITSU LIMITED	3GPPMEMBER TTC	JP	Ph: +81 44 754 8511	koizumi.yoshiko@jp.fujitsu.com
OKUMURA Yukihiko	NTT DOCOMO INC.	3GPPMEMBER TTC	JP	Ph: +81 468 40 3190	okumura@mlab.yrp.nttdocomo.co.jp

Lastname, firstname	Organization	Status, partner	Country	Phone	Email
SUGIYAMA Katsumasa	FUJITSU LIMITED	3GPPMEMBER TTC	JP	Ph: +81 44 754 8511	ksugiyama@jp.fujitsu.com
TAMURA Toshiyuki	NEC CORPORATION	3GPPMEMBER TTC	JP	Ph: +81 491 85 6993	tamurato@aj.jp.nec.com
WATANABE Kunio	FUJITSU LIMITED	3GPPMEMBER TTC	JP	Ph: +81 44 754 2617	kunio.watanabe@jp.fujitsu.com
Organisation partner representative (ARIB)					
ISHIDA Yoshihide	ARIB	3GPPORG_REP ARIB	JP	Ph: +813 5510 8594	ishida@arib.or.jp
MIURA Nozomi	ARIB	3GPPORG_REP ARIB	JP	Ph: +81-3-5510-8594	miura@arib.or.jp
SASAKI Susumu	ARIB	3GPPORG_REP ARIB	JP	Ph: +81 44 740 8106	ssasaki@mcom.ts.fujitsu.co.jp
SATOH Kohei	ARIB	3GPPORG_REP ARIB	JP	Ph: +81-3-5510-8591	satoh@arib.or.jp
SHIRAISHI Motoi	ARIB	3GPPORG_REP ARIB	JP	Ph: +81-3-5510-8594	m-shirai@arib.or.jp
TANAKA Tetsu	ARIB	3GPPORG_REP ARIB	JP	Ph: +81-3-5510-8594	arib-3gpp@arib.or.jp
Organisation partner representative (ETSI)					
ARZELIER Claude	Mobile Competence Center	3GPPORG_REP ETSI	FR	Ph: +33 4 92 94 42 61	claude.arzelier@etsi.org
CALDENHOVEN Juergen	Mobile Competence Center	3GPPORG_REP ETSI	FR	Ph: +33 4 92 94 43 52	juergen.caldenhoven@etsi.org
GUTIERREZ MIGUELEZ Cesar	Mobile Competence Center	3GPPORG_REP ETSI	FR	Ph: +33 4 92 94 43 21	cesar.gutierrez@etsi.org
ISHII Yoshikazu	Mobile Competence Center	3GPPORG_REP ETSI	FR	Ph:	yoshikazu.ishii@etsi.org
MEREDITH John M	Mobile Competence Center	3GPPORG_REP ETSI	FR	Ph: +33 4 92 94 42 37	john.meredith@etsi.org

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/

Tdoc	Title	Source	Decision
RP-050001	Draft agenda TSG RAN #27	Chairman	Revised in 2
RP-050002	Draft agenda TSG RAN #27	Chairman	Approved
RP-050003	Revised draft report TSG RAN meeting #26	3GPP Support	Approved
RP-050004	Status Report for WI Performance Requirements of Receive Diversity for HSDPA	NTT DoCoMo	Noted
RP-050005	Status Report for WI Improved minimum performance requirements for HSDPA UE categories 7 & 8	Nokia	Noted
RP-050006	Status Report for WI UMTS 2.6GHz	Nokia	Noted
RP-050007	Status Report for WI UMTS 2.6GHz TDD	IPWireless	Noted
RP-050008	Status Report for WI UMTS 900	Nortel	Noted
RP-050009	Status Report for WI UE Antenna Performance Evaluation Method and Requirements	TeliaSonera	Noted
RP-050010	Status Report for WI RAB support enhancement	Nokia	Noted
RP-050011	Status Report for WI Optimisation of downlink channelisation code utilisation	Nortel	Noted
RP-050012	Status Report for WI Optimisation of channelisation code utilisation for 3.84 Mcps TDD	IPWireless	Noted
RP-050013	Status Report for WI Optimisation of channelisation code utilisation for 1.28 McpsTDD	IPWireless	Noted
RP-050014	Status Report for WI Inclusion of Uplink TDOA UE positioning method in the UTRAN specifications	TruePosition	Noted
RP-050015	Status Report for WI UE Performance Requirements for MBMS	Ericsson	Noted

Tdoc	Title	Source	Decision
RP-050016	Status Report for WI FDD Enhanced Uplink	Ericsson	Noted
RP-050017	Status Report for WI 7.68 Mcps TDD	IPWireless	Noted
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 inter-system 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/Ior 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

Tdoc	Title	Source	Decision
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
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 Iu 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 HS-DSCH operation without a DL DPCH for 3.84Mcps	RAN WG1, WG2	Approved

Tdoc	Title	Source	Decision
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
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 1.28Mcps 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 Iu 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

Tdoc	Title	Source	Decision
RP-050124	Mandatory features reliability assurance	Nokia	Noted
RP-050125	Feature clean up	Nokia, Motorola, T-Mobile, Ericsson, Panasonic, NTT DoCoMo, Qualcomm, Telecom Italia	Revised in 144
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 Iu 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 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

Tdoc	Title	Source	Decision
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, Samsung	Noted
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 new-RAN 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 new-RAN meeting

Annex C: List of CRs presented at TSG RAN #~~26~~27

The table below lists ALL the CRs presented at RAN#~~26~~27.

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-HSPerf-RxDiv	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-HSPerf-RxDiv	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-HSPerf-RxDiv	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-HSPerf-RxDiv	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/Ior 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/Ior 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/Ior 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/Ior 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-RABSE-CodeOptFDD	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-RABSE-CodeOptFDD	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-RABSE-CodeOptFDD	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-RABSE-CodeOptFDD	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-RABSE-CodeOptFDD	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
								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-RABSE-CodeOptTDD	R1	R1-050227
25.224	140	2	Rel-6	6.3.0	C	RP-050097	Approved	Improvements to uplink closed-loop power control for 1.28Mcps 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-RABSE-CodeOptTDD	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-RABSE-CodeOPTTDD	R2	R2-050289
25.302	149	-	Rel-6	6.2.0	B	RP-050074	Approved	Introduction of F-DPCH	RANimp-RABSE-CodeOptFDD	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

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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-050169~~070~~	Approved	Integrity protection related information in the SRNS relocation info	TEI5	R2	R2-050254
25.331	2501	-	Rel-6	6.4.0	A	RP-050~~070~~169	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 HS-PDSCH 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 HS-PDSCH 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-RABSE-CodeOPTTDD	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
								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	-	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	-	Rel-6	6.4.0	A	RP-050070	Approved	Unsupported RLC mode reconfigurations	TEI5	R2	R2-050613
25.331	2522	-	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	NTShar-UTRANEnh	R2	R2-050618
25.331	2525	-	Rel-6	6.4.0	F	RP-050086	Approved	Network sharing corrections	NTShar-UTRANEnh	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, NTShar-UTRANEnh	R2	R2-050633
25.331	2528	-	Rel-6	6.4.0	B	RP-050074	Approved	Introduction of F-DPCH	RANimp-RABSE-CodeOptFDD	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 1.28Mcps 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	

Spec	CR	Rev	Phase	Curr Ver	Cat	Doc 1st-Level	Status 1st-Level	Subject	Work Item	WG	Doc 2nd-Level
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-RABSE-CodeOptFDD	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 R3-041734)	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 Iu 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 Iu 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 Iu user plane version one	TEI6	R3	
25.420	047		Rel-6	6.2.0	B	RP-050056	Approved	Introduction of Fractional DPCH	RANimp-RABSE-CodeOptFDD	R3	R3-050186
25.423	1021	3	Rel-6	6.4.1	F	RP-050057	Approved	Optimisation of MBMS channel type indication via Iur	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
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-Iublur	R3	R3-050084
25.423	1027		Rel-6	6.4.1	A	RP-050053	Approved	Wrong HS IE referenced	HSDPA-Iublur	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-Iurlub	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-RABSE-CodeOptFDD	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-Iurlub	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-Iurlub	R3	R3-050366
25.427	102		Rel-6	6.1.0	F	RP-050121		EDCH Frame format update	EDCH-Iurlub	R3	
25.427	102	1	Rel-6	6.1.0	F	RP-050137	Approved	E-DCH Frame format update	EDCH-Iurlub	R3	
25.430	059		Rel-6	6.3.0	B	RP-050056	Approved	Introduction of Fractional DPCH	RANimp-RABSE-CodeOptFDD	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-Iublur	R3	R3-050086
25.433	1076		Rel-6	6.4.0	A	RP-050053	Approved	Wrong HS IE referenced	HSDPA-Iublur	R3	R3-050087
25.433	1077		Rel-5	5.11.0	F	RP-050054	Approved	Measurement Power Offset IE optionality at HS-DSCH 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
25.433	1078		Rel-6	6.4.0	A	RP-050054	Approved	Measurement Power Offset IE optionality at HS-DSCH 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-Iurlub	R3	R3-050359
25.433	1082	1	Rel-6	6.4.0	B	RP-050056	Approved	Introduction of Fractional DPCH	RANimp-RABSE-CodeOptFDD	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	Siemens	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

Spec	CR	Rev	Phase	Curr Ver	Cat	Doc 1st-Level	Status 1st-Level	Subject	Work Item	WG	Doc 2nd-Level
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 Handover	TEI6	R2	

Annex D: Summary of TSG RAN Work Items

RAN Work Items Update after meeting #27.

Abbreviations used: %: Level of completion; WI: Work Item; SI: Study Item; Feat: Feature; BB: Building Block; FS: Feasibility Study; WT: Work Task; WIDS: WI Description Sheet

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-HSPerf-10code	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-RABSE-CodeOptFDD	R1	100	March 2005	Status Report in RP-050011 WI completed
WT	Optimisation of channelisation code utilisation for 3.84 Mcps TDD	RANimp-RABSE-CodOptTDD	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
New WT	UE Performance Requirements for MBMS (TDD)	MBMS-RAN-RF-TDD	R4	0	March 2006	New Item, WIDS in RP-050156
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/Iur Protocol Aspects	EDCH-IurIub	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	RInImp-	R4	5	December 2005	Status Report in RP-050007

Type	WI Name	WI Code	Lead	%	Finish Date	Remarks
		UMTS2600TDD				
BB	UMTS 900 MHz	RInImp-UMTS900	R4	10	December 2005	Status Report in RP-050008 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
New BB	Improved support of IMS Realtime Services using HSDPA/~~HSUPA~~EDCH		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-RABSE-CodOptLCRTDD	R1	35	September 2005	Status Report in RP-050013
New BB	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 - Iub/Iur Protocol Aspects	MIMO-Iurlub	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/Iur 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	

Type	WI Name	WI Code	Lead	%	Finish Date	Remarks
	3.84 Mcps TDD Enhanced Uplink: UTRAN Iub/Iur Protocol Aspects	EDCHTDD-IurIub	R3	0	March 2006	
	3.84 Mcps TDD Enhanced Uplink: RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing	EDCHTDD-RF	R4	0	June 200~~65~~	
SI	FS on Uplink enhancements for UTRA TDD	RInImp-FSUpEnhTDD	R1	100	March 2005	Status Report in RP-050019
SI	FS on Evolved UTRA and UTRAN	RANFS-Evo	RP	5	June ~~2005~~2006	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
40bis	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.
RAN WG3 RET Ad Hoc: 05 – 06 April 2005, Stockholm, Sweden, hosted by Powerwave.
RAN WG3 #48bis: 10 – 14 October 2005, Cannes, France, hosted by EF3.

TSG RAN WG4 meetings

Meeting #	Date	Host	Location
AH MBMS/EDCH	4 – 6 April	ETSI	Sophia Antipolis, France
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~~Korea

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 (RP-050031).
- 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)