TSG-RAN Meeting #23 RP-040002
Phoenix, Arizona, USA, 10 - 12 March 2004

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| **Title:** | **Revised Draft Report of the 22th 3GPP TSG RAN meeting (Maui, Hawaii, USA, 9 - 12 December 2003)** |
| **Document for:** | **Approval** |
| **Source:** | **3GPP support** |

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# Contents

# Executive Report

TSG RAN meeting #22 took place in Westin Maui Hotel, Hawaii, US. The meeting started at 7:00 on Tuesday 9th December 2003 and finished at 9:30 in the morning on Friday 12th. 89 participants were registered and 177 documents were presented.

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

| Release | WG1 | WG2 | WG3 | WG4 | Total |
|---|---|---|---|---|---|
| Release 99 | 1 | 2~~1~~0 | 3 | 5 | 29 |
| Rel-4 CRs (Rel-4 excluding Cat A) | 3 (2) | 2~~7~~6 (9) | 17 (14) | 10 (5) | 56 (30) |
| Rel-5 CRs (Rel-5 excluding Cat A) | 18 (15) | 4~~9~~8 (25) | 67 (50) | 33 (23) | 166 (113) |
| Rel-6 CRs (Rel-6 excluding Cat A) | 1 (1) | 6 (6) | 7 (5) | 49 (31) | 63 (43) |
| Total CRs (Total excluding Cat A) | 23 (19) | 10~~3~~0 (6~~1~~0) | 94 (72) | 97 (64) | 31~~7~~4 (21~~6~~5) |

TSG RAN WG2 and WG3 have planned to have six meetings next year. PCG will have to authorise the MCC support for the additional meetings, since only 4 meetings per year per WGs has been agreed (sec. 5.2).

It was stressed that TSG RAN WG1 and TSG RAN WG4 shall look for co-located meeting so that better coordination is ensured for new work.

TSG RAN will produce Rel-6 versions of most of its specifications now (December 2003), these specifications need to be sent to ITU-R for Update 4 of M.1457.

The Terms of Reference of WG3 have been updated to align with the current focus of the work in the group (RP-030668).

Update 5 of M.1457 was presented. An action plan, in order to comply with the schedule for submission in ITU-R, was shown. A first proposal for this update, which introduces the new features in UTRAN, was presented and endorsed. It is to be sent to TSG SA and PCG for final approval. The requirements of the submissions to ITU-R for the updates of M.1457 were discussed, as they are quite stringent for TSG RAN (sec. 7.1)

The following Ad Hoc meetings are scheduled to take place in Espoo, Finland, in January 2004:

- 3GPP TSG RAN WG1 Release 6 Ad Hoc: 27th to 29th of January
- 3GPP TSG RAN WG4 A-GPS Ad Hoc: 28th & 29th of January
- Joint Ad Hoc between WG1 & WG4 on the uplink Peak-to-Average Ratio (PAR) studies: 30th of January

A proposal for improving the accuracy of the Work Plan was presented by the 3GPP support. Basically, it is suggested to estimate the duration of a WI instead of its completion date. No objections were raised (RP-030725)

## Release 99, Release 4 & Release 5

Some of the R99 CRs agreed by the WGs were rejected, based on RP-020448 (guidelines for approval of R99 CRs) some companies didn't accept that these CRs were essential for the system to work (RP-030707). Although the number of R99 CRs in WG2 doesn't decrease significantly, it was shown that their impact is limited (sec. 7.3.1)

TSG RAN was requested to decide on the status of the TRs below, belonging to closed Release but still not under change control (sec. 11):

- TR 25.833 (R99), Physical layer items not for inclusion in Release 99. It is agreed to bring it under change control as v3.0.0
- TR 25.840 (Rel-4), Terminal power saving features. It is agreed to bring it under change control as v4.0.0
- TR 25.890 (Rel-5), High Speed Downlink Packet Access (HSDPA); User Equipment (UE) radio transmission and reception (FDD). It is agreed to discontinue support of this TR.

The freezing of ASN.1 in WG2 and WG3 was discussed. It seems it cannot be done yet for 25.331 (RRC), and it was preferred to align WG3 with WG2 and hence none of the groups will freeze its ASN.1 at this meeting (RP-030666).

~~The impossibility to operate TDD USCH with Rel 5 HSDPA was discussed (RP-030708). To some companies, this introduces a service discontinuity; to others, this was a deliberate decision taken within the Rel-5 timeframe and shouldn't be revised now. As a conclusion, it is suggested to allow for joint HSDPA/USCH operation in Release 6, still an open Release. Proposals in this sense are welcome in the future.~~

Interworking solution 3, for the interworking of ATM based and IP based UTRAN nodes, is still unspecified in Rel-5. A proposal to use ITU-T Q.2631.1 was presented, but it seems that the choice between this solution and IETF PWE3, still in draft, hasn't been made yet in WG3 (RP-030667). WG3 is tasked to provide a solution for the next meeting.

Analysis in WG4 has shown that a significant increase in PAR is produced when HS-DPCCH is transmitted, due to the introduction of a new code. WG4 preliminary conclusion proposes that a reduction in the maximum output power is allowed when the HS-DPCCH is transmitted. However, it seems that this reduction would have impacts on other areas. It is agreed to hold a joint WG1-WG4 Ad Hoc to discuss the issue (sec. 7.5.1).

## Release 6 and beyond

See Annex F for a summary of the Work Items under TSG RAN responsibility.

The WI Beamforming Enhancements has been completed, the necessary CRs have been approved (sec. 8.2.2)

The Work Items for the introduction of UMTS in the 800 MHz band in Japan and the 850 MHz band in the US are completed and CRs have been approved. Only a minor CR for the introduction of the signalling in 25.331 to support UMTS850 is missing. Some of the RF requirements are different in each band (sec. 8.1.2 & 8.1.3).

The work on A-GPS performance requirements is progressing in WG4, a new specification is being drafted. The completion date has been moved to June 2004 and the Description Sheet has been revised with explicit objectives (sec. 8.3.2)

The scope of the OFDM feasibility study has been reduced in order to comply with the June 2004 time schedule. This was decided after a long debate on the possibility to cover advanced OFDM technologies and performance evaluation under the Study. It was found preferable to conclude a first stage where the feasibility of the technique within the UTRAN was proved, and to start extensive evaluation and simulation afterwards, once a WI is approved by PCG (sec. 8.11.3)

A new Building Block, under the responsibility of WG4, has been approved:

- Improved Receiver Performance Requirements for HSDPA (RP-030732)

Under this BB, a Work Task has been also approved:

- Performance Requirements of Receive Diversity for HSDPA (RP-030731)

Completion date for both items is September 2004.

A document was presented to introduce the means to perform Node B RF tests over the Iub interface (RP-030714). This topic has been studied in WG4 at length, without agreement so far. As a way forward, it was approved in RAN that WG4 should study again and endorse the technical correctness of the proposal, even if no CRs are agreed afterwards.

# 1 Opening of the Meeting

Francois Courau (chairman) opened the meeting on Tuesday 9th at 7:00 in the morning and gave the floor to Eisuke Fukuda (vice chairman) who, on behalf of ARIB and North American Friends of 3GPP, welcomed the delegates to Maui and explained the arrangements for the meeting and the social event.

# 2 Approval of the Agenda

**RP-030557 Draft agenda meeting #22 (Chairman)**
No comments. The agenda is approved

# 3 Approval of the meeting report on TSG-RAN #21

**RP-030558 Revised draft report TSG RAN #21 (3GPP support)**
No comments. The report is approved

# 4 Reminder for IPR declaration

The chairman made the following call for IPRs:

> The attention of the members of this Technical Specification Group is 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 members take note that they are hereby invited:
> ?? to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
> ?? to notify the Director-General, or the Chairman of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms (e.g. see the ETSI IPR forms http://webapp.etsi.org/Ipr/).

# 5 Chairman Report of meetings

## 5.1 TSG SA#21

The main issue impacting RAN that discussed in SA#21 was the closing of Release 6, which will not be earlier than March 2004.

## 5.2 3GPP PCG#11 and OP#10

**RP-030709 Meeting reports of 3GPP PCG#11 and 3GPP OP#10 (3GPP Support)**

Francois Courau (chairman) gave a brief presentation of the PCG and OP meetings. He reported that PCG had extensively discussed how to reduce the cost of the project, one of the possibilities being the merging of some groups. Francois noted he had defended the requirements for additional MCC support for meetings in RAN WG2 and RAN WG3, on top of the 4 authorized meetings per year.

Also, the timing of Releases was discussed, noting that Rel N+1 should never be frozen before Rel N is stable enough and Release N-2 is commercially deployed. These were considered as guidance to be used by TSGs when freezing one Release

In OP, the budged of MCC was discussed and agreed.

# 6 Liaisons from other groups

## 6.1 Groups outside 3GPP

**RP-030704 Candidates 3GPP specifications for inclusion in Art 17 list of standards (ETSI ECN&S STF254)**

**RP-030723 Draft ETSI SR List of standards and/or specifications for electronic communications networks, services and associated facilities and services; in accordance with Article 17 of Directive 2002/21/EC (3GPP Support)**

The following is a brief introduction to these documents:

The European Commission (EC) has approved in March 2002 a Directive to establish a common regulatory framework for the provision of electronic communication networks and electronic communication services (ECN&S). This Directive provides overall structure for the new Regulatory Regime which is supported also by 4 Specific Directives (Authorisation, Access & Interconnection, Universal Service and Privacy).

The approach under this new framework is to regulate only markets where there isn't effective competition. In this case, specific obligations may be imposed by the National Regulatory Authorities (NRA) to the Electronic Communication Providers (ECP) which have Significant Market Power to ensure that they cannot use take advantage to restrict or distort competition on the relevant market.

As a basis for encouraging the harmonised provision of ECN&S the EC publishes a list of standards in the Official Journal. NRAs may use these standards when introducing controls or requiring ECPs to make the necessary declarations under the various Directives. The Directive also requests Member States to encourage the use of the standards to the extent strictly necessary to ensure interoperability of services.

ETSI, together with other European Standardisation bodies, has been invited to analyse the current list and to propose revision where necessary. For this task, an Ad Hoc group has been set (OCG ECN&S Ad Hoc) within ETSI. This group, after consultation with all ETSI committees, will produce the requested revision of this list.

TSG RAN participants are invited to review the list provided in document RP-030704 and, focusing on the Radio Access Network, consider which 3GPP Specifications should be included in order to ensure the requirements of the Framework Directive and the 4 Specific Directives.

Document RP-030723 contains a draft of the ETSI Report that analyses the directives and the existing list and provides guidance on how to decide on the applicable specifications.

There are objections to some of the TS listed here, there seems to be no justification for 25.402 for example.

The chairman clarified that, to his understanding, at least three specifications should be in the list:

- 25.331, RRC protocol specification. The bearers provided to upper layers are specified here

- 25.321, MAC specification and 25.322, RLC specification. Encryption is specified here.

It was clarified that the intention is to collect comment and not to get approval for the lists. This correct the mistake made when generating the document that is mentioning that it is for discussion and approval. This was creating a lot of misunderstanding. The final approval will be done in ETSI within MSG, in charge of all standards elaboration with regard European regulation for Public Cellular network and where this responsibility has been allocated.

The chairman further explained that the intention of this directive is to ensure that service interfaces offered by operators, in the cases where they have Significant Market Power, to competitors and service providers are open. He also explained that other aspects such as speech telephony or internet services are not covered in this list as this referenced to fixed network aspects because there is no difference in this kind of services. The list is suppose to cover aspects such as national roaming, support of MVNO, Number Portability, support of confidentiality aspects for subscribers to other kind of networks as well as Location Based dependent services offered by third parties.

Generally, it was found that no justification is provided for the inclusion or exclusion of any of the RAN specifications. Delegates where asked to carefully study the Directives, the joint ETSI SR and the proposed list and provide comments. ETSI MSG will have the final word on the list related to Mobile Telecommunications.

**RP-030716 Liaison Statement on open essential parameters regarding Repeaters (RAN WG4, R4-031143)**

This LS is provided for information, it provides update on the status of the work on repeaters in WG4 as reported in sec. 7.5.1

## 6.2 TSG-SA, TSG-T, TSG-CN, TSG-GERAN

**RP-030632 LS Reply on RAN Work Item "Control of Remote Electrical Tilting Antenna" and possible impact on SA5 (TSG SA WG5)**

No actions required, the LS is CC to RAN

**RP-030633 Reply LS on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on TSG SA 5' (RAN WG3)**

No actions required, the LS is CC to RAN

**RP-030634 LS on Reply LS on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on SA5' (TSG SA WG5)**

No actions required, the LS is CC to RAN

**RP-030636 LS Reply on charging aspects of Priority Service (draft TR 22.952) (TSG SA WG5)**

No actions required, the LS is CC to RAN

**RP-030637 Reply to Response on “Work following the joint SA2/RAN2/CN1 meeting on paging” (TSG SA WG2)**

Alex Vesely (WG3 chairman) noted that it had been reviewed in WG3 and no further work was identified there.

**RP-030638 Reply LS on addition of 768kbps bearer to TS 34.108 (TSG T WG1)**
No actions required, presented already in WG2

**RP-030639 Coordination of Positioning Methods between TSG GERAN and TSG RAN (TSG GERAN)**
No actions required, presented already in WG3. Alex Vesely (WG3 chairman) explained that WG3 is introducing the code-points to align with GERAN

**RP-030658 LS on Multiple MBMS Issues (TSG SA WG4)**
Paolo Usai (SA WG4 secretary) presented this LS
RAN WG1, WG2 and WG3 are tasked to treat this LS and report back. WG4 will depend on the work on WG1.
It was questioned which was the synchronization requirement (sec 2.1.7). The chairman clarified that WG1 should inform SA WG4 what is achievable in UTRAN networks. Dirk Gerstenberger (WG1 chairman) noted that WG1 had already looked at this issue, but ~~the outcome was not promising~~it is still waiting for feedback from WG2 & WG3. The three WGs will have something to say, the chairmen are tasked to ensure that the response to SA WG4 is coordinated

**RP-030659 LS on SA2 updates of the Work Plan (TSG SA WG2)**
Francois Courau (chairman) presented briefly this LS. The completion dates of Stage 2 of MBMS and Network Sharing are delayed, this will have an impact on the timing of corresponding RAN WIs.

## 6.3 TSG-RAN WGs

**RP-030635 LS on Reporting of attempted UE positioning methods over Iu (TSG RAN WG2)**
Denis Fauconnier (RAN WG2 chairman) explained that the LS has been considered by RAN WG3, the group concerned.

The following table lists the incoming LS treated in this meeting:

| Tdoc | Title | Source | Source File |
|---|---|---|---|
| RP-030632 | LS Reply on RAN Work Item "Control of Remote Electrical Tilting Antenna" and possible impact on SA5 | TSG SA WG5 | S5-038681 |
| RP-030633 | Reply LS on RAN Work Item "'Control of Remote Electrical Tilting Antenna" and possible impact on TSG SA 5' | RAN WG3 | R3-031756 |
| RP-030634 | LS on Reply LS on RAN Work Item "'Control of Remote Electrical Tilting Antenna" and possible impact on SA5' | TSG SA WG5 | S5-038807 |
| RP-030635 | LS on Reporting of attempted UE positioning methods over Iu | TSG RAN WG2 | R2-032264 |
| RP-030636 | LS Reply on charging aspects of Priority Service (draft TR 22.952) | TSG SA WG5 | S5-034642 |
| RP-030637 | Reply to Response on "Work following the joint SA2/RAN2/CN1 meeting on paging" | TSG SA WG2 | S2-033806 |
| RP-030638 | Reply LS on addition of 768kbps bearer to TS 34.108 | TSG T WG1 | T1-031703 |
| RP-030639 | Coordination of Positioning Methods between TSG GERAN and TSG RAN | TSG GERAN | GP-032718 |
| RP-030658 | LS on Multiple MBMS Issues | TSG SA WG4 | S4-030847 |
| RP-030659 | LS on SA2 updates of the Work Plan | TSG SA WG2 | S2-034367 |
| RP-030716 | Liaison Statement on open essential parameters regarding Repeaters | RAN WG4 | R4-031143 |

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

**RP-030707 Essential R'99 CR Handling (Three)**

Hashem Madadi (Three) presented this document

On the basis of document RP-020448, which provides guidelines for approval of R99 CRs and was endorsed in June 2002, Three objects the approval of some of the CRs agreed by WG2 and WG3. The following CRs are affected:

25.413CR631 Correction of RAB Release Request Inter-working
25.331CR2119r2 Traffic Volume Measurement Validity
25.331CR2097 Ensuring C-RNTI is cleared in Cell_DCH
25.331CR2104r1 Correction to Redirection procedure at RRC Connection Setup

The issue was reviewed when looking at the approval of the concerned CRs in WG2 and WG3 sections.

## 7.1 ITU-R Ad Hoc

**RP-030655 ITU-R Ad Hoc Status Report (ITU-R Ad Hoc Contact Person)**

**RP-030656 Proposed Action Plan toward ITU-R M.1457-5 (ITU-R Ad Hoc)**

Giovanni Romano (Telecom Italia~~Tilab~~) presented these documents

Document RP-030655 introduces Rev5 to M.1457 (scheduled for October 2004) and the time scale to provide inputs to ITU-R in 2004. Document RP-030656 proposes a detailed action plan.

Giovanni clarified that the requirements to RAN in this meeting are to decide whether RAN wants to send an update in October 2004 and if is the case, agree on doc RP-030657

Giovanni noted that the stringent deadline is 7th June 2004, when the update containing a short description of the WI available by September has to be sent to ITU. Unfortunately, it was highlighted that this is the same week as RAN meeting #24.

RP-030656 was approved.

**RP-030657 Proposed Initial submission for updated UTRA FDD and TDD toward Rev. 5 of Rec. ITU-R M.1457 (ITU-R Ad Hoc)**

Giovanni Romano (Telecom Italia~~Tilab~~) clarified that this is a very preliminary contribution and just to give an overview of the on going work. There was some debate on the meaning of "Feature", which seems to be different in ITU and 3GPP. It was however preferred to use it as is, since this is a document that will be treated in ITU.
The document is endorsed, it will be sent to SA and PCG for final approval

## 7.2 3GPP TSG RAN WG1

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

**RP-030582 Status Report WG1 (RAN WG1 Chairman)**

Dirk Gerstenberger (WG1 chairman) presented this report
The following point summarize WG1 activity between plenaries. Two WG meetings have been hold:

- Agreed change requests:
  - 1 CR for Rel4 TDD
  - 8 CRs for Rel5 FDD, 2 CRs for Rel5 TDD
- Around 90 delegates attended each RAN1 meeting
  - 191 contributions submitted to RAN1#34
  - 241 contributions submitted to RAN1#35
- Around 80% of the time used for Rel'6 discussions
- Most discussions on
  - Enhanced UL DCH
  - Rel99/Rel4/Rel5 maintenance
  - MBMS
  - OFDM

On slide 19, MBMS, it is commented that discussions on outer coding and selective combining might be of interest of SA WG4.

On slide 7, reliable detection TPC commands, it is clarified that WG4 is studying the issue but hasn't come to an agreed CR yet.

The ACLR degradation when HS-DPCCH is transmitted was studied in WG4, an LS was sent at the end of WG4 meeting to WG1 informing that an output power reduction of around 2 dB might be needed. Since the LS was sent very late it couldn't be treated by WG1 in its last meeting. This issue is not mentioned in Dirk's report.

There was a request that the WG1 Work Plan is made available. It was however clarified that the RAN part of the WP is reviewed and updated at RAN, after all the WI Status Report are presented and the completion dates are discussed. Status Reports presented at RAN have been previously endorsed by the WGs.

Additionally, there was a request that WG1 meeting report is made available at least before the RAN plenary takes place, in order to have the list of agreed CRs available. This was noted

**RP-030583 List of agreed CRs RAN WG1 (RAN WG1)**
This list is presented for information

## 7.2.2 Discussions on decisions from WG1

**RP-030645 TR 25.833 v 2.0.0 "Physical layer items not for inclusion in Release 99" (RAN WG1 chairman)**
This TR is proposed for Rel99, it is a formal step, it contains old material.
The TR is approved, it will be put under change control as v3.0.0

## 7.2.3 Approval of CRs to Release '99 with linked CRs to Release 4 and Release 5

**RP-030711 CRs 68, 66 and 67 to 25.213. Restriction of DL secondary scrambling codes per CCTrCH. (Nokia)**
Antti Toskala (Nokia) presented these CRs. Antti noted that some comments had been received to this version of the CRs. Nortel confirmed that the objection presented in WG1 remains, the CR is considered un unjustified restriction of the number of codes used.
Antti justified that there is no need for the UE to support those additional codes given that the corresponding data rates can be achieved with less codes or are not supported. Serge Willenegger (Qualcomm) clarified that companies in WG1 already understood that what has to be supported in one + one scrambling codes, not various secondary codes. However, Serge noted that this not the view of all companies in the group.
It is finally understood that the CR incorporates a necessary correction and the technical content is agreed for R99, Rel-4 and Rel-5.
Rel-6 version of the specifications will be created after this meeting, to be sent to. The first Rel-6 version will be based on Rel-5, so it will include the restriction. This was found inconvenient by some companies, that didn't like to have this limitation in any version of Release 6 of this specification. It was finally accepted to go for R99/Rel-4/Rel-5 CRs, but it is clear that the Release 6 can be changed in the future to remove the limitation.

The CRs coversheets will be revised to properly reflect the clarifying nature of the CRs.

**RP-030727 CRs 68, 66 and 67 to 25.213. Restriction of DL secondary scrambling codes per CCTrCH. (Nokia)**
No comments, the CRs are approved

## 7.2.4 Approval of independent CRs to Release 4 with linked CRs to Release 5

**RP-030646 CRs (Rel-4 and Rel-5 Category A) to TS 25.222 (RAN WG1)**
No comments. The CRs are approved

**RP-030698 CRs 127r1 (Rel-4) & 128r1(Rel-5) to 25.224 on "Correction to computed gain factors with signalled reference gain factor values" (Interdigital)**
Jim Miller (Interdigital) presented these CRs and explained that they have been discussed on WG1 reflector.

The CRs are approved

## 7.2.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by RAN WG1

| Tdoc | Content | Decision |
|---|---|---|
| RP-030647 | CRs (Rel-5) to TS 25.212 | Approved |
| RP-030648 | CRs (Rel-5) to TS 25.213 | Approved |
| RP-030649 | CRs (Rel-5) to TS 25.214 | Approved |
| RP-030650 | CRs (Rel-5) to TS 25.222 | Approved |
| RP-030651 | CRs (Rel-5) to TS 25.225 | Approved |

**RP-030699 CR331r6 to 25.214 on Clarification on reconfiguration of HSDPA (Panasonic)**
Hidetoshi Suzuki (Panasonic) presented this CR
It was questioned why this CR is presented here directly and not discussed in WG1. Dirk Gerstenberger (WG1 chairman) pointed to the revision (6) and explained that WG1 has been working for long time on this CR, also during the weeks before RAN. He thanked Panasonic for providing this version here, but noted that there is not full agreement in WG1 in this issue. He noted that there may be impacts on WG2 specifications and a further detailed work is needed. Antti Toskala (Nokia) supported this view, and required that careful coordination with WG2 is pursued.
It seems also that the CR covers two issues, the reconfiguration part and the CQI reporting. It was agreed that both are reconsidered in WG1 with the support of WG2. As a conclusion, the CR is not approved.

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

No contributions

## 7.3 3GPP TSG RAN WG2

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

**RP-030584 Status Report WG2 (RAN WG2 Chairman)**
Denis Fauconnier (WG2 chairman) presented this report
WG2 has hold two meetings and an Ad Hoc on MBMS (joint with other groups) since September. The work can be summarized as follows:

- Release 99 corrections
- Release 4 corrections
  - Very few
- Release 5
  - Some HSDPA corrections, HSDPA test procedures and RBs
  - Some other R5 corrections
  - Introduction of a category B and C CR
  - Decision of GERAN Iu mode (last R5 item)

- Release 6
  - RAN2 and RAN3 progressing now in parallel, well synchronised
  - Many contributions on MBMS. Key progress on paging/notification
  - Activity starting on IMS bearers, some TEIs.
  - New frequency bands

Antti Toskala (Nokia) commented that the reporting of RRC issues is very short. He asked that a brief list of the topics covered by the CRs would be presented, like the other WG chairmen do.

Hashem Madadi (Three) questioned the CRs for the new release independent bands. Denis noted that some of the requirements are different for bands V and VI, US 850 MHz and Japan 800 MHz, even though the frequencies are the same. ~~It is necessary that the UE indicates which band covers so that the network knows if the particular regional requirements are fulfilled or not.~~ The issue was brought up the PCG to request the different SDOs to ensure that requirement are not diverging form one region to the other in order to avoid this kind of problem. So far there has been no result form that action. It was also commented that the UE should be informed which band would be served before its transmission. It was a regulatory issue and common for UMTS1.7G/2.1G.

Frederic Bonnin (Orange) noted that the number of R99 CRs is not going down, although Denis reports the opposite. Denis showed evidence that most of the CRs do not affect mandatory R99 features of the UE. Hashem also opposed having so many R99 CRs at this point, when commercial networks are already in operation. He made a strong request that the number is reduced.
Denis remarked that looking at the contents of the CRs it becomes clear that the impact is not that high. Denis showed that most of the R99 CRs are written by UE manufacturers, and also still a substantial part is produced by operators.

On slide 29, MBMS, Dirk Gerstenberger (Ericsson) questioned if the agreement on paging/notification reached in WG2 would not need to be endorsed and checked by WG1. Denis clarified that nothing new compared to R99 has been put into place, but agreed that WG1 should take a look at the solution.

On slide 26, signalling of DL TPC bits, Suzuki-san (Panasonic) asked what clarification is required from WG1. It seems that the terminology used was unclear for WG2. It is expected that this issue is discussed in February in the collocated WG1-WG2 meeting in Málaga.

Luis Barreto (Nokia) objected the agreement to freeze Rel-5 ASN.1, and to require isolated impact for Rel-5 CRs, in March. He noted that WG2 had not reached that agreement. Francesco Grilli (WG2 vice chairman) explained that WG2 agreed to bring the issue to WG2 for the final decision, since the other WGs are also affected.

There was some debate on the combined use of USCH and HSDPA (slide 26). Martin Beale (IPWireless) questioned if there are solid technical reasons stopping that combination. Steve Dick (Interdigital) clarified that this was decide long time ago, on the Rel-5 timeframe, to go this way and suggested not to re-start the discussion again.

**RP-030585 List of agreed CRs RAN WG2 (RAN WG2)**
This list is provided for information

## 7.3.2 Discussions on decisions from WG2

**RP-030609 25.993 CRs to the Release 6 version also affecting earlier releases (RAN WG2)**
No comments. The CRs are approved

**RP-030628 Correction of UTRAN GPS Reference Time quality: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 (RAN WG2)**
Although stated in the CR cover page, it is clarified that WG4 has not looked at this issue. Howard Benn (Motorola) explained that the impact of this CR on a Node B is a change in the timing accuracy requirement from 5 ms to 5 us, a 1000% increase in accuracy; this cannot be considered a correction for Rel99, it is a full new functionality. The CR seems to address an UE issue while in fact it affects the Node B. Howard explained that it has a lot of network aspects, impacting also WG3 specs. Denis agreed with Howard and clarified that WG2 focused in the UE aspects and the impacts on the network were overlooked.
Finally it was agreed to study the issue further in WG2, WG3 and WG4 before proceeding with such CRs. The CRs are hence not approved.

**RP-030666 Discussion on process for ASN.1 interface freezing (Nokia)**
Luis Barreto (Nokia) presented this document
It was found unfortunate that there are two reference documents for ASN.1, one owned by WG2 and other by WG3. It was commented that CN also have ASN.1, notably for MAP and CAMEL, it could be worth contacting that group to check how ASN.1 is handled there. Denis Fauconnier (WG2 chairman) commented that the ASN.1 is much more complicated in RAN, and the problem of the two reference documents doesn't exist there.
As a conclusion, there is agreement that WG2 will not freeze ASN.1 in this meeting. It seems however that the WG3 part could be frozen now, after the work done it has reached that point. However owing to the fact that the RAN WG3 ASN.1 is mainly aligned with the one defined in WG2 it was felt difficult to freeze it now. Finally, no agreement was reached on freezing the ASN.1 of either group but is was agreed to review the issue at the next meeting.
The document is noted.

**RP-030708 Service Continuity Between 3GPP Releases 4 and 5 for TDD (IPWireless, Orange)**
Martin Beale (IPWireless) presented this document
Steve Dick (Interdigital) explained that the main objection to the proposal comes from the fact that the feature would be mandatory to all UE classes, with only two exceptions. Steve didn't accept that the decision against is not founded, there is a high number of papers documenting that decision. He clarified that the omission in 25.302 is deliberate, and now it is not acceptable to review that decision which is the basis of ongoing developments.
Vodafone supported the proposal from IPWireless, it was found beneficial to have the option of combining USCH with HSDPA in Rel-5.
Dirk Gerstenberger (WG1 chairman) noted that, without having a strong opinion on the ongoing discussion, he believed that the CR cannot be considered a correction, it should be Cat B instead.

Yoshihiro Obata (eAccess) raised the argument that the addition of a new feature, HSDPA in this case, shouldn't involve the deletion of an old, USCH. It was stated that they considered the CR a correction since otherwise RAN specifications would remain inconsistent.

Joerg Gustrau (Siemens) also supported that the proposal should be considered a new feature and hence acceptable only for Rel-6. He also questioned how it applies to low chip rate, as this is mentioned nowhere in the document.

The group agreed that the proposal cannot be considered a correction, but an improvement. Steve corrected that it is a potential improvement, in his view the interest of the proposal has not been proved.

The chairman proposed to go for a solution for Rel-6, given that consensus cannot be reached for Rel-5. Yoshihiro noted that if the proposal is delayed to Rel-6, the final result will be that in R99 & Rel-4 USCH is available in the UL and DSCH in the UL; in Rel-5 the new HS-DSCH is added but USCH cannot work with it; in Rel-6 both HS-DSCH and USCH are available and finally, and looking at the work on UL enhancements, in Rel-7 HS-DSCH and an "advanced" USCH will be available. Yoshihiro questioned if this acceptable from an evolution perspective for an operator.
The chairman agreed with this view, but noted that the proposal doesn't have consensus so simply it cannot be approved, regardless of these considerations.

Finally, the document and the attached draft CR are not approved. IPWireless is invited to carry on the activities to introduce the proposal in Rel-6.

### 7.3.3 Approval of CRs to Release '99 with linked CRs to Release 4 and Release 5

The following documents contain CRs agreed by RAN WG2:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030613 | 25.305 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved 1) |
| RP-030614 | 25.306 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved |
| RP-030615 | 25.307 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Withdrawn |
| RP-030616 | 25.322 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved |
| RP-030617 | 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 (1) | Approved 2) |
| RP-030618 | 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 (2) | Approved 3) |
| RP-030619 | 25.993 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved |
| RP-030662 | 25.331 CRs to Release 99 (and Rel-4/Rel-5 linked CRs). | Approved 4) |
| RP-030610 | SFN associated with GPS timing of cell frame: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved |
| RP-030611 | Correction to redirection procedure at RRC connection setup: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved 5) |
| RP-030612 | Measured results on RACH: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | Approved |

1) Joerg Gustrau (Siemens) noted that a comment had been sent in WG2 email reflector and requested a few more days to produce a revision. After off line checking, the CRs can be approved.

2) Approval of CRs 2097, 2098 and 2099 is objected by Three and NEC. However, it could be possible to accept the Rel-5 CR. Francesco Grilli (Qualcomm) noted that Rel-5 is not an editorial correction, and if the changes are not acceptable for Rel99 shouldn't be accepted for any release. As a conclusion, the changes are believed to be technically correct but the CRs are however not approved. The rest of CRs in RP-030617 are approved

3) Approval of CRs 2119, 2120 and 2121 is objected by Three. The same considerations related to Rel-5 apply here, as in the previous document the changes are technically correct but the CRs are not approved. The rest of CRs in RP-030618 are approved

4) CRs 2150, 2151 and 2152 are revised by Ericsson in RP-030710. The rest of CRs in RP-030662 are approved

5) The CRs in RP-030611 are objected by Three. Qualcomm and Nokia expressed that this is an essential correction, and if not approved the whole feature should be removed. Niels Andersen (Motorola) noted that the consequences if not approved, as stated in the cover page, do not provide sufficient evidence to agree that the CR is essential. After debate, and since several companies supported that the CRs are essential, Three withdrawn its objections. All CRs are approved

**RP-030710 Proposed update of agreed CRs 2150 to 2152 to 25.331 on Minimum UE capability class (Ericsson)**

This set of CR is revised in RP-030722

**RP-030722 Proposed update of agreed CRs 2150 to 2152 to 25.331 on Minimum UE capability class (Ericsson)**

Joakim Bergstrom (Ericsson) presented these CRs
No comments. The CRs are approved

## 7.3.4 Approval of independent CRs to Release 4 with linked CRs to Release 5

The following documents contain CRs agreed by RAN WG2:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030620 | 25.322 CRs to Release 4 with linked CRs to Release 5 | Approved |
| RP-030621 | 25.331 CRs to Release 4 with linked CRs to Release 5 | Approved |

## 7.3.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by RAN WG2:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030622 | 25.302 CR to Release 5 | Approved |
| RP-030623 | 25.306 CRs to Release 5 | Approved |
| RP-030624 | 25.321 CRs to Release 5 | Approved |
| RP-030625 | 25.331 CRs to Release 5 | Approved |
| RP-030626 | 25.921 CR to Release 5 | Approved |
| RP-030627 | 25.922 CRs to Release 5 | Approved |
| RP-030629 | Inclusion of a default configuration identity for WB-AMR: 25.331 CR to Release 5 | Approved |

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

**RP-030644 HARQ Memory Partitioning, process identifiers and re-ordering: Rel-5 CRs to 25.331, 25.212, 25.423 and 25.433. (RAN WG2)**

Nokia commented that the term soft channel bits is not referenced in other specs. Qualcomm clarified that in WG2 this wording was proposed to align with WG1 terminology. The CRs in RP-030644 are revised by Qualcomm in RP-030713, with the exception of CR185 to 25.212 which is approved

**RP-030713 Revision of CRs to 25.331, 25.423 and 25.433 in RP-030644: HARQ Memory Partitioning, process identifiers and re-ordering. (Qualcomm Europe)**

These CRs are approved

**RP-030660 CR 120 to 25.222 Rel-5: HARQ process identifier mapping (NEC)**

Linked to the CRs above. The CR is approved

**RP-030712 Rel-5 CR186 to 25.212,Rel-5 CR339 to 25.214 and Rel-5 CR121 to 25.222 on Alignment of "soft channel bits " terminology with 25.306 (Qualcomm Europe)**

No comments. The CRs are approved

## 7.4 3GPP TSG RAN WG3

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

**RP-030586 Status Report WG3 (RAN WG3 Chairman)**

Alexander Vesely (WG3 chairman) presented this report.

WG3 has hold two meetings since last RAN in September. The following points summarize the activity:

- RAN3 agreed CRs:
  - 4 R99 CRs
  - 18 Rel-4 CRs (4 cat. A, 14 cat F)
  - 65 Rel-5 CRs (18 cat.A, 47 cat. F) (12 CRs on HSDPA)
  - ~~2~~ 3 Rel-6 CRs (2 cat.A, 1cat.C)
- further:
  - 7 Rel-6 CRs „in principle agreed“ (on hold until Rel-6 specs created)
  - 2 conditionally agreed and 5 technically endorsed CRs
- R99 +mirror CRs required less than 10% of meeting time
- Rel-5 review was the major part in #39

- Progress on RAN3 Rel-6 topics could be better, WG3 treated all WI‘s and SI‘s at least once at #38 and #39

Joern Krause, MCC secretary for WG3, will not continue to provide support to the group after the meeting in January. Alexander and Francois Courau thanked him for his dedication.

It is questioned if the communication to WG1 on Beamforming mentioned on slide 24 is via a LS. Alex clarified that there is no LS, it is expected that WG1 companies in WG3 and RAN convey the information. TSG RAN decision are to be provided by the WG officials representing the group at the plenary so that no contradicting decision can be taken by WG. This was considered to be valid for all WG. Chairmen and ~~secretary~~ secretaries were tasked to ensure that this is the case.

**RP-030587 List of agreed CRs RAN WG3 (RAN WG3)**
This list is provided for information

## 7.4.2 Discussions on decisions from WG3

**RP-030668 Proposal for an update of the 'Terms of Reference (ToR) of 3GPP TSG RAN WG3' (RAN WG3)**
Alexander Vesely (WG3 chairman) presented this document.
No comments. The new ToR align with the current work of the group.
The ToR are approved

## 7.4.3 Approval of CRs to Release '99 with linked CRs to Release 4 and Release 5

**RP-030669 CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.413 on Correction of RAB Release Request Inter-working (RAN WG3)**
R99 and Rel-4 are not approved, Three objected that these CRs are not essential (see RP-030707). Rel-5 is agreed, but the category and the WI need to be changed so a revision will be provided.

**RP-030715 CR606r1 to 25.413 Rel-5 on Correction of RAB Release Request Inter-working (Revision of RP-030669) (3GPP Support)**
Cat F, WI TEI5. No comments. The CR is approved.

**RP-030670 CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.433 on DCH Information Response Issue (RAN WG3)**
**RP-030700 RNSAP DCH Information Response issue (Motorola,Huawei, NEC)**
**RP-030701 CRs to 25.423 (R99, Rel-4 & Rel-5): Specify the DCH number for a set of coordinated DCHs in some messages (Motorola,Huawei, NEC)**
**RP-030718 DCH information response issue (reply to RP-030700) (Nortel, Alcatel, Siemens)**
Howard Benn (Motorola) explained that one of the changes to 25.433 incorporated from v3.3.0 to v3.4.0 doesn't have a CR associated, due to an error in the implementation of the CRs at that point. This is detailed in document RP-030700. Since the CRs in RP-030679 affect the section of the text with the error, it is preferred to bring the CRs, and the information on the mistake, to WG3 so a comprehensive solution is produced there. Document RP-030718 presents the current understanding of the "mistake" of Nortel, Alcatel

and Siemens. In short, the CRs in RP-030670 and RP-030701 are not approved and WG3 is tasked to study the implementation error and agree on a revision of the CRs.

## 7.4.4 Approval of independent CRs to Release 4 with linked CRs to Release 5

The following documents contain CRs agreed by RAN WG3:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030671 | CRs (Rel-4 and Rel-5 Category A) to TS 25.413 | Approved |
| RP-030672 | CRs (Rel-4 and Rel-5 Category A) to TS 25.414 on Inclusion of AAL2 Link Characteristics in ERQ | Approved |
| RP-030673 | CRs (Rel-4 and Rel-5 Category A) to TS 25.419 on Correction of finite number of broadcast | Approved |
| RP-030674 | CRs (Rel-4 and Rel-5 Category A) to TS 25.433 | Approved |

## 7.4.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by RAN WG3:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030675 | CRs (Rel-5 and Rel-6 Category A) to TS 25.401 on NAS/AS issue for shared networks in connected mode | Approved |
| RP-030676 | CRs (Rel-5 only) to TS 25.413 | Approved |
| RP-030677 | CRs (Rel-5 only) to TS 25.423 on RNSAP reviews | Approved |
| RP-030678 | CR (Rel-5 only) to TS 25.427 on Signalling support for soft handover indicator | Approved |
| RP-030679 | CRs (Rel-5 only) to TS 25.433 | Approved |
| RP-030680 | CR (Rel-5 only) to TS 25.435 on Power control correction for DSCH for TDD | Approved |
| RP-030681 | CR (Rel-5 only) to TS 25.933 on Correction of PE-node as an ATM switch Solution | Approved |

**RP-030661 Remove inconsistency among specifications on signalling support for power control during loss of RL synchronisation. CR 338 to 25.214 Rel-5 (Samsung, Lucent)**

Contribution was provided in connection with RP-030678. No comments. The CR is approved

**RP-030667 Introduction of ITU-T Q.2631.1 for interworking solution 3 (Siemens)**

Alexander Vesely (Siemens) presented this document

Denis Fauconnier (Nortel) requested that the issue is studied further in WG3, as it seems that conclusion is not agreed there yet. Alexander noted that the 3rd interworking alternative is still missing in the Rel-5 specifications and that there exists the possibility to agree on the inclusion of references to the UTRAN specifications at this plenary in order to reduce workload in WG3. It seems that two options are considered in WG3 in order to cope with network scenarios where an IP node is not able to access the ATM network: the ITU-T Q.2631.1 and an IETF recommendation (PWE3), which is still in draft state. A possible outcome could be to have both options in 3GPP standards

Tim Frost (Vodafone) was concerned with the impact on existing UTRAN nodes if two solutions are adopted for the standard. Denis clarified that the operator has two choices, either have a dual-stack node or install an interworking unit, and this unit will also have an impact in any case. Denis also supported the possibility of having two options in the standard, and let the market decide.

There was also some debate on the Release to introduce interworking solution 3. It was finally agreed to leave this discussion for March in the plenary, WG3 being tasked to solve the technical aspect and to provide the CRs for both options for the next plenary in March.

~~**RP-030699 CR331r6 to 25.214 on Clarification on reconfiguration of HSDPA (Panasonic)**~~
~~Hidetoshi Suzuki (Panasonic) presented this CR~~
~~It was questioned why this CR is presented here directly and not discussed in WG1. Dirk Gerstenberger (WG1 chairman) pointed to the revision (6) and explained that WG1 has been working for long time on this CR, also during the weeks before RAN. He thanked Panasonic for providing this version here, but noted that there is not full agreement in WG1 in this issue. He noted that there may be impacts on WG2 specifications and a further detailed work is needed. Antti Toskala (Nokia) supported this view, and required that careful coordination with WG2 is pursued.~~
~~It seems also that the CR covers two issues, the reconfiguration part and the CQI reporting. It was agreed that both are reconsidered in WG1 with the support of WG2. As a conclusion, the CR is not approved.~~

**RP-030663 CR895r1 to 25.423: Correction of Traffic Class IE (Ericsson)**
Ingela Ericsson (Ericsson) presented this CR
The CR is still disputed in WG3 reflector. Alex Vesely (WG3 chairman) clarified that it seems that there is a discussion between Nokia and Ericsson and other companies. Sami Kekki (Nokia) preferred to go back to WG3 with this topic. This is finally accepted as the way forward, the CR is not approved

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

The following documents contain CRs agreed by RAN WG3 and other WGs:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030682 | CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.425, 25.427 and TS 25.435 on Spare Extension in Data frame | Approved |
| RP-030683 | CRs (Rel-4 and Rel-5 Category A) to TS 25.423, TS 25.433 and TS 25.453 ( Rel-5 and Rel-6 Category A) on Information Exchange Initiation behavior correction | Approved |
| RP-030684 | CRs (Rel-5 only) to TS 25.402, TS 25.423 and TS 25.433 on Removal of the ambiguity about the activation time | Approved |
| RP-030685 | CRs (Rel-5 only) to TS 25.414, TS 25.424 and TS 25.434 on Diffserv marking is configurable | Approved |
| RP-030686 | CRs (Rel-5 only) to TS 25.413 and TS 25.423 on RT Load Value Clarification | Approved |
| RP-030687 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction for the HS-DSCH Initial Capacity Allocation | Approved |
| RP-030688 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction of Backward Compatibility for Uni-directional DCH indicator | Approved |
| RP-030689 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction of Transmission Gap Pattern Sequence Information | Approved |
| RP-030690 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction to Addition of HS-DSCH MAC-d Flows | Approved |
| RP-030691 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Range Extension for GPS Almanac Reporting | Approved |
| RP-030692 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Reconfiguration of Multiple Radio Links in TDD | Approved |
| RP-030693 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on the usage of the MAC-hs Reordering Buffer Size | Approved |
| RP-030694 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on TNL QoS for uplink IP traffic | Approved |
| RP-030695 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Unsynchronised RL Reconfiguration for HSDPA | Approved 6) |
| RP-030696 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Modification of the dynamic range of the PCCPCH Power | Not approved 7) |

6) These CRs were not agreed at WG3, just technically endorsed. CRs in RP-030695 were approved and it was concluded that unsynchronised reconfiguration can be done for the parameters in the CRs as they are not causing interruptions in the terminal DL reception.

7) The CRs in RP-030696 align the upper boundary of a power range in WG3 specifications with the WG2 specification (25.331). The lower boundary is not covered but it is a difficult issue regarding backwards compatibility. It was preferred to postpone the decision and ~~Since there might be conflicting changes required in WG2 specifications, it is preferred~~ to wait for WG2 to study the issue and may be to include the changes to the lower limit.

## 7.5 3GPP TSG RAN WG4

### 7.5.1 Report from WG4 including report on actions required from the previous meeting

**RP-030588 Status Report WG4 (RAN WG4 Chairman)**

Howard Benn (WG4 chairman) presented this report. The work of the group can be summarized as follows:

- 1 RAN WG4 meeting after the last RAN meeting
- Usual number of delegates (around 80),
- 300 input contributions
- Corrections to the specification (cat B & F numbers)

  - Release 99 - 5 CRs
  - Release 4 - 5 CRs
  - Release 5 - 23 CRs
  - Release 6 – 31 CRs
- There will be one WG meeting before the next plenary.
- Number of Rel99 CRs increased, from 1 to 5, mainly as a result of test specifications issues being generated for 25.133 Annex A by T1
- UMTS800 and UMTS850 WIs completed, CRs presented to this meeting
- AGPS: A first draft of a separate specification has been presented. An independent email reflector has been set up. To subscribe to this reflector: http://list.etsi.org/scripts/wa.exe?SUBED1=3gpp_tsg_ran_wg4_agps&A=1

On slide 6, NodeB testing over Iub, Joerg Gustrau (Siemens) commented that it is the intention of Siemens to reduce the scope of the proposal in order to be able to fit it inside TEI. See also RP-030714.

On slide 9, Antti Toskala (Nokia) suggested that more coordination between WG4 and WG1 is needed, The Peak to Average Ratio (PAR) analysis in WG1 didn't reveal this problem. He noted that in the future the same situation can arrive. Howard agreed with this view, he supported that WG4 should get involved at an earlier stage if WG1 engages in similar analysis in the future.
Edgar Fernandes (Motorola) explained that the problem is that if HS-DPCCH is transmitted at max power, the UE risks to exceed the ACLR requirements due to the increase in PAR; WG4 is proposing that in those conditions the total TX power is reduced.
There were comments from Telecom Italia ~~Tilab~~ and NTT DoCoMo on the impact on coverage of this power reduction, and it was requested that WG1 studies carefully the coverage issue when producing the system impact analysis that WG4 asks for in the LS.
Antti Toskala (Nokia) objected that system wide analysis are not in the scope of WG1, these should be produced by WG4.
Serge Willenegger (Qualcomm) reminded that the impact on link budget due to the PAR and additional power necessary to transmit the HS-DPCCH were already known and that reducing the max transmit power requirement due to the ACS aspect represents an additional impact to the link budget.
~~that, in addition to the system and coverage impacts, there is an effect on the link budget for other channels of the UL that are also transmitted, and this cannot be neglected in the analysis.~~
As a way forward, a joint ad hoc with WG4 and WG1 is suggested.

The chairman questioned the status of the work on Repeaters needed for the Harmonised Standard under development in ETSI TFES. Howard pointed to the LS in RP-030716 (initially not intended for TSG RAN). In short, one of the issues has been solved (up-link spurious emission for co-existence with UTRA FDD) and simulations are still being performed for the second (out of band gain).

**RP-030589 List of agreed CRs RAN WG4 (RAN WG4)**
This list is provided for information

## 7.5.2 Discussions on decisions from WG4

No discussions

### 7.5.3 Approval of CRs to Release '99 with linked CRs to Release 4 and Release 5

The following documents contain CRs agreed by RAN WG4:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030590 | CRs (R'99 and Rel-4/Rel-5/Rel-6 Category A) to TS 25.101, "Correction of W-CDMA modulated interferer definition" | Approved |
| RP-030591 | CRs (R'99 and Rel-4/Rel-5 Category A) to TS 25.123, "out-of-service area for 3.84 Mcps & 1.28 Mcps TDD" | Approved |
| RP-030592 | CRs (R'99 and Rel-4/Rel-5/Rel-6 Category A) to TS 25.133 | Approved |

### 7.5.4 Approval of independent CRs to Release 4 with linked CRs to Release 5

The following documents contain CRs agreed by RAN WG4:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030593 | CRs (Rel-4 and Rel-5 Category A) to TS 25.106 & TS 25.143 (Repeaters specifications), "Spurious emissions: Co-existence with UTRA-FDD BS new UL requirement" | Approved |
| RP-030594 | CRs (Rel-4 and Rel-5 Category A) to TS 25.123 | Approved |

### 7.5.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by RAN WG4:

| Tdoc | Content | Decision |
|---|---|---|
| RP-030595 | CRs (Rel-5 and Rel-6 Category A) to TS 25.101 for HSDPA | Approved |
| RP-030596 | CRs (Rel-5 and Rel-6 Category A) to TS 25.101, TS 25.102, TS 25.104, TS 25.105, TS 25.106, TS 25.113, TS 25.141, TS 25.142, TS 25.143 on "Correction of references to ITU recommendations" | Approved |
| RP-030597 | CRs (Rel-5 and Rel-6 Category A) to TS 25.104 & TS 25.141, "Correction of the P-CPICH power accuracy requirement & test in case of TX-diversity" | Approved |
| RP-030598 | CRs (Rel-5 and Rel-6 Category A) to TS 25.104, "Correction of the applicability of requirements in case of TX diversity" | Approved |
| RP-030599 | CRs (Rel-5 and Rel-6 Category A) to TS 25.141, "Correction of transmitter tests in case of TX-diversity" | Approved |
| RP-030600 | CR (Rel-5) to TS 25.113, "Performance criteria for voltage dips and battery backup" | Approved |
| RP-030601 | CRs (Rel-5) to TS 25.123, "Test time Reduction or 3.84 Mcps & 1.28 Mcps TDD" | Approved |
| RP-030602 | CRs (Rel-5) to TS 25.133, "Clarification on filtering requirements" | Approved |

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

No contributions

# 8 Release 6 and beyond: Status update and approval of CRs, reports

## 8.1 Radio Interface Improvement Feature (RAN)

### 8.1.1 Improvement of inter-frequency and inter-system measurements

**RP-030559 Status Report for WI Improvement of inter-frequency and inter-system measurement (Nokia)**

Antti Toskala (Nokia) presented this report
Very limited impact in WG1 and WG3 specifications is expected, CRs can be produced for the next RAN meeting and the WI concluded. There was some discussion on the impact on the UE from a WG4 perspective, even if the change is just the addition of a word to WG1 spec.
The report is noted, it is agreed that the % completed at this stage is 50%.

### 8.1.2 UMTS 850

**RP-030560 Status Report for WI UMTS-850 (Cingular)**

Don Zelmer (Cingular) presented this report
Jussi Numminen (Nokia) pointed that there is still one issue missing in WG2, the frequency band indication in the signalling. The CRs in RP-030630 for 25.331 do not cover this band.
It is clarified that the submission to ITU for revision 4 of M.1457 will include this band.
The WI is closed, although a minor CR still needs to be produced by WG2. The way the CR to 25.331 introduces the support of the 800 MHz bands provide a solid basis for this introduction.

**RP-030603 CRs (Rel-6) to TS 25.101, TS 25.104, TS 25.141 for the Introduction of new channel arrangement for bands IV, V and VI (RAN WG4)**

Howard Benn (WG4 chairman) presented these CRs. Howard clarified that WG4 has taken special care to cover all the frequencies that can be used in bands V and VI but are not in the common raster.
The CRs are approved

**RP-030604 CRs (Rel-6) to TS 25.101, TS 25.104, TS 25.141 for Introduction of UMTS 850 requirements (RAN WG4)**

No comments. The CRs are approved

### 8.1.3 DS CDMA Introduction in the 800MHz Band

**RP-030561 Status Report for WI DS-CDMA introduction in the 800 MHz band (NTT DoCoMo)**

Takehiro Nakamura (NTT DoCoMo) presented this report.
No comments. The work is completed and the WI is closed

**RP-030605 CRs (Rel-6) to TS 25.101, TS 25.104, TS 25.141 for Introduction of UMTS 800 requirements (RAN WG4)**

**RP-030630 25.307 Release '99 (and linked) CRs, 25.331 Release 6 CRs on the introduction of UMTS 800 and New Bands (RAN WG2)**

No comments. The CRs are approved

## 8.1.4 UMTS 1.7/2.1 GHz

**RP-030562 Status Report for WI UMTS 1.7/2.1 GHz (Nokia)**

Jussi Numminen (Nokia) presented this report

Jussi explained that the WI is delayed until March because FCC order for Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands was not available until at the end of November 2003.

The chairman suggested that the CR in WG2 for UMTS1700/2100 and the CR missing for UMTS8500 could be provided together to the next RAN.

The report is noted, the new completion date (March 2004) is agreed.

# 8.2 RAN Improvement Feature

## 8.2.1 Radio access bearer support enhancement

**RP-030563 Status Report for WI RAB support enhancement (Nokia)**

Antti Toskala (Nokia) presented this report

Antti explained that work is ongoing in WG2 on proposals to optimize the support for voice over IMS. A TR (R2-032446) captures the work.

Hideoshi Suzuki (Panasonic) noted that work in WG1 for support of IMS has not been presented, and requested that WG1 is involved. Denis Fauconnier (WG2 chairman) clarified that joint discussions are expected to take place in Málaga in February, when the two groups are collocated.

CRs on this issue are foreseen for June 2004, although for the time being the work falls in the Feasibility Study category. A 30% completion level is estimated.

### 8.2.1.1 Iu enhancements for IMS support in the RAN

**RP-030564 Status Report for WI Iu enhancements for IMS support in RAN (Nortel)**

Denis Fauconnier (Nortel) presented this report

It was discussed that the final conclusion might be that no enhancements are possible. It seems that the RAN cannot distinguish between SIB user traffic and SIB signalling, and CN groups and SA WG2 are still working on this issue also. A coordinated approach with these groups is necessary. This will be reported to the TSG SA plenary.

## 8.2.2 Beamforming enhancement

**RP-030565 Status Report for WI Beamforming Enhancements (Nokia)**

Antti Toskala (Nokia) presented this report

The work is completed, the CRs are presented below. These CRs had been agreed "in principle" in WG3.

Concerning TS25.887, which so far is at version 1.7.0, it will be presented to the next meeting for final approval.

The WI is concluded.

**RP-030726 RAN WG1 and RAN WG3 CRs for Beamforming Enhancements (Nokia)**
No comments, the CRs are approved

## 8.2.3 RRM optimizations for Iur and Iub

### 8.2.3.1 Improved access to UE measurement data for CRNC to support TDD RRM

**RP-030566 Status Report for WI Improved access to User Equipment (UE) measurement data for Controlling Radio Network Controller (CRNC) to support Time Division Duplex (TDD) Radio Resource Management (RRM) (Interdigital)**
Jim Miller (Interdigital) presented this report
No comments. It is foreseen that the work can be completed by March 2004 as expected

## 8.2.4 Remote Control of Electrical Tilting Antennas

**RP-030567 Status Report for WI Remote Control of Electrical Tilting Antennas (Vodafone)**
Volker Hoehn (Vodafone) presented this report
The chairman questioned the feasibility of the completion date (March 2004), when looking at the level of completion (60%). Volker explained that an ad hoc session will be proposed during next WG3 meeting to be able to complete the work.
Volker also noted that no impact on WG4 specifications is expected as this will be considered as an auxiliary equipment form the Node B.

## 8.2.5 Network Assisted Cell Change (NACC) from UTRAN to GERAN – network-side aspects

**RP-030568 Status Report for WI Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-side aspects (Vodafone)**
Tim Frost (Vodafone) presented this report
The proposed completion date (March 2004) was contested, given the current status. Tim noted that two WG3 meeting between this and next plenary should be enough to completed the work. March 2004 is endorsed

# 8.3 UE Positioning

## 8.3.1 UE positioning enhancements

**RP-030652 Status Report for WI UE positioning enhancements (Siemens)**
Joerg Gustrau (Siemens) presented this report
Work on “IPDL enhancement using advanced blanking methods” is ongoing under this generic WI.
No foreseen completion date for this study work.

It was questioned why the IPDL structure needs to be changed. It seems that the modifications concern WG4 specifications, even though changes to the signalling are reported here.
It is clarified that there is no need for full Node-B synchronisation, only the IPDL need to be aligned with the frame timing.
There was a concern on the draft CRs presented in WG1, Edgar Fernandes (Motorola) noted that simulations and work in WG4 should be needed before approving the CRs including the new techniques. It was clarified that the CRs were drafts, only to provide a first overview of the required changes. Edgar however requested that WG4 analyses the proposal before CRs are presented at RAN level.
In summary, it was found necessary that the work done in WG1 is presented in the other WGs. It seems clear that issues not considered in WG1 so far may arise in the other groups.
It is clarified that this work was done under a Study Item until RAN#21, where the study was closed and it was decide to move the work to the basked WI "UE positioning enhancements". It seems that now the study phase continues, but somehow hidden under a generic WI.
A completion date for this work was not proposed.

## 8.3.2 A-GPS minimum Performance Specification

**RP-030569 Status Report for WI A-GPS minimum performance specification (AWS)**
Donglin Shen (AWS) presented this report
Hashem Madadi (Three) objected that the new objectives proposed by AWS hadn't been approved by WG4. However, no objections from Three to the new objectives, presented in R4-031155, are reported in the R4#29 draft minutes. It was clarified that Three couldn't comment during WG4 meeting due to travelling constraints and that Three had agreed on the multiple classes in WG4 meeting; however they objected to the removal of multiple classes and inclusion of single classes in the revised WIDS as presented in the RAN Plenary.
It is highlighted that WG4 is creating a new ~~specification~~ TS for the AGPS requirements, companies in RAN are invited to take this into consideration.
The new completion date, June 2004, is agreed.

**RP-030664 Revised WID for A-GPS minimum performance specification (AWS)**
Donglin Shen (AWS) presented this revised WIDS
Hashem Madadi (Three) objected the third objective proposed. Hashem required that multiple classes are sought, he explained that currently his company offers a terminal with positioning capabilities much better than the minimum requirements under study and hence a single class based on these minimum requirements would worsen the offer.
Howard Benn (WG4 chairman) noted that the work in WG4 is progressing very well, many new companies from the GPS side are now present and a draft TS is in progress. Considering the classes, he suggested to let WG4 do the work and if classes are needed, they will be specified.

Finally, the proposal was agreed but with the third objective removed. It is also commented that the new TS should be listed in the WIDS. A revision of RP-030664 ~~will~~ is be provided

**RP-030719 Revised WID for A-GPS minimum performance specification (AWS)**
This revised WI Description Sheet includes the two new objectives approved as in RP-030664.
The WIDS is approved

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

**RP-030570 Status Report for WI Introduction of MBMS in RAN (Nokia)**
Antti Toskala (Nokia) presented this report
Concerning the completion date, it seems feasible for WG2 to finish in June, but there are some doubt on WG3.
It seems agreed that there would be no major impact in WG4, as no new channel is being defined. Only potential impact would be due to the second S-CCPCH. Other issues that could impact WG4 are TX diversity and selective combining.
Finally, it is agreed that the completion date for WG2 and WG3 work is June 2004.

**RP-030653 TS25.346 Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2); version 2.4.0 (Nokia)**
Antti Toskala (Nokia) presented this TS
It is once again presented here for information.

## 8.5 Evolution of the transport in the UTRAN

No work ongoing under this generic feature

## 8.6 Multiple Input Multiple Output Antennas

**RP-030571 Status Report for WI Multiple Input Multiple Output antennas (MIMO) (Lucent)**
Said Tatesh (Lucent) presented this report
It is clarified that the completion dates are September 2004 for WG1, WG2 and WG3 and December 2004 for WG4.
Said clarified that the TR is, for the time being, only capturing the different proposals. Dirk Gerstenberger (WG1 chairman) clarified that the current work in WG1 is typical of a study item phase. By now, WG1 has not made the choice between the proposed techniques and the system level simulations hasn't been performed. Said further refined that a difference to a "classic" feasibility study is that the benefit of MIMO is already proved, it is now a matter of assessing the merits of the different techniques proposed by different manufacturers.
This was found unfortunate from the perspective of work planning, until the "study" phase is finished no accurate estimation of the extension of the work can be provided and hence current completion dates are unreliable.

## 8.7 Subscriber and Equipment Trace Support in UTRAN

**RP-030572 Status Report for WI Subscriber and equipment trace in UTRAN (Nortel)**
Denis Fauconnier (Nortel) presented this report
The report is noted.

## 8.8 Enhancement of the support of network sharing in the UTRAN

**RP-030573 Status Report for WI Enhancement of the support of network sharing in the UTRAN (TeliaSonera)**

Per Ernstrom (TeliaSonera) presented this report.
Due to the delay in stage 2 in SA WG2 the work in RAN groups couldn't progress. Per proposed June 2004 for the completion in RAN, only 3 months after the expected completion in SA WG2.

Han van Bussel (TMobile) was concerned by the completion dates of some of the WI, which seem to be an estimation provided by the WI rapporteur but not endorsed by the relevant WG. The chairmen confirmed that the dates are in general sent to the email reflectors after the meetings have finished, and the dates presented here have not been contested. It was also noted that some of this WI involve several groups, so it is difficult to agree on completion dates "live" during the meeting like WG4 does.
Han commented that WG chairs could remind the WG delegates of the importance of providing realistic completion dates, given that they are regularly delayed at the RAN meetings.

Finally, the proposed completion date (June 2004) is agreed. It was noted that WG2 has started to look at this topic, so it is agreed that the % completed should be more than zero.

## 8.9 Technical Small Enhancements and Improvements

**RP-030606 CRs (Rel-6) to TS 25.101, TS 25.104, under TEI6 "Co-existence with UTRA FDD in frequency band V" (RAN WG4)**

It is noted that this document contains CRs to 25.104 and 25.141, no CR to 25.101
The CRs are approved

**RP-030607 CRs (Rel-6) to TS 25.101, TS 25.102, TS 25.104, TS25.123, TS 25.133 under TEI6 (RAN WG4)**

It is noted that CR274 to 25.101 should be cat F; cat D is reserved for corrections of English language.
Telecom Italia ~~Tilab~~ questioned why the new test case is introduced in CR626 to 25.133, since the title of the CR was "correction to …", and not in an earlier Release. Howard noted that this could be considered a B CR, addition of a feature and hence not acceptable for closed Release.
CR636 to 25.133 is for Release 6, the spec version in the cover page is not correct (should be v6.3.0 instead of v5.8.0)
All CRs are approved, except CR274 to 25.101 and CR626 to 25.133 which are revised in RP-030720.

**RP-030720 Revision of CR274 to 25.101 and CR626 in 25.133 in RP-030607 (RAN WG4 chairman)**

No comments, the CRs are approved

**RP-030631 Update of the AS capability indication: 25.331 CR to Release 6 (Release 5 version) (RAN WG2)**

An editorial error has been found in the tabular ASN.1, Nokia will produce a revision

**RP-030721 Update of the AS capability indication: 25.331 CR to Release 6 (Nokia)**

No comments, the CR is approved

**RP-030714 Node-B testing over Iub (Nortel)**
Denis Fauconnier (Nortel) presented this document
The document brings a new proposal to implement the Node-B testing over Iub currently under discussion in WG4.
Howard Benn (Motorola) requested the creation of a WI to cover this issue, as the result of this activity will very likely be complicated CRs to be presented in various groups, including CRs to ASN.1. A WI will help to keep track of the work and to have a clear scope.
Joerg Gustrau (Siemens) preferred to keep the activity without a WI and with a low profile, in fact Siemens has already presented some CRs in WG4 under TEI6.
Sami Kekki (Nokia) didn't support the idea of using NBAP for this testing purposes.
Howard warned that if the tests can are to be used for conformance, they must be written in a way that can be reproduced by test house so many things need to be very well specified, including the physical connection to the RNC simulator for example. If all these issues need to be considered, a precise WI scope is necessary.

It was clarified by Siemens that the purpose behind their proposal in WG4 was for performance testing of the Node B and NOT for conformance testing.
All companies agreed that the use of 3rd party Simulation Equipment in conjunction with the currently standardised Iub is perfectly feasible to enable performance testing of the normal operation of the Node B - without requiring any extra functionality in the Node B itself.
Some Node B manufacturers however had some concerns that, in defining a common methodology within 3GPP specifications for this performance testing scenario, this could be mandated in the future for conformance testing purposes.
WG4 is therefore currently requested to check the technical correctness of the contribution from Siemens (R4-031044).

## 8.10 Closed Release-6 Work Items

**RP-030608 CRs (Rel-6) to TS 25.101 for HSDPA (RAN WG4)**
No comments. The CRs are approved

**RP-030697 CR (Rel-6 only) to TS 25.453 on Improvement of position calculation through set enlargement (RAN WG3)**
No comments. The CRs are approved

## 8.11 Study Items

### 8.11.1 Feasibility study on Radio link performance enhancements

**RP-030574 Status Report for FS on Radio link performance enhancements (Nokia Networks)**
Antti Toskala (Nokia) presented this report
This study comprises three different topics:

- Tx diversity for multiple antennas
- HSDPA enhancements
- Power Control enhancements (for TDD)

The average completion level is 50%.
There was some debate on the concept of "permanent" Study Item. In the view of the chairman, a Study should have a clear objective and a precise completion date. It may also come with a TR recollecting the

work done. In this case, now that three different topics are clearly identified, it would be preferable to evolve the SI to three separate SIs, one per topic.
On the other side, it was noted that this Study has been ongoing for several releases and to cover "small enhancements" work without the administrative overload of creating a dedicated SI.

A halfway approach is to have a generic Study Item similar to TEI where the WGs, WG1 in particular, could put new proposals of techniques for study. Once a particular proposal has gained weight and progresses to a certain level, a separate Study can be created.

For the time being, the Study remains as is, covering the three topics. This decision will be revisited at the next meeting.

## 8.11.2 Feasibility study on UTRA Wideband Distribution System (WDS)

**RP-030575 Status Report for FS on UTRA WideBand Distribution Systems (Tekmar)**
Takaharu Nakamura (WG4 vicechaiman) presented this report
The report is noted.

## 8.11.3 Analysis of OFDM for UTRAN evolution

**RP-030576 Status Report for FS Analysis of OFDM for UTRAN enhancement (Nortel)**
Evelyne Lestrat (Nortel) presented this document
Antti Toskala (Nokia) commented that in the list of open issues it should be mentioned that the rest of UTRAN (not only the NodeB) is also impacted. The RRM in the RNC will also be affected. It is clarified that the impact on the network would be studied under the Mobility area. For this purpose, it is clear that WG2 and WG3 will be contacted if necessary.
Howard Benn (WG4 chairman) noted that mobility measurements in WG4 have proven to be harder to handle than expected, notably for HO between different access technologies. He suggested WG1 to liaise with WG4 when dealing with mobility measurements.

There was a comment on the link between MIMO and OFDM, which could be in the future developed jointly. Dirk Gerastenberger (WG1 chairman) clarified that not until WG1 has finished the work on MIMO for FDD/TDD and the study on OFDM, the potential analysis of joint operation MIMO/OFDM will start. It seems however that MIMO is mentioned in the WIDS for OFDM.

It is clarified that a 5 MHz frequency band is used in the deployment under study. It is clarified also that frequency reuse, as understood in OFDM, is done within the 5MHz. No other 5MHz portions are used.

**RP-030705 Discussion on Advanced OFDM Technologies (Huawei)**
Branislav Popovic (Huawei) presented this document
A long debate followed this presentation. During the discussion, Samsung clarified that in WG1 last meeting there was just one document discussed on the topic of modulation diversity. Branislav agreed but noted that this is not the discussion presented here by this document. He asked for clarification in RAN whether the advanced techniques proposed by Huawai can or cannot be considered within the Study Item.
Dirk Gerstenberger (Ericsson) explained that so far, the approach has been to introduce OFDM in an UMTS system, trying to minimize the impact to the established layer 1. Also, Dirk noted that the main issue is timing and scope. His view is that within the timeframe and scope, and given the number of issues still pending,

(issues that have been agreed to be studied time since time ago), the new proposal cannot be handled. If RAN believes that this proposal has to be considered, the completion date has to be reviewed and probably the scope as well, but he requested RAN to take this decision and WG1 will follow.
Branislav objected that in his view, the Study should focus on the feasibility of an OFDM access, and to analyze the best techniques available for this purpose. He questioned the need to keep mobility and other issues inside the Study, since simulations are going to be performed at a later stage. Also, in his view, the completion date should be moved according with the expected work.

Denis Fauconnier (Nortel) explained that the Study can be thought of having two phases: first endorsing the applicability of the OFDM modulation within UTRAN, and latter studying the enhancement of UTRAN via OFDM. He noted that it is not possible to finish the second phase, taking into consideration the proposal from Huawai or others, by the deadline set on June 2004.

It is proposed to formally divide the work in these two phases, the first based on "textbook" OFDM to be finished by June 2004, and start later a second phase for enhancement which in fact requires the endorsement by 3GPP PCG.

Branislav questioned what will happen with the TX diversity part of the work. Denis suggested to cover diversity on the second phase. Serge Willenegger (Qualcomm) clarified that WG1 has already spent long time on two areas, integration and feasibility of OFDM within current UTRAN, and studying the merits and performance issues of OFDM. The proposal from Denis is divide the work exactly along these lines, finish the first area by June and create a second Study, with the endorsement of 3GPP PCG, to cover the second area. It seemed clear that for the June deadline, the SI Description Sheet is too broad, the advanced receivers, MIMO and extensive performance simulations cannot be accomplished.

Antti Toskala (Nokia) noted that it will be of little use to PCG to receive a report of the study simply asserting the feasibility but without performance results, this will not help to decide whether the technology is worth or not to be added to 3GPP standard.

**RP-030724 Revised Study Item Description Sheet for the Analysis of OFDM for UTRAN evolution (Nortel)**

Denis Fauconnier (Nortel) presented this proposal
Revised Description Sheet reducing the scope of the Study.
No comments. The SIDS is approved

## 8.11.4 Uplink Enhancements for Dedicated Transport Channels

**RP-030577 Status Report for FS on Uplink Enhancements for Dedicated Transport Channels (Nokia)**

Antti Toskala (Nokia) presented this report.
The completion date is moved to March 2004.
Denis Fauconnier (Nortel) commented that effort should be made to finish the work by March; there is a non stopping flow of new proposals under this FS in WG1 that may delay the closing date. The chairman observed that it seems difficult to estimate the completion date of any of WG1 studies.

Said Tatesh (Lucent) mentioned that there are important decisions, like the length of the TTI, to be taken before the study is closed in order to have a clear picture when the WI starts. Adopting these decisions may

take time, the compliance with the completion date shouldn't push to adopt them in a rush. However, it was noted that the SI will not conclude on a closed list of techniques to be implemented in the WI phase. It is possible to introduce new proposals in the WI, or to dump those studied in the FS.

It is confirmed that an Ad Hoc for Rel-6 matters in WG1 is scheduled for the end of January. This meeting will be collocated with the AGPS Ad Hoc in WG4, and a joint session WG1-WG4 will also be held to discuss the PAR with HS-DSCCH transmission issue.
Samsung required that the MBMS issues are properly covered in the Rel-6 Ad Hoc. It was also mentioned that the dates proposed are not convenient for delegates from the Far East, as they have been chosen very close to the Chinese New Year. Agreed dates will be discussed off line. See section 12 for the final schedule.

The change in completion date is endorsed.

## 8.11.5 Analysis of Higher Chip Rate for UTRA TDD evolution

**RP-030578 Status Report for FS on Analysis on Higher Chip Rates for UTRA TDD evolutions (IPWireless)**

Martin Beale (IPWireless) presented this report
The completion date is changed from December 2003 to June 2004.
No comments, the report is noted

## 8.11.6 Evolution of UTRAN Architecture

**RP-030579 Status Report for FS on the evolution of the UTRAN architecture (Nokia)**

Sami Kekki (Nokia) presented this report
WG3 chairman suggested to move the completion date to June 2004, March seems unrealistic.
There were some comments about closing the study, but it is noted that many contributions were presented although not treated.

Denis Fauconnier (Nortel) noted that the study has been open for long time, the fact that contributions keep arriving shouldn't stop RAN and WG3 to close the study at a given point or set a deadline to be met. Hans van der Veen (NEC) agreed that this is sometimes the situation, but in this case it seems that there is a problem with WG3 being able to handle all the contributions and in any case companies are interested in continuing the work.

Per Beming (Ericsson) commented that although many papers have been presented, some are simply showing that there is no gain and hence no further work needs to be done. He noted that discussions on the topic started very long ago, even if the FS itself was created a year ago. He requested WG3 produce a report showing the progress achieved and the current situation.

There were some complaints on the information conveyed in the Status Report. If contributions couldn't be treated due to the lack of time, it is requested that they are listed here for completeness.

Finally, it is agreed to have March 2004 as completion date and to review the whole Study by then.

### 8.11.7 Low Output Powers for general purpose FDD BS

**RP-030580 Status Report for FS on Low Output Powers for general purpose FDD BSs (Telefonica)**

Alex Vesely (Siemens) presented this report
Completion date is changed from December 2003 to March 2004.
No comments, the report is noted

### 8.11.8 Uplink Enhancements for UTRA TDD

**RP-030581 Status Report for FS on Uplink enhancements for UTRA TDD (Interdigital)**

Steve Dick (Interdigital) presented this report
The completion date is delayed from March 2004 to September 2004
No comments, the report is noted

## 8.12 New Work Items/Study Items

**RP-030717 New WI Proposal: Performance Requirements of Receive Diversity for HSDP (NTT DoCoMo)**

Takehiro Nakamura (NTT DoCoMo) presented this proposal
Antti Toskala (Nokia) thanked DoCoMo for this paper and introduced document RP-030702 which covers topics to be handled on this area

**RP-030702 Enhanced UE receiver performance requirements for HSDPA (Nokia)**

Jussi Numminen (Nokia) presented this document

It seemed agreed that the specification should not mandate one or various specific implementations and associated tests. Serge Willenegger (Qualcomm) noted that however this case of RX diversity should be specified separately, it is clear that its performance will be better in certain conditions and this has to be acknowledged and estimated with a particular requirement. Serge suggested to open two items, one to cover the RX diversity specifically and a broader item to study improvements in general.

It was questioned to what extent is possible to define performance requirements independently of the implementation. Antti Toskala (Nokia)clarified that if several requirements based on different scenarios are mandated, this may conclude in the need for the terminal to include several receiver techniques in order to meet all the requirements which is certainly not the intention. Hence the need to set the requirements in a way that all techniques can fulfil them.

Volker Hoehn (Vodafone) supported the creation of a WI to introduce the performance for RX diversity and a Study or Work Item for advanced receivers.

Howard Benn (Motorola) reminded that on the BS side, there are performance requirements with and without diversity and there has never been a question of implementation issues.

**RP-030703 New Study Item Proposal: Improvements of receiver performance of HSPDA UE for enhancing the performance of FDD system (Nokia)**

Jussi Numminen (Nokia) presented this document

The WI proposal was found acceptable, but in parallel with the WI from NTT DoCoMo, not as a substitute. Also, the time schedule proposed was found very demanding.
It was questioned if signalling was needed for the system to benefit of the enhanced performance. Antti explained that there is no need for additional signalling, the improvement will reflect on the CQI reported by the UE and the subsequent reduction in power allocated to that UE in the DL.

A long off line discussion took place to agree on a unified proposal for the WI description. RP-030717 ,RP-030702 and RP-030703 are not approved.

**RP-030732 New Work Item Proposal: Improvements of receiver performance of HSPDA UE for enhancing the performance of FDD system (Nokia)**

Antti Toskala (Nokia) presented this revision of the previous document
Antti explained that the final agreement is to create a building block to cover all the receiver performance issues.
Concerning the Description Sheet, it is approved here, but WG4 is tasked to review the text and revise it if necessary in its next meeting.
It is commented that the time schedule proposed doesn't fit for a building block that will cover many separate improvements. This will also be reviewed by WG4.
It is noted that modifications to 25.101 are expected under this Building Block, which doesn't make sense as the change requests would be under the Work Tasks underneath. In order to reach consensus, The specification will be removed from the Description Sheet

**RP-030731 New WI Proposal: Performance Requirements of Receive Diversity for HSDP (NTT DoCoMo)**

Takehiro Nakamura (NTT DoCoMo) presented this proposal.

Finally, RP-030731 and RP-030732 are approved and WG4 is tasked to review both Description Sheets and provide a revision, if needed, to next TSG RAN. It was noted that, if work on equalizers or advanced receiver or any other, a separate Work Task should be started under the Building Block but independent of the WT for RX diversity.

**RP-030733 Proposed WI: DL Code Improvement (Nortel)**

Denis Fauconnier (Nortel) presented this proposal
Said Tatesh (Lucent) supported the WI but questioned why it is restricted only to dedicated channels. Denis clarified that this is deliberate, considering HSDPA will add a substantial amount of complexity and work and, anyway, there is already a SI dealing with HSDPA improvements.
Hashem Madadi (Three) also supported the WI but asked for more clarification on the objectives and the scope, he agreed however that this can be done at a later stage.
Joerg Gustrau (Siemens) objected that the WIDS is presented very late with no time for analysis, but he questioned why this sort of work is taken out of the study item Radio Link Enhancements which is dealing with HSDPA enhancements. The proponents emphasized that the work is not related to HSDPA directly and that it is not covered in that study.
Many companies also objected approving a WI presented so late in the meeting (it was made available 2 hours before the meeting closed). Consistent justification for the need of the WI should be presented, and it is missing in this case.
Consensus couldn't be reached, so the proposal is not approved. Nortel and the other supporters are invited to discuss further the text with the companies objecting and present it again in the next meeting.

# 9 Technical co-ordination among WGs

## 9.1 Review of status on action points allocated during the previous meeting

The action points have been reviewed during the presentation of ~~WGs~~ the activity of the WGs.

## 9.2 Other needs

No discussions

# 10 Outputs to other groups

No outgoing Liaisons.

# 11 Project management

**RP-030706 RAN WIs and SIs, active and closed (3GPP Support)**
This document contains the description sheets for RAN Work Items and Study Items. It is presented for information

**RP-030643 3GPP Dependencies on OMA Deliverables (Nortel)**
The chairman explained that RAN doesn't have any OMA dependency, the document is noted.

**RP-030640 Rel-5 Specs not yet upgraded to Rel-6 (3GPP Support)**
Presented here for information.

The chairman reminded that it had been approved at RAN meeting #21 to produce Rel-6 versions of most of RAN specifications (those listed in RP-030526 and RP-030527) after this meeting #22. Those lists contain the documents needed for the revision 4 of ITU-R recommendation M.1457

**RP-030641 Status list before TSG#22 (3GPP Support)**
List of 3GPP specifications, for information

**RP-030642 Specs for frozen releases, not yet under change control (3GPP Support)**
This document lists a number of TSs and TRs, initially created for old releases, that have not been brought under change control yet. RAN is requested to decide whether to bring the documents under Change Control, postpone them to a later Release or stop the support. The following is decided:

- TR 25.833 (R99), Physical layer items not for inclusion in Release 99. It is agreed to bring it under change control as v3.0.0
- TR 25.840 (Rel-4), Terminal power saving features. It is agreed to bring it under change control as v4.0.0

- TR 25.890 (Rel-5), High Speed Downlink Packet Access (HSDPA); User Equipment (UE) radio transmission and reception (FDD). It is agreed to discontinue support of this TR.

**RP-030728 Work Plan Slide presentation (3GPP Support)**
Alain Sultan (3GPP Support) gave this presentation. These slides are updated with the decisions at TSG RAN, CN & T #22.

After review of the status of all 3GPP items, Alain noted that the most feasible date for closing of Release 6 would be September 2004.

Hashem Madadi (Three) objected that the June date is feasible, some features could be considered "late items" and finalised in September. He proposed to go for the June date, review the decision in March and put pressure in the groups running late.

**RP-030730 3GPP Work Plan (MSProject version) (3GPP Support)**
Presented for information, it is not updated with the decisions at RAN#22.

**RP-030725 Proposal for improving the accuracy of work planning (3GPP Support)**
Alain Sultan (3GPP Support) presented this document
It is proposed that the Work Plan reflect the duration of the WI instead of the completion date. It is also proposed that Stage 2 & 3 are linked automatically to the previous Stage. This would mean that if one of the stages is delayed the following stages will have its completion date automatically moved.
The chairman noted that this has little impact on RAN work, given that it is normally not linked to Stages in other TSGs. In particular, this will only affect MBMS and Network Sharing.
No objections were presented to the four proposals presented in the document.

**RP-030729 Overview of R99 features (3GPP Support)**
Alain Sultan (3GPP Support) presented this document, for information and comments.
It contains textual descriptions of all the features introduced in R99. RAN participants are invited to send their comments to 3GPP support. A final version will be presented in next TSGs.
It is noted that specifications from the 25.1xx series are missing in the table of references.

# 12 Any other business

Volker Braun (Alcatel) reminded that during the last meeting there was a joint proposal from Alcatel and Nortel for a new WI on improvement on existing Beamforming solutions, now that the Beamforming WI has been closed it is the right time to review the possibility of a new WI. Some companies have shown interest, but for the time being no agreement has been reached, so Volker informed that the proponents will continue the work on beamforming under the under the RL performance enhancement study item~~newly created building block for performance requirements~~.

Antti Toskala (Nokia) commented that the invitation for the Ad Hocs in January is already available and ready to be sent. The final dates are as follows:

- 3GPP TSG RAN WG1 Release 6 Ad Hoc: 27th to 29th of January
- 3GPP TSG RAN WG4 A-GPS Ad Hoc: 28th & 29th of January

- Joint Ad Hoc between WG1 & WG4 on the uplink Peak-to-Average Ratio (PAR) studies: 30th of January

The chairman also reminded that Joern Krause, MCC secretary in WG3, will not continue working with the group. He thanked him for his dedication.

# 13 Closing of the meeting

The chairman closed the meeting on Friday 12th at 9:30 in the morning. He thanked the delegates for their participation and the host for the facilities provided.

# Annex A: List of participants

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# Annex B: List of documents

See main body of the report for clarification on documents partially approved or approved with a note xx).
All documents can be found at: ftp://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_22/

| Tdoc | Title | Source | Decision |
|---|---|---|---|
| RP-030557 | Draft agenda meeting #22 | Chairman | Approved |
| RP-030558 | Revised draft report TSG RAN #21 | 3GPP support | Approved |
| RP-030559 | Status Report for WI Improvement of inter-frequency and inter-system measurement | Nokia | Noted |
| RP-030560 | Status Report for WI UMTS-850 | Cingular | Noted |
| RP-030561 | Status Report for WI DS-CDMA introduction in the 800 MHz band | NTT DoCoMo | Noted |
| RP-030562 | Status Report for WI UMTS 1.7/2.1 GHz | Nokia | Noted |
| RP-030563 | Status Report for WI RAB support enhancement | Nokia | Noted |
| RP-030564 | Status Report for WI Iu enhancements for IMS support in RAN | Nortel | Noted |
| RP-030565 | Status Report for WI Beamforming Enhancements | Nokia | Noted |
| RP-030566 | Status Report for WI Improved access to User Equipment (UE) measurement data for Controlling Radio Network Controller (CRNC) to support Time Division Duplex (TDD) Radio Resource Management (RRM) | Interdigital | Noted |
| RP-030567 | Status Report for WI Remote Control of Electrical Tilting Antennas | Vodafone | Noted |
| RP-030568 | Status Report for WI Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-side aspects | Vodafone | Noted |
| RP-030569 | Status Report for WI A-GPS minimum performance specification | AWS | Noted |
| RP-030570 | Status Report for WI Introduction of MBMS in RAN | Nokia | Noted |
| RP-030571 | Status Report for WI Multiple Input Multiple Output antennas (MIMO) | Lucent | Noted |
| RP-030572 | Status Report for WI Subscriber and equipment trace in UTRAN | Nortel | Noted |
| RP-030573 | Status Report for WI Enhancement of the support of network sharing in the UTRAN | TeliaSonera | Noted |
| RP-030574 | Status Report for FS on Radio link performance enhancements | Nokia Networks | Noted |
| RP-030575 | Status Report for FS on UTRA WideBand Distribution Systems | Tekmar | Noted |
| RP-030576 | Status Report for FS Analysis of OFDM for UTRAN enhancement | Nortel | Noted |
| RP-030577 | Status Report for FS on Uplink Enhancements for Dedicated Transport Channels | Nokia | Noted |
| RP-030578 | Status Report for FS on Analysis on Higher Chip Rates for UTRA TDD evolutions | IPWireless | Noted |
| RP-030579 | Status Report for FS on the evolution of the UTRAN architecture | Nokia | Noted |
| RP-030580 | Status Report for FS on Low Output Powers for general purpose FDD BSs | Telefonica | Noted |
| RP-030581 | Status Report for FS on Uplink enhancements for UTRA TDD | Interdigital | Noted |
| RP-030582 | Status Report WG1 | RAN WG1 Chairman | Noted |
| RP-030583 | List of agreed CRs RAN WG1 | RAN WG1 | Noted |
| RP-030584 | Status Report WG2 | RAN WG2 Chairman | Noted |
| RP-030585 | List of agreed CRs RAN WG2 | RAN WG2 | Noted |

| Tdoc | Title | Source | Decision |
|---|---|---|---|
| RP-030586 | Status Report WG3 | RAN WG3 Chairman | Noted |
| RP-030587 | List of agreed CRs RAN WG3 | RAN WG3 | Noted |
| RP-030588 | Status Report WG4 | RAN WG4 Chairman | Noted |
| RP-030589 | List of agreed CRs RAN WG4 | RAN WG4 | Noted |
| RP-030590 | CRs (R'99 and Rel-4/Rel-5/Rel-6 Category A) to TS 25.101, "Correction of W-CDMA modulated interferer definition" | RAN WG4 | Approved |
| RP-030591 | CRs (R'99 and Rel-4/Rel-5 Category A) to TS 25.123, "out-of-service area for 3.84 Mcps & 1.28 Mcps TDD" | RAN WG4 | Approved |
| RP-030592 | CRs (R'99 and Rel-4/Rel-5/Rel-6 Category A) to TS 25.133 | RAN WG4 | Approved |
| RP-030593 | CRs (Rel-4 and Rel-5 Category A) to TS 25.106 & TS 25.143 (Repeaters specifications), "Spurious emissions: Co-existence with UTRA-FDD BS new UL requirement" | RAN WG4 | Approved |
| RP-030594 | CRs (Rel-4 and Rel-5 Category A) to TS 25.123 | RAN WG4 | Approved |
| RP-030595 | CRs (Rel-5 and Rel-6 Category A) to TS 25.101 for HSDPA | RAN WG4 | Approved |
| RP-030596 | CRs (Rel-5 and Rel-6 Category A) to TS 25.101, TS 25.102, TS 25.104, TS 25.105, TS 25.106, TS 25.113, TS 25.141, TS 25.142, TS 25.143 on "Correction of references to ITU recommendations" | RAN WG4 | Approved |
| RP-030597 | CRs (Rel-5 and Rel-6 Category A) to TS 25.104 & TS 25.141, "Correction of the P-CPICH power accuracy requirement & test in case of TX-diversity" | RAN WG4 | Approved |
| RP-030598 | CRs (Rel-5 and Rel-6 Category A) to TS 25.104, "Correction of the applicability of requirements in case of TX diversity" | RAN WG4 | Approved |
| RP-030599 | CRs (Rel-5 and Rel-6 Category A) to TS 25.141, "Correction of transmitter tests in case of TX-diversity" | RAN WG4 | Approved |
| RP-030600 | CR (Rel-5) to TS 25.113, "Performance criteria for voltage dips and battery backup" | RAN WG4 | Approved |
| RP-030601 | CRs (Rel-5) to TS 25.123, "Test time Reduction or 3.84 Mcps & 1.28 Mcps TDD" | RAN WG4 | Approved |
| RP-030602 | CRs (Rel-5) to TS 25.133, "Clarification on filtering requirements" | RAN WG4 | Approved |
| RP-030603 | CRs (Rel-6) to TS 25.101, TS 25.104, TS 25.141 for the Introduction of new channel arrangement for bands IV, V and VI | RAN WG4 | Approved |
| RP-030604 | CRs (Rel-6) to TS 25.101, TS 25.104, TS 25.141 for Introduction of UMTS 850 requirements | RAN WG4 | Approved |
| RP-030605 | CRs (Rel-6) to TS 25.101, TS 25.104, TS 25.141 for Introduction of UMTS 800 requirements | RAN WG4 | Approved |
| RP-030606 | CRs (Rel-6) to TS 25.101, TS 25.104, under TEI6 "Co-existence with UTRA FDD in frequency band V" | RAN WG4 | Approved |
| RP-030607 | CRs (Rel-6) to TS 25.101, TS 25.102, TS 25.104, TS25.123, TS 25.133 under TEI6 | RAN WG4 | Approved |
| RP-030608 | CRs (Rel-6) to TS 25.101 for HSDPA | RAN WG4 | Approved |
| RP-030609 | 25.993 CRs to the Release 6 version also affecting earlier releases | RAN WG2 | Approved |
| RP-030610 | SFN associated with GPS timing of cell frame: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |
| RP-030611 | Correction to redirection procedure at RRC connection setup: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |
| RP-030612 | Measured results on RACH: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |
| RP-030613 | 25.305 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |

| Tdoc | Title | Source | Decision |
|---|---|---|---|
| RP-030614 | 25.306 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |
| RP-030615 | 25.307 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Withdrawn |
| RP-030616 | 25.322 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |
| RP-030617 | 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 (1) | RAN WG2 | Approved 2) |
| RP-030618 | 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 (2) | RAN WG2 | Approved 3) |
| RP-030619 | 25.993 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Approved |
| RP-030620 | 25.322 CRs to Release 4 with linked CRs to Release 5 | RAN WG2 | Approved |
| RP-030621 | 25.331 CRs to Release 4 with linked CRs to Release 5 | RAN WG2 | Approved |
| RP-030622 | 25.302 CR to Release 5 | RAN WG2 | Approved |
| RP-030623 | 25.306 CRs to Release 5 | RAN WG2 | Approved |
| RP-030624 | 25.321 CRs to Release 5 | RAN WG2 | Approved |
| RP-030625 | 25.331 CRs to Release 5 | RAN WG2 | Approved |
| RP-030626 | 25.921 CR to Release 5 | RAN WG2 | Approved |
| RP-030627 | 25.922 CRs to Release 5 | RAN WG2 | Approved |
| RP-030628 | Correction of UTRAN GPS Reference Time quality: 25.331 CRs to Release '99 with linked CRs to Release 4 and Release 5 | RAN WG2 | Not approved |
| RP-030629 | Inclusion of a default configuration identity for WB-AMR: 25.331 CR to Release 5 | RAN WG2 | Approved |
| RP-030630 | 25.307 Release '99 (and linked) CRs, 25.331 Release 6 CRs on the introduction of UMTS 800 and New Bands | RAN WG2 | Approved |
| RP-030631 | Update of the AS capability indication: 25.331 CR to Release 6 (Release 5 version) | RAN WG2 | Revised in 721 |
| RP-030632 | LS Reply on RAN Work Item "Control of Remote Electrical Tilting Antenna" and possible impact on SA5 | TSG SA WG5 | Noted |
| RP-030633 | Reply LS on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on TSG SA 5' | RAN WG3 | Noted |
| RP-030634 | LS on Reply LS on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on SA5' | TSG SA WG5 | Noted |
| RP-030635 | LS on Reporting of attempted UE positioning methods over Iu | TSG RAN WG2 | Noted |
| RP-030636 | LS Reply on charging aspects of Priority Service (draft TR 22.952) | TSG SA WG5 | Noted |
| RP-030637 | Reply to Response on “Work following the joint SA2/RAN2/CN1 meeting on paging” | TSG SA WG2 | Noted |
| RP-030638 | Reply LS on addition of 768kbps bearer to TS 34.108 | TSG T WG1 | Noted |
| RP-030639 | Coordination of Positioning Methods between TSG GERAN and TSG RAN | TSG GERAN | Noted |
| RP-030640 | Rel-5 Specs not yet upgraded to Rel-6 | 3GPP Support | Noted |
| RP-030641 | Status list before TSG#22 | 3GPP Support | Noted |
| RP-030642 | Specs for frozen releases, not yet under change control | 3GPP Support | Noted |
| RP-030643 | 3GPP Dependencies on OMA Deliverables | Nortel | Noted |
| RP-030644 | HARQ Memory Partitioning, process identifiers and re-ordering: Rel-5 CRs to 25.331, 25.212, 25.423 and 25.433. | RAN WG2 | Approved |
| RP-030645 | TR 25.833 v 2.0.0 "Physical layer items not for inclusion in Release 99" | RAN WG1 chairman | Approved |
| RP-030646 | CRs (Rel-4 and Rel-5 Category A) to TS 25.222 | RAN WG1 | Approved |
| RP-030647 | CRs (Rel-5) to TS 25.212 | RAN WG1 | Approved |

| Tdoc | Title | Source | Decision |
|---|---|---|---|
| RP-030648 | CRs (Rel-5) to TS 25.213 | RAN WG1 | Approved |
| RP-030649 | CRs (Rel-5) to TS 25.214 | RAN WG1 | Approved |
| RP-030650 | CRs (Rel-5) to TS 25.222 | RAN WG1 | Approved |
| RP-030651 | CRs (Rel-5) to TS 25.225 | RAN WG1 | Approved |
| RP-030652 | Status Report for WI UE positioning enhancements | Siemens | Noted |
| RP-030653 | TS25.346 Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2); version 2.4.0 | Nokia | Noted |
| RP-030654 | New WI Proposal: Performance Requirements of Receive Diversity for HSDP | NTT DoCoMo | Revised in 717 |
| RP-030655 | ITU-R Ad Hoc Status Report | ITU-R Ad Hoc Contact Person | Noted |
| RP-030656 | Proposed Action Plan toward ITU-R M.1457-5 | ITU-R Ad Hoc | Approved |
| RP-030657 | Proposed Initial submission for updated UTRA FDD and TDD toward Rev. 5 of Rec. ITU-R M.1457 | ITU-R Ad Hoc | Approved |
| RP-030658 | LS on Multiple MBMS Issues | TSG SA WG4 | Noted |
| RP-030659 | LS on SA2 updates of the Work Plan | TSG SA WG2 | Noted |
| RP-030660 | CR 120 to 25.222 Rel-5: HARQ process identifier mapping | NEC | Approved |
| RP-030661 | Remove inconsistency among specifications on signalling support for power control during loss of RL synchronisation. CR 338 to 25.214 Rel-5 | Samsung, Lucent | Approved |
| RP-030662 | 25.331 CRs to Release 99 (and Rel-4/Rel-5 linked CRs). | RAN WG2 | Approved 4) |
| RP-030663 | CR895r1 to 25.423: Correction of Traffic Class IE | Ericsson | Not approved |
| RP-030664 | Revised WID for A-GPS minimum performance specification | AWS | Revised in 719 |
| RP-030665 | A-GPS Minimum Performance Specification WI Update | AWS | Withdrawn |
| RP-030666 | Discussion on process for ASN.1 interface freezing | Nokia | Noted |
| RP-030667 | Introduction of ITU-T Q.2631.1 for interworking solution 3 | Siemens | Noted |
| RP-030668 | Proposal for an update of the 'Terms of Reference (ToR) of 3GPP TSG RAN WG3' | RAN WG3 | Approved |
| RP-030669 | CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.413 on Correction of RAB Release Request Inter-working | RAN WG3 | ~~Approved~~Revised |
| RP-030670 | CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.433 on DCH Information Response Issue | RAN WG3 | Not approved |
| RP-030671 | CRs (Rel-4 and Rel-5 Category A) to TS 25.413 | RAN WG3 | Approved |
| RP-030672 | CRs (Rel-4 and Rel-5 Category A) to TS 25.414 on Inclusion of AAL2 Link Characteristics in ERQ | RAN WG3 | Approved |
| RP-030673 | CRs (Rel-4 and Rel-5 Category A) to TS 25.419 on Correction of finite number of broadcast | RAN WG3 | Approved |
| RP-030674 | CRs (Rel-4 and Rel-5 Category A) to TS 25.433 | RAN WG3 | Approved |
| RP-030675 | CRs (Rel-5 and Rel-6 Category A) to TS 25.401 on NAS/AS issue for shared networks in connected mode | RAN WG3 | Approved |
| RP-030676 | CRs (Rel-5 only) to TS 25.413 | RAN WG3 | Approved |
| RP-030677 | CRs (Rel-5 only) to TS 25.423 on RNSAP reviews | RAN WG3 | Approved |
| RP-030678 | CR (Rel-5 only) to TS 25.427 on Signalling support for soft handover indicator | RAN WG3 | Approved |
| RP-030679 | CRs (Rel-5 only) to TS 25.433 | RAN WG3 | Approved |
| RP-030680 | CR (Rel-5 only) to TS 25.435 on Power control correction for DSCH for TDD | RAN WG3 | Approved |
| RP-030681 | CR (Rel-5 only) to TS 25.933 on Correction of PE-node as an ATM switch Solution | RAN WG3 | Approved |
| RP-030682 | CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.425, 25.427 and TS 25.435 on Spare Extension in | RAN WG3 | Approved |

| Tdoc | Title | Source | Decision |
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| | Data frame | | |
| RP-030683 | CRs (Rel-4 and Rel-5 Category A) to TS 25.423, TS 25.433 and TS 25.453 ( Rel-5 and Rel-6 Category A) on Information Exchange Initiation behavior correction | RAN WG3 | Approved |
| RP-030684 | CRs (Rel-5 only) to TS 25.402, TS 25.423 and TS 25.433 on Removal of the ambiguity about the activation time | RAN WG3 | Approved |
| RP-030685 | CRs (Rel-5 only) to TS 25.414, TS 25.424 and TS 25.434 on Diffserv marking is configurable | RAN WG3 | Approved |
| RP-030686 | CRs (Rel-5 only) to TS 25.413 and TS 25.423 on RT Load Value Clarification | RAN WG3 | Approved |
| RP-030687 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction for the HS-DSCH Initial Capacity Allocation | RAN WG3 | Approved |
| RP-030688 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction of Backward Compatibility for Uni-directional DCH indicator | RAN WG3 | Approved |
| RP-030689 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction of Transmission Gap Pattern Sequence Information | RAN WG3 | Approved |
| RP-030690 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Correction to Addition of HS-DSCH MAC-d Flows | RAN WG3 | Approved |
| RP-030691 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Range Extension for GPS Almanac Reporting | RAN WG3 | Approved |
| RP-030692 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Reconfiguration of Multiple Radio Links in TDD | RAN WG3 | Approved |
| RP-030693 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on the usage of the MAC-hs Reordering Buffer Size | RAN WG3 | Approved |
| RP-030694 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on TNL QoS for uplink IP traffic | RAN WG3 | Approved |
| RP-030695 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Unsynchronised RL Reconfiguration for HSDPA | RAN WG3 | Approved |
| RP-030696 | CRs (Rel-5 only) to TS 25.423 and TS 25.433 on Modification of the dynamic range of the PCCPCH Power | RAN WG3 | Not approved |
| RP-030697 | CR (Rel-6 only) to TS 25.453 on Improvement of position calculation through set enlargement | RAN WG3 | Approved |
| RP-030698 | CRs 127r1 (Rel-4) & 128r1(Rel-5) to 25.224 on "Correction to computed gain factors with signalled reference gain factor values" | Interdigital | Approved |
| RP-030699 | CR331r6 to 25.214 on Clarification on reconfiguration of HSDPA | Panasonic | Not approved |
| RP-030700 | RNSAP DCH Information Response issue | Motorola,Huawei, NEC | Noted |
| RP-030701 | CRs to 25.423 (R99, Rel-4 & Rel-5): Specify the DCH number for a set of coordinated DCHs in some messages | Motorola,Huawei, NEC | Not approved |
| RP-030702 | Enhanced UE receiver performance requirements for HSDPA | Nokia | Noted |
| RP-030703 | New Study Item Proposal: Improvements of receiver performance of HSPDA UE for enhancing the performance of FDD system | Nokia | Revised in 732 |
| RP-030704 | Candidates 3GPP specifications for inclusion in Art 17 list of standards | ETSI ECN&S STF254 | Noted |
| RP-030705 | Discussion on Advanced OFDM Technologies | Huawei | Noted |
| RP-030706 | RAN WIs and SIs, active and closed | 3GPP Support | Noted |
| RP-030707 | Essential R'99 CR Handling | Three | Noted |
| RP-030708 | Service Continuity Between 3GPP Releases 4 and 5 for TDD | IPWireless, Orange | Noted |
| RP-030709 | Meeting reports of 3GPP PCG#11 and 3GPP OP#10 | 3GPP Support | Noted |
| RP-030710 | Proposed update of agreed CRs 2150 to 2152 to 25.331 on Minimum UE capability class | Ericsson | Revised in 722 |
| RP-030711 | CRs 68, 66 and 67 to 25.213. Restriction of DL secondary scrambling codes per CCTrCH. | Nokia | Revised in 727 |
| RP-030712 | Rel-5 CR186 to 25.212,Rel-5 CR339 to 25.214 and Rel-5 CR121 to 25.222 on Alignment of "soft | Qualcomm Europe | Approved |

| Tdoc | Title | Source | Decision |
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| | channel bits " terminology with 25.306 | | |
| RP-030713 | Revision of CRs to 25.331, 25.423 and 25.433 in RP-030644: HARQ Memory Partitioning, process identifiers and re-ordering. | Qualcomm Europe | Approved |
| RP-030714 | Node-B testing over Iub | Nortel | Noted |
| RP-030715 | CR606r1 to 25.413 Rel-5 on Correction of RAB Release Request Inter-working (Revision of RP-030669) | 3GPP Support | Approved |
| RP-030716 | Liaison Statement on open essential parameters regarding Repeaters | RAN WG4 | Noted |
| RP-030717 | New WI Proposal: Performance Requirements of Receive Diversity for HSDP | NTT DoCoMo | Revised in 731 |
| RP-030718 | DCH information response issue (reply to RP-030700) | Nortel, Alcatel, Siemens | Noted |
| RP-030719 | Revised WID for A-GPS minimum performance specification | AWS | Approved |
| RP-030720 | Revision of CR274 to 25.101 and CR626 in 25.133 in RP-030607 | RAN WG4 chairman | Approved |
| RP-030721 | Update of the AS capability indication: 25.331 CR to Release 6 | Nokia | Approved |
| RP-030722 | Proposed update of agreed CRs 2150 to 2152 to 25.331 on Minimum UE capability class | Ericsson | Approved |
| RP-030723 | Draft ETSI SR List of standards and/or specifications for electronic communications networks, services and associated facilities and services; in accordance with Article 17 of Directive 2002/21/EC | 3GPP Support | Noted |
| RP-030724 | Revised Study Item Description Sheet for the Analysis of OFDM for UTRAN evolution | Nortel | Approved |
| RP-030725 | Proposal for improving the accuracy of work planning | 3GPP Support | Approved |
| RP-030726 | RAN WG1 and RAN WG3 CRs for Beamforming Enhancements | Nokia | Approved |
| RP-030727 | CRs 68, 66 and 67 to 25.213. Restriction of DL secondary scrambling codes per CCTrCH. | Nokia | Approved |
| RP-030728 | Work Plan Slide presentation | 3GPP Support | Noted |
| RP-030729 | Overview of R99 features | 3GPP Support | Noted |
| RP-030730 | 3GPP Work Plan (MSProject version) | 3GPP Support | Noted |
| RP-030731 | New WI Proposal: Performance Requirements of Receive Diversity for HSDP | NTT DoCoMo | Approved |
| RP-030732 | New Study Item Proposal: Improvements of receiver performance of HSPDA UE for enhancing the performance of FDD system | Nokia | Approved |
| RP-030733 | Proposed WI: DL Code Improvement | Nortel | Not approved |

# Annex C: List of CRs presented at TSG RAN #22

The table below lists all the CRs presented at RAN#22, regardless of their final status.

| Spec | CR | Rev | Phase | Cat | TSG Doc | WG Doc | TSG Status | Subject | CR to version | Workitem | WG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25.101 | 272 | 1 | Rel-5 | F | RP-030595 | R4-031079 | Approved | Correction for FRC test in Closed loop mode 1 | 5.8.0 | HSDPA-RF | R4 |
| 25.101 | 273 | 1 | Rel-5 | F | RP-030595 | R4-031084 | Approved | DTX handling for CQI test in fading channel | 5.8.0 | HSDPA-RF | R4 |
| 25.101 | 274 | 1 | Rel-6 | D | RP-030607 | R4-031076 | Revised | SML definition | 6.2.0 | TEI6 | R4 |
| 25.101 | 274 | 2 | Rel-6 | F | RP-030720 | | Approved | SML definition | 6.2.0 | TEI6 | R4 |
| 25.101 | 275 | | Rel-5 | F | RP-030595 | R4-030865 | Approved | Power allocation for HS-SCCH in FRC test | 5.8.0 | HSDPA-RF | R4 |
| 25.101 | 276 | 1 | Rel-5 | F | RP-030595 | R4-031077 | Approved | Corrections of CQI reporting section | 5.8.0 | HSDPA-RF | R4 |
| 25.101 | 277 | | Rel-5 | F | RP-030596 | R4-030877 | Approved | Correction of references to ITU recommendations | 5.8.0 | TEI5 | R4 |
| 25.101 | 278 | | Rel-6 | A | RP-030596 | R4-030885 | Approved | Correction of references to ITU recommendations | 6.2.0 | TEI5 | R4 |
| 25.101 | 280 | 1 | Rel-6 | B | RP-030605 | R4-031128 | Approved | DS-CDMA Introduction in the 800 MHz Band | 6.2.0 | RInImp-UMTS800 | R4 |
| 25.101 | 281 | | Rel-6 | F | RP-030608 | R4-030918 | Approved | Specification of HSDPA FRC Performance for H-Set 6 | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 282 | 1 | Rel-6 | F | RP-030608 | R4-031104 | Approved | Specification of HS-SCCH Performance with Open Loop Transmit Diversity | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 283 | 2 | Rel-5 | F | RP-030595 | R4-031140 | Approved | Additional Specification of CQI Testing for UE Capability Categories 11 and 12 | 5.8.0 | HSDPA-RF | R4 |
| 25.101 | 284 | 1 | Rel-6 | F | RP-030608 | R4-031107 | Approved | Specification of CQI Testing for UE Capability Categories 11, 12 and 1-6 in Open and Closed Loop Transmit Diversities | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 285 | 1 | Rel-6 | F | RP-030608 | R4-031108 | Approved | Specification of CQI Testing for UE Capability Categories 7 and 8 | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 286 | 2 | Rel-6 | B | RP-030604 | R4-031147 | Approved | Introduction of UMTS 850 requirements | 6.2.0 | RInImp-UMTS850 | R4 |
| 25.101 | 294 | | Rel-6 | F | RP-030607 | R4-030965 | Approved | New Compressed Mode Reference Pattern | 6.2.0 | TEI6 | R4 |
| 25.101 | 296 | 3 | Rel-5 | F | RP-030595 | R4-031101 | Approved | Clarification to HSDPA OCNS definition | 5.8.0 | HSDPA-RF | R4 |
| 25.101 | 297 | 3 | Rel-6 | A | RP-030595 | R4-031102 | Approved | Clarification to HSDPA OCNS definition | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 300 | 1 | R99 | F | RP-030590 | R4-031087 | Approved | Correction of W-CDMA modulated interferer definition | 3.15.0 | TEI | R4 |
| 25.101 | 301 | 1 | Rel-4 | A | RP-030590 | R4-031088 | Approved | Correction of W-CDMA modulated interferer definition | 4.9.0 | TEI | R4 |
| 25.101 | 302 | | Rel-6 | A | RP-030595 | R4-031075 | Approved | Power allocation for HS-SCCH in FRC test | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 303 | | Rel-6 | A | RP-030595 | R4-031078 | Approved | Corrections of CQI reporting section | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 304 | | Rel-6 | A | RP-030595 | R4-031080 | Approved | Correction for FRC test in Closed loop mode 1 | 6.2.0 | HSDPA-RF | R4 |

| Spec | CR | Rev | Phase | Cat | TSG Doc | WG Doc | TSG Status | Subject | CR to version | Workitem | WG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25.101 | 305 | | Rel-6 | A | RP-030595 | R4-031085 | Approved | DTX handling for CQI test in fading channel | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 306 | | Rel-5 | A | RP-030590 | R4-031089 | Approved | Correction of W-CDMA modulated interferer definition | 5.8.0 | TEI | R4 |
| 25.101 | 307 | | Rel-6 | A | RP-030590 | R4-031090 | Approved | Correction of W-CDMA modulated interferer definition | 6.2.0 | TEI | R4 |
| 25.101 | 308 | | Rel-6 | B | RP-030603 | R4-031094 | Approved | Introduction of new channel arrangement for bands IV, V and VI | 6.2.0 | RInImp-UMTS850, UMTS800,UMTS1721 | R4 |
| 25.101 | 309 | 1 | Rel-6 | A | RP-030595 | R4-031141 | Approved | Additional Specification of CQI Testing for UE Capability Categories 11 and 12 | 6.2.0 | HSDPA-RF | R4 |
| 25.101 | 314 | | Rel-6 | B | RP-030605 | R4-031131 | Approved | DS CDMA introduction in the 800 MHz band (performance requirement in Band VI) | 6.2.0 | RInImp-UMTS800 | R4 |
| 25.101 | 315 | | Rel-6 | B | RP-030605 | R4-031134 | Approved | DS CDMA introduction in the 800 MHz band (Addition of spurious emissions requirement) | 6.2.0 | RInImp-UMTS800 | R4 |
| 25.101 | 316 | | Rel-6 | F | RP-030607 | R4-031146 | Approved | Additional spurious emission requirements for Band II to protect UMTS850 | 6.2.0 | TEI6 | R4 |
| 25.101 | 317 | | Rel-6 | F | RP-030607 | R4-031149 | Approved | Clarification of UE blocking definition | 6.2.0 | TEI6 | R4 |
| 25.102 | 141 | | Rel-5 | F | RP-030596 | R4-030878 | Approved | Correction of references to ITU recommendations | 5.5.0 | TEI5 | R4 |
| 25.102 | 142 | | Rel-6 | F | RP-030607 | R4-030901 | Approved | Transmitter and Receiver Spurious emisssions for TDD | 5.5.0 | TEI6 | R4 |
| 25.104 | 201 | 1 | Rel-5 | F | RP-030597 | R4-031067 | Approved | Correction of the P-CPICH power accuracy requirement in case of TX-diversity | 5.7.0 | TEI5 | R4 |
| 25.104 | 202 | 1 | Rel-6 | A | RP-030597 | R4-031070 | Approved | Correction of the P-CPICH power accuracy requirement in case of TX-diversity | 6.3.0 | TEI5 | R4 |
| 25.104 | 203 | | Rel-5 | F | RP-030596 | R4-030879 | Approved | Correction of references to ITU recommendations | 5.7.0 | TEI5 | R4 |
| 25.104 | 204 | | Rel-6 | A | RP-030596 | R4-030886 | Approved | Correction of references to ITU recommendations | 6.3.0 | TEI5 | R4 |
| 25.104 | 206 | 1 | Rel-6 | B | RP-030605 | R4-031129 | Approved | DS-CDMA Introduction in the 800 MHz Band | 6.3.0 | RInImp-UMTS800 | R4 |
| 25.104 | 207 | 1 | Rel-6 | B | RP-030604 | R4-031122 | Approved | Introduction of UMTS 850 requirements | 6.3.0 | RInImp-UMTS850 | R4 |
| 25.104 | 208 | | Rel-5 | F | RP-030598 | R4-031073 | Approved | Correction of the applicability of requirements in case of TX diversity | 5.7.0 | TEI5 | R4 |
| 25.104 | 209 | | Rel-6 | A | RP-030598 | R4-031074 | Approved | Correction of the applicability of requirements in case of TX diversity | 6.3.0 | TEI5 | R4 |
| 25.104 | 210 | | Rel-6 | B | RP-030603 | R4-031095 | Approved | Introduction of new channel arrangement for bands IV, V and VI | 6.3.0 | RInImp-UMTS850, UMTS800,UMTS1721 | R4 |

| Spec | CR | Rev | Phase | Cat | TSG Doc | WG Doc | TSG Status | Subject | CR to version | Workitem | WG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25.104 | 211 | | Rel-6 | B | RP-030607 | R4-031110 | Approved | Introduction of DCH performances for BS without RX diversity | 6.3.0 | TEI6 | R4 |
| 25.104 | 213 | | Rel-6 | F | RP-030606 | R4-031125 | Approved | Co-existence with UTRA FDD in frequency band V | 6.3.0 | TEI6 | R4 |
| 25.104 | 214 | | Rel-6 | B | RP-030605 | R4-031132 | Approved | DS CDMA introduction in the 800 MHz band (performance requirement in Band VI) | 6.3.0 | RInImp-UMTS800 | R4 |
| 25.105 | 151 | | Rel-5 | F | RP-030596 | R4-030880 | Approved | Correction of references to ITU recommendations | 5.4.0 | TEI5 | R4 |
| 25.106 | 027 | | Rel-5 | F | RP-030596 | R4-030881 | Approved | Correction of references to ITU recommendations | 5.6.0 | TEI5 | R4 |
| 25.106 | 028 | 1 | Rel-4 | F | RP-030593 | R4-031097 | Approved | Spurious emissions: Co-existence with UTRA-FDD BS new UL requirement | 4.6.0 | RInImp-REP | R4 |
| 25.106 | 029 | 1 | Rel-5 | A | RP-030593 | R4-031098 | Approved | Spurious emissions: Co-existence with UTRA-FDD BS new UL requirement | 5.6.0 | RInImp-REP | R4 |
| 25.113 | 021 | | Rel-5 | F | RP-030600 | R4-030948 | Approved | Performance criteria for voltage dips and battery backup | 5.4.0 | TEI5 | R4 |
| 25.113 | 022 | | Rel-5 | F | RP-030596 | R4-031050 | Approved | Correction of references to ITU recommendations | 5.4.0 | TEI5 | R4 |
| 25.123 | 322 | | R99 | F | RP-030591 | R4-030890 | Approved | out-of-service area for 3.84Mcps TDD | 3.13.0 | TEI | R4 |
| 25.123 | 323 | | Rel-4 | A | RP-030591 | R4-030891 | Approved | out-of-service area for 3.84Mcps TDD | 4.10.0 | TEI | R4 |
| 25.123 | 324 | | Rel-5 | A | RP-030591 | R4-030892 | Approved | out-of-service area for 3.84Mcps TDD | 5.6.0 | TEI | R4 |
| 25.123 | 325 | | Rel-4 | F | RP-030591 | R4-030893 | Approved | out-of-service area for 1.28Mcps TDD | 4.10.0 | LCRTDD-RF | R4 |
| 25.123 | 326 | | Rel-5 | A | RP-030591 | R4-030894 | Approved | out-of-service area for 1.28Mcps TDD | 5.6.0 | LCRTDD-RF | R4 |
| 25.123 | 327 | | Rel-5 | F | RP-030601 | R4-030895 | Approved | Test time Reduction for 3.84Mcps TDD | 5.6.0 | TEI5 | R4 |
| 25.123 | 328 | | Rel-5 | F | RP-030601 | R4-030896 | Approved | Test time Reduction for 1.28Mcps TDD | 5.6.0 | LCRTDD-RF | R4 |
| 25.123 | 329 | | Rel-6 | B | RP-030607 | R4-030897 | Approved | Interference measurement in UpPTS for 1.28Mcps TDD | 5.6.0 | TEI6 | R4 |
| 25.123 | 330 | | Rel-4 | F | RP-030594 | R4-030903 | Approved | Correction to Cell re-selection test case in CELL_FACH for 1.28Mcps TDD | 4.10.0 | LCRTDD-RF | R4 |
| 25.123 | 331 | | Rel-5 | A | RP-030594 | R4-030904 | Approved | Correction to Cell re-selection test case in CELL_FACH for 1.28Mcps TDD | 5.6.0 | LCRTDD-RF | R4 |
| 25.123 | 332 | | Rel-4 | F | RP-030594 | R4-030905 | Approved | Test case for UE transmitted power for 1.28Mcps TDD | 4.10.0 | LCRTDD-RF | R4 |
| 25.123 | 333 | | Rel-5 | A | RP-030594 | R4-030906 | Approved | Test case for UE transmitted power for 1.28Mcps TDD | 5.6.0 | LCRTDD-RF | R4 |
| 25.133 | 617 | | Rel-5 | F | RP-030602 | R4-030898 | Approved | Clarification on filtering requirements | 5.8.0 | TEI5 | R4 |
| 25.133 | 618 | | Rel-6 | A | RP-030602 | R4-030899 | Approved | Clarification on filtering requirements | 6.3.0 | TEI5 | R4 |
| 25.133 | 619 | 1 | R99 | F | RP-030592 | R4-031062 | Approved | GSM test case on correct reporting of GSM neighbors | 3.15.0 | TEI | R4 |
| 25.133 | 620 | 1 | Rel-4 | A | RP-030592 | R4-031063 | Approved | GSM test case on correct reporting of GSM | 4.10.0 | TEI | R4 |

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| | | | | | | | | neighbors | | | |
| 25.133 | 621 | 1 | Rel-5 | A | RP-030592 | R4-031064 | Approved | GSM test case on correct reporting of GSM neighbors | 5.8.0 | TEI | R4 |
| 25.133 | 622 | 1 | Rel-6 | A | RP-030592 | R4-031065 | Approved | GSM test case on correct reporting of GSM neighbors | 6.3.0 | TEI | R4 |
| 25.133 | 626 | | Rel-6 | F | RP-030607 | R4-030969 | Revised | FDD Inter Frequency Fading Test Case | 6.3.0 | TEI6 | R4 |
| 25.133 | 626 | 1 | Rel-6 | F | RP-030720 | | Approved | FDD Inter Frequency Fading Test Case | 6.3.0 | TEI6 | R4 |
| 25.133 | 627 | | Rel-6 | F | RP-030607 | R4-030971 | Approved | Correction to CPICH RSCP measurement report mapping | 6.3.0 | TEI6 | R4 |
| 25.133 | 628 | | Rel-6 | F | RP-030607 | R4-030972 | Approved | Correction to correct reporting of neighbours in AWGN propagation condition | 6.3.0 | TEI6 | R4 |
| 25.133 | 629 | | Rel-6 | F | RP-030607 | R4-030973 | Approved | Correction to correct reporting of neighbours in fading propagation condition | 6.3.0 | TEI6 | R4 |
| 25.133 | 632 | | R99 | F | RP-030592 | R4-030990 | Approved | Correction to Random Access test case | 3.15.0 | TEI | R4 |
| 25.133 | 633 | | Rel-4 | A | RP-030592 | R4-030991 | Approved | Correction to Random Access test case | 4.10.0 | TEI | R4 |
| 25.133 | 634 | | Rel-5 | A | RP-030592 | R4-030992 | Approved | Correction to Random Access test case | 5.8.0 | TEI | R4 |
| 25.133 | 635 | | Rel-6 | A | RP-030592 | R4-030993 | Approved | Correction to Random Access test case | 6.3.0 | TEI | R4 |
| 25.133 | 636 | | Rel-6 | F | RP-030607 | R4-031014 | Approved | Test time reduction for RRM delay tests | 6.3.0 | TEI6 | R4 |
| 25.133 | 637 | 1 | R99 | F | RP-030592 | R4-031112 | Approved | CPICH Ec/Io relative accuracy | 3.15.0 | TEI | R4 |
| 25.133 | 638 | 1 | Rel-4 | A | RP-030592 | R4-031113 | Approved | CPICH Ec/Io relative accuracy | 4.10.0 | TEI | R4 |
| 25.133 | 639 | 1 | Rel-5 | A | RP-030592 | R4-031114 | Approved | CPICH Ec/Io relative accuracy | 5.8.0 | TEI | R4 |
| 25.133 | 640 | 1 | Rel-6 | A | RP-030592 | R4-031115 | Approved | CPICH Ec/Io relative accuracy | 6.3.0 | TEI | R4 |
| 25.141 | 320 | 1 | Rel-5 | F | RP-030597 | R4-031068 | Approved | Correction of the P-CPICH power accuracy test in case of TX-diversity | 5.7.0 | TEI5 | R4 |
| 25.141 | 321 | 1 | Rel-5 | F | RP-030599 | R4-031069 | Approved | Correction of transmitter tests in case of TX-diversity | 5.7.0 | TEI5 | R4 |
| 25.141 | 322 | 1 | Rel-6 | A | RP-030597 | R4-031071 | Approved | Correction of the P-CPICH power accuracy test in case of TX-diversity | 6.3.0 | TEI5 | R4 |
| 25.141 | 323 | 1 | Rel-6 | A | RP-030599 | R4-031072 | Approved | Correction of transmitter tests in case of TX-diversity | 6.3.0 | TEI5 | R4 |
| 25.141 | 324 | | Rel-5 | F | RP-030596 | R4-030882 | Approved | Correction of references to ITU recommendations | 5.7.0 | TEI5 | R4 |
| 25.141 | 325 | | Rel-6 | A | RP-030596 | R4-030887 | Approved | Correction of references to ITU recommendations | 6.3.0 | TEI5 | R4 |
| 25.141 | 327 | 1 | Rel-6 | B | RP-030605 | R4-031130 | Approved | DS-CDMA Introduction in the 800 MHz Band | 6.3.0 | RInImp-UMTS800 | R4 |
| 25.141 | 328 | 1 | Rel-6 | B | RP-030604 | R4-031123 | Approved | Introduction of UMTS 850 requirements | 6.3.0 | RInImp-UMTS850 | R4 |
| 25.141 | 333 | | Rel-6 | B | RP-030603 | R4-031096 | Approved | Introduction of new channel arrangement for bands IV, V and VI | 6.3.0 | RInImp-UMTS850, UMTS800,UMTS1721 | R4 |

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| 25.141 | 334 | | Rel-6 | F | RP-030606 | R4-031126 | Approved | Co-existence with UTRA FDD in frequency band V | 6.3.0 | TEI6 | R4 |
| 25.141 | 335 | | Rel-6 | B | RP-030605 | R4-031133 | Approved | DS CDMA introduction in the 800 MHz band (performance requirement in Band VI) | 6.3.0 | RInImp-UMTS800 | R4 |
| 25.142 | 168 | | Rel-5 | F | RP-030596 | R4-030883 | Approved | Correction of references to ITU recommendations | 5.5.0 | TEI5 | R4 |
| 25.143 | 038 | | Rel-5 | F | RP-030596 | R4-030884 | Approved | Correction of references to ITU recommendations | 5.6.0 | TEI5 | R4 |
| 25.143 | 039 | 1 | Rel-4 | F | RP-030593 | R4-031099 | Approved | Spurious emissions: Co-existence with UTRA-FDD BS new UL requirement | 4.8.0 | RInImp-REP | R4 |
| 25.143 | 040 | 1 | Rel-5 | A | RP-030593 | R4-031100 | Approved | Spurious emissions: Co-existence with UTRA-FDD BS new UL requirement | 5.6.0 | RInImp-REP | R4 |
| 25.212 | 183 | - | Rel-5 | F | RP-030647 | R1-031101 | Approved | Clarification of the CRC attachment procedure for HS-SCCH | 5.6.0 | HSDPA-Phys | R1 |
| 25.212 | 184 | 1 | Rel-5 | F | RP-030647 | R1-031272 | Approved | Correction of UE identity notation | 5.6.0 | HSDPA-Phys | R1 |
| 25.212 | 185 | - | Rel-5 | F | RP-030644 | R1-031344 | Approved | HARQ process identifier mapping | 5.6.0 | HSDPA-Phys | R1 |
| 25.212 | 186 | - | Rel-5 | F | RP-030712 | | Approved | Alignment of "soft channel bits" terminology with 25.306 | 5.6.0 | HSDPA-Phys | R1 |
| 25.213 | 064 | 1 | Rel-5 | F | RP-030648 | R1-031270 | Approved | Correction of figure in combining of downlink physical channels | 5.4.0 | TEI-5 | R1 |
| 25.213 | 065 | 1 | Rel-5 | F | RP-030648 | R1-031271 | Approved | Correction of reference to calculation of HS-DPCCH gain factor | 5.4.0 | HSDPA-Phys | R1 |
| 25.213 | 066 | 1 | Rel-4 | A | RP-030711 | | Revised | Restriction of DL secondary scrambling codes per CCTrCH | 4.3.0 | TEI | R1 |
| 25.213 | 066 | 2 | Rel-4 | A | RP-030727 | | Approved | Restriction of DL secondary scrambling codes per CCTrCH | 4.3.0 | TEI-4 | R1 |
| 25.213 | 067 | 1 | Rel-5 | A | RP-030711 | | Revised | Restriction of DL secondary scrambling codes per CCTrCH | 5.4.0 | TEI | R1 |
| 25.213 | 067 | 2 | Rel-5 | A | RP-030727 | | Approved | Restriction of DL secondary scrambling codes per CCTrCH | 5.4.0 | TEI-5 | R1 |
| 25.213 | 068 | - | R99 | F | RP-030711 | | Revised | Restriction of DL secondary scrambling codes per CCTrCH | 3.8.0 | TEI | R1 |
| 25.213 | 068 | 1 | R99 | F | RP-030727 | | Approved | Restriction of DL secondary scrambling codes per CCTrCH | 3.8.0 | TEI | R1 |
| 25.214 | 331 | 6 | Rel-5 | F | RP-030699 | | Rejected | Clarification on reconfiguration of HSDPA | 5.6.0 | HSDPA-Phys | R1 |
| 25.214 | 335 | 1 | Rel-5 | F | RP-030649 | R1-031113 | Approved | Clarification of HS-SCCH reception | 5.6.0 | HSDPA-Phys | R1 |
| 25.214 | 336 | 1 | Rel-5 | F | RP-030649 | R1-031352 | Approved | Clarification of CQI definition | 5.6.0 | HSDPA-Phys | R1 |
| 25.214 | 337 | 1 | Rel-5 | F | RP-030649 | R1-031343 | Approved | Clarification of the HS-SCCH detection | 5.6.0 | HSDPA-Phys | R1 |
| 25.214 | 338 | - | Rel-5 | F | RP-030661 | | Approved | Remove inconsistency among specifications on signalling support for power control during loss | 5.6.0 | TEI | R1 |

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| | | | | | | | | of RL synchronisation | | | |
| 25.214 | 339 | - | Rel-5 | F | RP-030712 | | Approved | Alignment of "soft channel bits" terminology with 25.306 | 5.6.0 | HSDPA-Phys | R1 |
| 25.215 | 145 | 2 | Rel-6 | B | RP-030726 | | Approved | Beamforming Enhancement related measurements | 5.5.0 | RANimp-BFE | R1 |
| 25.222 | 117 | 1 | Rel-4 | F | RP-030646 | R1-031277 | Approved | Correction of subframe segmentation, physical channel mapping & rate matching for 1.28Mcps TDD | 4.6.0 | LCRTDD | R1 |
| 25.222 | 118 | 1 | Rel-5 | A | RP-030646 | R1-031277 | Approved | Correction of subframe segmentation, physical channel mapping & rate matching for 1.28Mcps TDD | 5.5.0 | LCRTDD | R1 |
| 25.222 | 119 | - | Rel-5 | F | RP-030650 | R1-031328 | Approved | Clarification of the CRC attachment procedure for HS-SCCH (TDD) | 5.5.0 | HSDPA-Phys | R1 |
| 25.222 | 120 | - | Rel-5 | F | RP-030660 | | Approved | HARQ process identifier mapping | 5.5.0 | HSDPA-Phys | R1 |
| 25.222 | 121 | - | Rel-5 | F | RP-030712 | | Approved | Alignment of "soft channel bits" terminology with 25.306 | 5.5.0 | HSDPA-Phys | R1 |
| 25.224 | 127 | 1 | Rel-4 | F | RP-030698 | | Approved | Correction to computed gain factors with signalled reference gain factor values | 4.9.0 | TEI4 | R1 |
| 25.224 | 128 | 1 | Rel-5 | A | RP-030698 | | Approved | Correction to computed gain factors with signalled reference gain factor values | 5.6.0 | TEI4 | R1 |
| 25.225 | 071 | 4 | Rel-5 | F | RP-030651 | R1-031140 | Approved | Definition of Transmitted Code Power and ISCP measurements in the case of antenna diversity for TDD | 5.5.0 | TEI-5 | R1 |
| 25.302 | 144 | - | Rel-5 | F | RP-030622 | R2-032618 | Approved | Correction to TDD HSDPA channel combinations | 5.6.0 | HSDPA-L23 | R2 |
| 25.305 | 099 | 1 | R99 | F | RP-030613 | R2-032678 | Approved | Correction to Location Reporting procedure | 3.10.0 | TEI | R2 |
| 25.305 | 100 | 1 | Rel-4 | F | RP-030613 | R2-032679 | Approved | Correction to Location Reporting procedure | 4.6.0 | TEI4 | R2 |
| 25.305 | 101 | 2 | Rel-5 | A | RP-030613 | R2-032680 | Approved | Correction to Location Reporting procedure | 5.7.0 | TEI4 | R2 |
| 25.306 | 082 | - | Rel-5 | F | RP-030623 | R2-032265 | Approved | Removal of reference combinations for HS-DSCH capabilities | 5.6.0 | HSDPA-L23 | R2 |
| 25.306 | 083 | - | R99 | F | RP-030614 | R2-032540 | Approved | Definition of minimum UE capability class | 3.9.0 | TEI | R2 |
| 25.306 | 084 | - | Rel-4 | A | RP-030614 | R2-032541 | Approved | Definition of minimum UE capability class | 4.8.0 | TEI | R2 |
| 25.306 | 085 | - | Rel-5 | A | RP-030614 | R2-032542 | Approved | Definition of minimum UE capability class | 5.6.0 | TEI | R2 |
| 25.306 | 086 | - | R99 | F | RP-030614 | R2-032599 | Approved | TDD Radio Access Parameters for UL 32kbs class UE's | 3.9.0 | TEI | R2 |
| 25.306 | 087 | - | Rel-4 | A | RP-030614 | R2-032600 | Approved | TDD Radio Access Parameters for UL 32kbs class UE's | 4.8.0 | TEI | R2 |
| 25.306 | 088 | - | Rel-5 | A | RP-030614 | R2-032601 | Approved | TDD Radio Access Parameters for UL 32kbs class UE's | 5.6.0 | TEI | R2 |
| 25.306 | 089 | - | Rel-5 | F | RP-030623 | R2-032617 | Approved | Correction to HSDPA capability | 5.6.0 | HSDPA-L23 | R2 |
| 25.307 | 007 | 1 | R99 | B | RP-030630 | R2-032709 | Approved | Introduction of UMTS800 | 3.1.0 | RinImp-UMTS800 | R2 |

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| 25.307 | 008 | 1 | Rel-4 | B | RP-030630 | R2-032710 | Approved | Introduction of UMTS800 | 4.1.0 | RinImp-UMTS800 | R2 |
| 25.307 | 009 | 1 | Rel-5 | B | RP-030630 | R2-032711 | Approved | Introduction of UMTS800 | 5.0.0 | RinImp-UMTS800 | R2 |
| 25.307 | 010 | - | Rel-6 | B | RP-030630 | R2-032596 | Approved | Introduction of UMTS800 | 5.0.0 | RinImp-UMTS800 | R2 |
| 25.321 | 179 | - | Rel-5 | F | RP-030624 | R2-032619 | Approved | Corrections Relating to HSDPA TB Sizes for 1.28Mcps TDD | 5.6.0 | HSDPA-L23 | R2 |
| 25.321 | 180 | - | Rel-5 | F | RP-030624 | R2-032620 | Approved | HSDPA Transport block size table for 3.84Mcps TDD | 5.6.0 | HSDPA-L23 | R2 |
| 25.321 | 181 | - | Rel-5 | F | RP-030624 | R2-032621 | Approved | HSDPA TB size table | 5.6.0 | HSDPA-L23 | R2 |
| 25.321 | 182 | - | Rel-5 | F | RP-030624 | R2-032622 | Approved | Unwarranted HARQ re-transmissions | 5.6.0 | HSDPA-L23 | R2 |
| 25.321 | 183 | - | Rel-5 | F | RP-030624 | R2-032623 | Approved | MAC-hs Re-ordering Protocol Flushing correction | 5.6.0 | HSDPA-L23 | R2 |
| 25.321 | 184 | - | Rel-5 | F | RP-030624 | R2-032624 | Approved | Correction to window based stall avoidance mechanism | 5.6.0 | HSDPA-L23 | R2 |
| 25.322 | 248 | - | R99 | F | RP-030616 | R2-032283 | Approved | BITMAP and status report content | 3.16.0 | TEI | R2 |
| 25.322 | 249 | - | Rel-4 | A | RP-030616 | R2-032284 | Approved | BITMAP and status report content | 4.10.0 | TEI | R2 |
| 25.322 | 250 | - | Rel-5 | A | RP-030616 | R2-032285 | Approved | BITMAP and status report content | 5.6.0 | TEI | R2 |
| 25.322 | 251 | - | Rel-4 | F | RP-030620 | R2-032602 | Approved | Indication of discarded SDU in RLC Reset and Re-establishment | 4.10.0 | TEI4 | R2 |
| 25.322 | 252 | - | Rel-5 | A | RP-030620 | R2-032603 | Approved | Indication of discarded SDU in RLC Reset and Re-establishment | 5.6.0 | TEI4 | R2 |
| 25.331 | 2073 | - | R99 | F | RP-030617 | R2-032232 | Approved | Unsuccessful security mode control procedure and Integrity Protection | 3.16.0 | TEI | R2 |
| 25.331 | 2074 | - | Rel-4 | A | RP-030617 | R2-032233 | Approved | Unsuccessful security mode control procedure and Integrity Protection | 4.11.0 | TEI | R2 |
| 25.331 | 2075 | - | Rel-5 | A | RP-030617 | R2-032234 | Approved | Unsuccessful security mode control procedure and Integrity Protection | 5.6.0 | TEI | R2 |
| 25.331 | 2076 | - | Rel-5 | F | RP-030625 | R2-032241 | Approved | START value calculation for RLC size change | 5.6.0 | TEI5 | R2 |
| 25.331 | 2077 | 1 | R99 | F | RP-030617 | R2-032270 | Approved | UE Positioning UE based assisted GPS | 3.16.0 | TEI | R2 |
| 25.331 | 2078 | - | Rel-4 | A | RP-030617 | R2-032243 | Approved | UE Positioning UE based assisted GPS | 4.11.0 | TEI | R2 |
| 25.331 | 2079 | - | Rel-5 | A | RP-030617 | R2-032244 | Approved | UE Positioning UE based assisted GPS | 5.6.0 | TEI | R2 |
| 25.331 | 2083 | - | R99 | F | RP-030617 | R2-032248 | Approved | Handling of zero-rate TrCHs in TFCS | 3.16.0 | TEI | R2 |
| 25.331 | 2084 | - | Rel-4 | A | RP-030617 | R2-032249 | Approved | Handling of zero-rate TrCHs in TFCS | 4.11.0 | TEI | R2 |
| 25.331 | 2085 | - | Rel-5 | A | RP-030617 | R2-032250 | Approved | Handling of zero-rate TrCHs in TFCS | 5.6.0 | TEI | R2 |
| 25.331 | 2089 | 3 | R99 | F | RP-030617 | R2-032699 | Approved | Measurement control for A-GPS | 3.16.0 | TEI | R2 |
| 25.331 | 2090 | 3 | Rel-4 | A | RP-030617 | R2-032700 | Approved | Measurement control for A-GPS | 4.11.0 | TEI | R2 |
| 25.331 | 2091 | 3 | Rel-5 | A | RP-030617 | R2-032701 | Approved | Measurement control for A-GPS | 5.6.0 | TEI | R2 |
| 25.331 | 2092 | - | Rel-4 | F | RP-030621 | R2-032259 | Approved | Corrections to 1.28 Mcps TDD power control: ASN1/Tabular consistency, correction of omissions | 4.11.0 | LCRTDD-L23 | R2 |
| 25.331 | 2093 | - | Rel-5 | A | RP-030621 | R2-032260 | Approved | Corrections to 1.28 Mcps TDD power control: | 5.6.0 | LCRTDD-L23 | R2 |

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| | | | | | | | | ASN1/Tabular consistency, correction of omissions | | | |
| 25.331 | 2094 | - | Rel-4 | F | RP-030621 | R2-032268 | Approved | UpPCH power control for 1.28Mcps | 4.11.0 | LCRTDD-L23 | R2 |
| 25.331 | 2095 | - | Rel-5 | A | RP-030621 | R2-032269 | Approved | UpPCH power control for 1.28Mcps | 5.6.0 | LCRTDD-L23 | R2 |
| 25.331 | 2097 | - | R99 | F | RP-030617 | R2-032286 | Rejected | Ensuring C-RNTI is cleared in Cell_DCH | 3.16.0 | TEI | R2 |
| 25.331 | 2098 | - | Rel-4 | A | RP-030617 | R2-032287 | Rejected | Ensuring C-RNTI is cleared in Cell_DCH | 4.11.0 | TEI | R2 |
| 25.331 | 2099 | - | Rel-5 | A | RP-030617 | R2-032288 | Rejected | Ensuring C-RNTI is cleared in Cell_DCH | 5.6.0 | TEI | R2 |
| 25.331 | 2100 | 2 | R99 | F | RP-030617 | R2-032544 | Approved | Interaction between compressed mode pattern activation and message activation time | 3.16.0 | TEI | R2 |
| 25.331 | 2101 | 1 | Rel-4 | A | RP-030617 | R2-032545 | Approved | Interaction between compressed mode pattern activation and message activation time | 4.11.0 | TEI | R2 |
| 25.331 | 2102 | 1 | Rel-5 | A | RP-030617 | R2-032546 | Approved | Interaction between compressed mode pattern activation and message activation time | 5.6.0 | TEI | R2 |
| 25.331 | 2103 | - | Rel-5 | F | RP-030625 | R2-032543 | Approved | Initialisation of virtual active set | 5.6.0 | TEI5 | R2 |
| 25.331 | 2104 | 1 | R99 | F | RP-030611 | R2-032719 | Approved | Correction to Redirection procedure at RRC Connection Setup | 3.16.0 | TEI | R2 |
| 25.331 | 2105 | 1 | Rel-4 | A | RP-030611 | R2-032720 | Approved | Correction to Redirection procedure at RRC Connection Setup | 4.11.0 | TEI | R2 |
| 25.331 | 2106 | 1 | Rel-5 | A | RP-030611 | R2-032721 | Approved | Correction to Redirection procedure at RRC Connection Setup | 5.6.0 | TEI | R2 |
| 25.331 | 2107 | - | R99 | F | RP-030628 | R2-032551 | Withdrawn | Correction of UTRAN GPS Reference Time quality | 3.16.0 | TEI | R2 |
| 25.331 | 2108 | - | Rel-4 | A | RP-030628 | R2-032552 | Withdrawn | Correction of UTRAN GPS Reference Time quality | 4.11.0 | TEI | R2 |
| 25.331 | 2109 | - | Rel-5 | A | RP-030628 | R2-032553 | Withdrawn | Correction of UTRAN GPS Reference Time quality | 5.6.0 | TEI | R2 |
| 25.331 | 2110 | 2 | R99 | F | RP-030610 | R2-032730 | Approved | SFN associated with GPS timing of cell frame | 3.16.0 | TEI | R2 |
| 25.331 | 2111 | 2 | Rel-4 | A | RP-030610 | R2-032731 | Approved | SFN associated with GPS timing of cell frame | 4.11.0 | TEI | R2 |
| 25.331 | 2112 | 2 | Rel-5 | A | RP-030610 | R2-032732 | Approved | SFN associated with GPS timing of cell frame | 5.6.0 | TEI | R2 |
| 25.331 | 2113 | - | R99 | F | RP-030618 | R2-032558 | Approved | Correction to Handling SIB1 | 3.16.0 | TEI | R2 |
| 25.331 | 2114 | - | Rel-4 | A | RP-030618 | R2-032559 | Approved | Correction to Handling SIB1 | 4.11.0 | TEI | R2 |
| 25.331 | 2115 | - | Rel-5 | A | RP-030618 | R2-032560 | Approved | Correction to Handling SIB1 | 5.6.0 | TEI | R2 |
| 25.331 | 2116 | - | R99 | F | RP-030618 | R2-032561 | Approved | Measurement Handling In State Transition for UE Positioning | 3.16.0 | TEI | R2 |
| 25.331 | 2117 | - | Rel-4 | A | RP-030618 | R2-032562 | Approved | Measurement Handling In State Transition for UE Positioning | 4.11.0 | TEI | R2 |
| 25.331 | 2118 | - | Rel-5 | A | RP-030618 | R2-032563 | Approved | Measurement Handling In State Transition for UE Positioning | 5.6.0 | TEI | R2 |
| 25.331 | 2119 | 2 | R99 | F | RP-030618 | R2-032673 | Rejected | Traffic Volume Measurement Validity | 3.16.0 | TEI | R2 |

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| 25.331 | 2120 | 2 | Rel-4 | A | RP-030618 | R2-032674 | Rejected | Traffic Volume Measurement Validity | 4.11.0 | TEI | R2 |
| 25.331 | 2121 | 2 | Rel-5 | A | RP-030618 | R2-032675 | Rejected | Traffic Volume Measurement Validity | 5.6.0 | TEI | R2 |
| 25.331 | 2122 | - | R99 | F | RP-030618 | R2-032568 | Approved | Corrections to UE positioning reporting for UE assisted and UE based methods | 3.16.0 | TEI | R2 |
| 25.331 | 2123 | - | Rel-4 | A | RP-030618 | R2-032569 | Approved | Corrections to UE positioning reporting for UE assisted and UE based methods | 4.11.0 | TEI | R2 |
| 25.331 | 2124 | - | Rel-5 | A | RP-030618 | R2-032570 | Approved | Corrections to UE positioning reporting for UE assisted and UE based methods | 5.6.0 | TEI | R2 |
| 25.331 | 2125 | - | R99 | F | RP-030662 | R2-032574 | Approved | SIB 7 reading | 3.16.0 | TEI | R2 |
| 25.331 | 2126 | - | Rel-4 | F | RP-030662 | R2-032575 | Approved | SIB 7 reading | 4.11.0 | TEI4 | R2 |
| 25.331 | 2127 | 1 | Rel-5 | A | RP-030662 | R2-032662 | Approved | SIB 7 reading | 5.6.0 | TEI4 | R2 |
| 25.331 | 2128 | - | R99 | F | RP-030662 | R2-032579 | Approved | HFN initialisation in case of pending security configurations | 3.16.0 | TEI | R2 |
| 25.331 | 2129 | - | Rel-4 | A | RP-030662 | R2-032580 | Approved | HFN initialisation in case of pending security configurations | 4.11.0 | TEI | R2 |
| 25.331 | 2130 | - | Rel-5 | A | RP-030662 | R2-032581 | Approved | HFN initialisation in case of pending security configurations | 5.6.0 | TEI | R2 |
| 25.331 | 2131 | 1 | Rel-4 | F | RP-030621 | R2-032655 | Approved | General protocol error handling failure for DL CCCH messages due to ASN.1 error | 4.11.0 | TEI4 | R2 |
| 25.331 | 2132 | 1 | Rel-5 | A | RP-030621 | R2-032656 | Approved | General protocol error handling failure for DL CCCH messages due to ASN.1 error | 5.6.0 | TEI4 | R2 |
| 25.331 | 2133 | - | Rel-6 | B | RP-030630 | R2-032592 | Approved | Introduction of UMTS800 | 5.6.0 | RinImp-UMTS800 | R2 |
| 25.331 | 2134 | - | Rel-6 | F | RP-030631 | R2-032597 | Revised | AS capability indication | 5.6.0 | TEI6 | R2 |
| 25.331 | 2134 | 1 | Rel-6 | F | RP-030721 | | Approved | AS capability indication | 5.6.0 | TEI6 | R2 |
| 25.331 | 2135 | - | Rel-4 | F | RP-030621 | R2-032604 | Approved | Corrections Relating to 1.28 Mcps TDD | 4.11.0 | LCRTDD-L23 | R2 |
| 25.331 | 2136 | - | Rel-5 | A | RP-030621 | R2-032605 | Approved | Corrections Relating to 1.28 Mcps TDD | 5.6.0 | LCRTDD-L23 | R2 |
| 25.331 | 2137 | - | Rel-4 | F | RP-030621 | R2-032606 | Approved | Missing CHOICE RLC Info type in the ASN.1 IE 'RB-InformationSetup-r4' | 4.11.0 | TEI4 | R2 |
| 25.331 | 2138 | - | Rel-5 | A | RP-030621 | R2-032607 | Approved | Missing CHOICE RLC Info type in the ASN.1 IE 'RB-InformationSetup-r4' | 5.6.0 | TEI4 | R2 |
| 25.331 | 2139 | 1 | Rel-5 | B | RP-030625 | R2-032687 | Approved | RRM in PCH/FACH | 5.6.0 | TEI5 | R2 |
| 25.331 | 2140 | - | Rel-5 | F | RP-030625 | R2-032625 | Approved | Correction of operating band reference | 5.6.0 | TEI5 | R2 |
| 25.331 | 2141 | - | Rel-5 | F | RP-030644 | R2-032626 | Revised | Re-ordering Queue and HARQ Ids | 5.6.0 | HSDPA-L23 | R2 |
| 25.331 | 2141 | 1 | Rel-5 | F | RP-030713 | | Approved | Re-ordering Queue and HARQ IDs | 5.6.0 | HSDPA-L23 | R2 |
| 25.331 | 2142 | - | Rel-5 | F | RP-030625 | R2-032627 | Approved | Correction to the procedural description: Reconfiguration of MAC-d flow | 5.6.0 | HSDPA-L23 | R2 |
| 25.331 | 2143 | 1 | Rel-5 | C | RP-030625 | R2-032688 | Approved | Enhancement of RRC transaction identifier for measurement control message | 5.6.0 | TEI5 | R2 |
| 25.331 | 2144 | - | Rel-5 | F | RP-030629 | R2-032631 | Approved | Inclusion of a default configuration identity for | 5.6.0 | TEI5 | R2 |

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| | | | | | | | | AMR-WB | | | |
| 25.331 | 2145 | - | Rel-5 | F | RP-030625 | R2-032633 | Approved | TDD C-RNTI in Cell DCH | 5.6.0 | TEI5 | R2 |
| 25.331 | 2146 | - | R99 | F | RP-030662 | R2-032635 | Approved | Additional Measurements List Modify | 3.16.0 | TEI | R2 |
| 25.331 | 2147 | - | Rel-4 | A | RP-030662 | R2-032636 | Approved | Additional Measurements List Modify | 4.11.0 | TEI | R2 |
| 25.331 | 2148 | - | Rel-5 | A | RP-030662 | R2-032637 | Approved | Additional Measurements List Modify | 5.6.0 | TEI | R2 |
| 25.331 | 2149 | - | Rel-5 | F | RP-030625 | R2-032638 | Approved | IP activation time for RB0 | 5.6.0 | TEI5 | R2 |
| 25.331 | 2150 | 1 | R99 | F | RP-030662 | R2-032684 | Revised | Minimum UE capability class | 3.16.0 | TEI | R2 |
| 25.331 | 2150 | 2 | R99 | F | RP-030710 | | Revised | Minimum UE capability class | 3.16.0 | TEI | R2 |
| 25.331 | 2150 | 3 | R99 | F | RP-030722 | | Approved | Minimum UE capability class | 3.16.0 | TEI | R2 |
| 25.331 | 2151 | 1 | Rel-4 | A | RP-030662 | R2-032685 | Revised | Minimum UE capability class | 4.11.0 | TEI | R2 |
| 25.331 | 2151 | 2 | Rel-4 | A | RP-030710 | | Revised | Minimum UE capability class | 4.11.0 | TEI | R2 |
| 25.331 | 2151 | 3 | Rel-4 | A | RP-030722 | | Approved | Minimum UE capability class | 4.11.0 | TEI | R2 |
| 25.331 | 2152 | 1 | Rel-5 | F | RP-030662 | R2-032686 | Revised | Minimum UE capability class | 5.6.0 | TEI5 | R2 |
| 25.331 | 2152 | 2 | Rel-5 | F | RP-030710 | | Revised | Minimum UE capability class | 5.6.0 | TEI5 | R2 |
| 25.331 | 2152 | 3 | Rel-5 | F | RP-030722 | | Approved | Minimum UE capability class | 5.6.0 | TEI5 | R2 |
| 25.331 | 2156 | 4 | R99 | F | RP-030612 | R2-032722 | Approved | Measured results on RACH | 3.16.0 | TEI | R2 |
| 25.331 | 2157 | 4 | Rel-4 | A | RP-030612 | R2-032723 | Approved | Measured results on RACH | 4.11.0 | TEI | R2 |
| 25.331 | 2158 | 4 | Rel-5 | F | RP-030612 | R2-032724 | Approved | Measured results on RACH | 5.6.0 | TEI5 | R2 |
| 25.331 | 2159 | - | Rel-5 | F | RP-030625 | R2-032638 | Approved | COUNT-I reverting in case Security Mode Control procedure failure | 5.6.0 | TEI5 | R2 |
| 25.331 | 2160 | - | Rel-6 | B | RP-030630 | R2-032725 | Approved | Introduction of new bands | 5.6.0 | RinImp-UMTS800 | R2 |
| 25.401 | 075 | 2 | Rel-5 | F | RP-030675 | R3-031827 | Approved | NAS/AS issue for shared networks in connected mode | 5.6.0 | NETSHARE | R3 |
| 25.401 | 076 | 1 | Rel-6 | A | RP-030675 | R3-031828 | Approved | NAS/AS issue for shared networks in connected mode | 6.1.0 | NETSHARE | R3 |
| 25.402 | 042 | 1 | Rel-5 | F | RP-030684 | R3-031772 | Approved | Removal of the ambiguity about the activation time | 5.2.0 | TEI5 | R3 |
| 25.413 | 596 | - | Rel-4 | F | RP-030671 | R3-031477 | Approved | Backwards Compatibility for LCS | 4.10.0 | TEI4 | R3 |
| 25.413 | 597 | - | Rel-5 | A | RP-030671 | R3-031478 | Approved | Backwards Compatibility for LCS | 5.6.0 | TEI4 | R3 |
| 25.413 | 601 | 2 | Rel-5 | F | RP-030676 | R3-031844 | Approved | Serious Correction for Rescue Handovers | 5.6.0 | TEI5 | R3 |
| 25.413 | 604 | - | Rel-5 | F | RP-030676 | R3-031528 | Approved | Serious Correction for Security in multi-domain calls | 5.6.0 | TEI5 | R3 |
| 25.413 | 605 | 1 | Rel-4 | A | RP-030669 | R3-031794 | Rejected | Correction of RAB Release Request Inter-working | 4.10.0 | TEI | R3 |
| 25.413 | 606 | 1 | Rel-5 | A | RP-030669 | R3-031795 | Revised | Correction of RAB Release Request Inter-working | 5.6.0 | TEI | R3 |
| 25.413 | 606 | 2 | Rel-5 | F | RP-030715 | | Approved | Correction of RAB Release Request Inter-working | 5.6.0 | TEI5 | R3 |
| 25.413 | 607 | 3 | Rel-5 | F | RP-030676 | R3-031838 | Approved | RANAP Review Issue 2: Correction of Position | 5.6.0 | TEI5 | R3 |

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| | | | | | | | | Data | | | |
| 25.413 | 608 | - | Rel-5 | F | RP-030676 | R3-031534 | Approved | RANAP Review issue 3 - LCS Accuracy | 5.6.0 | TEI5 | R3 |
| 25.413 | 612 | 1 | Rel-4 | F | RP-030671 | R3-031784 | Approved | Add IE 'Criticality Diagnostics' for LOCATION RELATED DATA RESPONSE and LOCATION RELATED DATA FAILURE messages | 4.10.0 | TEI4 | R3 |
| 25.413 | 613 | 1 | Rel-5 | A | RP-030671 | R3-031785 | Approved | Add IE 'Criticality Diagnostics' for LOCATION RELATED DATA RESPONSE and LOCATION RELATED DATA FAILURE messages | 5.6.0 | TEI4 | R3 |
| 25.413 | 614 | 1 | Rel-5 | F | RP-030686 | R3-031802 | Approved | RT Load Value Clarification | 5.6.0 | TEI5 | R3 |
| 25.413 | 617 | 1 | Rel-4 | F | RP-030671 | R3-031796 | Approved | Correction of Reference section | 4.10.0 | TEI4 | R3 |
| 25.413 | 618 | 1 | Rel-5 | A | RP-030671 | R3-031797 | Approved | Correction of Reference section | 5.6.0 | TEI4 | R3 |
| 25.413 | 620 | 1 | Rel-5 | F | RP-030676 | R3-031801 | Approved | Corrections to the data volume reporting function | 5.6.0 | TEI5 | R3 |
| 25.413 | 622 | 2 | Rel-5 | F | RP-030676 | R3-031836 | Approved | Big clarification CR based on RANAP Rel-5 review | 5.6.0 | TEI5 | R3 |
| 25.413 | 623 | 2 | Rel-5 | F | RP-030676 | R3-031829 | Approved | Correction to CRRM Iu solution | 5.6.0 | TEI5, RANimp-ImpRRM | R3 |
| 25.413 | 631 | - | R99 | F | RP-030669 | R3-031793 | Rejected | Correction of RAB Release Request Inter-working | 3.14.0 | TEI | R3 |
| 25.414 | 068 | - | Rel-4 | F | RP-030672 | R3-031479 | Approved | Inclusion of AAL2 Link Characteristics in ERQ | 4.6.0 | TEI4 | R3 |
| 25.414 | 069 | - | Rel-5 | A | RP-030672 | R3-031480 | Approved | Inclusion of AAL2 Link Characteristics in ERQ | 5.4.0 | TEI4 | R3 |
| 25.414 | 071 | 1 | Rel-5 | F | RP-030685 | R3-031814 | Approved | Diffserv marking is configurable | 5.4.0 | ETRAN-IPtrans | R3 |
| 25.419 | 129 | - | Rel-4 | F | RP-030673 | R3-031739 | Approved | Correction of finite number of broadcast | 4.9.0 | TEI4 | R3 |
| 25.419 | 130 | - | Rel-5 | A | RP-030673 | R3-031740 | Approved | Correction of finite number of broadcast | 5.5.0 | TEI4 | R3 |
| 25.423 | 867 | - | Rel-5 | F | RP-030687 | R3-031483 | Approved | Correction for the HS-DSCH Initial Capacity Allocation | 5.7.0 | HSDPA-IuBIur | R3 |
| 25.423 | 868 | - | Rel-5 | F | RP-030688 | R3-031485 | Approved | Correction of Backward Compatibility for Uni-directional DCH indicator | 5.7.0 | HSDPA-IuBIur | R3 |
| 25.423 | 869 | - | Rel-5 | F | RP-030692 | R3-031487 | Approved | Reconfiguration of Multiple Radio Links in TDD | 5.7.0 | TEI5 | R3 |
| 25.423 | 870 | - | Rel-5 | F | RP-030693 | R3-031489 | Approved | The usage of the MAC-hs Reordering Buffer Size | 5.7.0 | HSDPA-IuBIur | R3 |
| 25.423 | 872 | - | Rel-5 | F | RP-030696 | R3-031494 | Rejected | Modification of the dynamic range of the PCCPCH Power | 5.7.0 | TEI5 | R3 |
| 25.423 | 877 | 1 | Rel-5 | F | RP-030691 | R3-031775 | Approved | Range Extension for GPS Almanac Reporting | 5.7.0 | TEI5 | R3 |
| 25.423 | 879 | 1 | Rel-5 | F | RP-030644 | R3-031778 | Revised | Explicit HARQ Memory Partitioning Clarification | 5.7.0 | HSDPA-IuBIur | R3 |
| 25.423 | 879 | 2 | REL-5 | F | RP-030713 | | Approved | Explicit HARQ Memory Partitioning Clarification | 5.7.0 | HSDPA-IuBIur | R3 |
| 25.423 | 880 | 1 | Rel-5 | F | RP-030686 | R3-031803 | Approved | RT Load Value Clarification | 5.7.0 | TEI5 | R3 |
| 25.423 | 881 | 1 | Rel-5 | F | RP-030677 | R3-031783 | Approved | RNSAP TDD Review | 5.7.0 | TEI5 | R3 |
| 25.423 | 885 | 1 | Rel-5 | F | RP-030684 | R3-031773 | Approved | Removal of the ambiguity about the activation time | 5.7.0 | TEI5 | R3 |
| 25.423 | 887 | - | Rel-6 | B | RP-030726 | | Approved | Signalling Support for Beamforming | 5.7.0 | RANimp-BFE | R3 |

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| | | | | | | | | Enhancement | | | |
| 25.423 | 888 | 2 | Rel-5 | F | RP-030690 | R3-031841 | Approved | Correction to Addition of HS-DSCH MAC-d Flows | 5.7.0 | HSDPA-Iublur | R3 |
| 25.423 | 889 | 2 | Rel-5 | F | RP-030695 | R3-031842 | Approved | Unsynchronised RL Reconfiguration for HSDPA | 5.7.0 | HSDPA-Iublur | R3 |
| 25.423 | 890 | 2 | Rel-5 | F | RP-030694 | R3-031855 | Approved | TNL QoS for uplink IP traffic | 5.7.0 | ETRAN-IPtrans | R3 |
| 25.423 | 891 | - | Rel-5 | F | RP-030689 | R3-031700 | Approved | Correction of Transmission Gap Pattern Sequence Information | 5.7.0 | TEI5 | R3 |
| 25.423 | 892 | - | Rel-4 | F | RP-030683 | R3-031745 | Approved | Information Exchange Initiation behavior correction | 4.10.0 | TEI4 | R3 |
| 25.423 | 893 | - | Rel-5 | A | RP-030683 | R3-031746 | Approved | Information Exchange Initiation behavior correction | 5.7.0 | TEI4 | R3 |
| 25.423 | 894 | 2 | Rel-5 | F | RP-030677 | R3-031875 | Approved | RNSAP Review | 5.7.0 | TEI5 | R3 |
| 25.423 | 895 | 1 | Rel-5 | F | RP-030663 | R3-031878 | Rejected | Correction of Traffic Class IE | 5.7.0 | HSDPA-Iublur | R3 |
| 25.423 | 896 | - | R99 | F | RP-030701 | | Rejected | Specify the DCH number for a set of coordinated DCHs in some messages. | 3.14.0 | TEI | R3 |
| 25.423 | 897 | - | Rel-4 | A | RP-030701 | | Rejected | Specify the DCH number for a set of coordinated DCHs in some messages. | 4.10.0 | TEI | R3 |
| 25.423 | 898 | - | Rel-5 | A | RP-030701 | | Rejected | Specify the DCH number for a set of coordinated DCHs in some messages. | 5.7.0 | TEI | R3 |
| 25.424 | 026 | 1 | Rel-5 | F | RP-030685 | R3-031812 | Approved | Diffserv marking is configurable | 5.2.0 | ETRAN-IPtrans | R3 |
| 25.425 | 064 | 1 | Rel-6 | B | RP-030726 | | Approved | Signalling Support for Beamforming Enhancement | 5.5.0 | RANimp-BFE | R3 |
| 25.425 | 065 | 1 | R99 | F | RP-030682 | R3-031759 | Approved | Spare Extension in Data Frame | 3.7.0 | TEI | R3 |
| 25.425 | 066 | 1 | Rel-4 | A | RP-030682 | R3-031760 | Approved | Spare Extension in Data Frame | 4.3.0 | TEI | R3 |
| 25.425 | 067 | 1 | Rel-5 | A | RP-030682 | R3-031761 | Approved | Spare Extension in Data Frame | 5.5.0 | TEI | R3 |
| 25.427 | 090 | 1 | Rel-5 | F | RP-030678 | R3-031757 | Approved | Signalling support for soft handover indicator | 5.2.0 | TEI5 | R3 |
| 25.427 | 091 | 1 | R99 | F | RP-030682 | R3-031762 | Approved | Spare Extension in Data Frame | 3.10.0 | TEI | R3 |
| 25.427 | 092 | 1 | Rel-4 | A | RP-030682 | R3-031763 | Approved | Spare Extension in Data Frame | 4.4.0 | TEI | R3 |
| 25.427 | 093 | 1 | Rel-5 | A | RP-030682 | R3-031764 | Approved | Spare Extension in Data Frame | 5.2.0 | TEI | R3 |
| 25.433 | 899 | 1 | Rel-4 | F | RP-030674 | R3-031517 | Approved | Correction of Wrong Number in GPS Timing Calculation | 4.10.0 | TEI4 | R3 |
| 25.433 | 900 | 1 | Rel-5 | A | RP-030674 | R3-031518 | Approved | Correction of Wrong Number in GPS Timing Calculation | 5.6.0 | TEI4 | R3 |
| 25.433 | 901 | - | Rel-5 | F | RP-030687 | R3-031484 | Approved | Correction for the HS-DSCH Initial Capacity Allocation | 5.6.0 | HSDPA-Iublur | R3 |
| 25.433 | 902 | - | Rel-5 | F | RP-030688 | R3-031486 | Approved | Correction of Backward Compatibility for Uni-directional DCH indicator | 5.6.0 | HSDPA-Iublur | R3 |
| 25.433 | 903 | - | Rel-5 | F | RP-030692 | R3-031488 | Approved | Reconfiguration of Multiple Radio Links in TDD | 5.6.0 | TEI5 | R3 |
| 25.433 | 904 | - | Rel-5 | F | RP-030693 | R3-031490 | Approved | The usage of the MAC-hs Reordering Buffer Size | 5.6.0 | HSDPA-Iublur | R3 |
| 25.433 | 906 | - | Rel-5 | F | RP-030696 | R3-031495 | Rejected | Modification of the dynamic range of the | 5.6.0 | TEI5 | R3 |

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| | | | | | | | | PCCPCH Power, DwPCH Power and Max FPACH Power | | | |
| 25.433 | 907 | - | Rel-5 | F | RP-030679 | R3-031496 | Approved | Correction for the Dedicated Measurement procedure with all Node B Communication Context | 5.6.0 | TEI5 | R3 |
| 25.433 | 912 | - | Rel-4 | F | RP-030674 | R3-031558 | Approved | Correction of the repetition name for 1.28Mcps TDD in the RADIO LINK RECONFIGURATION PREPARE TDD message | 4.10.0 | LCRTDD-IublIur | R3 |
| 25.433 | 913 | - | Rel-5 | A | RP-030674 | R3-031559 | Approved | Correction of the repetition name for 1.28Mcps TDD in the RADIO LINK RECONFIGURATION PREPARE TDD message | 5.6.0 | LCRTDD-IublIur | R3 |
| 25.433 | 914 | 1 | Rel-4 | F | RP-030674 | R3-031806 | Approved | Correction of Node B synchronisation procedures | 4.10.0 | RANimp-Nbsync | R3 |
| 25.433 | 915 | 1 | Rel-5 | A | RP-030674 | R3-031807 | Approved | Correction of Node B synchronisation procedures | 5.6.0 | RANimp-Nbsync | R3 |
| 25.433 | 916 | - | Rel-4 | F | RP-030674 | R3-031562 | Approved | Correction of the ProtocolIE-Single-Containers in ASN.1 for TDD | 4.10.0 | TEI4 | R3 |
| 25.433 | 917 | - | Rel-5 | A | RP-030674 | R3-031563 | Approved | Correction of the ProtocolIE-Single-Containers in ASN.1 for TDD | 4.10.0 | TEI4 | R3 |
| 25.433 | 918 | - | Rel-4 | F | RP-030674 | R3-031564 | Approved | ASN.1 corrections for 1.28Mcps TDD | 4.10.0 | LCRTDD-IublIur | R3 |
| 25.433 | 919 | - | Rel-5 | A | RP-030674 | R3-031565 | Approved | ASN.1 corrections for 1.28Mcps TDD | 5.6.0 | LCRTDD-IublIur | R3 |
| 25.433 | 920 | 1 | Rel-5 | F | RP-030679 | R3-031792 | Approved | TDD-Review Corrections for NBAP Rel-5 | 5.6.0 | TEI5 | R3 |
| 25.433 | 921 | 1 | Rel-5 | F | RP-030691 | R3-031776 | Approved | Range Extension for GPS Almanac Reporting | 5.6.0 | TEI5 | R3 |
| 25.433 | 925 | 1 | Rel-5 | F | RP-030644 | R3-031777 | Revised | Explicit HARQ Memory Partitioning Clarification | 5.6.0 | HSDPA-IublIur | R3 |
| 25.433 | 925 | 2 | REL-5 | F | RP-030713 | | Approved | Explicit HARQ Memory Partitioning Clarification | 5.6.0 | HSDPA-IublIur | R3 |
| 25.433 | 926 | - | Rel-4 | F | RP-030674 | R3-031614 | Approved | Clarification of Timing advance applied for 1.28Mcps TDD | 4.10.0 | TEI4 | R3 |
| 25.433 | 927 | - | Rel-5 | A | RP-030674 | R3-031615 | Approved | Clarification of Timing advance applied for 1.28Mcps TDD | 5.6.0 | TEI4 | R3 |
| 25.433 | 931 | 1 | Rel-5 | F | RP-030684 | R3-031774 | Approved | Removal of the ambiguity about the activation time | 5.6.0 | TEI5 | R3 |
| 25.433 | 933 | - | Rel-5 | F | RP-030679 | R3-031636 | Approved | Ambiguity of the activation time of the Physical Shared CH Reconfiguration | 5.6.0 | HSDPA-IublIur | R3 |
| 25.433 | 935 | 2 | Rel-6 | B | RP-030726 | | Approved | Signalling Support for Beamforming Enhancement | 5.6.0 | RANimp-BFE | R3 |
| 25.433 | 937 | 1 | Rel-5 | F | RP-030690 | R3-031779 | Approved | Correction to Addition of HS-DSCH MAC-d Flows | 5.6.0 | HSDPA-IublIur | R3 |
| 25.433 | 938 | 1 | Rel-5 | F | RP-030679 | R3-031808 | Approved | Resource Status Indication and Audit for HSDPA | 5.6.0 | HSDPA-IublIur | R3 |
| 25.433 | 939 | 1 | Rel-5 | F | RP-030695 | R3-031782 | Approved | Unsynchronised RL Reconfiguration for HSDPA | 5.6.0 | HSDPA-IublIur | R3 |
| 25.433 | 940 | 2 | Rel-5 | F | RP-030694 | R3-031856 | Approved | TNL QoS for uplink IP traffic | 5.6.0 | ETRAN-IPtrans | R3 |
| 25.433 | 941 | - | Rel-5 | F | RP-030689 | R3-031699 | Approved | Correction of Transmission Gap Pattern | 5.6.0 | TEI5 | R3 |

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| 25.433 | 942 | - | R99 | F | RP-030670 | R3-031724 | Rejected | DCH Information Response Issue | 3.14.0 | TEI | R3 |
| 25.433 | 943 | - | Rel-4 | A | RP-030670 | R3-031725 | Rejected | DCH Information Response Issue | 4.10.0 | TEI | R3 |
| 25.433 | 944 | - | Rel-5 | A | RP-030670 | R3-031726 | Rejected | DCH Information Response Issue | 5.6.0 | TEI | R3 |
| 25.433 | 945 | 2 | Rel-5 | F | RP-030679 | R3-031876 | Approved | NBAP Review | 5.6.0 | TEI5 | R3 |
| 25.433 | 946 | 1 | Rel-5 | F | RP-030679 | R3-031804 | Approved | Correction to Physical Shared Channel Reconfiguration for HSDPA | 5.6.0 | HSDPA-Iublur | R3 |
| 25.433 | 947 | 1 | Rel-5 | F | RP-030679 | R3-031805 | Approved | Correction to Common Measurements for HSDPA | 5.6.0 | HSDPA-Iublur | R3 |
| 25.433 | 948 | - | Rel-4 | F | RP-030683 | R3-031747 | Approved | Information Exchange Initiation behavior correction | 4.10.0 | TEI4 | R3 |
| 25.433 | 949 | - | Rel-5 | A | RP-030683 | R3-031748 | Approved | Information Exchange Initiation behavior correction | 5.6.0 | TEI4 | R3 |
| 25.433 | 950 | - | Rel-4 | F | RP-030674 | R3-031751 | Approved | Extension of Requested Data Value IE | 4.10.0 | TEI4 | R3 |
| 25.433 | 951 | - | Rel-5 | A | RP-030674 | R3-031752 | Approved | Extension of Requested Data Value IE | 5.6.0 | TEI4 | R3 |
| 25.434 | 028 | 1 | Rel-5 | F | RP-030685 | R3-031813 | Approved | Diffserv marking is configurable | 5.2.0 | ETRAN-IPtrans | R3 |
| 25.435 | 105 | 1 | Rel-5 | F | RP-030680 | R3-031519 | Approved | Power control correction for DSCH for TDD | 5.5.0 | TEI5 | R3 |
| 25.435 | 106 | 1 | Rel-6 | B | RP-030726 | | Approved | Signalling Support for Beamforming Enhancement | 5.5.0 | RANimp-BFE | R3 |
| 25.435 | 107 | 1 | R99 | F | RP-030682 | R3-031765 | Approved | Spare Extension in Data Frame | 3.10.0 | TEI | R3 |
| 25.435 | 108 | 1 | Rel-4 | A | RP-030682 | R3-031766 | Approved | Spare Extension in Data Frame | 4.5.0 | TEI | R3 |
| 25.435 | 109 | 1 | Rel-5 | A | RP-030682 | R3-031767 | Approved | Spare Extension in Data Frame | 5.5.0 | TEI | R3 |
| 25.453 | 061 | - | Rel-6 | C | RP-030697 | R3-031570 | Approved | Improvement of position calculation through set enlargement | 6.2.0 | LCS-Rel4Pos | R3 |
| 25.453 | 063 | - | Rel-5 | F | RP-030683 | R3-031749 | Approved | Information Exchange Initiation behavior correction | 5.7.0 | TEI5 | R3 |
| 25.453 | 064 | - | Rel-6 | A | RP-030683 | R3-031750 | Approved | Information Exchange Initiation behavior correction | 6.2.0 | TEI5 | R3 |
| 25.921 | 048 | - | Rel-5 | F | RP-030626 | R2-032610 | Approved | Incorporation of PCAP | 5.2.0 | TEI5 | R2 |
| 25.922 | 027 | - | Rel-5 | F | RP-030627 | R2-032615 | Approved | Radio Resource handling of streaming traffic class PDP contexts | 5.1.0 | TEI5 | R2 |
| 25.933 | 005 | - | Rel-5 | F | RP-030681 | R3-031539 | Approved | Correction of PE-node as an ATM Switch Solution | 5.3.0 | ETRAN-IPtrans | R3 |
| 25.993 | 014 | - | Rel-6 | F | RP-030609 | R2-032254 | Approved | BTFD with flexible TrCH position | 6.3.0 | TEI | R2 |
| 25.993 | 015 | - | Rel-6 | F | RP-030609 | R2-032588 | Approved | Addition of Conversational – Interactive/Background RAB combination | 6.3.0 | TEI | R2 |
| 25.993 | 016 | - | R99 | F | RP-030619 | R2-032589 | Approved | Keeping the “Release independent” concept: references&abbreviations removal in the “pointer versions” | 3.0.0 | TEI | R2 |
| 25.993 | 017 | - | Rel-4 | A | RP-030619 | R2-032590 | Approved | Keeping the “Release independent” concept: | 4.0.0 | TEI | R2 |

| Spec | CR | Rev | Phase | Cat | TSG Doc | WG Doc | TSG Status | Subject | CR to version | Workitem | WG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | references&abbreviations removal in the “pointer versions” | | | |
| 25.993 | 018 | - | Rel-5 | A | RP-030619 | R2-032591 | Approved | Keeping the “Release independent” concept: references&abbreviations removal in the “pointer versions” | 5.0.0 | TEI | R2 |

# Annex D: List of actions

RP-030658, LS on Multiple MBMS Issues
RAN WG1, WG2 and WG3 are tasked to study this LS, provide an answer to SA WG4 if necessary and report back to TSG RAN

RNSAP DCH Information Issue (sec. 7.4.3)
RAN WG3 is tasked to study the CR implementation error reported in RP-030700 and the CRs in RP-030670 and agree, if possible, a comprehensive solution.

Interworking solution 3 (RP-030667)
RAN WG3 to solve the technical aspects and to provide the necessary CRs to implement each option under discussion.

WI Iu enhancements for IMS support in RAN (sec. 8.2.1.1)
TSG RAN chairman to inform TSG SA of the required coordination with CN groups and SA WG2 on this issue

Node B testing over Iub (RP-030714)
RAN WG4 is requested to check the technical correctness of the proposal.

# Annex E: Meeting schedule

TSG RAN meetings:

| Meeting # | Date | Host | Location |
|---|---|---|---|
| 23 | 10 - 12 March 2004 | North American Friends of 3GPP | Phoenix, US |
| 24 | 02 - 04 June 2004 | | Korea |
| 25 | 08 - 10 September 2004 | North American Friends of 3GPP | Palm Springs, US |
| 26 | ~~07~~ 08 - 10 December 2004 | European Friends of 3GPP | Athens, Greece |

TSG RAN WG1 meetings:

| Meeting # | Date | Host | Location |
|---|---|---|---|
| 36 | 16 - 20 February 2004 | European Friends of 3GPP | Málaga, Spain |
| 37 | 10-14 May 2004 | North American Friends of 3GPP | Montreal, Canada (TBC) |
| 38 | 16 - 20 August 2004 | European Friends of 3GPP | Prague, Czech Republic |
| 39 | 15-19 November 2004 | NEC | Shin Yokohama, Japan (TBC) |

TSG RAN WG2 & WG3 meetings:

| Meeting # | Date | Host | Location |
|---|---|---|---|
| 40 | 12 - 16 January 2004 | ETSI | Sophia Antipolis, France |
| 41 | 16 - 20 February 2004 | European Friends of 3GPP | Málaga, Spain |
| 42 | 10 - 14 May 2004 | North American Friends of 3GPP | Montreal, Canada (TBC) |
| 43 | 16 - 20 August 2004 | European Friends of 3GPP | Prague, Czech Republic |
| 44 | 4 - 8 October 2004 | ETSI | Sophia Antipolis, France |
| 45 | 15 - 19 November 2004 | NEC | Shin Yokohama, Japan(TBC) |

TSG RAN WG4 meetings:

| Meeting # | Date | Host | Location |
|---|---|---|---|
| 30 | 9 - 13 February 2004 | Rohde & Schwarz | Munich, Germany |
| 31 | 10 - 14 May 2004 | | China |
| 32 | 16 -20 August 2004 | European Friends of 3GPP | Prague, Czech Republic |
| 33 | 15 - 19 November 2004 | NEC | Shin Yokohama, Japan(TBC) |

# Annex F: Summary of RAN Work Items

This table lists RAN Work Items and its status after meeting #22.

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

| Type | WI Name | Acronym | Leading WG | % | Finish date | Status Report | Remarks |
|---|---|---|---|---|---|---|---|
| Feat | Improvements of Radio Interface | RInImp | RP | | March 2004 | | Generic Feature |
| BB | Improvement of inter-frequency and inter-system measurement | RInImp-IfIsM | R1 | 50 | March 2004 | RP-030559 | |
| BB | UMTS-850 | RInImp-UMTS850 | R4 | 100 | December 2003 | RP-030560 | The WI is completed |
| BB | DS-CDMA introduction in the 800 MHz band | RInImp-UMTS800 | R4 | 100 | December 2003 | RP-030561 | The WI is completed |
| BB | UMTS 1.7/2.1 GHz | RInImp-UMTS1721 | R4 | 90 | March 2004 | RP-030562 | Completion date changed from December 2003 |
| BB | Improved Receiver Performance Requirements for HSDPA | RInImp-HSPerf | R4 | | September 2004 | | New WI. WIDS in RP-030732 |
| WT | Performance Requirements of Receive Diversity for HSDPA | RInImp-~~UERx~~HSPerf-RxDiv | R4 | | September 2004 | | New WI. WIDS in RP-030731 |
| | | | | | | | |

| Type | WI Name | Acronym | Leading WG | % | Finish date | Status Report | Remarks |
|---|---|---|---|---|---|---|---|
| Feat | RAN improvements | RANimp | RP | | March 2004 | | Generic Feature |
| BB | RAB support enhancement | RANimp-RABSE | R2 | 30 | June 2004 | RP-030563 | Completion date changed from March 2004 |
| WT | Iu enhancements for IMS support in RAN | RANimp-RABSE-IuEnhIMS | R3 | 20 | March 2004 | RP-030564 | |
| BB | Beamforming Enhancements | RANimp-BFE | R1 | 100 | December 2003 | RP-030565 | The WI is completed |
| BB | Rel6 RRM optimization for Iur and Iub | RANimp-RRMopt | R3 | | September 2003 | | Generic BB |
| WT | Improved access to User Equipment (UE) measurement data for Controlling Radio Network Controller (CRNC) to support Time Division Duplex (TDD) Radio Resource Management (RRM) | RANimp-RRMopt-UEMsD | R3 | 60 | March 2004 | RP-030566 | |
| BB | Remote Control of Electrical Tilting Antennas | RANimp-TiltAnt | R3 | 30 | March 2004 | RP-030567 | |
| BB | Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-side aspects | RANimp-NACC | R3 | 35 | March 2004 | RP-030568 | Completion date changed from December 2003 |
| | | | | | | | |
| BB | UE positioning | LCS2-UEpos | RP | | March 2004 | | Generic BB |
| WT | UE positioning enhancements - other methods | LCS2-UEpos-enh | R2 | | September 2003 | RP-030652 | |
| WT | A-GPS minimum performance specification | LCS-UEPos-AGPSPerf | R4 | 30 | June 2004 | RP-030569 | Completion date changed from March 2004. The WIDS is revised (RP-030719) |
| | | | | | | | |
| BB | Introduction of MBMS in RAN | MBMS-RAN | R2 | 60 | June 2004 | RP-030570 | Completion date changed from March 2004 |
| | | | | | | | |
| Feat | Evolutions of the transport in the UTRAN | ETRAN | RP | 0 | December 2003 | | Generic Feature |
| | | | | | | | |
| Feat | Multiple Input Multiple Output antennas (MIMO) | MIMO | R1 | | December 2004 | RP-030571 | |
| BB | Multiple Input Multiple Output antennas - Physical layer | MIMO-Phys | R1 | 40 | September 2004 | | Completion date changed from March 2004 |
| BB | Multiple Input Multiple Output antennas - Layer 2,3 aspects | MIMO-L23 | R2 | 0 | September 2004 | | |
| BB | Multiple Input Multiple Output antennas - Iub/Iur Protocol Aspects | MIMO-Iurlub | R3 | 0 | September 2004 | | |
| BB | Multiple Input Multiple Output antennas - RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing | MIMO-RF | R4 | 15 | December 2004 | | |
| | | | | | | | |
| WT | Subscriber and equipment trace in UTRAN | OAM-Trace-RAN | R3 | 35 | March 2004 | RP-030572 | |
| | | | | | | | |

| Type | WI Name | Acronym | Leading WG | % | Finish date | Status Report | Remarks |
|---|---|---|---|---|---|---|---|
| BB | Enhancement of the support of network sharing in the UTRAN | NTShar-UTRANEnh | R2 | 5 | June 2004 | RP-030573 | Completion date changed from March 2004 |

| Type | SI Name | Acronym | Leading WG | % | Finish date | Status Report | Remarks |
|---|---|---|---|---|---|---|---|
| SI | FS on Radio link performance enhancements | RInImp-Rlperf | R1 | 50 | March 2004 | RP-030574 | |
| SI | FS on UTRA WideBand Distribution Systems | RInImp-WDS | R4 | 60 | March 2004 | RP-030575 | |
| SI | FS for the analysis of OFDM for UTRAN enhancement | RInImp-FSOFDM | R1 | 55 | June 2004 | RP-030576 | The SIDS is revised (RP-030724) |
| SI | FS on Uplink Enhancements for Dedicated Transport Channels | RInImp-FSUpDTrCh | R1 | 65 | March 2004 | RP-030577 | Completion date changed from December 2003 |
| SI | FS on Analysis on Higher Chip Rates for UTRA TDD evolutions | RInImp-FSVHCRTDD | R1 | 75 | June 2004 | RP-030578 | Completion date changed from December 2003 |
| SI | FS on the evolution of the UTRAN architecture | RANimp-FSEvo | R3 | 20 | March 2004 | RP-030579 | |
| SI | FS on Low Output Powers for general purpose FDD BSs | RInImp-FSLoPw | R3 | 55 | March 2004 | RP-030580 | Completion date changed from December 2003 |
| SI | FS on Uplink enhancements for UTRA TDD | RInImp-FSUpEnhTDD | R1 | 5 | September 2004 | RP-030581 | Completion date changed from March 2004 |