TSG-RAN Meeting #23 **SP-040188**
Phoenix, Arizona, USA, 15 - 18 March 2004

Title:	**Draft Report of the 23th 3GPP TSG RAN meeting (Phoenix, Arizona, USA, 10 - 12 March 2004)**
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Executive summary

TSG RAN meeting #23 took place in Embassy Suites Hotel, Scottsdale, Arizona, US. The meeting started at 9:00 on Wednesday 10th March 2004 and finished at 16:45 in the afternoon of Friday 12th. 87 participants were registered and 138 documents were presented.
The meeting was scheduled for 3 days, shorter than the usual 4. The work load was heavy and several discussions took considerable time, as can be deduced from the late closing.

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

Release	WG1	WG2	WG3	WG4	Total
Release 99		24		2	26
Rel-4 CRs (Rel-4 excluding Cat A)	1(1)	31(7)	6(6)	3(1)	41(15)
Rel-5 CRs (Rel-5 excluding Cat A)	4(3)	50(24)	42(37)	11(8)	107(72)
Rel-6 CRs (Rel-6 excluding Cat A)	5(1)	53(12)	46(4)	26(19)	130(36)
Total CRs (Total excluding Cat A)	10(5)	158(67)	94(47)	42(30)	304(149)

RAN WG2 and WG3 have agreed to hold additional meetings as follows:
- RAN WG2 Ad Hoc meeting on MBMS, 20 - 22 April 2004.
- RAN WG3#41 bis meeting, 30 March - 1st April 2004.

The revised Work Item Description Sheet proposed by MCC (RP-040117) was agreed, RAN Study Items need to be considered however.

Release 99, Release 4 & Release 5

CRs to 25.214 for the clarification of HS-DPCCH transmission under reconfiguration events were presented directly at this meeting as company contributions, after long discussions in WG1 email reflector. A list of events, where DTX should be used instead of carry on the ACK/NACK and CQI reporting, was debated but no agreement was reached on which events would be in the list. WG1 will continue to study the issue (section 7.2.5.1)

The freezing of the ASN.1 in TS25.331 was discussed. It was agreed that the ASN.1 will be frozen in June 2004 and that ALL Rel-5 CRs should include isolated impact analysis (section 7.3.1).

A proposal was presented to create a TR to list and identify functional errors in a given Release of the which, due to their late discovery and inessential nature, have not been corrected until a later Release.(RP-040080). The concept was contested by some UE manufacturers that objected the creation of a document parallel to the specification that developers would need to take into account for their implementation. An alternative approach was agreed, the following statement would be added to the CRs that implement corrections that would have been introduced in a previous Release if discovered on time: *Implementation of this CR by a Release XX UE will not cause compatibility issues.*

The pending issue of IP-ATM interworking option 3 was revised (sec.7.4.2). WG3 had technically endorsed 3 sets of CRs that presented the following options:
- RP-040054: IP/ATM interworking is ensured by application of ITU-T protocol Q.2631.1 for connection control signalling.

- RP-040056:Connectivity for ATM nodes over IP networks in the context of interworking option 1 (dual stack) is ensured by means of PWE3 (pseudo wire emulation).
- RP-040055: The 3 rd set of CRs represents a technically endorsed alternative that removes the third interworking option from the respective specifications.

A debate took place around the 3rd proposal, which was eventually the subject of a show of hands. No clear majority appeared, so the discussion ended and a vote will take place in next RAN if no agreement is reached before.

There was discussion around a new requirement agreed in RAN WG4 for TPC commands combining when in Soft Hand Over (RP-040044). WG4 had technically endorsed the CRs but the Release couldn't be agreed and was left to be decided in TSG RAN. Some companies objected that the corrections are not justified for Rel99, given that terminals are on the market or at a very advanced development stage. It was proposed that manufacturers would be required to fulfil the new requirement "at the earliest pragmatic opportunity", this was found acceptable by all participants and the CRs, starting at Rel99, were accepted.

WG4 is still studying the issue of Power Back off in the UE when HS-DPCCH is transmitted, which was presented in last TSG RAN. A draft for a new requirement was introduced, according with the latest conclusions in WG4. It proposes to introduce one or two back off levels, which will be triggered depending on the Peak to Average Ratio of the signal, derived from the relation of ß gains between the dedicated, control and HS-DPCCH channels. Some companies however objected that the solution may have system impacts yet uncovered. It was agreed to task WG4 to perform the necessary system level simulations and to study these impacts before the CRs can be agreed.

Release 6 and beyond

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

The Work Item for the introduction of UMTS in the 1.7/2.1 GHz band was finished, all the CRs were presented and TR 25.806 v1.0.1 "UMTS 1700/2100 MHz Work Item Technical Report" was presented, approved and put under change control as v6.0.0. (sec. 8.1.2)

Under the work for RAB support enhancements, TR25.862 v1.0.0 "RAB support for IMS" was presented for information (RP-040122).

The Work Item "Improved access to UE measurement data for CRNC to support TDD RRM" was finished, CRs were presented (sec. 8.2.2.1)

Under the MBMS Work Item, TS25.346 v2.6.0 "Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2)" was presented, approved an put under change control as v6.0.0.
RAN WG2 will hold a dedicated MBMS Ad Hoc in April 20-22.

TR25.887 v2.0.0 "Beamforming Enhancements" was presented, approved and put under change control as v6.0.0 (RP-040083). This TR was used during the work on WI "Beamforming enhancements", finished in December 2003.

The scope of the Study Item on Radio Link Performance Enhancements was revised (sec. 8.11.1). It was agreed that the work on TX diversity under this item should be moved to MIMO and that the Power Control Enhancements, where progress has been lacking for a number of meetings, will be

removed from the study; only HSDPA enhancements remain under this SI. The Description Sheet will be revised in WG1.

TR25.892 v1.1.0 "Feasibility Study for OFDM for UTRAN enhancement" was presented for information (RP-040119).

The Study on Uplink Enhancements for Dedicated Transport Channels was finished (sec. 8.11.4). A Work Item was agreed based on the conclusions of this study (see below). TR 25.896 v2.0.0 "Feasibility Study for Enhanced Uplink for UTRA FDD" was presented, approved and put under change control as v6.0.0.

The Study on the "Evolution of UTRAN Architecture" was discussed (sec. 8.11.6). Some companies requested to close it due to the lack of agreement for a number of meetings, others opposed that many contributions are still being presented. The nature of contributions discussed in WG3 don't seem to fall under the scope of the Study, which in principle focused on an all-IP network. It is finally agreed to maintain the Study, but work in WG3 will be put on hold until MBMS is finished.

The Study on Low Output Powers for general purpose FDD BS was finished, with the conclusion that the best way to make the BS aware of additional equipment at the antenna port is to do it through the O&M system and not with new IEs in the NBAP; this eliminates the impact to the specifications and hence no Work Item follows the Study. TR 25.807 v1.0.0 "Low Output Powers for general purpose FDD BSs" is presented, approved and put under change control as v6.0.0.

The following work items were approved:

- FDD Enhanced Uplink (RP-040081). Based on the results of the "Uplink Enhancements for Dedicated Transport Channels" study, which has shown that a number of techniques can be used to improve uplink dedicated channels. This feature will cover the Stage 2 and additional Blocks for Stage 3 below, one per WG. Stage 2 is expected to be completed by September 2004, Stage 3 by December 2004.
- Optimisation of downlink channelisation code utilisation (RP-040136). Completion date December 2004. WG1 is the leading group, and is tasked to revise the Description Sheet.
- Optimisation of channelisation code utilisation for TDD (RP-040130). Completion date December 2004. WG1 is the leading group, and is tasked to revise the Description Sheet.

1 Opening of the Meeting

Francois Courau, chairman, opened the meeting at 9:00 on Friday and gave the floor to Don Zelmer, Cingular, who welcome the participants to Phoenix and explained the meeting arrangements.

2 Approval of the Agenda

RP-040001 Draft agenda meeting #23 (Chairman)
Francois Courau (chairman) presented the agenda, which was approved without comments

3 Approval of the meeting report on TSG-RAN #22

RP-040002 Revised draft report meeting #22 (3GPP Support)
Francois Courau (chairman) presented the report. He clarified that the CR table in Annex C appears with revision marks because the CRs have been reordered, but the contents have not changed.
The report was 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

The chairman circulated a summary of SA#22 in the email reflector.

6 Liaisons from other groups

6.1 Groups outside 3GPP

No liaisons

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

RP-040047 LS on Network Selection (TSG SA WG1)
Francois Courau (chairman) presented this LS
Denis Fauconnier (WG2 chairman) noted that WG2 has already studied CRs on this topic, but it seems that CN WG1 is going further with more changes. The LS is noted.

RP-040048 Reply LS on "Multiple MBMS Issues" (Response to S4-030847) (TSG SA WG2)
Francois Courau (chairman) introduced this LS, which has already treated in WG2. It is noted

RP-040050 Reply LS to S5-038807 = R3-031822 on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on TSG SA 5' (TSG RAN WG3)
RP-040118 LS reply on RAN Work Item "Control of Remote Electrical Tilting Antenna" and possible impact on SA5 (TSG SA WG5 SWGD)
Alexander Vessely (WG3 chairman) presented the LS from WG3, and noted that the LS from SA WG5 hasn't been seen in WG3 yet. SA WG5 is simply informing of the creation of a dedicated WI to handle the O&M aspects of Tilting Antenna. The LSs are noted

6.3 TSG-RAN WGs

RP-040049 Reply LS (to S4-030847) on Multiple MBMS Issues from SA-WG2 (S2-040459) (TSG RAN WG2)
The LS is noted. No actions.

The table below summarizes the LSs received:

Tdoc	Title	Source	Source File
RP-040047	LS on Network Selection	TSG SA WG1	S1-040201
RP-040048	Reply LS on "Multiple MBMS Issues" (Response to S4-030847)	TSG SA WG2	S2-040459
RP-040049	Reply LS (to S4-030847) on Multiple MBMS Issues from SA-WG2 (S2-040459)	TSG RAN WG2	R2-040709
RP-040050	Reply LS to S5-038807 = R3-031822 on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on TSG SA 5'	TSG RAN WG3	R3-040139
RP-040077	LS on TSG RAN task to TSG RAN WG3 regarding ATM/IP-Interworking	TSG RAN WG3	R3-040555
RP-040118	LS reply on RAN Work Item "Control of Remote Electrical Tilting Antenna" and possible impact on SA5	TSG SA WG5 SWGD	S5-048193

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

7.1 ITU-R Ad Hoc

RP-040111 Status Report ITU-R AH (ITU-R Ad Hoc Contact Person)
Giovanni Romano (Telecom Italia) presented this report
The document contains a brief summary of ITU-R WP8F meeting #12, and an update of the process for the revision 5 of M.1457.
The chairman clarified that the update of M.1073 with the latest developments in GSM/GPRS/EDGE is under the responsibility of ETSI, not 3GPP. ETSI MSG probably produce the update.
It was asked what was the status of the extension bands 2.5GHz/2.6GHz. It was clarified that no conclusion has been reached in ITU yet.

RP-040112 Proposed Update reminder for the OPs on the compliance with ITU-R procedures as it relates to Revision 4 of Recommendation ITU-R M.1457 (ITU-R Ad Hoc)
Giovanni Romano (Telecom Italia) presented this document
Giovanni explained that the document is similar to previous updates. It will be presented in SA for final approval and then sent to the SDO via the PCG for action. The document is approved.

At ITU-R meeting in BUSAN end of February there has been some discussions about the necessity of providing an update every year. It was clarified that there is no requirement for doing so. It is hence up to the 3GPP to decide on the frequency of the updates. This will be reported as well to the next PCG in April.

7.2 TSG RAN WG1

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

RP-040026 Status Report WG1 (RAN WG1 Chairman)
Dirk Gerstenberger (RAN WG1 chairman) presented this report. WG1 activity can be summarized as follows:

- Agreed change requests
  - 1 CR for Rel4 TDD
  - 2 CRs for Rel5 FDD, 1 CR each for Rel6 FDD/TDD
- RAN1/4 Ad Hoc in Korpilampi
  - 109 contributions submitted, around 60 delegates
  - HSDPA TFC selection agreed
  - HSDPA PAR not agreed
  - Major progress on WCDMA Enhanced Uplink study item
- RAN1#36 in Malaga
  - 245 contributions submitted, around 100 delegates
  - WCDMA Enhanced Uplink study item concluded
  - Good progress on MBMS and OFDM discussions

Concerning the enhanced uplink, it was asked if the higher order modulations were precluded for this release only or also for future releases. Dirk noted that the study didn't focus on this, and however it was shown that higher order was not necessarily needed to get the improvements, the WI to be proposed based on the results of the Study will not consider it. This might be subject for another WI in the future.
The difference in number of contributions on Enhanced Uplink and the rest of WIs was highlighted, Dirk reminded that the work is contribution driven and many companies have shown interest in this item. Besides, it was the last opportunity to contribute.

Concerning MIMO, Said Tatesh (Lucent) requested that a deadline for new candidate techniques should be set. Dirk's view was to agree on the simulations and on the way the techniques are compared before closing the door for new proposals. Said noted that the discussion has been on going for long time, new proposals accepted at later stage will only complicate the debate.
Dirk proposed an intermediate approach, the deadline for new techniques is set to be 3 months after the simulation assumptions are agreed. This is agreed as the way forward.
Tim Moulsley (Philips) suggested to consider TX diversity within the frame of MIMO Work Item, as a particular case of MIMO.

On the work on HSDPA enhancements (slide 13), Dirk clarified that TR25.899 will very likely be presented to RAN for information in 3 months.

RP-040027 List of CRs RAN WG1 (RAN WG1)
This document contains a summary of all CRs coming from RAN WG1.

7.2.2 Discussions on decisions from WG1

No discussions

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

No CRs to Release 99 from WG1

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

RP-040084 Independent Release 4 CR to TS 25.225 and the shadow CRs to Release 5 and Release 6 (RAN WG1)
No comments, the CRs are approved

7.2.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by WG1:

Document	Title	Decision
RP-040085	Independent Release 5 CRs to TS 25.212 and the shadow CRs to Release 6	Approved
RP-040086	Independent Release 5 CRs to TS 25.214 and the shadow CRs to Release 6	Approved

7.2.5.1 HSDPA reconfiguration

RP-040123 CR331r11 & CR342r4 to 25.214 (Rel-5 & Rel-6) on Clarification on the reconfiguration of HSDPA (Panasonic, Philips, Nokia)

This CR tries to clarify when should the UE transmit the CQI in relation to transmission of uplink DPCCH. Also, the DTX transmission is used in HS-DPCCH due to ambiguity in the ACK/NACK and CQI to be transmitted. This ambiguity is caused by reconfiguration events. The CR proposes a list of events when the UE should not transmit. The list has been under discussion for long time.

Note: CR342 revision number is incorrect in the document, should be revision 4.

RP-040128 Discussion on HSDPA reconfiguration (Ericsson)

Dirk Gerstenberger (Ericsson) presented this document.

This document reviews the list of events that, according to the CR above, trigger the use of DTX. The document analyses if it is really necessary to use DTX and stop ACK/NACK and CQI reporting. For certain reconfiguration events the conclusion is that ambiguity can be produced and hence the UE should not report, but for others it is shown that the there is no ambiguity and UE can safely continue reporting.

No agreement could be reached, the discussion will continue in WG1. The CRs in RP-040123 are not approved.

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

No contributions

7.3 TSG RAN WG2

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

RP-040028 Status Report WG2 (RAN WG2 Chairman)

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

- Release 99 corrections
  - Occupied 1,5 days of last meeting, number of CRs and time spent is down.
- Release 4 corrections
  - Very few
- Release 5
  - Some HSDPA corrections
  - Completion of last TEI
  - Review of ASN.1 and procedures in view of release 5 freezing
    - Corrective CR on Release 4 also done
  - Addition of some new bands
- Release 6
  - MBMS
    - Joint meeting with RAN1 (and RAN3)
    - Most stage 2 issues concluded
  - Joint meting on enhanced uplink with RAN WG1 and RAN WG3

Hidetoshi Suzuki (Panasonic) asked why ROHC (slide 25) is only applied as mandatory after Rel-6 although IMS is Rel-5 feature. Hidetoshi noted that processing requirements on L3 could be also studied by WG4 (slide 27). Jussi Numminen (Nokia) also supported this view, and warned against cutting performance requirement values to a half without a clear justification, only bringing additional complexity but maybe no benefit. Denis agreed and said that WG2 requested anyway further information on the system gains prior to continuing on this. Denis reminded that performance requirements work has been traditionally split between WG2 and WG4, and in this case the field of study falls into the expertise of WG2. Howard Benn (RAN WG4 chairman) reminded that in the past requirements set by other groups, without WG4 being consulted, had to be revised when WG4 studied the issue.

On the ROHC discussion, Denis clarified that whenever IMS was discussed in WG2, the group assumed that ROHC was present. The particular profiles to be made mandatory are still under discussion. Denis explained that the performance is very much dependant on the ROHC profile being used. Hidetoshi also asked about the situation of IMS reference bearer. He said according to his memory, no optimised IMS bearer is defined. Denis agreed but clarified that the only existing bearer, used for testing in T1, is purely for end to end testing and is not optimized nor commercially viable

Per Ernström (TeliaSonera) questioned dedicating the scheduled Ad Hoc only to MBMS, it seems that priority is given to this WI against the others. Denis explained that having a dedicated Ad Hoc is exactly to avoid MBMS stealing time from the other WIs during the main WG2 meetings. Juho Pirskanen (Nokia) commented that MBMS time schedule is tight even with extra MBMS Ad Hoc. Therefore is not feasible that MBMS discussions are excluded from RAN WG2 #42, rather MBMS should be discussed in both Ad Hoc and in RAN WG2 #42. This view was also supported by Three.

Bernd Haberland (Alcatel) asked for the status of MIMO in WG2. Denis clarified that there are no inputs and no rush, once that WG1 has taken its decisions the work in WG2 would very probably be small.

On WLAN interworking, Hashem Madadi (Three) reminded that there are many regulatory and licence implications that should be considered before RAN starts work on it.

Juerg Gustrau (Siemens) clarified that the Feasibility Study on OTDOA positioning with advanced blanking methods was closed 6 months ago, the work is done now under the UE positioning enhancements basket. Denis agreed that this should have been reflected in his slides.

Jussi Numminen (Nokia) objected the conclusion in slide 18 on freezing Rel-5 ASN.1. He objected that WG2 hadn't actually agreed upon it. There was considerable debate on the meaning of freezing. Denis explained that WG2 intention is to ensure that all corrections after the ASN.1 is frozen will need to have isolated impact, in the sense that the change will not impact other functionalities. Jussi noted that freezing the ASN.1 at this meeting is not feasible and requested to delay it 3 months. Jussi clarified that it is the use of the extension bit that should be avoided for the time being. Edgar Fernandes (Motorola) reminded that the decision has been delayed a number of times, and requested a formal pronouncement in this meeting that ASN.1 will be frozen in RAN#24. Other companies also supported this view. This was approved, ASN.1 is decided to be frozen in RAN#24

In any case, it was agreed that the isolated impact analysis shall be performed for all Rel-5 CRs (including ASN.1 CRs).

If there is consensus in RAN WG2 & WG3, non-isolated impact CRs can be presented. If there is no consensus, two sets of CRs, isolated impact and non-isolated impact, will have to be presented.

RP-040029 List of CRs RAN WG2 (RAN WG2)
This document lists all CRs agreed/technically endorsed by WG2. It was requested that in the future the documents are ordered by agenda item and not by document number, to simplify the presentation in the meeting.

7.3.2 Discussions on decisions from WG2

RP-040080 Draft TR 25.998 UTRAN recommendation and UE allowance for non-essential corrections of a feature made only in a later release (Nortel, RAN WG2 chairman)
Denis Fauconnier (Nortel) presented this draft TR. It had already been presented in RAN WG2 where it was decided to leave RAN decide.
Tim Moulsley (Philips) commented that CRs that apply to Rel99 should get incorporated to Rel99 specifications, having the CRs in a different document doesn't necessarily ease the work of implementers.
It was highlighted that the changes, either in the CRs or listed in the TR, are collected to ensure compatibility. However it has to be noted that all Rel-5 CRs that are not related to new functionality should be backwards compatible to Rel99. Tim suggested that a Rel99 implementer having unclear issues should be able to look at later releases, which should be backwards compatible, for clarification.

After a short discussion, a number of companies (Nokia, Motorola, Siemens) expressed opposition to create the TR with its current scope. The discussion however is linked to Rel-5 CRs in RP-040108, where there is a statement noting that they apply to Rel99 functionality and hence can be implemented in Rel99 UEs. This is statement was heavily contested by NEC (see below), but supported by Ericsson as a means of conveying the information for Rel99 implementation.

Off line discussions came to the agreement that the following statement will be added to the cover sheets of CRs that may be implemented in previous Releases:
Implementation of this CR by a Release XX UE will not cause compatibility issues

Having this wording agreed, the CRs presented in this meeting and including the controversial sentence in the cover sheet will be revised.

Alan Law (Vodafone) asked if every CR presented to a late Release needs to be checked to see if the statement applies. It is noted that this is not feasible because it would generate an enormous amount of work. It is clarified that it only applies for CRs that introduce late corrections, not to all CRs.

It was asked also if the same analysis is required for the network nodes and interfaces. It is clarified that the network protocols have already the mechanism to cope with this backwards compatibility issue.

The creation of the TR proposed in RP-040080 is not approved, the sentence agreed above will be used in the relevant CRs.

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 WG2:

Document	Title	Decision
RP-040094	CRs on 25.304 (R99 onwards)	Approved
RP-040095	CRs on 25.331 (R99 onwards) (1)	Approved
RP-040096	CRs on 25.331 (R99 onwards) (2)	Approved 1)
RP-040097	CRs on 25.331 (R99 onwards) (3)	Approved
RP-040098	CRs on 25.921 (R99 onwards)	Approved
RP-040099	CRs on 25.922 (R99 onwards)	Approved
RP-040100	CRs on 25.993 (R99 affected, Rel-6 version)	Approved 2)

Note 1) The CR cover sheet of CR2272 in this document is incorrect; the CR number shown is 2233, the correct CR number is 2272.

Note 2) TR 25.993 "Typical examples of RABs and RBs supported by UTRA" is a Release independent TR, the versions for Rel99, Rel-4, Rel-5 only contain pointers to the version in the latest Release, Rel-6. The Release field in the coversheet is Rel99. This reflects the fact that the changes affect sections in the document that apply to Rel99, although they are incorporated to a Rel-6 document.

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

RP-040101 CRs on 25.331 (Rel-4 onwards) (RAN WG2)
No comments, the CRs are approved

7.3.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by WG2:

Document	Title	Decision
RP-040092	Frequency band alignment with TS 25.101: CRs on 25.307 (R99 onwards) on Bands I, II, III and VI. CR on 25.331 (Rel-5) on Bands I, II and III. CR on 25.331 (Rel-6) on Band VI	Approved
RP-040102	CRs on 25.306 (Rel-5 onwards)	Approved
RP-040103	CRs on 25.308 (Rel-5 onwards)	Approved
RP-040104	CRs on 25.321 (Rel-5 onwards)	Approved
RP-040106	CRs on 25.331 (Rel-5 onwards) on Signalling of MAC-hs Reset	Approved
RP-040109	CR on 25.993 (Rel-5 affected, Rel-6 version)	Approved

RP-040107 CRs on 25.331 (Rel-5 onwards) (1) (RAN WG2)
RP-040108 CRs on 25.331 (Rel-5 onwards) (2) (RAN WG2)
CRs 2175r1, 2176r1, 2206, 2207, 2208, 2209, 2212, 2213, 2258, 2259, 2260, 2261 in RP-040107 are approved
CRs 2262, 2263, 2273, 2274 in RP-040108 are approved
CRs 2216r2, 2217r2 in RP-040107 and 2266 to 2271 in RP-040108 need to be revised, NEC opposed having the note on applicability for Rel-99 CRs on the cover sheet. The contents of the CRs are acceptable, but the statement with the green background in the cover sheet shall be substituted by:
Implementation of this CR by a Release XX UE will not cause compatibility issues.
RP-040131 contains the revised CRs.

RP-040131 Revised CRs 2216, 2217, 2266, 2267, 2268, 2269, 2270, 2271 to 25.331 (from RP-040107 and RP-040108) (TSG RAN)

No comments, the CRs are approved

RP-040105 CRs on 25.331 (Rel-5 onwards) on Invalid Simultaneous Reconfiguration Criteria (Technically endorsed) (RAN WG2)

Only CR2249 for Release 6 is approved, the category is changed to F and the Work Item is TEI6.
CR2248 is not approved.

RP-040129 Proposed CRs to TS25.331 "HSDPA capability for multimode FDD-TDD terminal" (Qualcomm, Nortel, Ericsson)

Francesco Grilli (Qualcomm) presented this CR
This late correction to ASN.1 has been identified and presented in WG2 email reflector this week.
After off line checking, the CRs are approved

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

No contributions

7.4 TSG RAN WG3

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

RP-040030 Status Report WG3 (RAN WG3 Chairman)

Alexander Vesely (Siemens) presented this report. The work of WG3 can be summarized as follows:

- Two meetings since RAN#22:
  - RAN WG3#40, 12 – 16 January 2004, Sophia Antipolis, France, was dedicated for Rel-6 (pre Rel-6 items only in urgent cases)
  - RAN WG3#41, 16 – 20 February 2004, Malaga, Spain
- RAN3 agreed CRs:
  - 0 R99 CRs
  - 6 Rel-4 CRs (cat F)
  - 41 Rel-5 CRs (5 cat.A, 36 cat. F) (12 CRs on HSDPA)
  - 45 Rel-6 CRs (41 cat.A, 4 cat.F)
  - 14 Rel-5 CRs and 14 Rel-6 CRs technically endorsed (see tasks from RAN#22)
  - Not a single R99 CR, some Rel-4 corrections
  - Rel-5 review was in fact continued at #40 & #41 (RANAP, HSDPA, PCAP, ...)
- Actions on WG3 from TSG RAN #22
  - RP-030658, LS on Multiple MBMS Issues.
    - Answer LS in R3-040175.
  - RNSAP DCH Information Issue.
    - No CRs to NBAP were agreeable
    - Agreement, that currently in NBAP only one DCH-Id, in RNSAP one or several DCH-Ids may be included in case of co-ordinate DCHs.
    - Clarifying CRs to RNSAP in RP-040057 just technically endorsed although no implementation problems were announced.
  - Interworking solution 3 (RP-030667)
  - Correction of Traffic Class IE (RP-030663)

- no agreements, protocol works also without this changes

Concerning slide 22, it is asked where the decisions will be taken, RAN or WG3. Alex clarified that is WG3. On the same slide, Sami Kekki (Nokia) remarked that on the signalling based activation for the trace is available and agreed, so the completion date required by operators can still be met with that mode.

On slide 25, Sami noted that there is a second view in WG3 which is quite different to what the two bullets convey, after 18 months of work the Study Area of the TR already contains 30 pages but nothing could have been agreed on that contents. So there are concerns in RAN3 about the reasonability of continuing the work.

Jean Jacques Davidian (NTT DoCoMo) asked for the progress on MIMO, which has been inexistent for two consecutive meetings. It is clarified that work on MIMO on WG2, WG3 and WG4 depend on WG1 reaching agreement on the techniques to be used.

RP-040031 List of CRs RAN WG3 (RAN WG3)
This document lists the CRs agreed/technically endorsed by WG3

7.4.2 Discussions on decisions from WG3. IP - ATM interworking

RP-040077 LS on TSG RAN task to TSG RAN WG3 regarding ATM/IP-Interworking (TSG RAN WG3)
Alexander Vesely (RAN WG3 chairman) presented this LS. RAN WG3 presents 3 sets of CRs with the following alternatives, TSG RAN should decide upon:

- CR set Nr.1 (R3-040486 up to R3-040497 contained in RP-040054: IP/ATM interworking is ensured by application of ITU-T protocol Q.2631.1 for connection control signalling.
- CR set Nr.2 (R3-040535 and R3-040536 contained in RP-040056:Connectivity for ATM nodes over IP networks in the context of interworking option 1 (dual stack) is ensured by means of PWE3 (pseudo wire emulation).
- CR set Nr.3 (R3-040523 up to R3-040534 contained in RP-040055: The 3 rd set of CRs represents a technically endorsed alternative that removes the third interworking option from the respective specifications.

RP-040127 Rel-5 IP/ATM-Interworking: Interworking Option 3 (Three, NEC, Siemens)
Alexander Vesely (Siemens) presented this document
On interworking option 2, Sami Kekki (Nokia) reminded that the implementation specific interface between the interworking unit and the Node B must however comply with all the requirements of IP transport in Rel-5.

RP-040132 Finalisation of Rel-5 IP-ATM interworking (Motorola, Nokia)
Sami Kekki (Nokia) presented this document
Hashem Madadi (Three) objected the benefit of option 2 against option 3 in terms of cost/performance for the operator. The openness of the interface will always bring substantial benefit from operator's perspective.
Denis Fauconnier (Nortel) reminded that not everything needs to be standardized as already agreed in WG3, and this is doesn't mean that the standard is not open. For example, layer 2 is not standardized for UTRAN IP transport; layers under IP are not specified.
Hashem also objected that the removal of the IP-ALCAP makes the system cheaper, after consultation with other operators this doesn't seem to be the case. Denis and Sami argued that IP-ALCAP is a

protocol defined in ITU for use primarily in UTRAN, it hasn't been used before, this will be its first implementation and will need additional effort for debugging.
It was asked if the set up in the IP-ALCAP will not introduce additional delay. Alexander Vesely (Siemens) clarified that it is not the case.
Volker Hoehn (Vodafone) supported the concept of having a 3rd option and to leave the operators the choice between delay and cost. Hashem also remarked that a separate IW units gives the choice of a different vendor. Volker suggested that, if anything has to be removed for the sake of reducing the number of options, it should be option 2 which is less open.

The chairman asked for a raise of hands for companies supporting or against the proposal from Nokia to remove the third interworking option. No clear majority came out of the survey on either sense, so the discussion continued.

RP-040133 IP-ATM interworking compromise proposal (contains example CRs to 25.401 Rel-5 and 25.414 Rel-5 (Nokia)
This CR represents the agreement reached by some companies as a compromise proposal.

Alex Vesely (WG3 chairman) objected the proposal and reminded that RAN#15 agreed to have 3 interworking scenarios and this is reflected in relevant WG3 specifications since then, the open point hasn't been whether to have a 3rd option or not, but what protocol to use. He reminded also that consensus had been reached in WG3 on the fact that IP-ALCAP was the preferred solution. However, RAN chairman noted that WG3 decided to raise the discussion to TSG RAN level, and now it is up to TSG RAN to take the decision it considers convenient. Since there was consistent disagreement and neither the proposal above nor the CRs were consensual, it is decided that a vote will take place in next TSG RAN. The final question will be made available in due course.

RP-040054 Technically endorsed CRs (Rel-5 and Rel-6 Category A) to TS 25.401, TS 25.410, TS 25.414, TS 25.420, TS 25.426, TS 25.430 , Introduction of ITU-T Q.2631.1 for interworking solution 3 (RAN WG3)
RP-040055 Technically endorsed CRs (Rel-5 and Rel-6 Category A) to TS 25.401, TS 25.410, TS 25.414, TS 25.420, TS 25.426, TS 25.430 , Completion of the REL-5 IP Transport WI by removing the 3rd interworking option (RAN WG3)
RP-040056 Technically endorsed CRs (Rel-5 and Rel-6 Category A) to TS 25.411, Emulated Layer 1 for Rel-5 ATM-IP interworking (RAN WG3)
RP-040054, RP-040055, RP-040056 are not approved

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

No contributions

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

The following documents contain CRs agreed by WG3:

Document	Title	Decision
RP-040052	CRs (Rel-4 and Rel-5, Rel-6 Category A) to TS 25.423, Correction of RL Congestion Indication	Approved
RP-040058	CRs (Rel-4 and Rel-5, Rel-6 Category A) to TS 25.433, NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message	Approved

7.4.5 Approval of independent CRs to Release 5

The following documents contain CRs agreed by WG3:

Document	Title	Decision
RP-040060	CRs (Rel-5 and Rel-6 Category A) to TS 25.426 on Diffserv marking	Approved
RP-040062	CRs (Rel-5 and Rel-6 Category A) to TS 25.413	Approved
RP-040063	CRs (Rel-5 and Rel-6 Category A) to TS 25.419 on Broadcast Message Content IE	Approved
RP-040070	CRs (Rel-5 and Rel-6 Category A) to TS 25.423	Approved
RP-040071	CRs (Rel-5 and Rel-6 Category A) to TS 25.433	Approved
RP-040072	CRs (Rel-5 and Rel-6 Category A) to TS 25.453	Approved

RP-040057 Technically endorsed CRs (Rel-5, Rel-6 Category A) to TS 25.423, DCH Information Response Issue (RAN WG3)

This issue has been extensively discussed both in RAN and WG3. There seems to be general consensus although Motorola still doesn't believe the CR is necessary. The CRs are approved

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

The following documents contain CRs agreed by WG3:

Document	Title	Decision
RP-040053	CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS 25.423, TS 25.423 and (Rel-5 and Rel-6 Category A) to TS 25.453 on Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	Approved
RP-040059	CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS 25.423, and one CR (Rel-4) to TS 25.433 on Correction to the threshold of Rx Timing Deviation LCR in tabular	Approved
RP-040061	CRs (Rel-5 and Rel-6 Category A) to TS 25.424, TS 25.434 on Inclusion of HSDPA	Approved
RP-040064	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Setting of TGPSI	Approved
RP-040065	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Corrections for HS-DSCH Configuration Signalling	Approved
RP-040066	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Priority Queue ID for HSDPA	Approved
RP-040067	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Correction Related to HS-DSCH Information Response	Approved
RP-040068	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Extension of the range of PCCPCH RSCP	Approved
RP-040069	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Introduction of the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	Approved
RP-040073	CRs (Rel-5 and Rel-6 Category A) to TS 25.425, TS 25.435 on Common Transport Channel Priority Indicator for HSDPA	Approved

7.5 TSG RAN WG4

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

RP-040032 Status Report WG4 (RAN WG4 Chairman)
Howard Benn (RAN WG4 chairman) presented this report. Highlights of WG4 work are as follows:

- 1 RAN WG4 meeting after the last RAN meeting
- Usual number of delegates (around 80),
- 168 input contributions
- Corrections to the specification (cat B & F numbers)
  - Release 99 - 1 CR
  - Release 4 - 1 CR
  - Release 5 - 8 CRs
  - Release 6 – 17 CRs
- There will be one WG meeting before the next plenary.
- HSDPA RX diversity work item sheet reviewed and endorsed. The simulation assumptions have been agreed
- Technically correct CRs on Combining of TPC commands in soft handover presented at the plenary, TSG RAN to decide on the Release.
- HSDPA PAR
  - RAN1/4 joint meeting held (see RAN1 report)
  - Issue caused by high peak to average ratio when additional HSDPA codes are transmitted in addition to existing services (e.g 64k)
  - Proposal for reduction in peak TX power when codes reach predetermined ratios (ßc/ßd)
  - Current status
    - Solution generally agreed
    - ßc/ßd factors still under discussion
    - Lack of system level simulations to analyse impact on new and existing services
- A-GPS
  - 1 physical ad-hoc session took place, Jan 2004 Korpilampi
  - It was proposed to create a separate specification for A-GPS performance to cover both UE based and UE assisted.
  - Slow progress, probably will not make current June WI date

On slide 5, HSDPA PAR, Bern Haberland (Alcatel) asked if the UL power reduction will not decrease the coverage of DL HSDPA, and asked if other solutions than reducing the power have been studied. Howard explained that unfortunately this is the kind of issues that RAN WG1 doesn't consider when performing its simulations, so it is only when RAN WG4 looks at the performance tests that these issues arise. Howard clarified that WG4 has concluded that the only viable solution is to reduce power in certain cases. This was however questioned, some companies believed that the default option of not introducing any back off should still be considered.
Three and Telecom Italia asked if system level simulations are envisaged. Howard reminded that the work is contribution driven.

On AGPS, it was asked if there are clear stage 1 requirements being considered, in particular coming from SA WG1. Howard noted that it is not the case but it would be convenient, although previous LSs exchanged on the issue have been of little help. Howard explained that the AGPS experts in RAN WG4 is just now beginning to understand how the different parameters involved are linked between

them and how to apply the tests, he doubted that requirements from external groups will help or speed the progress.

RP-040033 List of CRs RAN WG4 (RAN WG4)
The document lists the CRs agreed/technically endorsed by RAN WG4.

7.5.2 Discussions on decisions from WG4

RP-040044 Technically Endorsed CRs (R99 and Rel-4/Rel-5/Rel-6 Category A) to TS25.133 on "Minimum requirements for TPC combining in soft HO" (RAN WG4)
The contents have been endorsed by RAN WG4, but the Release could not be agreed. TSG RAN is asked to decide upon. Hans van der Veen (NEC) noted that the Rel99 cannot be accepted at such a late stage, it will affect existing implementations. Hashem Madadi (Three) supported NEC's view, and noted that it hasn't been sufficiently shown that the correction is needed for Rel99. Philips, Samsung and Fujitsu also supported this view.
Nortel, Vodafone, Telia and Telefonica on the other side, considered this requirement mandatory for Rel99 and a very important one which is completely missing.
Han van Bussel (TMobile) recommended to look at the CR cover page, it is stated that there are impacts on coverage. He also supported adding the correction to earliest possible Release so it is implemented in UEs as soon as possible, even though existing UEs don't implement the correction. Ericsson also supported this view.
The chairman noted that this issue could be a candidate for the "Early UE Handling" procedure, it is an error of the standard, Rel99 terminals fulfilling and not fulfilling the requirement will coexist.
This possibility was rejected following a proposal to have a sentence inserted in the report clarifying for UE manufacturers that no retrofit was needed and providing guidance on implementing the CR.
After discussion the following sentence was proposed:

> *Terminals vendors are not expected to implement the R99 CR in RP-040044 in R99 terminals that have already been produced, nor in current production.*
> *It is expected that terminal vendors do implement this CR at the earliest pragmatic opportunity.*

With the premise above, the 4 CRs in RP-040044 are approved.

7.5.2.1 PAR on HS-DPCCH transmission

RP-040113 UE maximum power reduction when HS-DPCCH is transmitted (Nokia)
Jussi Numminen (Nokia) presented this document
Jussi clarified that this correction is proposed for Rel-5 and that no changes to 25.214 are required, only 25.101 is affected. The same effect on TDD has not been studied. MAC and Hybrid-ARQ related delays are not considered in the simulations. The planning is assuming a 64kbps UL. The document itself has not been presented in WG4, but it is based on documentation discussed there and it doesn't bring unfamiliar material.

Telecom Italia and Three requested that system level simulations are performed, and the impact on network planning evaluated, before anything is agreed.

Dirk Gerstenberger (Ericsson) noted that the issue was known since January 2002 in WG1 and it is only now that companies realize that back off is needed. He also asked to consider the case for UEs that, due to its implementation qualities, don't need this back off. Dirk found unfair that companies

developing their equipment according to current specification, and having taken the effort to cope with the increased PAR, are now faced with a this relaxation.

Edgar Fernandes (Motorola) explained that the characteristics of the simulations in WG1 and WG4 are different, and the issues these groups focus on are also different; it is very normal that it is now, when WG4 studies HSDPA implementation, that the problem arises.

It was asked what would be the solution for Rel-6 and later, when enhanced uplink is included. Jussi clarified that the back off proposed would be maintained in Rel-6. Considering enhanced uplink, Jussi reminded that the Work Item hasn't actually started, but he hoped that this issue is properly considered in the stage 2.

Said Tatesh (Lucent) summarized that it seems that two UE manufacturers support the back off and one has expressed that it can comply with current requirements without it. He requested the views other manufacturers. Qualcomm supported the introduction of one back off point in Rel-5 and review the issue in Rel-6. NEC also supported the back off in Rel-5. Samsung and Panasonic also supported the introduction of back off. A majority of UE vendors support this position.

Edgar suggested, as an alternative which was also raised in WG1/WG4 Ad Hoc, that the BS performance is increased for the low ßc/ßd values, in order to keep the link without requiring the UE to increase the power. The proposal was not welcome.

It is concluded to let WG4 perform the system simulations and to determine the switching points and the values. WG4 is requested to start agreeing the simulation parameters and discuss the simulations in the email reflector, so the work can be completed in one meeting cycle. Edgar asked for inputs on the services of interest and ßc/ßd ratios commonly used in the network to be used in the simulations.

Giovanni Romano (Telecom Italia) solicited that WG1 and WG4 communicate better in order to avoid this kind of problems in the future.

RP-040138 PAR back off simulation analysis assumptions (Motorola, Nokia, Fujitsu)
Edgar Fernandes (Motorola) presented this document
Ericsson agreed with the assumptions on section 2, but not with the proposal in section 3. Edgar clarified that sections 3 onwards are included as an example.
It was clarified that TDD is not affected by this PAR issue due to multicode transmission because TDD takes advantage of the time division for HS-DPCCH and doesn't need another codes.

It is agreed to allow for two weeks of comments on WG4 reflector on the methodology proposed in section 2 and then it will be considered approved. (Section 2 is copied in Annex G of this report for completeness). WG4 will have to perform and study system simulations in order to evaluate the system impact of the power back off.

RP-040137 UE maximum output power with HS-DPCCH (Proposed CR to 25.101 Rel-5) (Motorola, Nokia, Fujitsu)
Presented for information, draft proposal for a CR introducing the new requirement.

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

RP-040034 CRs (R99 and Rel-4/Rel-5/Rel-6 Category A) to TS25.133 on "Inter system HO from UTRAN FDD to GSM" (RAN WG4)

No comments, the CRs are approved

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

RP-040035 CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS25.123 on "Test case for SFN-SFN observed time difference type 2 for 1.28Mcps TDD" (RAN WG4)

No comments, the CRs are approved

7.5.5 Approval of independent CRs to Release 5

The documents below contain CRs agreed by WG4:

Document	Title	Decision
RP-040036	CRs (Rel-5 and Rel-6 Category A) to TS25.101	Approved
RP-040037	CRs (Rel-5 and Rel-6 Category A) to TS25.133 on "Test case for multipath fading intra-frequency cell identification"	Approved
RP-040038	CRs (Rel-5 and Rel-6 Category A) to TR25.942, TR25.945, TS34.124 & TR34.926 for "Correction of references to ITU recommendations"	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-040003 Status Report for WI Improvement of inter-frequency and inter-system measurement (Nokia)

Jussi Kahtava (Nokia) presented this document
It is clarified that the completion date is for the work in WG1 only. The assessment of the complexity has still to be done in WG2 and WG3.
The gain obtained with the feature was questioned, in particular in relation to the added complexity.
Dirk Gerstenberger (WG1 chairman) noted that this gain was very difficult to estimate.
The completion date is changed to September 2004.

8.1.2 UMTS 1.7/2.1 GHz

RP-040004 Status Report for WI UMTS 1.7/2.1 GHz (Nokia)
Jussi Numminen (Nokia) presented this report
The work is completed, the Work Item is closed

RP-040051 TR 25.806 v1.0.1 UMTS 1700/2100 MHz Work Item Technical Report (Nokia/ RAN WG4)
Jussi Numminen (Nokia) presented this TR
Althought the TR is presented to RAN for the first time, WG4 agreed to present it for approval and to put it under change control. No CRs are expected however, this TR was used as a working document to compile the progress.
The TR is approved and will be upgraded to version 6.0.0.

RP-040039 CRs (Rel-6) to TS25.101, TS25.104, TS25.133, TS25.141 for the introduction of UMTS 1.7/2.1 GHz requirements (RAN WG4)
No comments, the CRs are approved

RP-040090 CRs on 25.307 (R99 onwards) and 25.331 (Rel-6) on the introduction of UMTS 1700/2100 (Band IV) (RAN WG2)
All CRs except 2253 to 25.331 are approved, CR 2253 is revised in the document below.

RP-040121 CR2253r1 to 25.331 (Rel-6) on the introduction of UMTS 1700/2100 (Band IV) (Revision of CR in RP-040090) (Nokia)
No comments, the CR is approved

Don Zelmer (Cingular), on behalf of the North American members of 3GPP, thanked TSG RAN for the work done under this WI.

8.1.3 Improvements of receiver performance of HSPDA UE for enhancing the performance of FDD system

Work under this Building Block has taken place only under the Work Task below.

8.1.3.1 Performance Requirements of Receive Diversity for HSDPA

RP-040006 Status Report for WI Performance Requirements of Receive Diversity for HSDPA (NTT DoCoMo)
Takehiro Nakamura (NTT DoCoMo) presented this report.
No comments, the completion date is maintained for September 2004.

8.2 RAN Improvement Feature

8.2.1 Radio access bearer support enhancement

RP-040007 Status Report for WI RAB support enhancement (Nokia)
Juho Pirskanen (Nokia) presented this report

The work under this WI relates to enhancement of support of IMS voice over IP. A number of proposals have been presented, but no agreement has been reached yet. It was noted that no work in WG4 & WG3 has been done so far.
It was asked if RAN WG2 will take into account the decision in SA WG2 & WG4 on the use RTP (user traffic) and notably RTCP (signalling). Denis Fauconnier (WG2 chairman) clarified that the intention is that the RAB will be independent of the upper layers since SA WG4 only issues recommendations; the RABs in UTRAN will be more optimized if SA WG4 recommendations are followed.
However, information on whether distinction between RTCP and RTP flows can be discriminated in CN would help conclude analysis, otherwise RAN will assume worst case and may discriminate in UTRAN.
The completion date is moved to September 2004

RP-040122 TR25.862v1.0.0 RAB support for IMS (Nokia)
Juho Pirskanen (Nokia) presented this TR
The TR is presented here for information, it is noted.

8.2.1.1 Iu enhancements for IMS support in the RAN

RP-040008 Status Report for WI Iu enhancements for IMS support in RAN (Nortel)
Denis Fauconnier (Nortel) presented this report
The work in RAN WG3 depends on decisions from CN and SA WG2, the completion is expected 6 months after SA WG2 informs RAN WG3.
The chairman will report in SA this situation, only a relative completion date can be provided (6 months after SA WG2 and CN sort out the varying traffic in the signalling RAB).

8.2.2 RRM optimizations for Iur and Iub

8.2.2.1 Improved access to UE measurement data for CRNC to support TDD RRM

RP-040009 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
The work is completed with the CR below, the Work Item is closed

RP-040074 CR (Rel-6 Category B) to TS 25.423 on Introduction of UE measurement forwarding over the Iur for TDD (RAN WG3)
No comments, the CR is approved

8.2.3 Remote Control of Electrical Tilting Antennas

RP-040010 Status Report for WI Remote Control of Electrical Tilting Antennas (Vodafone)
Volker Hoehn (Vodafone) presented this report
It was asked if this interface could be used to for the Low Output Power Node B. Volker clarified that this hasn't been considered.
The completion date is moved to September 2004.

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

RP-040011 Status Report for WI Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-side aspects (Vodafone)

Alan Law (Vodafone) presented this report.
Alex Vesely (Siemens) noted that so far WG3 has worked independently from GERAN on this issue and he preferred that it is still the case, WG3 protocols are passing the information to GERAN transparently.
It was clarified that the work doesn't include a variant for the Iurg
The completion date is moved to June 2004

8.3 UE Positioning

8.3.1 UE positioning enhancements

RP-040012 Status Report for WI UE positioning enhancements - other methods (Siemens)

Joerg Gustrau (Siemens) presented this report
Work is done in the area of IPDL enhancement using advanced blanking methods.
Jussi Kathava (Nokia) noted that the report is partial in what concerns WG1, where Nokia had raised comments. It was further clarified that WG1 had not agreed upon anything yet.
It is requested (for the second time) that WG4 is informed and consulted for this work, notably, it is remarked that WG4 has already studied CPICH cancellation and that work could be useful and re-used.
Completion date, September 2004, is maintained

8.3.2 A-GPS minimum Performance Specification

RP-040013 Status Report for WI A-GPS minimum performance specification (ATT)

Howard Benn (WG4 chairman) presented this report
It was asked if the terminal types is still part of the work. This was an open issue in the last meeting and it doesn't appear anymore. It is clarified that terminal types are still under discussion, as part of the location accuracy work.
It is suggested to have an Ad Hoc in April to speed up the conclusion of this Work Item, but only if WG4 believes it necessary.
The completion date is moved to September 2004.

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

RP-040014 Status Report for WI Introduction of MBMS in RAN (Nokia)

Juho Pirskanen (Nokia) presented this report
Juha clarified that the 80% level of completion applies to the full WI, not only RAN stage 2. It was commented that WG4 should take a look at the work and check if new requirements need to be set for MBMS, in particular for notification.

It is requested that companies ensure that the right experts are sent to the ad hoc meeting planed in April 5th and 6th in Lund by SA WG4, in order to ensure a good communication and understanding between SA WG4 and RAN WG1.
The statement on the agreement in WG1 on the 256 kbps bitrate was contested. 256 kbps was considered, from a UE complexity perspective, but on the BTS side it could be possible to use higher bitrates and percentages of BS power as high as 78%.
It is highlighted that there is an important issue under discussion in WG1 on the bit mapping of the physical channel for the notification.
The completion date is moved to September 2004.

RP-040079 TS25.346 Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2) Version 2.6.0 (Nokia)
Juho Pirskanen (Nokia) presented this TS
No comments, the TS is approved and it will put under change control as v6.0.0

8.5 Evolution of the transport in the UTRAN

No report.

8.6 Multiple Input Multiple Output Antennas

RP-040015 Status Report for WI Multiple Input Multiple Output antennas (MIMO) (Lucent)
Said Tatesh (Lucent) presented this report.
Dirk Gerstenberger (RAN WG1) questioned the completion date in September, in view of the lack of agreement for the simulations. It is proposed to keep September and review it in the next meeting if necessary. There was a concern also on the dates for WG2 and WG3, Alex Vesely (RAN WG3 chairman) asked what would be the impact on the protocols. Said clarified that it depends on the technique selected. It is clarified that so far, no detailed analysis of the impact on protocols has been carried out in WG1.
It is agreed to change the completion dates of WG2 and WG3 parts to December 2004, and WG4 part to March 2005. However some doubt were expressed from a RAN WG4 perspective as usually this kind of work take a cycle of three meetings.

8.7 Subscriber and Equipment Trace Support in UTRAN

RP-040016 Status Report for WI Subscriber and equipment trace in UTRAN (Nortel)
Denis Fauconnier (Nortel) presented this report
Alex Vesely (RAN WG3 chairman) clarified that the SA5 requirement on tracing in the DRNC was discussed in WG3 and the general view was that it should be postponed after Rel-6. Excluding this discussion, the work is nearly finished in WG3.
It is clarified that the TR mentioned is internal to WG3, used as a working document.
The completion date is postponed to June 2004

8.8 Enhancement of the support of network sharing in the UTRAN

RP-040017 Status Report for WI Enhancement of the support of network sharing in the UTRAN (TeliaSonera)

Per Ernstrom (TeliaSonera) presented this report
Since SA WG2 has not agreed on the re-routing functionality, RAN WG3 has not been able to discuss the contributions on Network Sharing. The amount of work needed in RAN WG3 regarding rerouting will also depend on the type of redirection chosen by SA WG2. The expected completion date in this group is June 2004.
It is agreed that the completion in WG2 and WG3 is moved to 3 months after completion in SA WG2. This is relative approach to completion dates has been allowed in last TSG SA.

8.9 Technical Small Enhancements and Improvements

RP-040040 CRs (Rel-6) to TS25.104, TS25.141 for the protection of UTRA FDD UE & BS in bands IV and VI operating in areas where UTRA FDD is deployed in other bands (RAN WG4)
No comments, the CRs are approved

RP-040042 CRs (Rel-6) to TS25.101, TS25.123, TS25.133 and TS25.141 for small enhancements and improvements (RAN WG4)
No comments, the CRs are approved

RP-040075 CR (Rel-6 Category F) to TS 25.453 on Initial UE Position IE only mandatory necessary for GPS (RAN WG3)
No comments, the CR is approved

RP-040087 Independent Release 6 CR to TS 25.211 on Re-Introduction of S-CPICH in combination with Closed Loop TxDiversity (RAN WG1)
Hashem Madadi (Three) questioned the removal of S-CPICH as phase reference for open loop diversity. It is noted that S-CPICH is used for channel estimation in that case, not for phase reference. It is however decided that the CR should be reviewed again by WG1 to check side impacts.
The CR is not approved

RP-040088 Linked Release 6 CRs to TS 25.225(RAN1), TS25.302 (RAN2), TS 25.423 (RAN3), TS 25.443 (RAN3) on Interference measurement in UpPTS for 1.28Mcps TDD (RAN WG1)
These CRs are also linked to CR329 to TS 25. 123 (RAN4), which was already approved at TSG RAN #22 in Maui. (RP- 030607)
No comments, the CRs are approved

RP-040110 CR on 25.331 (Rel-6) (RAN WG2)
No comments, the CR is approved

8.10 Closed Release-6 Work Items

RP-040041 CRs (Rel-6) to TS25.104, TS25.141 for the introduction of performance requirements for ACK/NACK detection for HS-DPCCH (RAN WG4)
CR 218 to 25.104 is approved, CR338 is revised in the document below.

RP-040045 CR 338r2 to 25.141 Rel-6 Performance requirements for HS-DPCCH signaling detection (Fujitsu)

It is noted that the requirement is expressed with a "should" in the CR instead of "shall". It seems that "should" is used in the rest of section 8 in this specification. RAN WG4 is tasked to review this and change the "should" in the rest of the specification if necessary. This has to be performed for Rel-6, it was not found necessary to check and change previous releases.
The CR is approved

RP-040043 CRs (Rel-6) to TS25.101, TS25.104, TS25.141 for reduction of channel numbers for UMTS800 (band VI) (RAN WG4)
No comments, the CRs are approved

RP-040091 CRs on 25.307 (R99 onwards) and 25.331 (Rel-6) on the introduction of UMTS 850 (Band V) (RAN WG2)
It is noted that the ASN.1 in CR2254 in this document, and CR2253 in RP-040121 are slightly contradictory, the implementation has to be done carefully.
No comments, the CRs are approved

RP-040093 CRs on 25.307(R99 onwards) on additional performance requirement for UMTS800 (Band VI) (RAN WG2)
No comments, the CRs are approved

RP-040120 Cover page of TR25.887 "Beamforming Enhancements" (RP-040083) (Nokia)
RP-040083 TR 25.887 v2.0.0 Beamforming Enhancement (Nokia)
Jussi Kathava (Nokia) presented this TR.
The TR is the working document used for the Beamforming Enhancements WI which was closed in last TSG, #22.
No comments, the TR is approved and it will be put under change control as v6.0.0

8.11 Study Items

8.11.1 Feasibility study on Radio link performance enhancements

RP-040018 Status Report for FS on Radio link performance enhancements (Nokia Networks)
Jussi Kathava (Nokia) presented this report
Bern Haberland (Alcatel) proposed to close the TX diversity activity under this study and consider any TX diversity in the frame of MIMO Work Item. Dirk Gerstenberger (WG1 chairman) noted that comments in this sense have also been expressed in WG1, it was agreed to follow this way.

It was clarified that the June 2004 completion date for HSDPA work applies only to the Study, not to the Work Item that may, or may not, be started after.

Dirk remarked that no work has been done on Power Control Enhancements for a number of meetings, and proposed to remove this activity from the Study. This was accepted.

RAN WG1 is tasked to edit the Description Sheet and remove the TX diversity and Power Control topics.
The completion date is now for HSDPA enhancements only, June 2004

8.11.2 Feasibility study on UTRA Wideband Distribution System (WDS)

RP-040019 Status Report for FS on UTRA WideBand Distribution Systems (Tekmar)
The document has not been provided. Howard Benn (RAN WG4 chairman) suggested to close the Study due to the lack of activity. Juan Antonio Moreno (Telefonica) asked to delay the decision to the next plenary, Telefonica will try to contribute and finish the study by then.
Completion date is moved to June 2004.

8.11.3 Analysis of OFDM for UTRAN evolution

RP-040124 Status Report for FS for the analysis of OFDM for UTRAN enhancement (Nortel)
Sarah Boumendil (Nortel) presented this report
Jussi Kathava (Nokia) suggested that the final conclusion should not be based on ideal conditions and assumptions. This comment has already been presented in WG1.
Completion date is June 2004.

RP-040119 TR25.892 v1.1.0 "Feasibility Study for OFDM for UTRAN enhancement" (Nortel)
Sarah Boumendil (Nortel) presented this TR for information only.
This TR is the working document of the Study, it contains the analysis and comparison of textbook OFDMA with HSDPA.
It was asked if the RRM aspects will be covered in the study. Sarah clarified that mobility/handover is still an open issue, and confirmed that it is expected to be completed by June. It was clarified however that this is only a feasibility study, not a full RRM analysis will be accomplished.
The TR is noted

8.11.4 Uplink Enhancements for Dedicated Transport Channels

RP-040021 Status Report for FS on Uplink Enhancements for Dedicated Transport Channels (Nokia)
Jussi Kathava (Nokia) presented this report.
It is clarified that the technical work is 100% finished, despite the 90% figure in the report.
The Study is closed, a Work Item follows as per the proposal in section 8.12.

RP-040046 TR 25.896 v2.0.0 "Feasibility Study for Enhanced Uplink for UTRA FDD (Release 6) (Nokia)
Jussi Kathava (Nokia) presented this TR.
The TR is approved and will be upgraded to v6.0.0. No CRs are expected

8.11.5 Analysis of Higher Chip Rate for UTRA TDD evolution

RP-040022 Status Report for FS on Analysis on Higher Chip Rates for UTRA TDD evolutions (IPWireless)
Derek Richards (IPWireless) presented this report.
There were some comments on the feasibility of the completion date, given the number of open items. It is however maintained at June 2004.

8.11.6 Evolution of UTRAN Architecture

RP-040023 Status Report for FS on the evolution of the UTRAN architecture (Nokia)
Sami Kekki (Nokia) presented this report

As a rapporteur, Sami's view is that there little chance of agreement by the expected completion date. He noted that there is no feeling of urgency or need to agree on this area in WG3, and this explains the lack of accord in the issue.
Alex Vesely (WG3 chairman) noted that priority in WG3 is given to open Work Items and closed Releases, but considered that the activity of future evolution should be maintained, looking after a future proposal.
Denis Fauconnier (Nortel) mentioned that the initial proposal for study, an all-IP based structure, has now been discarded and the object of study has shifted to new proposals, different and out of the initial scope. Denis explained that the proposals debated now show different implementations of RNC, so most can be put into practice on existing RNC without the need for standardization. This was heavily objected by Alex.

There was some debate on the need to keep the Study open, since it seems that an agreement will never be reached in WG3. It was however found convenient to keep looking at the evolution of UTRAN somehow, some companies were concerned with not paying enough attention to the future and sending the wrong impression out of 3GPP. The chairman proposed to hold dedicated Workshops, at TSG RAN level, to look at evolution proposals given that WGs are more focused on day to day topics. This was supported by several delegates.

It is finally decided to put on hold this Study until the MBMS Work Item is finished and WG3 has time to allocate to the Study, hoping that once that the urgent issues are closed the group can reach agreement on this topic easier.

8.11.7 Low Output Powers for general purpose FDD BS

RP-040024 Status Report for FS on Low Output Powers for general purpose FDD BSs (Telefonica)
Juan Antonio Moreno (Telefonica) presented this report
The Study is finished and documented in the TR below. It is concluded that the best solution to make the BS aware of additional equipment at the antenna port is to introduce parameters for the additional UL and DL gain in the Operation & Maintenance System, instead of doing so in the NBAP specification. This solution doesn't have any impact on the specifications, so no Work Item follows the Study.

RP-040076 TR 25.807 Low Output Powers for general purpose FDD BSs (RAN WG3)
Juan Antonio Moreno (Telefonica) presented this TR
Bern Haberland (Alcatel) asked how linearization or clipping, which are normally implemented in the PA are handled in the case the PA goes out of the NodeB. It is clarified that it is an issue of the actual implementation of the system and it was not considered in the Study.
Although marked for information, the TR is for approval. It will be upgraded to v6.0.0, no CRs are expected.

8.11.8 Uplink Enhancements for UTRA TDD

RP-040025 Status Report for FS on Uplink enhancements for UTRA TDD (Interdigital)
Jim Miller (Interdigital) presented this report
No comments, work on progress, expected completion September 2004.

8.12 New Work Items/Study Items

RP-040135 Guidance to WGs for prioritization of WIs and SIs (Ericsson, Telecom Italia, Vodafone)

Per Beming (Ericsson) presented this document.
The proponents suggest that WGs prioritize completion of MBMS and the work on Enhanced Uplink over the rest of WIs.
It was observed that these are big items, if prioritized, work on smaller items may never be finished. It was also noted that is WG chairmen are responsible of the organization of the work in the WGs and should take care that all documents are handled.
It was noted that R99, Rel-4 and Rel-5 corrections have however priority over Work Items.
It was objected that the proposal seems to imply that these two items are to be included in Rel-6, but this has not been agreed yet.
Alex Vesely (WG3) chairman suggested to note the document and simply companies should ensure that contributions on these items are presented. This view was shared by other companies, WG chairmen have so far handled the items in the best possible manner. Also, significant meeting time and Ad Hocs have been dedicated to these two topics.

RP-040081 Proposed Work Item on High Speed Uplink Packet Access (Ericsson)

Per Beming (Ericsson) presented this new proposal, which is also supported by the following companies: Nokia, Nortel, Vodafone Group, Motorola, Qualcomm, TeliaSonera, Alcatel, T-mobile, Lucent Technologies, Samsung, Philips, LG Electronics, NEC, Orange, Telefonica, NTT DoCoMo, and Siemens.

Giovanni Romano (Telecom Italia) reminded of the PAR issue for HS-DPCCH and requested that this topic is handled at an early stage of the development of this new Uplink channel.
Hashem Madadi (Three) noted that the timescale proposed may imply that the Work Item is intended for Rel-6, and requested that the freezing of the Release is not delayed to include the item. The chairman reminded that the decision on the inclusion of a given item in a Release is taken near the completion date, and that Work Items are not associated to Releases at their creation.
The new Work Item is approved

RP-040078 Proposed Work Item for HS-DPCCH enhancement (Philips)

Jussi Kathava (Nokia) presented this proposal, which is supported by the following companies: Nokia, Philips, Siemens and Mitsubishi
This WI is based on the work done in the Study on Radio Link Performance enhancements. Jussi clarified that the scope of the WI is only HS-DPCCH enhancement, which seems to be a part of the work under HSDPA enhancements that is completed.
Several companies expressed concern on approving this item before the study has finished and before the associated TR has been presented.
It was questioned if the performance requirements for CQI reporting that WG4 has recently approved for Rel-6 would have to be eventually revised with this "enhanced CQI". Jussi Numminen (Nokia) didn't expect that the enhancements proposed to the physical layer would have impact on the BS HSDPA performance requirements that WG4 has just approved.

It was agreed that a revised proposal will be presented in next RAN, the proponents will have to take into consideration the issues raised here and also provide information on the results of the study on this particular topic of HS-DPCCH enhancements. TR 25.899 seems to contain this information, it will have to be presented here even if it is still at v0.5.0.
The proposed WID is not approved

RP-040136 Proposed Work Item on Optimisation of downlink channelisation code utilisation (Nortel)

Sarah Boumendil (Nortel) presented this proposal, which is also supported by Vodafone, Ericsson and Qualcomm
Three, Telecom Italia, Telefonica and Alcatel expressed support for this WI.
Sarah clarified that this is a generic WI on code optimization, different techniques would have their own description. This was found inconvenient as the WI description is unclear.
There was general support for the idea of having a Work Item on optimization of codes, but the Description Sheet presented was objected, notably the justification section.
Finally, the WI is approved but the Description Sheet will need to be revised in WG1.

RP-040130 Proposed WI on optimization of DL and UL channelization code utilisation for TDD (IPWireless)

Derek Richards (IPWireless) presented this proposal, which is also supported by InterDigital, Softbank and Alcatel
Derek suggested to merge this Item with the one for FDD. Dirk Gerstenberger (WG1 chairman) reminded that the topics to study are substantially different for TDD(i.e. no compress mode in TDD), it makes sense to keep it separated.
It is also noted that companies that sign a WI commit to work on it, and in this case the proponents of RP-040136 are unlikely to contribute on the TDD part.
It was finally preferred to keep two separate items, and RP-040130 is also approved, subject to the revision of the cover sheet in WG1.

RP-040134 Proposed WID for Improvement of support of existing beamforming techniques (Alcatel)

Bern Haberland (Alcatel) presented this proposal, which is also supported by Nortel Networks.
It is noted that there are only two supporting companies, instead of the four required. Dirk Gerstenberger (WG1 chairman) noted that WG1 is still discussing papers on these improvements, but results haven't been shown.
The proponents are suggested to bring the proposal for discussion to next WG1 meeting, conditional to having the four required supporting companies.
The proposal is not approved, companies potential supporting companies may contact Alcatel.

9 Technical co-ordination among WGs

It was suggested several times during the meetings that WGs should look after co-locating the meetings. WG chairmen are encouraged to agree on common dates and places.

10 Outputs to other groups

No outputs

11 Project management

RP-040089 RAN WIs and SIs, active and closed (3GPP support)

This document is for information

John Meredith (Mobile Competence Center) presented the documents below documents.

RP-040114 CRs to lists of specs (3GPP Support)
No comments, the document is noted

RP-040115 Make 21.801 Release-independent (3GPP Support)
No comments, agreed. It will be presented in SA for approval

RP-040116 Status list before TSG #23 (3GPP Support)
John clarified that the list is updated immediately after the TSGs and then 3 weeks after the end of the TSGs. John also noted that there is an html version updated almost daily on the web site on the following link:
http://www.3gpp.org/ftp/Specs/html-info/status-report.htm

RP-040117 Revised WID form (3GPP Support)
It is noted that RAN has very few WI linked to other groups, the relative duration doesn't bring significant benefit to RAN.
It is also noted that RAN Study Items are not considered in the form. John agreed to add a way to identify them.
The form is agreed, it will be presented in SA for approval.

Cesar Gutierrez (secretary) presented the documents below:

RP-040125 Overview of 3GPP Release 99, Summary of all Release 99 Features (3GPP Support)
Final version of this document, which contains a high-level description of the Release 99 Features.

RP-040126 Overview of 3GPP Release 4, Summary of all Release 4 Features (3GPP Support)
First draft of the document for Release 4. Presented for information.

The Summary of Rel-5 features has already been presented and can be obtained from the 3GPP web site:
http://www.3gpp.org/tb/Other/Rel5_features_v_2003_09_09.doc

MCC will produce a Rel-6 document as well, aiming to have it ready for the freezing of the Release.

12 Any other business

No discussions

13 Closing of the meeting

The chairman closed the meeting at 16:45 on Friday 12th. He thanked the host for the organization and the social event, and wished everybody a safe trip home.

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).

Tdoc	Title	Source	'Decision'
RP-040001	Draft agenda meeting #23	Chairman	Approved
RP-040002	Revised draft report meeting #22	3GPP Support	Approved
RP-040003	Status Report for WI Improvement of inter-frequency and inter-system measurement	Nokia	Noted
RP-040004	Status Report for WI UMTS 1.7/2.1 GHz	Nokia	Noted
RP-040005	Status Report for WI Improved Receiver Performance Requirements for HSDPA	Nokia	Withdrawn
RP-040006	Status Report for WI Performance Requirements of Receive Diversity for HSDPA	NTT DoCoMo	Noted
RP-040007	Status Report for WI RAB support enhancement	Nokia	Noted
RP-040008	Status Report for WI Iu enhancements for IMS support in RAN	Nortel	Noted
RP-040009	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-040010	Status Report for WI Remote Control of Electrical Tilting Antennas	Vodafone	Noted
RP-040011	Status Report for WI Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-side aspects	Vodafone	Noted
RP-040012	Status Report for WI UE positioning enhancements - other methods	Siemens	Noted
RP-040013	Status Report for WI A-GPS minimum performance specification	ATT	Noted
RP-040014	Status Report for WI Introduction of MBMS in RAN	Nokia	Noted
RP-040015	Status Report for WI Multiple Input Multiple Output antennas (MIMO)	Lucent	Noted
RP-040016	Status Report for WI Subscriber and equipment trace in UTRAN	Nortel	Noted
RP-040017	Status Report for WI Enhancement of the support of network sharing in the UTRAN	TeliaSonera	Noted
RP-040018	Status Report for FS on Radio link performance enhancements	Nokia Networks	Noted
RP-040019	Status Report for FS on UTRA WideBand Distribution Systems	Tekmar	Withdrawn
RP-040020	Status Report for FS for the analysis of OFDM for UTRAN enhancement	Nortel	Revised in 124
RP-040021	Status Report for FS on Uplink Enhancements for Dedicated Transport Channels	Nokia	Agreed
RP-040022	Status Report for FS on Analysis on Higher Chip Rates for UTRA TDD evolutions	IPWireless	Noted
RP-040023	Status Report for FS on the evolution of the UTRAN architecture	Nokia	Noted
RP-040024	Status Report for FS on Low Output Powers for general purpose FDD BSs	Telefonica	Noted
RP-040025	Status Report for FS on Uplink enhancements for UTRA TDD	Interdigital	Noted
RP-040026	Status Report WG1	RAN WG1 Chairman	Noted
RP-040027	List of CRs RAN WG1	RAN WG1	Noted
RP-040028	Status Report WG2	RAN WG2 Chairman	Noted
RP-040029	List of CRs RAN WG2	RAN WG2	Noted
RP-040030	Status Report WG3	RAN WG3 Chairman	Noted
RP-040031	List of CRs RAN WG3	RAN WG3	Noted
RP-040032	Status Report WG4	RAN WG4 Chairman	Noted
RP-040033	List of CRs RAN WG4	RAN WG4	Noted
RP-040034	CRs (R99 and Rel-4/Rel-5/Rel-6 Category A) to TS25.133 on "Inter system HO from UTRAN FDD to GSM"	RAN WG4	Approved

Tdoc	Title	Source	'Decision'
RP-040035	CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS25.123 on "Test case for SFN-SFN observed time difference type 2 for 1.28Mcps TDD"	RAN WG4	Approved
RP-040036	CRs (Rel-5 and Rel-6 Category A) to TS25.101	RAN WG4	Approved
RP-040037	CRs (Rel-5 and Rel-6 Category A) to TS25.133 on "Test case for multipath fading intra-frequency cell identification"	RAN WG4	Approved
RP-040038	CRs (Rel-5 and Rel-6 Category A) to TR25.942, TR25.945, TS34.124 & TR34.926 for "Correction of references to ITU recommendations"	RAN WG4	Approved
RP-040039	CRs (Rel-6) to TS25.101, TS25.104, TS25.133, TS25.141 for the introduction of UMTS 1.7/2.1 GHz requirements	RAN WG4	Approved
RP-040040	CRs (Rel-6) to TS25.104, TS25.141 for the protection of UTRA FDD UE & BS in bands IV and VI operating in areas where UTRA FDD is deployed in other bands	RAN WG4	Approved
RP-040041	CRs (Rel-6) to TS25.104, TS25.141 for the introduction of performance requirements for ACK/NACK detection for HS-DPCCH	RAN WG4	Partially approved
RP-040042	CRs (Rel-6) to TS25.101, TS25.123, TS25.133 and TS25.141 for small enhancements and improvements	RAN WG4	Approved
RP-040043	CRs (Rel-6) to TS25.101, TS25.104, TS25.141 for reduction of channel numbers for UMTS800 (band VI)	RAN WG4	Approved
RP-040044	Technically Endorsed CRs (R99 and Rel-4/Rel-5/Rel-6 Category A) to TS25.133 on "Minimum requirements for TPC combining in soft HO"	RAN WG4	Approved
RP-040045	CR 338r2 to 25.141 Rel-6 Performance requirements for HS-DPCCH signaling detection	Fujitsu	Approved
RP-040046	TR 25.896 v2.0.0 "Feasibility Study for Enhanced Uplink for UTRA FDD (Release 6)	Nokia	Approved
RP-040047	LS on Network Selection	TSG SA WG1	Noted
RP-040048	Reply LS on “Multiple MBMS Issues” (Response to S4-030847)	TSG SA WG2	Noted
RP-040049	Reply LS (to S4-030847) on Multiple MBMS Issues from SA-WG2 (S2-040459)	TSG RAN WG2	Noted
RP-040050	Reply LS to S5-038807 = R3-031822 on RAN Work Item '"Control of Remote Electrical Tilting Antenna" and possible impact on TSG SA 5'	TSG RAN WG3	Noted
RP-040051	TR 25.806 v1.0.1 UMTS 1700/2100 MHz Work Item Technical Report	Nokia/ RAN WG4	Approved
RP-040052	CRs (Rel-4 and Rel-5, Rel-6 Category A) to TS 25.423, Correction of RL Congestion Indication	RAN WG3	Approved
RP-040053	CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS 25.423, TS 25.423 and (Rel-5 and Rel-6 Category A) to TS 25.453 on Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	RAN WG3	Approved
RP-040054	Technically endorsed CRs (Rel-5 and Rel-6 Category A) to TS 25.401, TS 25.410, TS 25.414, TS 25.420, TS 25.426, TS 25.430 , Introduction of ITU-T Q.2631.1 for interworking solution 3	RAN WG3	Rejected
RP-040055	Technically endorsed CRs (Rel-5 and Rel-6 Category A) to TS 25.401, TS 25.410, TS 25.414, TS 25.420, TS 25.426, TS 25.430 , Completion of the REL-5 IP Transport WI by removing the 3rd interworking option	RAN WG3	Rejected
RP-040056	Technically endorsed CRs (Rel-5 and Rel-6 Category A) to TS 25.411, Emulated Layer 1 for Rel-5 ATM-IP interworking	RAN WG3	Rejected
RP-040057	Technically endorsed CRs (Rel-5, Rel-6 Category A) to TS 25.423, DCH Information Response Issue	RAN WG3	Approved
RP-040058	CRs (Rel-4 and Rel-5, Rel-6 Category A) to TS 25.433, NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message	RAN WG3	Approved
RP-040059	CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS 25.423, and one CR (Rel-4) to TS 25.433 on Correction to the threshold of Rx Timing Deviation LCR in tabular	RAN WG3	Approved

Tdoc	Title	Source	'Decision'
RP-040060	CRs (Rel-5 and Rel-6 Category A) to TS 25.426 on Diffserv marking	RAN WG3	Approved
RP-040061	CRs (Rel-5 and Rel-6 Category A) to TS 25.424, TS 25.434 on Inclusion of HSDPA	RAN WG3	Approved
RP-040062	CRs (Rel-5 and Rel-6 Category A) to TS 25.413	RAN WG3	Approved
RP-040063	CRs (Rel-5 and Rel-6 Category A) to TS 25.419 on Broadcast Message Content IE	RAN WG3	Approved
RP-040064	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Setting of TGPSI	RAN WG3	Approved
RP-040065	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Corrections for HS-DSCH Configuration Signalling	RAN WG3	Approved
RP-040066	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Priority Queue ID for HSDPA	RAN WG3	Approved
RP-040067	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Correction Related to HS-DSCH Information Response	RAN WG3	Approved
RP-040068	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Extension of the range of PCCPCH RSCP	RAN WG3	Approved
RP-040069	CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on Introduction of the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	RAN WG3	Approved
RP-040070	CRs (Rel-5 and Rel-6 Category A) to TS 25.423	RAN WG3	Approved
RP-040071	CRs (Rel-5 and Rel-6 Category A) to TS 25.433	RAN WG3	Approved
RP-040072	CRs (Rel-5 and Rel-6 Category A) to TS 25.453	RAN WG3	Approved
RP-040073	CRs (Rel-5 and Rel-6 Category A) to TS 25.425, TS 25.435 on Common Transport Channel Priority Indicator for HSDPA	RAN WG3	Approved
RP-040074	CR (Rel-6 Category B) to TS 25.423 on Introduction of UE measurement forwarding over the Iur for TDD	RAN WG3	Approved
RP-040075	CR (Rel-6 Category F) to TS 25.453 on Initial UE Position IE only mandatory necessary for GPS	RAN WG3	Approved
RP-040076	TR 25.807 Low Output Powers for general purpose FDD BSs	RAN WG3	Approved
RP-040077	LS on TSG RAN task to TSG RAN WG3 regarding ATM/IP-Interworking	TSG RAN WG3	Noted
RP-040078	Proposed Work Item for HS-DPCCH enhancement	Philips	Not approved
RP-040079	TS25.346 Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2) Version 2.6.0	Nokia	Approved
RP-040080	Draft TR 25.998 UTRAN recommendation and UE allowance for non-essential corrections of a feature made only in a later release	Nortel, RAN WG2 chairman	Not approved
RP-040081	Proposed Work Item on High Speed Uplink Packet Access	Ericsson	Approved
RP-040082	Proposed Work Item on Optimisation of downlink channelisation code utilisation	Nortel	Revised in 136
RP-040083	TR 25.887 v2.0.0 Beamforming Enhancement	Nokia	Approved
RP-040084	Independent Release 4 CR to TS 25.225 and the shadow CRs to Release 5 and Release 6	RAN WG1	Approved
RP-040085	Independent Release 5 CRs to TS 25.212 and the shadow CRs to Release 6	RAN WG1	Approved
RP-040086	Independent Release 5 CRs to TS 25.214 and the shadow CRs to Release 6	RAN WG1	Approved
RP-040087	Independent Release 6 CR to TS 25.211 on Re-Introduction of S-CPICH in combination with Closed Loop TxDiversity	RAN WG1	Rejected
RP-040088	Linked Release 6 CRs to TS 25.225(RAN1), TS25.302 (RAN2), TS 25.423 (RAN3), TS 25.443 (RAN3) on Interference measurement in UpPTS for 1.28Mcps TDD	RAN WG1	Approved
RP-040089	RAN WIs and SIs, active and closed	3GPP support	Noted
RP-040090	CRs on 25.307 (R99 onwards) and 25.331 (Rel-6) on the introduction of UMTS 1700/2100 (Band IV)	RAN WG2	Approved

Tdoc	Title	Source	'Decision'
RP-040091	CRs on 25.307 (R99 onwards) and 25.331 (Rel-6) on the introduction of UMTS 850 (Band V)	RAN WG2	Approved
RP-040092	Frequency band alignment with TS 25.101: CRs on 25.307 (R99 onwards) on Bands I, II, III and VI. CR on 25.331 (Rel-5) on Bands I, II and III. CR on 25.331 (Rel-6) on Band VI	RAN WG2	Approved
RP-040093	CRs on 25.307(R99 onwards) on additional performance requirement for UMTS800 (Band VI)	RAN WG2	Approved
RP-040094	CRs on 25.304 (R99 onwards)	RAN WG2	Approved
RP-040095	CRs on 25.331 (R99 onwards) (1)	RAN WG2	Approved
RP-040096	CRs on 25.331 (R99 onwards) (2)	RAN WG2	Approved
RP-040097	CRs on 25.331 (R99 onwards) (3)	RAN WG2	Approved
RP-040098	CRs on 25.921 (R99 onwards)	RAN WG2	Approved
RP-040099	CRs on 25.922 (R99 onwards)	RAN WG2	Approved
RP-040100	CRs on 25.993 (R99 affected, Rel-6 version)	RAN WG2	Approved
RP-040101	CRs on 25.331 (Rel-4 onwards)	RAN WG2	Approved
RP-040102	CRs on 25.306 (Rel-5 onwards)	RAN WG2	Approved
RP-040103	CRs on 25.308 (Rel-5 onwards)	RAN WG2	Approved
RP-040104	CRs on 25.321 (Rel-5 onwards)	RAN WG2	Approved
RP-040105	CRs on 25.331 (Rel-5 onwards) on Invalid Simultaneous Reconfiguration Criteria (Technically endorsed)	RAN WG2	Partially approved
RP-040106	CRs on 25.331 (Rel-5 onwards) on Signalling of MAC-hs Reset	RAN WG2	Approved
RP-040107	CRs on 25.331 (Rel-5 onwards) (1)	RAN WG2	Partially approved
RP-040108	CRs on 25.331 (Rel-5 onwards) (2)	RAN WG2	Partially approved
RP-040109	CR on 25.993 (Rel-5 affected, Rel-6 version)	RAN WG2	Approved
RP-040110	CR on 25.331 (Rel-6)	RAN WG2	Approved
RP-040111	Status Report ITU-R AH	ITU-R Ad Hoc Contact Person	Noted
RP-040112	Proposed Update reminder for the OPs on the compliance with ITU-R procedures as it relates to Revision 4 of Recommendation ITU-R M.1457	ITU-R Ad Hoc	Approved
RP-040113	UE maximum power reduction when HS-DPCCH is transmitted	Nokia	Noted
RP-040114	CRs to lists of specs	3GPP Support	Noted
RP-040115	Make 21.801 Release-independent	3GPP Support	Agreed
RP-040116	Status list before TSG #23	3GPP Support	Noted
RP-040117	Revised WID form	3GPP Support	Agreed
RP-040118	LS reply on RAN Work Item "Control of Remote Electrical Tilting Antenna" and possible impact on SA5	TSG SA WG5 SWGD	Noted
RP-040119	TR25.892 v1.1.0 "Feasibility Study for OFDM for UTRAN enhancement"	Nortel	Noted
RP-040120	Cover page of TR25.887 "Beamforming Enhancements" (RP-040083)	Nokia	Noted
RP-040121	CR2253r1 to 25.331 (Rel-6) on the introduction of UMTS 1700/2100 (Band IV) (Revision of CR in RP-040090)	Nokia	Approved
RP-040122	TR25.862v1.0.0 RAB support for IMS	Nokia	Noted
RP-040123	CR331r11 & CR342r3 to 25.214 (Rel-5 & Rel-6) on Clarification on the reconfiguration of HSDPA	Panasonic, Philips, Nokia	Not approved
RP-040124	Status Report for FS for the analysis of OFDM for UTRAN enhancement	Nortel	Noted
RP-040125	Overview of 3GPP Release 99, Summary of all Release 99 Features	3GPP Support	Noted
RP-040126	Overview of 3GPP Release 4, Summary of all Release 4 Features	3GPP Support	Noted
RP-040127	Rel-5 IP/ATM-Interworking: Interworking Option 3	Three, NEC, Siemens	Noted

Tdoc	Title	Source	'Decision'
RP-040128	Discussion on HSDPA reconfiguration	Ericsson	Noted
RP-040129	Proposed CR to TS25.331 "HSDPA capability for multimode FDD-TDD terminal"	Qualcomm, Nortel, Ericsson	Approved
RP-040130	Proposed WI on optimization of DL and UL channelization code utilization for TDD	IPWireless	Approved
RP-040131	Revised CRs 2216, 2217, 2266, 2267, 2268, 2269, 2270, 2271 to 25.331 (from RP-040107 and RP-040108)	TSG RAN	Approved
RP-040132	Finalisation of Rel-5 IP-ATM interworking	Motorola, Nokia	Noted
RP-040133	IP-ATM interworking compromise proposal (contains example CRs to 25.401 Rel-5 and 25.414 Rel-5	Nokia	Not approved
RP-040134	Proposed WID for Improvement of support of existing beamforming techniques	Alcatel	Not approved
RP-040135	Guidance to WGs for prioritization of WIs and SIs	Ericsson, Telecom Italia, Vodafone	Noted
RP-040136	Proposed Work Item on Optimisation of downlink channelisation code utilisation	Nortel	Approved
RP-040137	UE maximum output power with HS-DPCCH (Proposed CR to 25.101 Rel-5)	Motorola, Nokia, Fujitsu	Noted
RP-040138	PAR back off simulation analysis assumptions	Motorola, Nokia, Fujitsu	Email approval

Annex C: List of CRs presented at TSG RAN #23

The table below lists all the CRs presented at RAN#23, regardless of their final status.

Spec	CR	R	Rel	Current Version	Cat	TSG Doc	TSG Status	Subject	Work Item	WG	WG Doc
25.133	651	1	R99	3.16.0	F	RP-040034	Approved	Inter system HO from UTRAN FDD to GSM	TEI	R4	R4-040156
25.133	652	1	Rel-4	4.11.0	A	RP-040034	Approved	Inter system HO from UTRAN FDD to GSM	TEI	R4	R4-040157
25.133	653	1	Rel-5	5.9.0	A	RP-040034	Approved	Inter system HO from UTRAN FDD to GSM	TEI	R4	R4-040158
25.133	654	1	Rel-6	6.4.0	A	RP-040034	Approved	Inter system HO from UTRAN FDD to GSM	TEI	R4	R4-040159
25.123	334	1	Rel-4	4.11.0	F	RP-040035	Approved	Test case for SFN-SFN observed time difference type 2 for 1.28Mcps TDD	LCRTDD-RF	R4	R4-040138
25.123	335	1	Rel-5	5.7.0	A	RP-040035	Approved	Test case for SFN-SFN observed time difference type 2 for 1.28Mcps TDD	LCRTDD-RF	R4	R4-040139
25.123	336	1	Rel-6	6.0.0	A	RP-040035	Approved	Test case for SFN-SFN observed time difference type 2 for 1.28Mcps TDD	LCRTDD-RF	R4	R4-040140
25.101	327		Rel-5	5.9.0	F	RP-040036	Approved	Clarification of frequency error observation period for PRACH preambles	TEI5	R4	R4-040075
25.101	328		Rel-6	6.3.0	A	RP-040036	Approved	Clarification of frequency error observation period for PRACH preambles	TEI5	R4	R4-040076
25.101	332		Rel-5	5.9.0	F	RP-040036	Approved	Correction of a typo in section 9.3.2.2. (CQI Testing for UE Capability Categories 11 and 12)	HSDPA-RF	R4	R4-040100
25.101	333		Rel-5	5.9.0	F	RP-040036	Approved	Minimum requirements for UE ACS	TEI5	R4	R4-040129
25.101	334		Rel-6	6.3.0	A	RP-040036	Approved	Minimum requirements for UE ACS	TEI5	R4	R4-040130
25.133	648	1	Rel-5	5.9.0	F	RP-040037	Approved	Test case for multipath fading intra-frequency cell identification	TEI5	R4	R4-040131
25.133	649	1	Rel-6	6.4.0	A	RP-040037	Approved	Test case for multipath fading intra-frequency cell identification	TEI5	R4	R4-040132
25.942	012		Rel-5	5.1.0	F	RP-040038	Approved	Correction of references to ITU recommendations	TEI5	R4	R4-040037
25.942	013		Rel-6	6.1.0	A	RP-040038	Approved	Correction of references to ITU recommendations	TEI5	R4	R4-040041
25.945	002		Rel-5	5.0.0	F	RP-040038	Approved	Correction of references to ITU recommendations	TEI5	R4	R4-040038
34.124	015		Rel-5	5.3.0	F	RP-040038	Approved	Correction of references to ITU recommendations	TEI5	R4	R4-040039
34.926	001		Rel-5	5.0.0	F	RP-040038	Approved	Correction of references to ITU recommendations	TEI5	R4	R4-040040
25.101	324		Rel-6	6.3.0	B	RP-040039	Approved	Introduction of UMTS 1.7/2.1 GHz requirements	RInImp-UMTS1721	R4	R4-040027
25.104	216	1	Rel-6	6.4.0	B	RP-040039	Approved	Introduction of UMTS 1.7/2.1 GHz requirements	RInImp-UMTS1721	R4	R4-040119
25.133	650	1	Rel-6	6.4.0	F	RP-040039	Approved	Introduction of band IV, V and VI requirements	RInImp-UMTS850; UMTS800; UMTS1721	R4	R4-040148
25.141	336	1	Rel-6	6.4.0	B	RP-040039	Approved	Introduction of UMTS 1.7/2.1 GHz requirements	RInImp-UMTS1721	R4	R4-040120
25.104	217		Rel-6	6.4.0	F	RP-040040	Approved	Co-existence with UTRA FDD in frequency band IV	TEI6	R4	R4-040030

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25.104	219		Rel-6	6.4.0	F	RP-040040	Approved	Co-existence with UTRA FDD in frequency band VI	TEI6	R4	R4-040051
25.141	337		Rel-6	6.4.0	F	RP-040040	Approved	Co-existence with UTRA FDD in frequency band IV	TEI6	R4	R4-040031
25.141	339		Rel-6	6.4.0	F	RP-040040	Approved	Co-existence with UTRA FDD in frequency band VI	TEI6	R4	R4-040052
25.104	218		Rel-6	6.4.0	B	RP-040041	Approved	Performance requirements for HS-DPCCH signaling detection	HSDPA-RF	R4	R4-040034
25.141	338	1	Rel-6	6.4.0	B	RP-040041	Revised	Performance requirements for HS-DPCCH signaling detection	HSDPA-RF	R4	R4-040166
25.101	325		Rel-6	6.3.0	F	RP-040042	Approved	Additional spurious emission requirements for Bands II and V to protect 1.7/2.1 GHz	TEI6	R4	R4-040032
25.101	326		Rel-6	6.3.0	F	RP-040042	Approved	Additional spurious emission requirements for Band I to protect UMTS800	TEI6	R4	R4-040050
25.101	329	1	Rel-6	6.3.0	F	RP-040042	Approved	Clarification to Power on/off time mask diagram	TEI6	R4	R4-040074
25.123	339	1	Rel-6	6.0.0	F	RP-040042	Approved	Some correction to GSM reselection in CELL_FACH for 1.28Mcps TDD	LCRTDD-RF	R4	R4-040141
25.133	647	1	Rel-6	6.4.0	F	RP-040042	Approved	Clarify measurement control for FDD/FDD Inter-frequency Hard Handover test case	TEI6	R4	R4-040155
25.141	341		Rel-6	6.4.0	B	RP-040042	Approved	Introduction of DCH performance test requirements for BS without Rx diversity	TEI6	R4	R4-040072
25.101	331		Rel-6	6.3.0	F	RP-040043	Approved	Reduction of channel number for UMTS800(band VI)	RInImp-UMTS800	R4	R4-040086
25.104	221		Rel-6	6.4.0	F	RP-040043	Approved	Reduction of channel number for UMTS800(band VI)	RInImp-UMTS800	R4	R4-040087
25.141	342		Rel-6	6.4.0	F	RP-040043	Approved	Reduction of channel number for UMTS800(band VI)	RInImp-UMTS800	R4	R4-040088
25.101	335	1	R99	3.16.0	F	RP-040044	Approved	Minimum requirements for TPC combining in soft Handover	TEI	R4	R4-040162
25.101	336	1	Rel-4	4.10.0	A	RP-040044	Approved	Minimum requirements for TPC combining in soft Handover	TEI	R4	R4-040163
25.101	337	1	Rel-5	5.9.0	A	RP-040044	Approved	Minimum requirements for TPC combining in soft Handover	TEI	R4	R4-040164
25.101	338	1	Rel-6	6.3.0	A	RP-040044	Approved	Minimum requirements for TPC combining in soft Handover	TEI	R4	R4-040165
25.141	338	2	Rel-6	6.4.0	B	RP-040045	Approved	Performance requirements for HS-DPCCH signaling detection	HSDPA-RF	R4	
25.423	899	-	Rel-4	4.11.0	F	RP-040052	Approved	Correction of RL Congestion Indication	TEI4	R3	R3-040185
25.423	900	-	Rel-5	5.8.0	A	RP-040052	Approved	Correction of RL Congestion Indication	TEI4	R3	R3-040186
25.423	901	-	Rel-6	6.0.0	A	RP-040052	Approved	Correction of RL Congestion Indication	TEI4	R3	R3-040187
25.413	639	-	Rel-4	4.11.0	F	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040282
25.413	640	-	Rel-5	5.7.0	A	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040283
25.413	641	-	Rel-6	6.0.0	A	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040284
25.423	923	-	Rel-4	4.11.0	F	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for	TEI4	R3	R3-040316

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								Ellipsoid Arc			
25.423	924	-	Rel-5	5.8.0	A	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040317
25.423	925	-	Rel-6	6.0.0	A	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040318
25.453	067	-	Rel-5	5.8.0	F	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040319
25.453	068	-	Rel-6	6.3.0	A	RP-040053	Approved	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	TEI4	R3	R3-040320
25.401	077	2	Rel-5	5.7.0	F	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040486
25.401	078	2	Rel-6	6.2.0	A	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040487
25.410	045	2	Rel-5	5.3.0	F	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040488
25.410	046	2	Rel-6	6.0.0	A	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040489
25.414	072	2	Rel-5	5.5.0	F	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040490
25.414	073	2	Rel-6	6.0.0	A	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040491
25.420	033	2	Rel-5	5.1.0	F	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040492
25.420	034	2	Rel-6	6.0.0	A	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040493
25.426	033	2	Rel-5	5.3.0	F	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040494
25.426	034	2	Rel-6	6.0.0	A	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040495
25.430	043	2	Rel-5	5.2.0	F	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040496
25.430	044	2	Rel-6	6.0.0	A	RP-040054	Rejected	Introduction of ITU-T Q.2631.1 for interworking solution 3	ETRAN-IPtrans	R3	R3-040497
25.401	082	1	Rel-5	5.7.0	F	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040523
25.401	083	1	Rel-6	6.2.0	A	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040524
25.410	050	1	Rel-5	5.3.0	F	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040525
25.410	051	1	Rel-6	6.0.0	A	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040526
25.414	076	1	Rel-5	5.5.0	F	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040527
25.414	077	1	Rel-6	6.0.0	A	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040528
25.420	038	1	Rel-5	5.1.0	F	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040529
25.420	039	1	Rel-6	6.0.0	A	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040530
25.426	039	1	Rel-5	5.3.0	F	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040531
25.426	040	1	Rel-6	6.0.0	A	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040532
25.430	047	1	Rel-5	5.2.0	F	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the 3rd IP-ATM interworking option	ETRAN-iptrans	R3	R3-040533
25.430	048	1	Rel-6	6.0.0	A	RP-040055	Rejected	Completion of the Rel-5 IP transport WI by removing the	ETRAN-iptrans	R3	R3-040534

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								3rd IP-ATM interworking option			
25.411	012	3	Rel-5	5.0.0	F	RP-040056	Rejected	Emulated Layer 1 for Rel-5 ATM-IP interworking	ETRAN-IPtrans	R3	R3-040535
25.411	013	3	Rel-5	6.0.0	A	RP-040056	Rejected	Emulated Layer 1 for Rel-5 ATM-IP interworking	ETRAN-IPtrans	R3	R3-040536
25.423	950	-	Rel-5	5.8.0	F	RP-040057	Approved	DCH Information Response Issue	TEI5	R3	R3-040549
25.423	951	-	Rel-6	6.0.0	A	RP-040057	Approved	DCH Information Response Issue	TEI5	R3	R3-040550
25.433	970	-	Rel-4	4.11.0	F	RP-040058	Approved	NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message	TEI4	R3	R3-040329
25.433	971	1	Rel-5	5.7.0	A	RP-040058	Approved	NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message	TEI4	R3	R3-040472
25.433	972	1	Rel-6	6.0.0	A	RP-040058	Approved	NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message	TEI4	R3	R3-040473
25.423	930	-	Rel-4	4.11.0	F	RP-040059	Approved	Correction to the threshold of Rx Timing Deviation LCR in tabular	TEI4	R3	R3-040394
25.423	931	-	Rel-5	5.8.0	A	RP-040059	Approved	Correction to the threshold of Rx Timing Deviation LCR in tabular	TEI4	R3	R3-040395
25.423	932	-	Rel-6	6.0.0	A	RP-040059	Approved	Correction to the threshold of Rx Timing Deviation LCR in tabular	TEI4	R3	R3-040396
25.433	976	-	Rel-4	4.11.0	F	RP-040059	Approved	Correction to the threshold of Rx Timing Deviation LCR in tabular	TEI4	R3	R3-040397
25.426	035	-	Rel-5	5.3.0	F	RP-040060	Approved	Diffserv marking is configurable	ETRAN-IPtrans	R3	R3-040246
25.426	036	-	Rel-6	6.0.0	A	RP-040060	Approved	Diffserv marking is configurable	ETRAN-IPtrans	R3	R3-040247
25.424	27	-	Rel-5	5.3.0	F	RP-040061	Approved	Inclusion of HSDPA	HSDPA-Iublur	R3	R3-040415
25.424	28	-	Rel-6	6.0.0	A	RP-040061	Approved	Inclusion of HSDPA	HSDPA-Iublur	R3	R3-040416
25.434	29	-	Rel-5	5.3.0	F	RP-040061	Approved	Inclusion of HSDPA	HSDPA-Iublur	R3	R3-040357
25.434	30	-	Rel-6	6.0.0	A	RP-040061	Approved	Inclusion of HSDPA	HSDPA-Iublur	R3	R3-040358
25.413	633	-	Rel-5	5.7.0	F	RP-040062	Approved	Correction of GERAN related Release 5 IEs	TEI5	R3	R3-040188
25.413	634	-	Rel-6	6.0.0	A	RP-040062	Approved	Correction of GERAN related Release 5 IEs	TEI5	R3	R3-040189
25.413	635	1	Rel-5	5.7.0	F	RP-040062	Approved	Causes used in RANAP	TEI5	R3	R3-040518
25.413	636	1	Rel-6	6.0.0	A	RP-040062	Approved	Causes used in RANAP	TEI5	R3	R3-040519
25.413	637	-	Rel-5	5.7.0	F	RP-040062	Approved	Inaccuracies in the specification of the Overload procedure	TEI5	R3	R3-040235
25.413	638	-	Rel-6	6.0.0	A	RP-040062	Approved	Inaccuracies in the specification of the Overload procedure	TEI5	R3	R3-040236
25.413	642	1	Rel-5	5.7.0	F	RP-040062	Approved	Clarification on Iu reset procedure	TEI5	R3	R3-040538
25.413	643	1	Rel-6	6.0.0	A	RP-040062	Approved	Clarification on Iu reset procedure	TEI5	R3	R3-040539
25.413	645	2	Rel-5	5.7.0	F	RP-040062	Approved	Integrity Status Correction	TEI5	R3	R3-040544
25.413	648	1	Rel-5	5.7.0	F	RP-040062	Approved	Coding of Discontinuous Transmission/No_Data mode	TEI5	R3	R3-040483
25.413	652	-	Rel-6	6.0.0	A	RP-040062	Approved	Integrity Status Correction	TEI5	R3	R3-040445
25.413	654	-	Rel-6	6.0.0	A	RP-040062	Approved	Coding of Discontinuous Transmission/No_Data mode	TEI5	R3	R3-040447
25.419	131	1	Rel-5	5.6.0	F	RP-040063	Approved	Correction to 25.419 for Broadcast Message Content IE	TEI5	R3	R3-040470

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25.419	132	1	Rel-6	6.0.0	A	RP-040063	Approved	Correction to 25.419 for Broadcast Message Content IE	TEI5	R3	R3-040471
25.423	948	-	Rel-5	5.8.0	F	RP-040064	Approved	Setting of TGPSI	TEI5	R3	R3-040542
25.423	949	-	Rel-6	6.0.0	A	RP-040064	Approved	Setting of TGPSI	TEI5	R3	R3-040543
25.433	986	-	Rel-5	5.7.0	F	RP-040064	Approved	Setting of TGPSI	TEI5	R3	R3-040540
25.433	987	-	Rel-6	6.0.0	A	RP-040064	Approved	Setting of TGPSI	TEI5	R3	R3-040541
25.423	911	1	Rel-5	5.8.0	F	RP-040065	Approved	Corrections for HS-DSCH Configuration Signalling	HSDPA-Iublur	R3	R3-040480
25.423	912	-	Rel-6	6.0.0	A	RP-040065	Approved	Corrections for HS-DSCH Configuration Signalling	HSDPA-Iublur	R3	R3-040265
25.433	959	-	Rel-5	5.7.0	F	RP-040065	Approved	Corrections for HS-DSCH Configuration Signalling	HSDPA-Iublur	R3	R3-040264
25.433	960	-	Rel-6	6.0.0	A	RP-040065	Approved	Corrections for HS-DSCH Configuration Signalling	HSDPA-Iublur	R3	R3-040266
25.423	913	1	Rel-5	5.8.0	F	RP-040066	Approved	Priority Queue ID for HSDPA	HSDPA-Iublur	R3	R3-040478
25.423	914	1	Rel-6	6.0.0	A	RP-040066	Approved	Priority Queue ID for HSDPA	HSDPA-Iublur	R3	R3-040479
25.433	961	1	Rel-5	5.7.0	F	RP-040066	Approved	Priority Queue ID for HSDPA	HSDPA-Iublur	R3	R3-040476
25.433	962	1	Rel-6	6.0.0	A	RP-040066	Approved	Priority Queue ID for HSDPA	HSDPA-Iublur	R3	R3-040477
25.423	929	-	Rel-5	5.8.0	F	RP-040067	Approved	Correction related to HS-DSCH Information Response	HSDPA-Iublur	R3	R3-040387
25.423	939	-	Rel-6	6.0.0	A	RP-040067	Approved	Correction related to HS-DSCH Information Response	HSDPA-Iublur	R3	R3-040412
25.433	975	-	Rel-5	5.7.0	F	RP-040067	Approved	Correction related to HS-DSCH Information Response	HSDPA-Iublur	R3	R3-040388
25.433	983	-	Rel-6	6.0.0	A	RP-040067	Approved	Correction related to HS-DSCH Information Response	HSDPA-Iublur	R3	R3-040413
25.423	933	-	Rel-5	5.8.0	F	RP-040068	Approved	Extension of the range of PCCPCH RSCP	TEI5	R3	R3-040398
25.423	934	-	Rel-6	6.0.0	A	RP-040068	Approved	Extension of the range of PCCPCH RSCP	TEI5	R3	R3-040399
25.433	977	-	Rel-5	5.7.0	F	RP-040068	Approved	Extension of the range of PCCPCH RSCP	TEI5	R3	R3-040400
25.433	978	-	Rel-6	6.0.0	A	RP-040068	Approved	Extension of the range of PCCPCH RSCP	TEI5	R3	R3-040401
25.423	935	-	Rel-5	5.8.0	F	RP-040069	Approved	Introduce the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	TEI5	R3	R3-040402
25.423	936	-	Rel-6	6.0.0	A	RP-040069	Approved	Introduce the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	TEI5	R3	R3-040403
25.433	979	-	Rel-5	5.7.0	F	RP-040069	Approved	Introduce the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	TEI5	R3	R3-040404
25.433	980	-	Rel-6	6.0.0	A	RP-040069	Approved	Introduce the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	TEI5	R3	R3-040405
25.423	907	-	Rel-5	5.8.0	F	RP-040070	Approved	Ignore Criticality for RL Activation Command	TEI5	R3	R3-040248
25.423	908	-	Rel-6	6.0.0	A	RP-040070	Approved	Ignore Criticality for RL Activation Command	TEI5	R3	R3-040249
25.423	909	-	Rel-5	5.8.0	F	RP-040070	Approved	Ignore Criticality for RL Parameter Update	TEI5	R3	R3-040250
25.423	910	-	Rel-6	6.0.0	A	RP-040070	Approved	Ignore Criticality for RL Parameter Update	TEI5	R3	R3-040251
25.423	921	-	Rel-5	5.8.0	F	RP-040070	Approved	Correction of ASN.1 code	TEI5	R3	R3-040292
25.423	922	-	Rel-6	6.0.0	A	RP-040070	Approved	Correction of ASN.1 code	TEI5	R3	R3-040293
25.423	941	-	Rel-5	5.8.0	F	RP-040070	Approved	Criticality Settings for HSDPA	HSDPA-Iublur	R3	R3-040455
25.423	942	-	Rel-6	6.0.0	A	RP-040070	Approved	Criticality Settings for HSDPA	HSDPA-Iublur	R3	R3-040456
25.423	943	-	Rel-5	5.8.0	F	RP-040070	Approved	GA Incompatibility issue	TEI5	R3	R3-040462
25.423	944	-	Rel-6	6.0.0	A	RP-040070	Approved	GA Incompatibility issue	TEI5	R3	R3-040463
25.433	953	1	Rel-5	5.7.0	F	RP-040071	Approved	Enabling of closed loop transmit diversity in TDD mode	TEI5	R3	R3-040464
25.433	954	1	Rel-6	6.0.0	A	RP-040071	Approved	Enabling of closed loop transmit diversity in TDD mode	TEI5	R3	R3-040465
25.433	955	-	Rel-5	5.7.0	F	RP-040071	Approved	Correction of Reconfiguration of Multiple Radio Links in TDD	TEI5	R3	R3-040210

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25.433	956	-	Rel-6	6.0.0	A	RP-040071	Approved	Correction of Reconfiguration of Multiple Radio Links in TDD	TEI5	R3	R3-040211
25.433	967	1	Rel-5	5.7.0	F	RP-040071	Approved	Correction of the Dedicated Measurement Initiation procedure with “All NBCC”.	TEI5	R3	R3-040484
25.433	968	1	Rel-6	6.0.0	A	RP-040071	Approved	Correction of the Dedicated Measurement Initiation procedure with “All NBCC”.	TEI5	R3	R3-040485
25.433	973	-	Rel-5	5.7.0	F	RP-040071	Approved	NBAP Corrections for TDD	TEI5	R3	R3-040332
25.433	974	-	Rel-6	6.0.0	A	RP-040071	Approved	NBAP Corrections for TDD	TEI5	R3	R3-040333
25.433	984	-	Rel-5	5.7.0	F	RP-040071	Approved	Correction to HS-SCCH Code Range	HSDPA-Iublur	R3	R3-040453
25.433	985	-	Rel-6	6.0.0	A	RP-040071	Approved	Correction to HS-SCCH Code Range	HSDPA-Iublur	R3	R3-040454
25.453	70	1	Rel-5	5.8.0	F	RP-040072	Approved	PCAP Review	TEI5	R3	R3-040510
25.453	71	1	Rel-6	6.3.0	A	RP-040072	Approved	PCAP Review	TEI5	R3	R3-040551
25.425	068	-	Rel-5	5.6.0	F	RP-040073	Approved	Common Transport Channel Priority Indicator for HSDPA	HSDPA-Iublur	R3	R3-040194
25.425	069	-	Rel-6	6.0.0	A	RP-040073	Approved	Common Transport Channel Priority Indicator for HSDPA	HSDPA-Iublur	R3	R3-040195
25.435	110	-	Rel-5	5.6.0	F	RP-040073	Approved	Common Transport Channel Priority Indicator for HSDPA	HSDPA-Iublur	R3	R3-040192
25.435	111	-	Rel-6	6.0.0	A	RP-040073	Approved	Common Transport Channel Priority Indicator for HSDPA	HSDPA-Iublur	R3	R3-040193
25.423	903	1	Rel-6	6.0.0	B	RP-040074	Approved	Introduction of UE measurement forwarding over the Iur for TDD	RANimp-RRMopt-UEMsD	R3	R3-040460
25.453	69	-	Rel-6	6.3.0	F	RP-040075	Approved	Initial UE Position IE only mandatory necessary for GPS	TEI6	R3	R3-040325
25.225	076	1	Rel-4	4.7.0	F	RP-040084	Approved	Clarification of TA definition for 1.28Mcps TDD	LCRTDDphys	R1	R1-040367
25.225	077	1	Rel-5	5.6.0	A	RP-040084	Approved	Clarification of TA definition for 1.28Mcps TDD	LCRTDDphys	R1	R1-040367
25.225	078	1	Rel-6	6.0.0	A	RP-040084	Approved	Clarification of TA definition for 1.28Mcps TDD	LCRTDDphys	R1	R1-040367
25.212	181	3	Rel-5	5.7.0	F	RP-040085	Approved	CCTrCH definition extension to HS-DSCH	TEI5	R1	R1-040327
25.212	187	1	Rel-6	6.0.0	A	RP-040085	Approved	CCTrCH definition extension to HS-DSCH	TEI5	R1	R1-040327
25.214	340	-	Rel-5	5.7.0	F	RP-040086	Approved	Beta values for HS-DPCCH in compressed mode	HSDPA-Phys	R1	R1-040180
25.214	341	-	Rel-6	6.0.0	A	RP-040086	Approved	Beta values for HS-DPCCH in compressed mode	HSDPA-Phys	R1	R1-040180
25.214	345	1	Rel-5	5.7.0	F	RP-040086	Approved	ACK/NACK repetition factor	HSDPA-Phys	R1	R1-040374
25.214	346	1	Rel-6	6.0.0	A	RP-040086	Approved	ACK/NACK repetition factor	HSDPA-Phys	R1	R1-040374
25.211	189	-	Rel-6	6.0.0	B	RP-040087	Rejected	Re-Introduction of S-CPICH in combination with Closed Loop TxDiversity	TEI6	R1	R1-040179
25.225	069	1	Rel-6	6.0.0	B	RP-040088	Approved	Interference measurement in UpPTS for 1.28Mcps TDD	TEI6	R1	R1-040173
25.302	145	-	Rel-6	6.0.0	B	RP-040088	Approved	Interference measurement in UpPTS for 1.28Mcps TDD	TEI6	R2	R2-040714
25.423	902	-	Rel-6	6.0.0	B	RP-040088	Approved	Interference measurement in UpPTS for 1.28Mcps TDD	TEI6	R3	R3-040190
25.433	952	-	Rel-6	6.0.0	B	RP-040088	Approved	Interference measurement in UpPTS for 1.28Mcps TDD	TEI6	R3	R3-040191
25.307	020	-	R99	3.2.0	F	RP-040090	Approved	Introduction of UMTS1700/2100 (Band IV)	Rinimp-UMTS1721	R2	R2-040623
25.307	021	-	Rel-4	4.2.0	A	RP-040090	Approved	Introduction of UMTS1700/2100 (Band IV)	Rinimp-UMTS1721	R2	R2-040624
25.307	022	-	Rel-5	5.1.0	A	RP-040090	Approved	Introduction of UMTS1700/2100 (Band IV)	Rinimp-UMTS1721	R2	R2-040625
25.307	023	-	Rel-6	6.0.0	A	RP-040090	Approved	Introduction of UMTS1700/2100 (Band IV)	Rinimp-UMTS1721	R2	R2-040626
25.331	2253	-	Rel-6	6.0.1	B	RP-040090	Revised	Introduction of UMTS1700/2100 (Band IV)	RinImp-	R2	R2-040627

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									UMTS1721		
25.307	024	-	R99	3.2.0	F	RP-040091	Approved	Introduction of UMTS850 (Band V)	Rinimp-UMTS850	R2	R2-040629
25.307	025	-	Rel-4	4.2.0	A	RP-040091	Approved	Introduction of UMTS850 (Band V)	Rinimp-UMTS850	R2	R2-040630
25.307	026	-	Rel-5	5.1.0	A	RP-040091	Approved	Introduction of UMTS850 (Band V)	Rinimp-UMTS850	R2	R2-040631
25.307	027	-	Rel-6	6.0.0	A	RP-040091	Approved	Introduction of UMTS850 (Band V)	Rinimp-UMTS850	R2	R2-040632
25.331	2254	-	Rel-6	6.0.1	B	RP-040091	Approved	Introduction of UMTS850 (Band V)	RinImp-UMTS850	R2	R2-040628
25.307	015	1	Rel-5	5.1.0	A	RP-040092	Approved	Frequency band alignment with 25.101	Rinimp-UMTS1721, Rinimp-UMTS1800, Rinimp-UMTS1900	R2	R2-040349
25.307	016	1	Rel-6	6.0.0	A	RP-040092	Approved	Frequency band alignment with 25.101	Rinimp-UMTS1721, Rinimp-UMTS1800, Rinimp-UMTS1900	R2	R2-040350
25.307	017	-	R99	3.2.0	F	RP-040092	Approved	Frequency band alignment with 25.101	Rinimp-UMTS1721, Rinimp-UMTS1800, Rinimp-UMTS1900	R2	R2-040346
25.307	018	-	Rel-4	4.2.0	A	RP-040092	Approved	Frequency band alignment with 25.101	Rinimp-UMTS1721, Rinimp-UMTS1800, Rinimp-UMTS1900	R2	R2-040347
25.331	2228	-	Rel-5	5.7.1	F	RP-040092	Approved	Frequency band alignment with 25.101	Rinimp-UMTS1721, Rinimp-UMTS1900, Rinimp-UMTS1800	R2	R2-040263
25.331	2229	-	Rel-6	6.0.1	F	RP-040092	Approved	Frequency band alignment with 25.101	Rinimp-UMTS1721, Rinimp-UMTS1900,	R2	R2-040264

Spec	CR	R	Rel	Current Version	Cat	TSG Doc	TSG Status	Subject	Work Item	WG	WG Doc
									Rinimp-UMTS1800,		
25.307	011	-	R99	3.2.0	F	RP-040093	Approved	Additional performance requirement for UMTS800	Rinimp-UMTS800	R2	R2-040221
25.307	012	-	Rel-4	4.2.0	A	RP-040093	Approved	Additional performance requirement for UMTS800	Rinimp-UMTS800	R2	R2-040222
25.307	013	-	Rel-5	5.1.0	A	RP-040093	Approved	Additional performance requirement for UMTS800	Rinimp-UMTS800	R2	R2-040223
25.304	108	1	R99	3.13.0	F	RP-040094	Approved	H criteria & High mobility reselection	TEI	R2	R2-040705
25.304	109	1	Rel-4	4.7.0	A	RP-040094	Approved	H criteria & High mobility reselection	TEI	R2	R2-040706
25.304	110	1	Rel-5	5.3.0	A	RP-040094	Approved	H criteria & High mobility reselection	TEI	R2	R2-040707
25.304	111	1	Rel-6	6.0.0	A	RP-040094	Approved	H criteria & High mobility reselection	TEI	R2	R2-040708
25.331	2165	2	R99	3.17.0	F	RP-040095	Approved	Response on SRNS Relocation with Cell Update	TEI	R2	R2-040606
25.331	2166	2	Rel-4	4.12.0	A	RP-040095	Approved	Response on SRNS Relocation with Cell Update	TEI	R2	R2-040607
25.331	2167	2	Rel-5	5.7.1	A	RP-040095	Approved	Response on SRNS Relocation with Cell Update	TEI	R2	R2-040608
25.331	2168	2	Rel-6	6.0.1	A	RP-040095	Approved	Response on SRNS Relocation with Cell Update	TEI	R2	R2-040609
25.331	2169	-	R99	3.17.0	F	RP-040095	Approved	TPC Combination Index in SRNC relocation	TEI	R2	R2-040200
25.331	2170	-	Rel-4	4.12.0	A	RP-040095	Approved	TPC Combination Index in SRNC relocation	TEI	R2	R2-040201
25.331	2171	-	Rel-5	5.7.1	A	RP-040095	Approved	TPC Combination Index in SRNC relocation	TEI	R2	R2-040202
25.331	2172	-	Rel-6	6.0.1	A	RP-040095	Approved	TPC Combination Index in SRNC relocation	TEI	R2	R2-040203
25.331	2177	1	R99	3.17.0	F	RP-040095	Approved	Invalidation of START value in USIM/UE.	TEI	R2	R2-040311
25.331	2178	1	Rel-4	4.12.0	A	RP-040095	Approved	Invalidation of START value in USIM/UE.	TEI	R2	R2-040312
25.331	2179	1	Rel-5	5.7.1	A	RP-040095	Approved	Invalidation of START value in USIM/UE.	TEI	R2	R2-040313
25.331	2180	1	Rel-6	6.0.1	A	RP-040095	Approved	Invalidation of START value in USIM/UE.	TEI	R2	R2-040314
25.331	2181	1	R99	3.17.0	F	RP-040095	Approved	Uplink Integrity protection handling in case of N302 increment	TEI	R2	R2-040337
25.331	2182	1	Rel-4	4.12.0	A	RP-040095	Approved	Uplink Integrity protection handling in case of N302 increment	TEI	R2	R2-040338
25.331	2183	1	Rel-5	5.7.1	A	RP-040095	Approved	Uplink Integrity protection handling in case of N302 increment	TEI	R2	R2-040339
25.331	2184	1	Rel-6	6.0.1	A	RP-040095	Approved	Uplink Integrity protection handling in case of N302 increment	TEI	R2	R2-040340
25.331	2185	1	R99	3.17.0	F	RP-040095	Approved	Amount of reporting for UE-based and UE assisted A-GPS	TEI	R2	R2-040476
25.331	2186	1	Rel-4	4.12.0	A	RP-040095	Approved	Amount of reporting for UE-based and UE assisted A-GPS	TEI	R2	R2-040477
25.331	2187	1	Rel-5	5.7.1	A	RP-040095	Approved	Amount of reporting for UE-based and UE assisted A-GPS	TEI	R2	R2-040478
25.331	2188	1	Rel-6	6.0.1	A	RP-040095	Approved	Amount of reporting for UE-based and UE assisted A-GPS	TEI	R2	R2-040479
25.331	2218	-	R99	3.17.0	F	RP-040096	Approved	Correction to event 6D	TEI	R2	R2-040270
25.331	2219	-	Rel-4	4.12.0	A	RP-040096	Approved	Correction to event 6D	TEI	R2	R2-040271
25.331	2220	-	Rel-5	5.7.1	A	RP-040096	Approved	Correction to event 6D	TEI	R2	R2-040272

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25.331	2221	-	Rel-6	6.0.1	A	RP-040096	Approved	Correction to event 6D	TEI	R2	R2-040273
25.331	2222	1	R99	3.17.0	F	RP-040096	Approved	Correction to UE positioning reporting for GPS standalone operation mode	TEI	R2	R2-040305
25.331	2223	1	Rel-4	4.12.0	A	RP-040096	Approved	Correction to UE positioning reporting for GPS standalone operation mode	TEI	R2	R2-040306
25.331	2224	1	Rel-5	5.7.1	A	RP-040096	Approved	Correction to UE positioning reporting for GPS standalone operation mode	TEI	R2	R2-040307
25.331	2225	1	Rel-6	6.0.1	A	RP-040096	Approved	Correction to UE positioning reporting for GPS standalone operation mode	TEI	R2	R2-040308
25.331	2230	1	R99	3.17.0	F	RP-040096	Approved	Initialisation of virtual active set	TEI	R2	R2-040670
25.331	2231	1	Rel-4	4.12.0	A	RP-040096	Approved	Initialisation of virtual active set	TEI	R2	R2-040671
25.331	2232	-	R99	3.17.0	F	RP-040096	Approved	UTRAN setting of the activation time for TM bearers in Ciphering Mode info IE	TEI	R2	R2-040582
25.331	2234	-	Rel-5	5.7.1	A	RP-040096	Approved	UTRAN setting of the activation time for TM bearers in Ciphering Mode info IE	TEI	R2	R2-040584
25.331	2235	-	Rel-6	6.0.1	A	RP-040096	Approved	UTRAN setting of the activation time for TM bearers in Ciphering Mode info IE	TEI	R2	R2-040585
25.331	2236	-	R99	3.17.0	F	RP-040096	Approved	Corrections to "Entered parameter"	TEI	R2	R2-040586
25.331	2237	-	Rel-4	4.12.0	A	RP-040096	Approved	Corrections to "Entered parameter"	TEI	R2	R2-040587
25.331	2238	-	Rel-5	5.7.1	A	RP-040096	Approved	Corrections to "Entered parameter"	TEI	R2	R2-040588
25.331	2239	-	Rel-6	6.0.1	A	RP-040096	Approved	Corrections to "Entered parameter"	TEI	R2	R2-040589
25.331	2272	-	Rel-4	4.12.0	A	RP-040096	Approved	UTRAN setting of the activation time for TM bearers in Ciphering Mode info IE	TEI	R2	R2-040583
25.331	2240	-	R99	3.17.0	F	RP-040097	Approved	Corrections to TFC Subset Functionality	TEI	R2	R2-040590
25.331	2241	-	Rel-4	4.12.0	A	RP-040097	Approved	Corrections to TFC Subset Functionality	TEI	R2	R2-040591
25.331	2242	-	Rel-5	5.7.1	A	RP-040097	Approved	Corrections to TFC Subset Functionality	TEI	R2	R2-040592
25.331	2243	-	Rel-6	6.0.1	A	RP-040097	Approved	Corrections to TFC Subset Functionality	TEI	R2	R2-040593
25.331	2244	1	R99	3.17.0	F	RP-040097	Approved	Waiting for RLC-ACK on UMI	TEI	R2	R2-040719
25.331	2245	1	Rel-4	4.12.0	A	RP-040097	Approved	Waiting for RLC-ACK on UMI	TEI	R2	R2-040720
25.331	2246	1	Rel-5	5.7.1	A	RP-040097	Approved	Waiting for RLC-ACK on UMI	TEI	R2	R2-040721
25.331	2247	1	Rel-6	6.0.1	A	RP-040097	Approved	Waiting for RLC-ACK on UMI	TEI	R2	R2-040722
25.331	2278	-	R99	3.17.0	F	RP-040097	Approved	Issues related to Inter-RAT and Inter-frequency handovers	TEI	R2	R2-040692
25.331	2279	-	Rel-4	4.12.0	A	RP-040097	Approved	Issues related to Inter-RAT and Inter-frequency handovers	TEI	R2	R2-040693
25.331	2280	-	Rel-5	5.7.1	A	RP-040097	Approved	Issues related to Inter-RAT and Inter-frequency handovers	TEI	R2	R2-040694
25.331	2281	-	Rel-6	6.0.1	A	RP-040097	Approved	Issues related to Inter-RAT and Inter-frequency handovers	TEI	R2	R2-040695
25.331	2282	-	R99	3.17.0	F	RP-040097	Approved	Corrections to reconfiguration scenarios and ciphering of TM RBs	TEI	R2	R2-040701
25.331	2283	-	Rel-4	4.12.0	A	RP-040097	Approved	Corrections to reconfiguration scenarios and ciphering of TM RBs	TEI	R2	R2-040702

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25.331	2284	1	Rel-5	5.7.1	F	RP-040097	Approved	Corrections to reconfiguration scenarios and ciphering of TM RBs	TEI5	R2	R2-040717
25.331	2285	1	Rel-6	6.0.1	A	RP-040097	Approved	Corrections to reconfiguration scenarios and ciphering of TM RBs	TEI5	R2	R2-040718
25.921	049	-	R99	3.9.0	F	RP-040098	Approved	Spare Extension in Data Frame	TEI	R2	R2-040187
25.921	050	-	Rel-4	4.6.0	A	RP-040098	Approved	Spare Extension in Data Frame	TEI	R2	R2-040188
25.921	051	-	Rel-5	5.3.0	A	RP-040098	Approved	Spare Extension in Data Frame	TEI	R2	R2-040189
25.921	52	1	R99	3.9.0	F	RP-040098	Approved	Guideline on release independent ASN.1 updates	TEI	R2	R2-040319
25.921	53	2	Rel-4	4.6.0	A	RP-040098	Approved	Guideline on release independent ASN.1 updates	TEI	R2	R2-040344
25.921	54	2	Rel-5	5.3.0	A	RP-040098	Approved	Guideline on release independent ASN.1 updates	TEI	R2	R2-040345
25.921	55	-	R99	3.9.0	F	RP-040098	Approved	Guideline on the use of variable length containers for late extensions	TEI	R2	R2-040247
25.921	56	-	Rel-4	4.6.0	A	RP-040098	Approved	Guideline on the use of variable length containers for late extensions	TEI	R2	R2-040248
25.921	57	-	Rel-5	5.3.0	A	RP-040098	Approved	Guideline on the use of variable length containers for late extensions	TEI	R2	R2-040249
25.921	58	-	R99	3.9.0	F	RP-040098	Approved	Guideline for the naming of extensions to the RRC ASN.1	TEI	R2	R2-040300
25.921	59	-	Rel-4	4.6.0	A	RP-040098	Approved	Guideline for the naming of extensions to the RRC ASN.1	TEI	R2	R2-040301
25.921	60	-	Rel-5	5.3.0	A	RP-040098	Approved	Guideline for the naming of extensions to the RRC ASN.1	TEI	R2	R2-040302
25.922	28	-	R99	3.7.0	F	RP-040099	Approved	Creation of "empty" pointer to the Rel-6 version to upgrade the TR as "release independent" status	TEI	R2	R2-040676
25.922	29	-	Rel-4	4.2.0	A	RP-040099	Approved	Creation of "empty" pointer to the Rel-6 version to upgrade the TR as "release independent" status	TEI	R2	R2-040677
25.922	30	-	Rel-5	5.2.0	A	RP-040099	Approved	Creation of "empty" pointer to the Rel-6 version to upgrade the TR as "release independent" status.	TEI	R2	R2-040678
25.922	31	-	Rel-6	5.2.0	F	RP-040099	Approved	Corrections and alignment with core specifications. Upgrade to the "Release independent" status and creation of the Rel-6.	TEI6	R2	R2-040679
25.993	19	-	Rel-6	6.4.0	F	RP-040100	Approved	Alignment with 34.108 for TDD	TEI	R2	R2-040652
25.993	24	-	Rel-6	6.4.0	F	RP-040100	Approved	S-CCPCH combination for HS-DSCH channel type switching	TEI	R2	R2-040652
25.331	2189	1	Rel-4	4.12.0	F	RP-040101	Approved	Ensuring decoding possibility related to Introduction of new bands	RinImp-UMTS800	R2	R2-040315
25.331	2190	1	Rel-5	5.7.1	A	RP-040101	Approved	Ensuring decoding possibility related to Introduction of new bands	RinImp-UMTS800	R2	R2-040316
25.331	2191	1	Rel-6	6.0.1	F	RP-040101	Approved	Ensuring decoding possibility related to Introduction of new bands	RinImp-UMTS800	R2	R2-040317
25.331	2195	1	Rel-4	4.12.0	F	RP-040101	Approved	Clarification to multimode indication	TEI	R2	R2-040636
25.331	2196	1	Rel-5	5.7.1	A	RP-040101	Approved	Clarification to multimode indication	TEI	R2	R2-040637
25.331	2197	2	Rel-6	6.0.1	A	RP-040101	Approved	Clarification to multimode indication	TEI	R2	R2-040638
25.331	2198	-	Rel-4	4.12.0	F	RP-040101	Approved	Correction for 1.28 Mcps TDD Power Control	LCRTDD_L23	R2	R2-040241
25.331	2199	-	Rel-5	5.7.1	A	RP-040101	Approved	Correction for 1.28 Mcps TDD Power Control	LCRTDD_L23	R2	R2-040242
25.331	2200	-	Rel-6	6.0.1	A	RP-040101	Approved	Correction for 1.28 Mcps TDD Power Control	LCRTDD_L23	R2	R2-040243

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25.331	2201	-	Rel-4	4.12.0	F	RP-040101	Approved	Missing "pdcp-SN-info" in ASN.1 IE "RB-InformationReconfig-r4"	TEI4	R2	R2-040244
25.331	2202	-	Rel-5	5.7.1	A	RP-040101	Approved	Missing "pdcp-SN-info" in ASN.1 IE "RB-InformationReconfig-r4"	TEI4	R2	R2-040245
25.331	2203	-	Rel-6	6.0.1	A	RP-040101	Approved	Missing "pdcp-SN-info" in ASN.1 IE "RB-InformationReconfig-r4"	TEI4	R2	R2-040246
25.331	2250	1	Rel-4	4.12.0	F	RP-040101	Approved	General correction and alignment of the ASN.1 and tabular	TEI4	R2	R2-040680
25.331	2251	1	Rel-5	5.7.1	F	RP-040101	Approved	General correction and alignment of the ASN.1 and tabular	TEI5	R2	R2-040681
25.331	2252	1	Rel-6	6.0.1	A	RP-040101	Approved	General correction and alignment of the ASN.1 and tabular	TEI5	R2	R2-040682
25.331	2255	-	Rel-4	4.12.0	F	RP-040101	Approved	Introduction of VLEC in every message branch	TEI4	R2	R2-040633
25.331	2256	-	Rel-5	5.7.1	F	RP-040101	Approved	Introduction of VLEC in every message branch	TEI5	R2	R2-040634
25.331	2257	-	Rel-6	6.0.1	A	RP-040101	Approved	Introduction of VLEC in every message branch	TEI5	R2	R2-040635
25.331	2275	-	Rel-4	4.12.0	F	RP-040101	Approved	Misalignments between R'99 and Rel-4 procedures	TEI4	R2	R2-040685
25.306	92	-	Rel-5	5.7.0	F	RP-040102	Approved	Simultaneous Reception of S-CCPCH and HS-DSCH	HSDPA-L23	R2	R2-040641
25.306	93	-	Rel-6	6.0.0	A	RP-040102	Approved	Simultaneous Reception of S-CCPCH and HS-DSCH	HSDPA-L23	R2	R2-040642
25.306	94	-	Rel-5	5.7.0	F	RP-040102	Approved	Correction to memory check in UE	HSDPA-L23	R2	R2-040654
25.306	95	-	Rel-6	6.0.0	A	RP-040102	Approved	Correction to memory check in UE	HSDPA-L23	R2	R2-040655
25.308	007	-	Rel-5	5.4.0	F	RP-040103	Approved	Corrections to HS-DSCH cell change, applicability of HS-DSCH and Need for Re-ordering queue	HSDPA-L23	R2	R2-040656
25.308	008	-	Rel-6	6.0.0	F	RP-040103	Approved	Corrections to HS-DSCH cell change, applicability of HS-DSCH and Need for Re-ordering queue	HSDPA-L23	R2	R2-040657
25.321	185	1	Rel-5	5.7.0	F	RP-040104	Approved	UE handling of NDI and TBS for HSDPA	HSDPA_L23	R2	R2-040324
25.321	186	1	Rel-6	6.0.0	A	RP-040104	Approved	UE handling of NDI and TBS for HSDPA	HSDPA_L23	R2	R2-040325
25.321	187	-	Rel-5	5.7.0	F	RP-040104	Approved	HSDPA related corrections on MAC-hs reconfiguration	HSDPA_L23	R2	R2-040658
25.321	188	-	Rel-6	6.0.0	A	RP-040104	Approved	HSDPA related corrections on MAC-hs reconfiguration	HSDPA_L23	R2	R2-040659
25.321	189	-	Rel-5	5.7.0	F	RP-040104	Approved	Reconfiguration of soft memory buffer partitioning	HSDPA_L23	R2	R2-040660
25.321	190	-	Rel-6	6.0.0	A	RP-040104	Approved	Reconfiguration of soft memory buffer partitioning	HSDPA_L23	R2	R2-040661
25.331	2248	-	Rel-5	5.7.1	F	RP-040105	Rejected	Invalid Simultaneous Reconfiguration Criteria	TEI5	R2	R2-040604
25.331	2249	-	Rel-6	6.0.1	F	RP-040105	Approved	Invalid Simultaneous Reconfiguration Criteria	TEI6	R2	R2-040605
25.331	2264	2	Rel-5	5.7.1	F	RP-040106	Approved	Signalling of MAC-hs Reset	HSDPA-L23	R2	R2-040731
25.331	2265	2	Rel-6	6.0.1	A	RP-040106	Approved	Signalling of MAC-hs Reset	HSDPA-L23	R2	R2-040732
25.331	2175	1	Rel-5	5.7.1	F	RP-040107	Approved	Correction to "Current TGPS Status Flag"	TEI5	R2	R2-040292
25.331	2176	1	Rel-6	6.0.1	A	RP-040107	Approved	Correction to "Current TGPS Status Flag"	TEI5	R2	R2-040293
25.331	2206	-	Rel-5	5.7.1	F	RP-040107	Approved	Corrections to HS-SCCH info	HSDPA-L23	R2	R2-040255
25.331	2207	-	Rel-6	6.0.1	A	RP-040107	Approved	Corrections to HS-SCCH info	HSDPA-L23	R2	R2-040256
25.331	2208	-	Rel-5	5.7.1	F	RP-040107	Approved	Corrections to HS-PDSCH info	HSDPA_L23	R2	R2-040257
25.331	2209	-	Rel-6	6.0.1	A	RP-040107	Approved	Corrections to HS-PDSCH info	HSDPA_L23	R2	R2-040258
25.331	2212	-	Rel-5	5.7.1	F	RP-040107	Approved	Correction to activation time for HS-DSCH reconfiguration in TDD	HSDPA_L23	R2	R2-040261
25.331	2213	-	Rel-6	6.0.1	A	RP-040107	Approved	Correction to activation time for HS-DSCH reconfiguration	HSDPA_L23	R2	R2-040262

Spec	CR	R	Rel	Current Version	Cat	TSG Doc	TSG Status	Subject	Work Item	WG	WG Doc
								in TDD			
25.331	2216	2	Rel-5	5.7.1	F	RP-040107	Revised	Connected mode handling IE 'CN domain system information' in SIB1	TEI5	R2	R2-040674
25.331	2217	2	Rel-6	6.0.1	A	RP-040107	Revised	Connected mode handling IE 'CN domain system information' in SIB1	TEI5	R2	R2-040675
25.331	2258	-	Rel-5	5.7.1	F	RP-040107	Approved	Simultaneous Reception of S-CCPCH and HS-DSCH	HSDPA-L23	R2	R2-040639
25.331	2259	-	Rel-6	6.0.1	A	RP-040107	Approved	Simultaneous Reception of S-CCPCH and HS-DSCH	HSDPA-L23	R2	R2-040640
25.331	2260	-	Rel-5	5.7.1	F	RP-040107	Approved	Cell reselection between UTRAN and GERAN Iu mode	GERUEV1-IuPS and GERUEV2-IuCS	R2	R2-040645
25.331	2261	-	Rel-6	6.0.1	A	RP-040107	Approved	Cell reselection between UTRAN and GERAN Iu mode	GERUEV1-IuPS and GERUEV2-IuCS	R2	R2-040646
25.331	2262	-	Rel-5	5.7.1	F	RP-040108	Approved	HSDPA related corrections on buffer flushing on state transitions, RAT transitions, error cases, MAC-hs reconfiguration and readiness to receive HS-PDSCH	HSDPA_L23	R2	R2-040645
25.331	2263	-	Rel-6	6.0.1	A	RP-040108	Approved	HSDPA related corrections on buffer flushing on state transitions, RAT transitions, error cases, MAC-hs reconfiguration and readiness to receive HS-PDSCH	HSDPA_L23	R2	R2-040646
25.331	2266	1	Rel-5	5.7.1	F	RP-040108	Revised	Modification of Inter-frequency CELL_INFO_LIST	TEI5	R2	R2-040727
25.331	2267	1	Rel-6	6.0.1	A	RP-040108	Revised	Modification of Inter-frequency CELL_INFO_LIST	TEI5	R2	R2-040728
25.331	2268	-	Rel-5	5.7.1	F	RP-040108	Revised	[VAS] 1B-1C conflicts when 1A is not configured	TEI5	R2	R2-040668
25.331	2269	-	Rel-6	6.0.1	A	RP-040108	Revised	[VAS] 1B-1C conflicts when 1A is not configured	TEI5	R2	R2-040669
25.331	2270	-	Rel-5	5.7.1	F	RP-040108	Revised	Handling of wait time in RRC connection reject	TEI5	R2	R2-040672
25.331	2271	-	Rel-6	6.0.1	A	RP-040108	Revised	Handling of wait time in RRC connection reject	TEI5	R2	R2-040673
25.331	2273	-	Rel-5	5.7.1	F	RP-040108	Approved	Misalignments between R'99 and Rel-5 procedures	TEI5	R2	R2-040683
25.331	2274	-	Rel-6	6.0.1	A	RP-040108	Approved	Misalignments between R'99 and Rel-5 procedures	TEI5	R2	R2-040684
25.993	25	-	Rel-6	6.4.0	F	RP-040109	Approved	DCH combination for HS-DSCH channel type switching	TEI5	R2	R2-040653
25.331	2286	4	Rel-6	6.0.1	C	RP-040110	Approved	Addition of “cell selection indication” for cell selection at release of RRC connection and RRC connection reject with re-direction	TEI6	R2	R2-040726
25.331	2253	1	Rel-6	6.0.1	B	RP-040121	Approved	Introduction of UMTS1700/2100 (Band IV)	RinImp-UMTS1721	R2	
25.214	331	11	Rel-5	5.7.0	F	RP-040123	Rejected	Clarification on reconfiguration of HSDPA	HSDPA-Phys	R1	
25.214	342	4	Rel-6	6.0.0	A	RP-040123	Rejected	Clarification on reconfiguration of HSDPA	HSDPA-Phys	R1	
25.331	2287	-	Rel-6	6.0.1	A	RP-040129	Approved	HSDPA capability for multimode FDD-TDD terminals	HSDPA_L23	R2	
25.331	2287	-	Rel-5	5.7.1	F	RP-040129	Approved	HSDPA capability for multimode FDD-TDD terminals	HSDPA_L23	R2	
25.331	2266	2	Rel-5	5.7.1	F	RP-040131	Approved	Modification of Inter-frequency CELL_INFO_LIST	TEI5	R2	
25.331	2267	2	Rel-6	6.0.1	A	RP-040131	Approved	Modification of Inter-frequency CELL_INFO_LIST	TEI5	R2	
25.331	2216	3	Rel-5	5.7.1	F	RP-040131	Approved	Connected mode handling IE 'CN domain system information' in SIB1	TEI5	R2	
25.331	2217	3	Rel-6	6.0.1	A	RP-040131	Approved	Connected mode handling IE 'CN domain system information' in SIB1	TEI5	R2	
25.331	2268	1	Rel-5	5.7.1	F	RP-040131	Approved	[VAS] 1B-1C conflicts when 1A is not configured	TEI5	R2	

Spec	CR	R	Rel	Current Version	Cat	TSG Doc	TSG Status	Subject	Work Item	WG	WG Doc
25.331	2269	1	Rel-6	6.0.1	A	RP-040131	Approved	[VAS] 1B-1C conflicts when 1A is not configured	TEI5	R2	
25.331	2270	1	Rel-5	5.7.1	F	RP-040131	Approved	Handling of wait time in RRC connection reject	TEI5	R2	
25.331	2271	1	Rel-6	6.0.1	A	RP-040131	Approved	Handling of wait time in RRC connection reject	TEI5	R2	

Annex D: 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	September 2004	RP-040003	Completion date changed from March 2004
BB	UMTS 1.7/2.1 GHz	RInImp-UMTS1721	R4	100	March 2004	RP-040004	WI finished & closed
BB	Improved Receiver Performance Requirements for HSDPA	RInImp-HSPerf	R4	30	September 2004	RP-040005	
WT	Performance Requirements of Receive Diversity for HSDPA	RInImp-HSPerf-RxDiv	R4	30	September 2004	RP-040006	
Feat	**RAN improvements**	RANimp	RP		March 2004		Generic feature
BB	RAB support enhancement	RANimp-RABSE	R2	50	September 2004	RP-040007	Work for Voice over IMS. Completion date changed from June 2004
WT	Iu enhancements for IMS support in RAN	RANimp-RABSE-IuEnhIMS	R3	25	6 months after SA WG2 part is finished	RP-040008	Completion changed from March 2004
WT	Optimisation of downlink channelisation code utilisation	RANimp-RABSE-CodeOptFDD	R1		December 2004		New WT, WIDS in RP-040136
WT	Optimisation of channelisation code utilisation for TDD	RANimp-RABSE-CodeOptTDD	R1		December 2004		New WT, WIDS in RP-040130
BB	Rel6 RRM optimization for Iur and Iub	RANimp-RRMopt	R3				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	100	March 2004	RP-040009	Work Item finished & closed
BB	Remote Control of Electrical Tilting Antennas	RANimp-TiltAnt	R3	45	September 2004	RP-040010	Completion date changed from March 2004
BB	Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-side aspects	RANimp-NACC	R3	50	June 2004	RP-040011	Completion date changed from March 2004

Type	WI Name	Acronym	Leading WG	%	Finish Date	Status Report	Remarks
BB	UE positioning	LCS2-UEpos	RP		September 2004		
WT	UE positioning enhancements - other methods	LCS2-UEpos-enh	R2	25	September 2004	RP-040012	Work in the area of IPDL enhancement
WT	A-GPS minimum performance specification	LCS-UEPos-AGPSPerf	R4	35	September 2004	RP-040013	Completion date changed from June 2004
BB	Introduction of MBMS in RAN	MBMS-RAN	R2	80	September 2004	RP-040014	
Feat	**Evolutions of the transport in the UTRAN**	ETRAN	RP				Generic feature
Feat	**Multiple Input Multiple Output antennas (MIMO)**	MIMO	R1	50	March 2005	RP-040015	Completion date changed from December 2004
BB	Multiple Input Multiple Output antennas - Physical layer	MIMO-Phys	R1	50	September 2004		
BB	Multiple Input Multiple Output antennas - Layer 2,3 aspects	MIMO-L23	R2	0	December 2004		Completion date changed from September 2004
BB	Multiple Input Multiple Output antennas - Iub/Iur Protocol Aspects	MIMO-IurIub	R3	0	December 2004		Completion date changed from September 2004
BB	Multiple Input Multiple Output antennas - RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing	MIMO-RF	R4	15	March 2005		Completion date changed from December 2004
WT	Subscriber and equipment trace in UTRAN	OAM-Trace-RAN	R3	60	June 2004	RP-040016	Completionm date changed from March 2004
BB	Enhancement of the support of network sharing in the UTRAN	NTShar-UTRANEnh	R2	25	3 months after NTShar is finished in SA	RP-040017	Completion date changed from June 2004
Feat	**FDD Enhanced Uplink**	EDCH	R2		September 2004		New Feature and BBs, WIDSs in RP-040081
BB	FDD Enhanced Uplink: Physical Layer	EDCH-Phys	R1		December 2004		
BB	FDD Enhanced Uplink: Layer 2 and 3 Protocol Aspects	EDCH-L23	R2		December 2004		
BB	FDD Enhanced Uplink: UTRAN Iub/Iur Protocol Aspects	EDCH-IurIub	R3		December 2004		
BB	FDD Enhanced Uplink: RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing	EDCH-RF	R4		December 2004		

Type	SI Name	Acronym	Leading WG	%	Finish Date	Status Report	Remarks
SI	FS on Radio link performance enhancements	RInImp-Rlperf	R1	70	June 2004	RP-040018	Completion date changed from March 2004
SI	FS on UTRA WideBand Distribution Systems	RInImp-WDS	R4	60	June 2004	RP-040019	Completion date changed from March 2004
SI	FS for the analysis of OFDM for UTRAN enhancement	RInImp-FSOFDM	R1	75	June 2004	RP-040124	
SI	FS on Uplink Enhancements for Dedicated Transport Channels	RInImp-FSUpDTrCh	R1	100	March 2004	RP-040021	Study finished & closed
SI	FS on Analysis on Higher Chip Rates for UTRA TDD evolutions	RInImp-FSVHCRTDD	R1	80	June 2004	RP-040022	
SI	FS on the evolution of the UTRAN architecture	RANimp-FSEvo	R3	35	July 2004	RP-040023	Completion date changed from March 2004
SI	FS on Low Output Powers for general purpose FDD BSs	RInImp-FSLoPw	R3	100	March 2004	RP-040024	Study finished & closed
SI	FS on Uplink enhancements for UTRA TDD	RInImp-FSUpEnhTDD	R1	10	September 2004	RP-040025	

Annex E: Meeting schedule

TSG RAN meetings:

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

TSG RAN WG1 meetings:

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

TSG RAN WG2 & WG3 meetings:

Meeting #	Date	Host	Location
42	10 - 14 May 2004	North American Friends of 3GPP	Montreal, Canada
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
31	10 - 14 May 2004	CATT	China
32	16 -20 August 2004	European Friends of 3GPP	Prague, Czech Republic
33	15 - 19 November 2004	NEC	Shin Yokohama, Japan

Annex F: List of actions

TSG RAN chairman

- To make RP-040112 " Proposed Update reminder for the OPs on the compliance with ITU-R procedures as it relates to Revision 4 of Recommendation ITU-R M.1457" available to 3GPP PCG (sec. 7.1)
- To report to TSG SA the delay in the WI "Iu enhancements for IMS support" due to the lack of clarification from CN and SA WG2 (sec. 8.2.1.1)

All TSG RAN WGs

- To ensure that isolated impact analysis is made for every Rel-5 CR (sec. 7.3.1).

TSG RAN WG1

- To continue the discussion on HSDPA reconfiguration (sec. 7.2.5.1)
- To communicate with WG4 on the work on IPDL enhancements carried out under the Positioning Enhancements WI (sec.8.3.1)
- To update the Description Sheet of the "Radio link performance enhancements" Study as agreed in sec. 8.11.1
- To revise the WI Description Sheets for the Optimizacion of channelisation code utilization, for FDD and TDD, in documents RP-040136 and RP-040130 (sec. 8.12)

TSG RAN WG4

- To discuss and endorse the assumptions for the system level simulations for the PAR on HS-DPCCH transmission as in Annex G of this report (sec. 7.5.2.1)

Annex G: Methodology and simulation assumptions for the HSDPA PAR/back off

It is important to quantify the coverage impact for different TFCs when reducing the PA maximum power level to meet ACLR and other requirements while the HS-DPCCH is transmitted. The amount of PA maximum power reduction or PA back-off needed has been determined to be a function of, β_c , β_d the code channel gain factors determining code channel power for the DPCCH and DPDCH.

A methodology is given on computing a coverage area metric based on per TFC total Ec/Nt. Examples of the required information to perform each step in the methodology is then given.

Methodology

1) Choose a reference TFC for determining minimum uplink cell coverage of deployed WCDMA system
2) Choose TFCS including TFCs for speech and mix of data rates including reference TFC
3) Choose βc, βd such that DPCCH Ec/Nt is the same across all TFCs while achieving the required DPDCH Ec/Nt (for a channel model such as Pedestrian B 3km/h) to achieve a target BLER.
4) Choose a βhs/βc from [2] so that per TFC HS-DPCCH Ec/Nt achieves target Ec/Nt (e.g. -19.5dB)(note that the reference TFC has a zero βhs while the other TFCs have a βhs to achieve target Ec/Nt)
5) Compare total Ec/Nt computed for each TFC to the reference TFC total Ec/Nt to get delta Ec/Nt
6) Modify per TFC delta Ec/Nt with PA back-off value corresponding to βc and βd values obtained from PA back-off mapping table (see Table 4 for example)
7) If a TFC's Modified delta Ec/Nt is positive then coverage margin exists else there is coverage area reduction relative to reference TFC case.
8) If coverage area reduction is unacceptable adjust mapping table as needed (e.g. to include less PA back-off) and repeat procedure until per TFC coverage meets desired requirements of operator.

Reference TFC

Examples of possible Reference TFC determining minimum uplink cell coverage of Deployed System:
1) PS 64 kbps, TTI=10ms, 1.0%BLER
2) CS 64 kbps, TTI=20ms, 0.25%BLER
3) PS 64 kbps, TTI=10ms, 1.0%BLER + DCCH
4) CS 64 kbps, TTI=20ms, 0.25%BLER + DCCH

TFCS information

A example of a reference TFS for analysis and simulation is composed of Release 99/4/5 TFCs given in Table 1 below as discussed in [1].

Table 1 - TFCS information for the Rel99/Rel4/Rel5 reference case

Parameter	Explanation/Assumption	Comments
User data rates in TFCS Other TFCs in TFCS	8, 16, 32, 64, 128, 256, 384 kbit/s with 10ms TTI 12.2Kbps AMR speech with 20ms TTI, 3.4kbps DCCH (40ms TTI), 1.95kbps SID (20ms TTI)	Note speech can occur as part of a data+speech call or a speech only call.

To determine the corresponding long term Eb/Nt for each TFC link level assumptions are given below in Table 2..

Table 2 - General link level parameters

Parameter	Explanation/Assumption	Comments
Channel coder	Turbo 1/3	
Number of iterations for turbo decoder	8	
Turbo decoder	Max Log MAP	
Channel models/ UE speed for channel model	Pedestrian B / 3 km/h, Vehicular A / 30 km/h	
CL power control	ON	
CL power control error rate	4%	

An example of long term Eb/Nts for different channel conditions is given below for data TFCs:

	8	16	32	64	128	256	384
AWGN	4.28	3.22	2.87	2.61	2.44	2.54	2.90
PA3	4.56	3.48	3.13	2.92	2.76	2.90	3.31
PB3	5.69	4.38	4.07	3.90	3.76	4.02	4.61
VA30	6.10	4.82	4.54	4.34	4.22	4.49	5.10
VA120	6.47	5.19	4.91	4.68	4.53	4.80	5.43

Table 3. Required Long Term DPDCH Eb/Nt (combined across both rx antennas) for 1% BLER, 10ms TTI, non-ideal channel estimation, 2 RX antennas, inner-loop and outer-loop power control on, c = 15, 15, 11, 8, 6, 4, 3 for 8, 16, 32, 64, 128, 256, and 384 kbps, d = 15.