Mueller Exhibit 41

Agenda item	3
Title:	Approved Report of 3GPP TSG RAN WG1 #40bis in Beijing (Beijing, China, 04 – 08 April, 2005)
Document for:	Information
Source:	TSG RAN WG1 Secretary

Notes:

All timestamps in this document are in GMT+6H unless otherwise noted.

Fact Summary

Meeting:	3GPP TSG RAN WG1 #40bis
Dates:	04th through 08th April, 2005
Venue:	Great Wall Sheraton Hotel Beijing, Beijing, China
Host:	Huawei Technologies
Attendees:	144 delegates
Documents:	140 (including some withdrawn and post-meeting artefacts)

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Executive summary

WG RAN1 #40 bis took place in Great Wall Sheraton Hotel Beijing - Beijing, China. The meeting started at 9:00 on Monday 4th April 2005 and finished at 17:00 on Friday 8th. The social event was held on Wednesday evening kindly hosted by Huawei.

On the first and second day, mainly FDD Enhanced Uplink was discussed. The proposal for interaction with compressed mode was principally agreed, and the CR for this issue will be agreed at next RAN1 meeting, Regarding "Measurements for RRM, the discussion could not reach to the conclusion, so it was to be continued the discussion until next RAN1 meeting. Other open issues such as coding for E-AGCH, gain factor could reach near to the conclusion, the final agreement and CR will be available at next RAN1 meeting.

On the third day, the Rel-6 item except for E-DCH, Rel-7 item, and new work item "Improved support of IMS realtime services using HSDPA/HSUPA" were discussed. Draft TS "7.68Mcps TDD option ; Overall Description; Stage 2" and draft TR "3.84 Mcps TDD Enhanced Uplink – Physical Layer Aspects" were agreed and the TS and TR number will be allocated until next RAN1 meeting.

On the forth and last day, Evolved UTRA and UTRAN (Physical Layer) was discussed. More than fifty contributions were presented. The way forward for this item was agreed, and also draft TR "Physical Layer Aspect for evolved UTRA was agreed (The TR number will allocated until RAN1 meeting)

The number of contribution documents for this meeting was 140, and those documents were categorized as followed.

Agenda Item	Input Document	Discussed Document
FDD Enhanced Uplink	48	48
IMS (RAB support enhancement work item)	2	2
Improved Support of IMS Real-time Services using HSDPA/HSUPA	2	2
7.68 Mcps TDD option	5	5
3.84 Mcps TDD Enhanced Uplink	1	1
1.28 Mcps TDD Channelisation Code Optimisation	4	4
Evolved UTRA and UTRAN (Physical Layer)	52	52

1 Opening of the meeting

04/04/2005 09:10

The RAN1 convener, Mr. Dirk Gerstenberger and welcomed the participants to the 40bis RAN WG1 and opened the meeting at 09.00am.
Mrs. Ma Sha from Huawei welcomed the delegates on behalf of the host company, Huawei.

Note : At the last RAN meeting (RAN#27), the reorganization of RAN working groups and the new working groups (WG RAN1, 2, 3, 4, and 5) were approved. The election for the chairman of RAN1 working will be held at next RAN1 meeting in May of 2005. Until the meeting, the former RAN1 chairman, Mr. Dirk Gerstenberger runs the RAN1 meeting as a convenor.

1.1   Call for IPR

04/04/2005 09:15

The Chairman drew attention to Members' obligations under the 3GPP Partner Organizations' IPR policies. Every Individual Member organization is obliged to declare to the Partner Organization or Organizations of which it is a member any IPR owned by the Individual Member or any other organization which is or is likely to become essential to the work of 3GPP.

> 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/).

2   Approval of the agenda

R1-050235   Draft Agenda   **(RAN1 Convener)**
    04/04/2005 09:15 Presented by Mr. Dirk Gerstenberger.

    Discussion (Question / Comment):
    Mr. Chairman showed the schedule of this week.
    Decision: This document was approved.

3.   Approval of the minutes from previous meeting

R1-050236   Draft report from RAN#40   **(RAN1 Secretary)**
    04/04/2005 09:20 Presented by Mr. Yoshikazu Ishii.

    Discussion (Question / Comment): From Panasonic, it was commented that the sentence should be added regarding R1-050184.
    Decision: This document was revised in Tdoc R1-050352.

R1-050352   Revised draft report from RAN#40   **(RAN1 Secretary)**

06/04/2005 12:15 Presented by Mr. Yoshikazu Ishii.

Discussion (Question / Comment):
Decision: This document was approved in Tdoc R1-050369.

R1-050369   Approved report from RAN#40   (RAN1 Secretary)

4.   Summary from TSG RAN#27

R1-050237   Summary from TSG RAN#27   **(RAN1 Convener)**

04/04/2005 09:25 Presented by Mr. Dirk Gerstenberger.

RAN1 convenor showed the overview form the last TSG meeting. And also, he announced that RAN1 ad hoc meeting regarding LTE will be held in Sophia Antipolis at 20th and 21st of June.
Discussion (Question / Comment):
From NTT DoCoMo, it was commented for clarification that regarding E-DCH autonomous ramping will continue to be discussed   in RAN2. It was clarified.
Decision: This document was noted.

5. Liaison statement handling

R1-050238 **LS on Performance Targets for HSUPA signalling channels (To:RAN1, RAN2)**
(WG RAN4, NTT DoCoMo)

04/04/2005 09:35 Presented by Mr. Anil Umesh.

Discussion (Question / Comment): Mr. RAN1 convenor suggested to make the draft LS.
Decision: This document was noted. I was decided to prepare draft LS in Tdoc R1-050353 form NTT DoCoMo.

R1-050353 **Draft Reply LS on Performance Targets for HSUPA signalling channels (To:RAN4, Cc:RAN2)** **(NTT DoCoMo)**
Decision: After the meeting, the draft LS was discussed on the RAN1 reflector. The draft version was revised and approved in Tdoc R1-050374.

R1-050374 **Reply LS on Performance Targets for HSUPA signalling channels (To:RAN4, Cc:RAN2)** **(WG RAN1)**
Decision: The LS was approved on the RAN1 reflector at April 20th, 18:00 CST.

R1-050363 **Error requirements on E-DCH control channels** **(Qualcomm Europe)**
06/04/2005 12:55 Presented by Mr. Serge Willenegger.

This document is related to R1-050238 and R1-050353.
Discussion (Question / Comment): It was commented that Table 1 seems to be more occupied.
Decision: This document was noted

Conclusion (R1-050238, 353, 363)

It was decided to raise concerns on the proposed values over the reflector not later than April 18 9:00am CET, and to approve the LS to RAN4 (R1-050353) until Wed April 20th 18:00 CET.

R1-050239 **Liaison statement MBMS User Service finalization (To:SA2, SA3, Cc:RAN1, RAN2, RAN3, RAN4, SA1, CN1, CN3)** **(WG SA4, NEC)**
04/04/2005 09:50 Presented by Mr. Thanh Bui.

Decision: This document was noted.

R1-050240 **Reply LS on Assumptions on MBMS measurement (R1-041252, R2-042217) (To:RAN1, RAN2)** **(WG RAN4, Siemens)**
04/04/2005 09:55 Presented by Dr. Przemyslaw CZEREPINSKI.

Discussion (Question / Comment): It was asked and commented from RAN1 convenor that who investigates the more method, if the RAN 4 investigates this area is not really in RAN4 that is not measurements aspect.
Decision: This document was noted and the relay response from RAN2 would be checked and noted.

R1-050241 **LS on Outer-loop TPC behaviour in 0 bit TB reception for A-DPCH (To:RAN1, RAN2)** **(WG RAN4, NTT DoCoMo)**
04/04/2005 10:00 Presented by Mr. Anil Umesh.

Discussion (Question / Comment): There were some comments from some companies that what RAN4 pointed in this LS. RAN1 could agree to discuss this technical issue but the issue and purpose of the LS should be cleared. From Panasonic, it was asked if this is included in Voice case.
Decision: This document was noted.

R1-050347 **Outer-loop TPC behaviour in 0 bit transport-block reception** **(NTT DoCoMo)**
07/04/2005 10:10 Presented by Mr. Anil Umesh.

Discussion (Question / Comment):
From some companies, it was commented that exactly the UE activity is not clear and this UE solution should be more discussed with NW solution and indicate the RAN1 information to RAN2.

Decision: This document was noted. This issue don't reach to the conclusion, so it was decided to revisit at RAN1#41.

R1-050242   Reply LS on the usage of the secondary scrambling code for VoIMS (To:RAN1, Cc:RAN2)   (WG RAN4, Siemens)
04/04/2005 11:10 Presented by Dr. Thomas Chapman.

Discussion (Question / Comment): This document was referred on AI. 7
Decision: This document was noted.

R1-050243   LS on MBMS UE capability and MCCH Reception (To:RAN4, Cc:RAN1,RAN3)   (WG RAN2, Motorola)
04/04/2005 11:15 Presented by Mrs. Calrolyn Taylor

Discussion (Question / Comment): From Panasonic, it was commented that UE capability was already approved at last meeting, but some discussions such as selective combining are on RAN2.
Decision: This document was noted.

R1-050244   LS on alignment of MBMS transport channels (To:RAN3, Cc:RAN1)   (WG RAN2, Siemens)
04/04/2005 11:20 Presented by Dr. Joern Krause.

Discussion (Question / Comment): Regarding this issue, RAN1 already sent LS to the RAN3.
Decision: This document was noted.

R1-050335   Proposed CR to 25.993 [Rel-6] on Introduction of Streaming RABs over HSDPA   (Siemens, RAN2)
04/04/2005 11:25 Presented by Dr. Thomas Chapman.

Discussion (Question / Comment): Mr. Chairman suggested to check the document and indicate the concerns on L1 parameters to RAN2.
Decision: This document was noted. It was decided to raise concerns on the L1 parameters on the reflector before May 1st, then give indication to RAN2 at the beginning of RAN1#41.

R1-050351   Draft contribution for ITU-R WP8F on current 3GPP activities toward IP applications over mobile systems (ITU-R adhoc, TIM)
05/04/2005 16:30 Presented by Mr. Alessandro Pace

Discussion (Question / Comment):
Decision: This document was noted. Provide feedback to TIM until Friday lunchtime

R1-050371   Draft Reply LS to ITU-R Ad hoc   (TIM)
08/04/2005 15:50 Presented by Mr. Alessandro Pace

Discussion (Question / Comment):
Decision: This draft was approved in Tdoc R1-050373.

R1-050373   Reply LS to ITU-R Ad hoc   (WG RAN1)

R1-050364   LS on the PSC/SSC proposal for VoIMS (To:RAN2, RAN4, Cc: RAN3)   (WG RAN1)
This outgoing LS is related to Tdoc R1-050318 in AI.7.

6.   FDD Enhanced Uplink

The overview of discussion and conclusions on this topic is as followed.

1. Interaction with Compressed Mode

    In the document revised from R1-050360 which was captured the feedback on the offline discussion, the principle of the proposal was agreed and will be conveyed to RAN2 reflector. The clean version of the document discussed was provided in Tdoc R1-050366, and CRs should be made available for RAN1#41.

2. Coding for E-AGCH

    Optimised RM pattern had the larger support in RAN1. The pattern was adopted as basis for CRs. RAN2 information was needed on number of information bits before CR (from Tdoc R1-050309) can be approved.

3. Gain Factor

    a. E-DPDCH

        i.   Step size 1dB(Target)

        ii.   Step size used for RG resolution (indicate to RAN2).

        iii. Range -10dB to 21dB

        iv.   Exact quantization FFS: to be decided at RAN1#41.

    b. E-DPCCH gain factors same as HS-DPCCH

4. Measurements for RRM

    This topic could not reach to the conclusion. RAN1 convenor suggested to continue discussion until RAN1#41.

5. Approved CRs

Tdoc number	Spec	CR	Cat	Title
R1-050359	211	203r1	F	Correction of text on E-RGCH duration
R1-050258	212	202(Rel5)/ 203(Rel6)	F/A	Correction of HSDPA Bit Separation
R1-050329	212	206	F	E-HICH and E-RGCH serving/non-serving definition clarification
R1-050355	213	075r1	F	Support of different HARQ profiles
R1-050358	214	372r1	F	Support of different HARQ profiles
R1-050346	214	373	F	Lowest reference E-TFC for the gain factor setting for E-DCH

6.1   Interaction with Compressed mode

R1-050264   Compressed mode for E-DCH   (Nortel)
04/04/2005 11:25 Presented by Ms. Evelyne Le Strat.

Based on this analysis our recommendation is that if the network configures IR then the R99 Higher layer scheduling method is selected (meaning that the SF is unchanged and rate matching is performed considering the number of transmitted slots).
Discussion (Question / Comment): It was clarified that the same mechanism as 10ms TTI is used for 2ms TTI and HLC was controlled by UE higher layer, not NW.
Decision: This document was noted.

R1-050284   Compressed Mode support for the 10 ms TTI   (Vodafone Group)
04/04/2005 11:50 Presented by Mr. Yannick Le Pezennec.

Discussion (Question / Comment): There is no comment.
Decision: This document was noted.

R1-050295   E-DCH Compressed Mode Operations   (Motorola)
04/04/2005 12:00 Presented by Dr. Amitabha Ghosh

Discussion (Question / Comment): There is no comment.
Decision: This document was noted.

R1-050302   Interactions with Compressed Mode   (ZTE)
04/04/2005 12:05 Presented by Mr. Junfeng Zhang.

For 10 ms TTI, the simple solution as 2ms TTI may lose throughput significantly if transmission gaps occur frequently. Hence an alternative solution spreading factor reduction (SF/2) may be used to hold the wanted throughput   For 10 ms TTI, ZTE proposes to select one of the three optional solution decided by operator user.

Discussion (Question / Comment): There is no comment.
Decision: This document was noted.

R1-050319   E-DCH and Compressed mode   (Ericsson)
04/04/2005 12:10 Presented by Dr. Stefan Parkvall.

Discussion (Question / Comment): It was asked if how the downlink transmission gap is known. The CM indication is same as R99.
Decision: This document was noted.

R1-050322   Handling of compressed mode with E-DCH   (Philips)
04/04/2005 12:20 Presented by Mr. Matthew Baker

Discussion (Question / Comment): It was asked how this scheme operated when there was a delay between Down/UP CM.
Decision: This document was noted.

R1-050327   Compressed Mode handling   (NEC)
04/04/2005 14:10 Presented by Ms. Nahoko Kuroda

Discussion (Question / Comment): There is no comment.
Decision: This document was noted.

R1-050333   Interaction with compressed mode in 10ms TTI   (Panasonic)
04/04/2005 14:15 Presented by Mr. Hidetoshi Suzuki

Discussion (Question / Comment): There is no comment.
Decision: This document was noted.

R1-050337   E-DCH Compressed mode   (Siemens)
04/04/2005 14:20 Presented by Dr. Thomas Chapman.

Discussion (Question / Comment): It was asked about the difference from Ericsson scheme regarding the initial transmission.
Decision: This document was noted.

Not Available
R1-050350   Aspects of CM with SF/2 for HSUPA   (Nokia)

After the presentation of all contributions on EDCH and compressed mode, there were discussions regarding the topics such as what number is SF, we should consider Chase and IR, also optimise to Chase or IR, the problem happens on compressed initial transmission, compressed retransmission, and also its combination.

Discussion (Convenor's Note)

Pick up the discussion items

For 10 ms TTI

- E-DPDCH
    - Compressed initial transmission – any scheme works
        - SF/2 (for SF=>4)

- o Slot level DTX: Average-power –per-TTI or bitrate reduction to during the compressed frame & chose SF depending on number of transmitted slots and bits/power to transmit
          - o DTX (permutation)
    - • Compressed Retransmission – transmit in the transmitted slots power not exceeding the granted power
          - o IR : slot level DTX with SF selection and rate matching (may be different from initial transmission) according to number of available slots
          - o IR/Chase : slot level DTX with same SF and rate matching parameters as initial transmission
    - • Chase/IR –optimise to IR
    - • Fixed /configurable gap length
- E-DPCCH   DTX with or without power consumption
- E-AGCH   Discard
- E-RGCH   Discard, "partial RX"
- E-HICH   Discard "partial RX", postpone

After the discussion on the first day

For 10 ms TTI

E-DPDCH:
- - Initial and retransmission with same method
    - o "brute force" DTX for the slots in the gap
        - ▪ TX power and E-TFC selection regardless of CM
        - ▪ without permutation
- - Initial and retransmission with different methods
    - o compressed initial transmission
        - ▪ Average-power-per-TTI or bitrate reduction during the compressed frame & choose SF depending on number of transmitted slots and bits/power to transmit
    - o compressed retransmission – transmit in the transmitted slots, power not exceeding the granted power
        - ▪ SF selection and rate matching (may be different from initial transmission) according to number of available slots (DTX the TTI if SF is lower than at the initial transmission)
        - ▪ slot level DTX with same SF & rate matching parameters as initial transmission
    - - Fixed/configurable gap length
        - o Same gap length as for DCH
    - - GBR???

E-DPCCH: DTX with power offset adjustment to ensure E-DPCCH performance
E-AGCH: "partial RX", i.e. UE decodes slots not overlapping with a DL CM gap
E-RGCH: "partial RX", i.e. UE decodes slots not overlapping with a DL CM gap
E-HICH: "partial RX", i.e. UE decodes slots not overlapping with a DL CM gap
Mention results of the discussion in LS to RAN4, i.e. not the same requirements for CM (HICH, RGCH, AGCH).

On the first day, the above discussion could not reach to the agreement. So, RAN1 convenor suggested the offline discussion. After the off-line discussion on the rest of first day and the second day, on behalf of the companies joined in the off-line discussion, Nokia presented the following document.

R1-050360   E-DPDCH Compressed mode method fro 10ms TTI   (Nokia, Philips, Ericsson, Siemens, Motorola, Panasonic)
05/04/2005 16:35 Presented by Mr. Karri Ranta-aho

Discussion (Question / Comment): There are more discussion regarding section 2
Decision: This document was noted. It was decided to send the feed back to Nokia and come back to the document tomorrow. On the next day, the draft document captured with the feedbacks was presented.

Conclusion of Interaction with Compressed mode

In the above document (the draft document captured with the feedbacks), the principle of the proposal was agreed and will be conveyed to RAN2 reflector. The clean version of the document discussed was provided in Tdoc R1-050366, CRs should be made available for RAN1#41.

R1-050366   E-DPDCH Compressed mode method fro 10ms TTI   (Nokia, Philips, Ericsson, Siemens, Motorola, Panasonic, Nortel, NEC, Samsung, LGE)

6.2   Remaining open issues: Gain factors, UE behaviour at TX power limit,

R1-050296   E-AGCH Coding and Spreading Factor   (Motorola)
04/04/2005 17:20 Presented by Dr. Amitabha Ghosh

The following is proposed for the AG channel
- The AG channel should be provisioned to transmit up to a maximum of 10 information bits
- Use a SF=256 for the AG channel
- Convolutional code (R=1/3 K=9) without tail bits should be used

Discussion (Question / Comment):
Decision: This document was noted.

R1-050303   E-AGCH Aspects   (ZTE)
04/04/2005 17:25 Presented by Mr. Junfeng Zhang.

By simulation, the contribution discusses the question of how many information bits the AG can contain and how much does a bit in AG cost in terms of downlink transmission power required for E-AGCH. For saving the base station power, it is proposed to include the following information in the E-AGCH:
- 4-5 bit maximum E-DPDCH/DPCCH power ratio.
- 1 bit Single Process flag.
- 2 bit priority information

Discussion (Question / Comment): It was commented that this topic was already agreed.
Decision: This document was noted.

R1-050308   Coding for E-AGCH   (Samsung)
04/04/2005 17:30 Presented by Mr. Youngbum Kim

This contribution recommend the following coding scheme.
- Channel coding: standard convolutional code with rate 1/3
- Candidates for number of information bits: 6, 7, 8, 9, 10
- Rate matching pattern for each possible number of information bits

Discussion (Question / Comment): It was asked what coding scheme was used in the simulation. The optimised decoding algorithm was used.
Decision: This document was noted.

After presenting three above contributions, the discussion was continued which scheme we should support, and there were many discussion.

Conclusion (RAN1 Convenor's note):

Optimised RM pattern has the larger support in the group => The pattern was adopted as basis for CRs. RAN2 information needed on number of information bits before CR (from Tdoc R1-050309) can be approved.

R1-050334   Timing topic on E-DCH operation   (Panasonic)
Decision: This document was noted without presentation. It was commented from Panasonic to wait RAN2 progress before the discussion.

R1-050323   Comparative Performance of Dedicated Mode with and without non-serving cell Relative Grant (RG)   (Motorola)
04/04/2005 18:10 Presented by Dr. Amitava Ghosh

This contribution evaluates system performance of 2ms E-DPDCH TTI for Enhanced Uplink. The results are presented with and without the non-serving cell relative grant (RG). Without non-serving cell RG (ns-RG), the

system and user performance is evaluated using the SHO information using three different methods. Compared to the results where ns-RG is used, slightly higher sector and user throughputs can be achieved by approaches without ns-RG.

Discussion (Question / Comment): It was asked if how the UE reduces the over loading and that the simulation for the down grand has been done =>Not done. It was commented from Samsung and Lucent that there were the related contributions in RAN2, R2-051037, and R2-050941. It was commented that this topic was already closed, so if it was reopened, the benefit should be cleared.
There were many discussions, but it was seemed to go to the wrong direction.
Decision: This document was noted. There is no agreement on the removal of ns-RG.

Gain Factor

R1-050304   Power offset values for E-DPDCH/E-DPCCH   (Samsung)
05/04/2005 09:10 Presented by Dr. Juho Lee.

In the previous RAN1 meeting in Scottsdale, it was agreed that the relative power offset is defined to set the gain factor for the E-DCH channels. However, the detailed range and the quantization level of this power offset were not specified. In this contribution, Samsung investigates the desirable range based on the simulation. We propose the set of quantized values for the E-DPDCH power offset based on the simulation results. Furthermore, we also propose the E-DPCCH power offset quantization table.
Discussion (Question / Comment): It was commented that there seemed to be problem of the power loss on the step size 0.5 dB.
Decision: This document was noted.

R1-050325   General consideration on the quantization of E-DPDCH Tx power
                                                                    (LG Electronics)
05/04/2005 09:30 Presented by Dr. Joon-Kui Ahn

LGE recommend to quantize the amplitude ratios of $\square_{\text{E-DPDCH, ref}}$ by 1/15 basis as like in other channels and only allow the integer values for $\square_{\text{E-DPDCH, harq}}$. By this way, the values of $\square_{ed}$ are quantized by 1/15 basis. This approach make the quantization very simple, however, the required range and resolution of $\square_{\text{E-DPDCH, harq}}$ should be discussed first to adopt this method.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050338   E-DCH related gain factors   (QUALCOMM Europe)
05/04/2005 09:40 Presented by Mr. Serge Willenegger.

For E-DPCCH, Qualcomm suggests that the offsets defined for the HS-PDSCH are re-used for E-DPCCH. This results in a dynamic range from -10 to +6 dB. For consistency they suggest that the quantization of the fractional component is increased to 5 bits as well. Although it is possible to take advantage of the additional quantization to get closer to the 2 dB steps originally intended for the HS-DPCCH it may not be necessary as the benefits are unclear and it may impact the Node B receiver.
For E-DPDCH, the maximum rate per SF=4 E-DPDCH code is in the order of 1 Mbps. Based on link level simulations Qualcomm recommends that the top of the range is set to 21 dB and that the step size is 1 dB (the optimum DPDCH/DPCCH ratio is fairly flat). On the lower end of the range they consider that -10 dB should be low enough to accommodate any possible low rate transmission on the E-DPDCH based on a minimum transport block size of 168 bits. They note that the quantization error is very small except for the lowest indexes; however the error for the lower indexes remain within 0.5 dB.
Discussion (Question / Comment): It was commented from Qualcomm that the main point of this issue is on gain
Decision: This document was noted.

Discussion & Conclusion (RAN1 Convenor's note)

- E-DPDCH
  - Step size 1dB(Target) ,0.5dB
  - Step size used for RG resolution (indicate to RAN2).
  - Range -10dB to 21dB
  - Exact quantization FFS: to be decided at RAN1#41.

- E-DPCCH gain factors same as HS-DPCCH

R1-050348   E-DPCCH Gain Factor Settings over Re-transmissions (Lucent Technologies)
05/04/2005 11:30 Presented by Dr. Rainer Bachl.

Discussion (Question / Comment): It was commented that on SHO situation the problem happens on the power control for retransmission.
Decision: This document was noted.

R1-050312   Support of different HARQ profiles   (Samsung)
R1-050354   Support of different HARQ profiles   (Samsung) (Revision of R1-050312)
R1-050357   Support of different HARQ profiles   (Samsung) (Revision of R1-050354)
05/04/2005 12:10 Presented by Dr. Juho Lee.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050326   Calculation of E-DPDCH gain factor   (LG Electronics)
Decision: This document was noted with related to R1-050357.

R1-050257   25.214CR370(Rel-6, F) "DPCCH/E-DPDCH power difference"   (Siemens)
05/04/2005 11:45 Presented by Dr. Juergen Michel.

Discussion (Question / Comment):
Decision: This document was noted. This document was discussed with R1-050310, but the discussion could not reach to the agreement. R1-050310 and R1-050257 require future discussion, it was decided to check with outcome of RAN2 discussion, and provide a CR for RAN1#41

R1-050349   Bit Mapping for E-DPCCH   (Lucent Technologies)
05/04/2005 15:25 Presented by Dr. Rainer Bachl.

Discussion (Question / Comment):
There were many discussions on the new mapping that full reuses of the legacy TFCI decoder.
Decision: This document was noted. No agreement at this point and revisit at RAN1#41 (CR should be provided by the proponent)

Withdrawn
R1-050339   UE procedure at TX power limit   (QUALCOMM Europe)

6.3   Enhanced Uplink CRs on the specifications

Coding for E-AGCH
R1-050297   25.212CR201(Rel-6, F) "E-AGCH Channel Coding Specification" (Motorola)
04/04/2005 17:35 Presented by Dr. Amitava Ghosh

This CR is related to the document in Tdoc R1-050296.

Discussion (Question / Comment):
Decision: It was not agreed. Tailbiting was not selected (See the conclusion on R1-050296 and R1-050308).

R1-050309   Set of draft CRs on Coding for E-AGCH   (Samsung, Siemens)
04/04/2005 17:40 Presented by Mr. Youngbum Kim

This CR is related to the document in Tdoc R1-050308.

Discussion (Question / Comment):
Decision: The CR was noted. It will be approved in RAN#41 (Waiting for RAN2 information on number of E-AGCH)

Power control

R1-050313   25.213CR075(Rel-6,F) on support of different HARQ profiles   (Samsung)
R1-050355   25.213CR075r1(Rel-6,F) on support of different HARQ profiles   (Samsung)
05/04/2005 12:10 Presented by Dr. Juho Lee.

This CR is related to the document in Tdoc R1-050354.

Discussion (Question / Comment):
Decision: ▓▓▓▓▓▓▓▓▓▓▓▓

R1-050314   25.214CR372(Rel-6,F) on support of different HARQ profiles   (Samsung)
R1-050356   25.214CR372r1(Rel-6,F) on support of different HARQ profiles   (Samsung)
05/04/2005 12:15 Presented by Dr. Juho Lee.

This CR is related to the document in Tdoc R1-050354.

Discussion (Question / Comment):
Decision: ▓▓▓▓▓▓▓▓▓▓▓▓ with correct revision marks for the equation in 5.1.2.5B.2.3) in Tdoc R1-050358
(Revision 2).

R1-050358   25.214CR372r2(Rel-6,F) on support of different HARQ profiles   (Samsung,
LGE, Philips)

R1-050305   25.213CR074(Rel-6, F) on power offset values for E-DPDCH/E-DPCCH
(Samsung)
05/04/2005 14:10 Presented by Dr. Juho Lee.

This CR is related to the document in Tdoc R1-050304.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050310   25.214CR363r1(Rel-6,F) on Power control at the maximum power limit
(Samsung, Nokia, Panasonic, Philips, Qualcomm)
05/04/2005 14:10 Presented by Dr. Juho Lee.

Discussion (Question / Comment): Some companies raised concerns on outer loop and "minimum set" or
equivalent.
Decision: This document was noted. This document was discussed with R1-050257, but the discussion could not
reach to the agreement. R1-050310 and R1-050257 require future discussion, it was decided to check with outcome
of RAN2 discussion, and provide a CR for RAN1#41

R1-050346   25.214CR373(Rel-6,F) on Lowest reference E-TFC for the gain factor setting for
E-DCH   (NTT DoCoMo, Samsung, Philips, Nokia, Siemens)
05/04/2005 14:30 Presented by Mr. Anil Umesh.

Lowest signalled E-TFC is the reference TFC.
Discussion (Question / Comment):
Decision: ▓▓▓▓▓▓▓▓▓▓▓▓

R1-050258   25.212CR202(Rel-5, F)&CR203(Rel-6, A) "Correction of HSDPA Bit
Separation"   (Siemens)
05/04/2005 14:45 Presented by Dr. Juergen Michel.

Discussion (Question / Comment):
Decision: ▓▓▓▓▓▓▓▓▓▓▓▓

R1-050259   25.212CR204(Rel-6, F)"E-DCH Corrections"   (Siemens)
05/04/2005 14:45 Presented by Dr. Juergen Michel.

Discussion (Question / Comment): From Mr. Chairman, it was commented that "RAN2 continues their work based on "RG based" mode" was decided at last RAN meeting (See the following sentence from draft report), so non-RG mode in last paragraph should be removed.
From the draft report of RAN#27 meeting (Discussion on RP-050152)

> In line with this, RAN2 should continue their work based on the "RG based" mode as a starting point and to discuss the need for ramping.

Regarding 4.8.4.3, some company raised concerns.

Decision: It was decided to change in last paragraph in 4.8.4.3 TBC and changes in 9.10.5 should be in line with the decision in RAN2 on the (RG based) scheduling mode. The rest of this CR was principle agreement. Revisit at RAN1#41.

R1-050321   25.211 CR203 (Rel-6,F) "Correction of text on E-RGCH duration" (Ericsson)
05/04/2005 15:10 Presented by Ms. Ning He.

Discussion (Question / Comment): It was commented to remove the ambiguous and make clearer.
Decision: It was decided to revise in R1-050359 (after offline discussion). RG from cells within one RLS (serving /non serving) have the same duration

R1-050359   25.211 CR203r1 (Rel-6,F) "Correction of text on E-RGCH duration" (Ericsson, Philips)
06/04/2005 12:30 Presented by Ms. Ning He.

Discussion (Question / Comment):
Decision: This CR was agreed

R1-050329   25212 CR206 (Rel-6, F) "E-HICH and E-RGCH serving/non-serving definition clarification"   (Nokia)
05/04/2005 15:25 Presented by Mr. Karri Ranta-aho

Discussion (Question / Comment):
Decision: This CR was agreed

Withdrawn
R1-050311   25.214 CR371 (Rel-6,F) on UL/DL timing association   (Samsung)

6.4   Measurements for RRM

Before presenting the contribution of this AI, some companies raised concerns on the relation with RAN4. They commented that the LS should be now sent to RAN4 (RAN4 ad hoc meeting) regarding the discussion results of this AI. But RAN1 convenor commented that the current RAN4 meeting is the ad hoc meeting, so it is not necessary to send it.

R1-050306   UTRAN Measurement for E-DCH RRM   (Samsung)
05/04/2005 16:55 Presented by Dr. Juho Lee.

Discussion (Question / Comment): There were some comments regarding the accuracy of measurement.
Decision: This document was noted

R1-050307   25.215 CR159 (Rel-6,F) on UTRAN measurements for E-DCH RRM
(Samsung)
05/04/2005 17:20 Presented by Dr. Juho Lee.

This CR is related to the document in Tdoc R1-050306.

Discussion (Question / Comment):
Decision: This document was noted

R1-050320   Node B measurements for E-DCH   (Ericsson)
05/04/2005 17:45 Presented by Ms. Ning He.

Discussion (Question / Comment): From NEC, the concern was raised on the external interference in total cell interference and the measurement for the external interference was difficult.

Decision: This document was noted

R1-050328   RRM consideration   (NEC)

05/04/2005 18:05 Presented by Ms. Nahoko Kuroda

Discussion (Question / Comment):
Decision: This document was noted

R1-050330   On RTWP and RoT Measurements   (Nokia)

05/04/2005 18:10 Presented by Mr. Karri Ranta-Aho

Discussion (Question / Comment):
Decision: This document was noted

R1-050336   Comments on EDCH RRM Measurements   (Siemens)

05/04/2005 18:35 Presented by Dr. Joern Krause.

Discussion (Question / Comment): The concern was raised on a relative RTWP Node B measurement. It has a problem on the accuracy and the definition of the range.
A concern was raised by Orange on RTWP relative measurement. The possible variable reference of RTWP (update on day basis for instance) used to perform RTWP relative measurement may lead to difficulties when planning a network as well as an unstable network.
Decision: This document was noted

R1-050361   E-DCH RRM measurement accuracy   (NTT DoCoMo, NEC, Samsung, Nokia, Ericsson, Siemens, Lucent, Motorola)

05/04/2005 18:45 Presented by Mr. RAN1 Convenor.

Discussion (Question / Comment): RAN1 convenor confirmed the following sentence in the document is very important for execute the discussion on these topics.

RTWP is the most general RF measurement since all the wideband power reaching the antenna connector, within the bandwidth defined by the receiver pulse shaping filter, is included.

Decision: This document was noted.

This topic could not reach to the conclusion. RAN1 convenor suggested continuing the discussion until RAN1#41.

RAN1 Convenor's note

Continue discussion until RAN1#41

7.   IMS (RAB support enhancement work item)

R1-050318   SSC for IMS, Proposed Way Forward   **(Siemens)**
06/04/2005 09:10 Presented by Dr. Przemyslaw CZEREPINSKI.

Discussion (Question / Comment): There was a long discussion on this topic. There were comments regarding a UE capability indicating the efficient support of PSC/SSC mixture, usage of non-orthogonality in the downlink, the complexity impact on UE implementation, the relation to the WI on improvement of real-time services using HSDPA/HSUPA, the necessity of performance requirements for the UEs in RAN4, and so on.
The draft LS on the last part of this document was revised with capture of these comments.
Decision: This document was noted and ▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨▨ (As shown in AI.5)

8. Improved Support of IMS Realtime Services using HSDPA/HSUPA

R1-050324   Proposal for supporting Real Time services over HSDPA(Lucent Technologies)
06/04/2005 11:15 Presented by Mr. Sudeep Palat.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050340   HSDPA mobility enhancement   (QUALCOMM Europe) (=R2-050965)
06/04/2005 11:30 Presented by Mr. Serge Willenegger.

Discussion (Question / Comment): It was asked if the scheduler is same for HSDPA/HSUPA. The answer to the question was that it's not specified and it's RAN2 decision.
Decision: This document was noted.

9.　　7.68 Mcps TDD Option

R1-050341　　Draft TS: "7.68Mcps TDD Option; Overall Description; Stage 2" (IPWireless)
06/04/2005 11:50 Presented by Dr. Martin Beale.

Discussion (Question / Comment):
Decision: The structure of the stage 2 was agreed. After the meeting, new specification number fro this TS was allocated as TS25.202.

R1-050342　　TR25.809 v0.1.0　　　　　　　　　　　　　　　　　　　(IPWireless)
06/04/2005 11:55 Presented by Dr. Martin Beale.

Discussion (Question / Comment):
Decision: This version was agreed.

R1-050343　　Frame Structure for 7.68Mcps TDD Option　　　　　(IPWireless)
06/04/2005 12:00 Presented by Dr. Martin Beale.

Discussion (Question / Comment):
Decision: This TP was agreed to include for the stage 2 TS (to be included in the first official version) and for the TR.

R1-050344　　Timing Advance for 7.68Mcps TDD Option　　　　　(IPWireless)
06/04/2005 12:05 Presented by Dr. Martin Beale.

Discussion (Question / Comment):
Decision: This TP was agreed to include for the stage 2 TS (to be included in the first official version) and for the TR with correction of Reference 3.

R1-050345　　Synchronisation Aspects for 7.68Mcps TDD Option　　(IPWireless)
06/04/2005 12:10 Presented by Dr. Martin Beale.

Discussion (Question / Comment): It was commented that the performance by simulation results should be provided if there were not any performances on SI stage.
Decision: It was decided to provide simulation results to the scheme at next RAN1 from IPWireless and the decision on the text proposals to be taken there.

10.   3.84 Mcps TDD Enhanced Uplink

R1-050331   3.84 Mcps TDD Enhanced Uplink: draft TR – Physical Layer Aspects
(IPWireless)

06/04/2005 12:15 Presented by Dr. Martin Beale.

Discussion (Question / Comment):

Decision: ~~The structure of the TR was agreed~~. After the meeting, new specification number for this TR was allocated as TS25.826.

11.   1.28 Mcps TDD Channelisation Code Optimisation

R1-050315   **Code utilisation and power impact of PLCCH and DPCH with smart antenna in TDD LCR**   **(UTStarcom, IPWireless)**

R1-050365   **Code utilisation and power impact of PLCCH and DPCH with smart antenna in TDD LCR**   **(UTStarcom, IPWireless) (Revision of R1-050315)**

06/04/2005 12:15 Presented by Mr. Ka Leong Lo.

In this contribution, it is recommended to employ the PLCCH to carry HSDPA "data only" users' associated uplink TPC and SS in order to relieve the code resource in heavily load system.

Discussion (Question / Comment):
From CATT, the concern was raised on the simulation detail, but it was not clear concerns. So, RAN1 convenor suggested providing the concerns on the reflector after the meeting.
Decision: This document was noted. It was decided to prepare a text proposal for RAN1#41 by UTStarcom and IPWireless and discuss concerns on the simulation on the reflector and aim for resolution at RAN1#41. The concerns should be raised on the reflector during next week from CATT.

R1-050332   **Optimization of DL channelisation code for HSDPA in 1.28 Mcps TDD**   **(Siemens AG)**

R1-050362   **Optimization of DL channelisation code for HSDPA in 1.28 Mcps TDD**   **(Siemens AG) (Revision of R1-050332)**

Decision: The presenter was not here. This document was noted.

12.   Evolved UTRA and UTRAN (Physical Layer)

The overview of discussion and conclusions on this topic is as followed.

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1. RAN1 TR and Way forward

Draft skeleton of RAN TR was presented from Editor, NTT DoCoMo (R1-050372). This document was agreed.

Intension with the TR is to document the schemes that are evaluated in RAN1. The description of the concept will be contained n TR 25.912 (joint WG level).

L1 concepts should be tired to be text proposals should be consolidated for the different main proposals first (e.g. OFDMA based DL, CDMA based DL...), Basic L1 concept description text proposals to be made available for inclusion in the RAN1 TR until the June AH.

2. Discussion on multiple access evaluation process in RAN1

Pragmatic approach in RAN1, with basic simulation parameters agreed up to a "agreeable" level for the evaluation and concept building. Parameters for the second phase (of full concept) evaluation will be in worked on in RAN4

Continue discussion on basic simulation parameters over the RAN1 reflector until RAN1#41, target is to agree the parameters at RAN1#41

Continue discussion on specific requirement on the RAN1 TR structure over the reflector.

12.1   Information from Joint WG meeting

R1-050299   Information from Joint WG meeting on LTE   (RAN1 Convener)
07/04/2005 08:05 Presented by Mr. Dirk Gerstenberger.

Mr. RAN1 convenor explained the overview of the Joint WG meeting on LTE at Tokyo.
He announced that we will have an ad hoc meeting for LTE in June and we might have the more meeting in October or November, or December in order to complete the this schedule,
And also he said that Editor to TR from RAN1 side (Physical aspects) is from NTT DoCoMo.
Discussion (Question / Comment):
Decision: This document was noted.

R1-050368   Draft skeleton TR of Physical Layer Aspect for evolved UTRA
(Editor : NTT DoCoMo)

R1-050372   Revised Draft skeleton TR of Physical Layer Aspect for evolved UTRA
(Editor : NTT DoCoMo)

08/04/2005 14:50 Presented by Dr. Sadayuki Abeta

Discussion (Question / Comment): The concerns were raised on the purpose of RAN1 TR and the tight schedule of Way forward.
Decision: This document was agreed. Editor is Mr. S. Abeta from NTT DoCoMo. New specification number for this TR will be allocated after the joint LTE meeting at Quebec, May 2005.

Convenor's note.

Way forward.

Intension with the TR is to document the schemes that are evaluated in RAN1. The description of the concept will be contained n TR 25.912 (joint WG level).

L1 concepts should be tired to be text proposals should be consolidated for the different main proposals first (e.g. OFDMA based DL, CDMA based DL…), Basic L1 concept description text proposals to be made available for inclusion in the RAN1 TR until the June AH.

12.2 Multiple access scheme proposals

12.2.1 UL basic concept

R1-050245   **Uplink Multiple Access for EUTRA**   **(Motorola)**
07/04/2005 16:05 Presented by Dr. Amitava Ghosh

Motorola summarises the uplink Multiple Access for EUTRA as followed.
- CM/PAPR
  - IFDMA, DFT-S-OFDM : QPSK has similar CM/PAPR as Release 5 UTRA
  - OFDM : needs 2.5dB increase for all modulations as Release 5 UTRA
- Multiple Access Scheme should support Scalable Bandwidth
- Maintain 10ms radio frame
  - Consider using both short and long frames, Try to maintain similar as downlink, Same base-band processing for FDD and TDD operation
- Observations on EUTRA way forward
  - LTE SI work plan calls for selection of MA configuration by RAN#30
  - IFDMA, DFT-S-OFDM and OFDM are potential candidates for UL Multiple Access
  - Requirement co-ordination with WG4 to ensure alignment of core assumptions.

Discussion (Question / Comment): It was asked if the sub-carrier spacing on uplink is same as on downlink. The answer was that the spacing on the downlink is larger against the interference. And also there are some comments and questions regarding power requirement and PAPR of IOFDM and DFT-S-OFDM
Decision: This document was noted.

R1-050248   **Uplink Multiple Access Scheme for Evolved UTRA**   **(NTT DoCoMo)**
07/04/2005 16:25 Presented by Dr. Mamoru Sawahashi.

In this document, NTT DoCoMo proposes the following items regarding uplink multiple access scheme for the Evolved UTRA.
- Uplink Transmission Scheme
  - Single-carrier based radio access, but further study on the multi-carrier based radio access
  - Optimum channel bandwidth according to data rate
  - Adaptive control of spreading factor (coding rate) according to cell structure
- Physical Channel Structure
  - Uplink contention-based Channel
  - Uplink Scheduled Channel
- Multiplexing and Scheduling
  - Uplink Contention-based and scheduled channels are multiplexed by TDMA/FDMA, hybrid TDMA/FDMA
  - Full use of frequency diversity or multi-user diversity
- Pilot channel structure
  - TDM based structure, Pilot signal with constant amplitude in the frequency domain
  - Adaptive change in pilot symbol duration according to the data rate
- Data modulation and channel coding
  - Data modulation in uplink is QPSK, 8PSK, and 16QAM
  - Current assumption for channel coding is Turbo coding and that for hybrid ARQ is Incremental Redundancy
- Advanced antenna techniques
  - MIMO multiplexing and diversity are effective in increasing the achievable data rate and capacity
  - Adaptive antenna array beam forming reception at the BS to increase coverage

Discussion (Question / Comment):
Decision: This document was noted.

R1-050251   **Uplink Considerations for UTRAN LTE**   **(Nokia)**
07/04/2005 16:45 Presented by Mr. Antti Toskala.

Nokia proposes the SC-FDMA as the Uplink of Evolved UTRA, which has the following merits.
- Low PAR => better coverage than respective OFDMA system

> ➢ Capacity same level as OFDMA
> ➢ Flexible spectrum usage, suited for all data rate ranges
> ➢ Low UE and BTS complexity

Discussion (Question / Comment): It was commented and asked that the SC-FDMA has the same capacity as OFDM. The answer was that the capacity for two schemes becomes same level depending on the scenario, e.g the slice numbers of bandwidth.
Other question was that the variable bandwidth is based on TTI or more slow level. The answer to the question was that TTI level as same as HSDPA/UPA using Node B downlink control is OK, but it's very short, but the slow level variation could not provide the good performance, so this item should be consider from now.
Decision: This document was noted.

R1-050254   Evolved UTRA : Uplink transmission scheme   (Ericsson)
07/04/2005 17:05 Presented by Dr. Stefan Parkvall.

Discussion (Question / Comment): There were some comments and question on the pulse shaping and BW expander. For these, it was commented that the pulse shaping is for reducing the reduce the PAPR, it doesn't change bandwidth, and the BW expander and the shape expander can be into one box. Also there were other comments and questions on the multi-antenna, closed –loop power control, diversity.
Decision: This document was noted.

R1-050260   Multiple Access Scheme Evaluation for the SI 'Evolved UTRA and UTRAN'
        Uplink   (Siemens)
07/04/2005 17:30 Presented by Dr. Joern Krause.

Siemens describes OFDMA/TDMA and IFDMA/TDMA as two possible solutions for Uplink multiple scheme for Evolved UTRA and that the latter offers support of reduced PAPR due to single carrier properties. Considering the latency requirements of the SI it should be taken into account that an optimization of the multiple access scheme/resource allocation/physical layer needs to go together with an optimization of the corresponding MAC/scheduling strategies/signalling. Only such a joint PHY/MAC layer design will allow for efficient support of bursty (=fast varying) traffic.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050261   Uplink multiple access   (QUALCOMM Europe)
07/04/2005 17:35 Presented by Mr. Serge Willenegger.

Qualcomm describes some additions to the existing uplink CDMA structure which when combined with Node B receiver improvements will result in increased peak transmission rate and improved spectral efficiency. The next steps will consist in providing more details on the qualitative merits of this approach as well as quantitative information in line with the evaluation framework.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050265   Principles for the design of the UL multiple access schemes for E-UTRA
                                                                        (Nortel)
07/04/2005 17:50 Presented by Ms. Evelyne Le Strat.

Nortel proposes the working assumptions as guidelines to be adopted for the design of the UL multiple access:
- An Uplink E-UTRA is to be designed in order to meeting the requirements as agreed in Tokyo where :
  - Different bandwidths from 1.25 MHz up to 20 MHz are to be considered and commonality between parameters for the different bandwidths is to be achieved.
  - Proper trade-off is to be achieved between commonality and optimisation on per bandwidth. Trade-off optimization to be performed for the 5 MHz bandwidth
  - Design should assume that the network is synchronised at the level of the cell site with possible exception for some indoor cells
  - UE has at least a second receiver capable of reception of other RATs in the same band while in operation on E-UTRA or on different bands (e.g. 900/ 2100)
  - Impact of monitoring neighbour E-UTRA should be minimised. Such minimisation may be based on the reuse of the second receiver capable of receiving other RATs, or the use of a third receiver or optimisation of the structure of beacon channels between.
- To consider also E-UTRA Downlink paired with W-CDMA

Discussion (Question / Comment):

Decision: This document was noted.

R1-050266 Proposal for the Uplink multiple access scheme for E-UTRA (Nortel)
07/04/2005 17:55 Presented by Ms. Evelyne Le Strat.

In this document, Nortel proposes UL OFDMA design and commented that UL OFDMA
- Enables the synchronous UL orthogonal transmission
- Enables the UL collaborative spatial multiplexing for the low cost UE with single transmission antenna
- Allows flexibility and scalability for the difference channel bandwidth.

Discussion (Question / Comment): There were some concerns on PARP reduction. For these concerns, on uplink it might not be serious problem because the uplink doesn't use the full bandwidth compared with downlink, but now in thinking the solution for the reduction of PAPR. And there were some questions and comments regarding synchronisation, number of MIMO antenna.
Decision: This document was noted.

R1-050269 Uplink Multiple Access for EUTRA Radio Interface (Samsung)
07/04/2005 18:20 Presented by Dr. Farooq Khan. (Power point presentation)
In this contribution, Samsung provides performance and PAPR comparison for various candidate technologies for the uplink that should help understand the tradeoffs involved in deciding the uplink multiple access scheme for Evolved UTRA.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050282 LTE: Uplink Aspects (IPWireless)
07/04/2005 18:40 Presented by Dr. Martin Beale.

This document proposes that the uplink multiple access scheme for LTE has the following features:
- single code CDMA based per UE
- short scrambling codes
- time-slotted, configurable depending on chip rate, latency requirements etc.
- self-contained transmissions that do not require continuous pilots

Discussion (Question / Comment): There was a concern on the feature that self-contained transmissions not required continuous pilots
Decision: This document was noted.

R1-050283 Considerations on uplink multiple access for UTRAN LTE (Huawei)
07/04/2005 18:50 Presented by Ms. Ma Sha.

In this document, now several candidate uplink schemes (IFDMA, OFDMA, CDMA, MC-CDMA) are compared according to the key points : inter-cell interference, intra-cell interference, PAR, system overhead, and link adaptation.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050287 Uplink Multiple Access for Evolved UTRA (NEC, Telecom Modus)
08/04/2005 19:00 Presented by Mr. Diptendu Mitra.

In this contribution, it is discussed that OFDM-based methods are promising uplink multiple access since they fulfil most of the requirements for such a scheme. However, when considering the high PAR issue and the associated amplifier back-off and complexity, single carrier multiple access with/without CDM with reasonably complex receivers can be alternatives. So, NEC and Telecom Modus recommend analysis of both these techniques within this working group.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050290 Uplink consideration for LTE (RITT)
08/04/2005 19:05 Presented by Dr. Shen Jia

In this document, RITT comments for uplink multiple access as followed.
- Efficient LTE downlink PHY will benefit from combination of multiple MA schemes
- Orthogonal schemes (FDMA & TDMA) should be considered with the first priority
- Non-orthogonal schemes provide valuable complementarity in some scenarios.

- OFDMA & GMC seem attractive for uplink. GMC can achieve low complexity, low peak-to-average ratio for mobile terminal.
- Advanced multi-antenna techs encouraged for better MA and interference suppression
- FDD and TDD modes are both supported via developing advanced and backward-compatible technologies.

Discussion (Question / Comment): It was asked if how GMC provides the high data rate, one carrier is for one terminal. The answer was that it allocates the same band also to high data rate user. (but this answer was not clear)
Decision: This document was noted.

R1-050293   UL Multiple Access Considerations for E-UTRA TDD   (CATT, RITT)
08/04/2005 17:15 Presented by Mr. Wang Ke.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050316   Uplink Multiple Access Scheme for 3GPP Long Term Evolution (InterDigital)
08/04/2005 19:20 Presented by Mr. Guodong Zhang.

In this document, InterDigital proposes the usage of SCQS (Spread Complex Quadratic Sequence) in OFDM system and introduce the following advantages; Constant envelope (or at least very low PAPR), Relaxed the requirement of synchronization, Much larger code set compared to CDMA, Simple equalizer (like OFDM), Robust against ISI, Reduced MAI, Multicarrier system, Mitigated intercell interference, Reasonable complexity and cost, Large system capacity, and reduced PAPR.

Discussion (Question / Comment): The concerns were raised on the essential technique of the proposed scheme, e.g. this scheme is simple MC CDMA or OFDM, continuous signals, and also there was a concern on the simulation results of MC-CDMA. To the concerns, there was no clear answer.
So, Mr. RAN1 convenor suggested Interdigital to send the overview of the proposed scheme on the reflector for clarifying the concerns from other delegates.
Decision: This document was noted.

Withdrawn

R1-050280   Multiple Access Considerations for Downlink UTRAN LTE   (Intel)

12.2.2   DL basic concept

R1-050246   Downlink Multiple Access for EUTRA   (Motorola)
07/04/2005 08:15 Presented by Mr. Robert Love.

In this document, Motorola summarises the EUTRA DL Multiple Access as followed.
- OFDMA-MA appears to be best long-term DL MA choice for EUTRA LTE SI
- Key OFDM-MA Opportunities : Frequency-scalable operation, Low complexity MIMO deployments, Full access to time-frequency radio resource scheduling
- Fundamental considerations for EUTRA DL OFDM-MA basic design
  - OFDM symbol and sub-frame construction guidelines including support for variable bandwidth operation – outline physical channel identification
  - Frame construction including shared resource allocation plus pilot provisioning and shared resource control signalling.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050249   Downlink Multiple Access Scheme for Evolved UTRA   (NTT DoCoMo)
07/04/2005 08:20 Presented by Dr. Mamoru Sawahashi

In this document, NTT DoCoMo proposes for the downlink multiple access scheme for the Evolved UTRA.
- Downlink transmission scheme
  - VSF-Spread OFDM, Cyclic Prefix based transmission signal waveform is assumed
- Physical channel structure
  Shared Data Channel, Multicast Channel, Pilot Channel (Common Pilot Channel, Dedicated Pilot Channel) Common Control Channel, Shared Control Signaling Channel, Synchronization Channel
- Frequency diversity / frequency scheduling

- Common Channel : Use entire channel bandwidth providing frequency diversity
- Shared Data Channel
  (a) Frequency-time domain channel-dependent scheduling providing multiuser diversity
  (b) Use entire channel bandwidth for special cases such as high mobility and very low SINR conditions
- Multiplexing of Common Channel and Shared Data Channel
- Multiplexing is based on TDM (TTI level or symbol-level), FDM (chunk-level or sub-carrier-level), or hybrid of TDM/FDM
- Multiplexing of Shared Data Channel
- TDM : the highest priority, FDM : second highest priority, Hybrid of TDM/FDM: high mobility users
- Multiplexing of Common Control Channel and Shared Control Signaling Channel
- TDM : the highest priority, FDM : the second highest priority, Utilization of CDM is for further study
- Pilot channel structure
- Common pilot channel
  * TDM structure, Staggered structure has potential benefits (for further study)
- Dedicated pilot channel
  * Appropriate pilot channel structure according to user-dependent or environment-dependent channel conditions. TDM, FDM, hybrid of TDM/FDM, and CDM structures are applicable (for further study)
- Data modulation and channel coding
- QPSK, 16QAM, and 64 QAM / Turbo coding /HARQ (IR)
- Advanced antenna techniques
- MIMO multiplexing and diversity, Employing an adaptive antenna array beam forming transmitter at a BS
Discussion (Question / Comment):
Decision: This document was noted.

R1-050252   **Downlink Considerations for UTRAN LTE**   (Nokia)
07/04/2005 08:45 Presented by Mr. Antti Toskala.

In this document, Nokia proposed OFDM as DL multiple access scheme for Evolved UTRA, which provides opportunities for increased orthogonality and enables advanced narrow band processing at base-band.

Discussion (Question / Comment): There were questions on the common pilot structure. It was on TDM structure and sub-frame based.
Decision: This document was noted.

R1-050255   **Evolved UTRA : Downlink transmission scheme**   (Ericsson)
07/04/2005 09:00 Presented by Dr. Stefan Parkvall.

In this document, Ericsson describes the key pints of the DL transmission scheme such as channel structure, OFDM-based downlink transmission scheme, scheduling and link adaptation, coding and modulation, frequency reuse, inter-cell synchronization, multi antenna systems and duplex arrangement.

Discussion (Question / Comment): There were questions and comments on the number of antenna of Tx, QAM256 plan, and fast cell selection. These were clarified that number of antenna was depending on plan, regarding modulation QAM256 plan is depending on the plan (fro high rate) and 64QAM is mandate, the scale of cell selection is to be considered (ms or 10ms or 100ms)
Decision: This document was noted.

R1-050262   **Downlink Multiplexing**   (QUALCOMM Europe)
07/04/2005 09:20 Presented by Mr. Serge Willenegger.

Discussion (Question / Comment): There were some comments on the receiver structure and CDMA structure (Multi-carrier?)
Decision: This document was noted.

R1-050300   **Principles for the design of the DL multiple access schemes for E-UTRA**
                       (Nortel)
04/04/2005 09:45 Presented by Ms. Evelyne Le Strat.

The content of this contribution is almost same as R1-050265.

Discussion (Question / Comment): It was commend from Nortel that Mobility is the most important issue. For this, it was commented that regarding mobility issue we (RAN) should collaborate with other group, needs the output about UTRAN architecture.
Decision: This document was noted.

R1-050267   Proposal for the Downlink multiple access scheme for E-UTRA   (Nortel)
07/04/2005 10:10 Presented by Mr. Wen Tong.

In this document, Nortel proposes MIMO-OFDM for DL multiple access scheme of Evolved UTRA and shows the key points as followed; DL frame structure, OFDM parameters, DL pilot design, Assignment of pilots in DL, DL preamble, DL channelization, DL scalability, DL MIMO Codes, Achievable performance targets.

Discussion (Question / Comment): It was asked what the motivation for MIMO block is. The answer was that it was for indicating the total band.
Decision: This document was noted.

R1-050270   Downlink Multiple Access for EUTRA Radio Interface   (Samsung)
07/04/2005 11:00 Presented by Dr. Farooq Khan

In this document, Samsung provides a performance comparison of OFDM and WCDMA via analysis and simulations for broadcast and unicast applications. In general, a single multiple access scheme that efficiently supports both broadcast and unicast traffic types is desirable from system and UE complexity point of view. The analyses and simulations performed in this paper indicate that OFDM can provide capacity advantage over WCDMA in these two cases of interest. Therefore, OFDM needs to be considered as a strong candidate for downlink multiple access in evolved UTRA.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050272   OFDM Air Interface with QoS at Cell Edge   (Alcatel)
07/04/2005 11:20 Presented by Mr. Christian G. Gerlach.

In this document, looking at the cell border and studying the situation and alternatives for WCDMA, it was concluded that HSDPA-OFDM (which can better cope with the cell border situation) would well fit into an introduction scenario. Further a soft handover (SHO) for a new air interface should be avoided.
In the long term when all services should be carried on packet bearers (VoIP and packet with QoS) the cell edge bit rate and QoS at the cell edge becomes decisive. Hence OFDM is proposed for the downlink with Interference Coordination techniques exemplified in this document.
Generally a soft handover is not required with the techniques proposed here. The cell-edge problem with frequency re-use of 1 can be handled by OFDM with the proposed Interference Coordination, **network power planning** and **coordination on demand basis**. That means that the RAN architecture and protocols could be simplified with less signal processing necessary in an RNC.
Discussion (Question / Comment): It was asked if the signalling on the interference coordination was conveyed directly between Node B or via RNC. The answer was that it was RNC but it can be through other node even if there was no RNC.
Decision: This document was noted.

R1-050273   Key components of the EUTRA downlink multiple access scheme
                                                                   (Huawei Technologies)
07/04/2005 11:40 Presented by Dr Popovic Branislav.

In this document, Huawei advocates that scheduler-controlled multiple access in time, frequency and space ,OFDM / MIMO physical channels, and LDPC coding should become the key components of the EUTRA downlink multiple access scheme.

Discussion (Question / Comment): The concern was raised on the LDPC coding. The study for these issues should be postponed to WI phase.
Decision: This document was noted.

R1-050274   Downlink multiple access scheme for LTE   (LG Electronics)
07/04/2005 11:55 Presented by Mr. Hak Seong

LGE proposes to consider OFDM as a basic modulation technique of the downlink for LTE system. We also considered the possible three multiple access schemes based on OFDM, OFDMA, OFDMA with IIS and OFDMA+T/F-CDMA. Among those schemes, we think that the OFDMA or OFDMA with IIS are powerful candidates within a reasonable complexity. Therefore, we propose to consider OFDMA and OFDMA with IIS for the further evaluation of RAN LTE MA scheme. However, OFDMA+T/F-CDMA may also be considered to achieve more flexibility in the resource allocation.
Discussion (Question / Comment):
Decision: This document was noted.

R1-050276   Proposal of multiplexing methods and interference mitigation methods for downlink for evolved UTRAN   (Panasonic)
07/04/2005 12:05 Presented by Dr. Akihiko Nishio.

Panasonic proposes OFDM for the multiplexing method in LTE. Regarding frequency multiplexing, time multiplexing and code multiplexing in OFDM, the combination of frequency and time multiplexing is seen as the preferred solution. As for interference mitigation methods to achieve an improved cell edge data rate, repetition and frequency hopping are proposed.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050277   Considerations for LTE Multiple Access   (ETRI)
07/04/2005 12:15 Presented by Mr. Ilgyu KIM.

For the 3G LTE downlink multiple access, ETRI proposes a Block Hopping OFDMA with dedicated pilot. This scheme can operate with and without spreading within a hopping block.

Discussion (Question / Comment): There were some comments and questions on the group hopping and the dedicated pilot.
Decision: This document was noted.

R1-050280   Multiple Access Considerations for Downlink UTRAN LTE   (Intel Corporation)
07/04/2005 14:05 Presented by Mr. Guy Wolf.

This document highlights the importance of evaluating OFDM in conjunction with advanced OFDM schemes. Simulation results show illustrating significant potential downlink throughput gains when utilizing frequency-dependent scheduling and frequency-dependent optimal MCS selection. In addition, it is noted that many of these advanced techniques can provide benefits for the uplink as well

Discussion (Question / Comment): It was asked what the channel coding for simulation is. It was the conventional scheme.
Decision: This document was noted.

R1-050281   LTE: Downlink Aspects   (IPWireless)
07/04/2005 14:15 Presented by Dr. Martin Beale.

IPWireless proposes that the LTE downlink should be based on a time-slotted, self contained, orthogonal multiple access scheme and should not rely on continuous transmissions (such as continuous pilots). The number of time slots per radio frame should be configurable, this enables optimisation of the framing for different channel bandwidths and different latency requirements. And a time-slotted multiple access scheme consisting of parallel orthogonal transmissions is well suited to the support of packet-based services and simplifies measurements by removing the need for compressed mode operation. The use of downlink intercell interference mitigation allows the complexities arising due to soft handover in Rel-6 to be avoided whilst boosting the cell edge rate and increasing average sector throughput.
Discussion (Question / Comment):
Decision: This document was noted.

R1-050288   Downlink Multiple Access for Evolved UTRA   (NEC, Telecom Modus)
07/04/2005 14:25 Presented by Mr. Diptendu Mitra.

In this contribution, NEC and Telecom Modus have shown that OFDM-based methods are promising as multiple access techniques for the downlink in cellular systems and propose OFDM based multiple access technique coupled with efficient spectrum spreading as our preferred concept for downlink multiple access for EUTRA.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050289   Multiple Access Scheme Evaluation for the SI 'Evolved UTRA and UTRAN' Downlink   (Siemens)
07/04/2005 14:35 Presented by Dr. Joern Krause.

Siemens proposes for DL the best approach would be OFDMA/TDMA (which includes an FDMA part: either d1. or d2.) to achieve reuse=1 method d1. Depending on special applications a CDMA multiplexing component (like mentioned for OFDMA/TDMA/CDMA) might also be considered.

Considering the latency requirements of the SI it should be taken into account that an optimization of the multiple access scheme/resource allocation/physical layer needs to go together with an optimization of the corresponding MAC/scheduling strategies/signalling. Only such a joint PHY/MAC layer design will allow for efficient support of bursty (=fast varying) traffic.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050291   Downlink consideration for LTE   (RITT)
07/04/2005 14:45 Presented by Dr. Shen Jia

In this document, RITT summarises for the DL of LTE as followed.
- Orthogonal division multiplexing and multiple access are first desired
- MIMO-based OFDM/TDM is suggested as basic multiplexing schemes in downlink,
- FDMA/TDMA considered for inter-cell MA.
- Non-orthogonal schemes, such as IDMA, may provide extra separation by whitening inter-cell interference
- Smart spatial multiplexing/MA schemes such as distribute antennas suggested for better MA and interference rejection.

Discussion (Question / Comment): There were comments on the Interleave Division Multiple Access (IDMA); Frequency/Time domain, difference from spreading.
Decision: This document was noted.

R1-050301   DL Multiple Access schemes for UTRA evolution
                                                    (FRANCE TELECOM & Orange)
07/04/2005 15:00 Presented by Ms. Nadege NOISETTE.

In this document, Orange lists some multiple access schemes relevant for the RAN LTE in the DL and comments that multi-carrier based MA techniques can respond more efficiently to LTE DL requirements, and also comments that in the context of Long Term Evolution, inputs from other working groups (RAN2, SA, etc.) and system simulations are required in order to build a whole efficient system and then select the most appropriate resource allocation scheme. Orange pointed also out the need to go on with WCDMA improvements (not necessarily in the scope of LTE) and the need to consider interworking with WCDMA issues in the scope of LTE SI.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050317   Downlink Multiple Access Scheme for 3GPP Long Term Evolution
                                                    (InterDigital)
08/04/2005 15:10 Presented by Mr. Guodong Zhang.

In this document, InterDigital proposes the usage of SCQS (Spread Complex Quadratic Sequence) in OFDM system and introduce the following advantages; Constant envelope (or at least very low PAPR), Relaxed the requirement of synchronization, Much larger code set compared to CDMA, Simple equalizer (like OFDM), Robust against ISI, Reduced MAI, Multicarrier system, Mitigated intercell interference, Reasonable complexity and cost, Large system capacity, and Reduced PAPR.

Discussion (Question / Comment): The concerns were raised on the difference between OFDM and this scheme, that is same bandwidth and same biterate is unreliable.
Decision: This document was noted.

R1-050367   Comparison of Multiple Access scheme fro E-UTRAN Downlink : OFDM vs. CDMA   **(TI)**
Decision: This document was noted.

Withdrawn
R1-050294   DL Multiple Access Considerations for E-UTRA TDD   (CATT)

12.3   Discussion on multiple access evaluation process in RAN1

R1-050247   Evaluation of EUTRA Multiple Access   (Motorola)
08/04/2005 09:10 Presented by Mr. Robert Love.

This contribution proposes baseline simulation assumptions and evaluation (SA&E) criteria for EUTRA and UTRA (HSDPA/HSUPA) for selecting EUTRA radio access schemes. A basic set of SA&E is needed to provide some level of confidence and minimal consistency when results are presented by different companies.

Discussion (Question / Comment): The concern was raised on the number of simulations, The traffic model and so on should be minimized in order to reduce the number of simulation.
Decision: This document was noted.

R1-050250   Multiple Access Scheme Evaluation Process for Evolved UTRA(NTT DoCoMo)
08/04/2005 09:25 Presented by Dr. Mamoru Sawahashi

DoCoMo's views on the evaluation conditions for selecting radio access schemes are described below.
-    Two environment conditions are needed: Wide area and local area.
-    System level parameters should be based on those in HSDPA and EUL.
-    The working assumption of the channel bandwidth is 10 MHz. This is because as the channel bandwidth becomes wider, more benefits from OFDM are obtained. However, we also consider 20 MHz for investigating the peak data rate of the evolved UTRA system and a narrow bandwidth for evaluating the use of the 2G spectrum.
-    Assuming antenna diversity reception at the UE was agreed upon at the RAN LTE meeting in March 2005.
Discussion (Question / Comment): It was asked if there were some intention for traffic model, The answer was that we proposed the only one for the initial evaluation, not real-time, but we agree to more model after the initial.
It was asked why the number of cell for the local model is 19. The answer was that there was no special reason, same as the wide area.
It was asked if the higher mobility should be considered, more than 300km/h. The answer was that we also agree to consider higher mobility, but we focus on low mobility, and wide area compared with local area.
Decision: This document was noted.

R1-050253   UTRAN LTE Multiple access evaluation scenario in WG1   (Nokia)
08/04/2005 09:40 Presented by Mr. Antti Toskala.

In this contribution, Nokia suggests and discusses parameters be used for the system level performance studies.
In the initial system level simulation studies, Nokia recommends to start with a small urban macro cell environment. This recommendation is in line with the discussion on the Tokyo meeting. However Nokia also anticipate specifying parameters to be used for micro-cell system level studies
Discussion (Question / Comment): There were some questions and comments on "Site to Site distance"; more than 500m, for the evaluation when the delay happens. The answer was that we don't need it because of micro cell. Nokia also, some companies raised the concerns on modification of the channel model because of time schedule.
Decision: This document was noted.

R1-050256   Evaluation requirements for the evolved UTRA radio interface
                                                                        (Huawei Technologies)
08/04/2005 10:00 Presented by Dr. Branislav Popovic.

In this document, We propose that the necessity of abovementioned extensions to the UTRA channel model, as well as the concrete proposals for such extensions, be studied in the second half of this year and be finalised by the beginning of 2006. Namely, it would be very hard to develop concrete proposals for the evolved UTRA radio interface without knowing to which kind of channel they should be matched. Thus, an agreed channel model is needed as soon as possible, certainly at the very beginning of the study.

Discussion (Question / Comment): The concerns was raised o the text proposal from RAN1 convenor; Why it was the input for TR for SI, not fro RAN1 TR. And also, regarding the extension of channel model extension, there were concerns that the completed date of the binning of 2006 was so late, we should execute the simulation time to time.
Decision: This document was noted.

R1-050263   Scope of the evaluation process   (QUALCOMM Europe)
08/04/2005 10:20 Presented by Mr. Serge Willenegger.

In this document, Qualcomm proposes the scope if the evaluation process regarding services, scenarios, transmission links, antennas, radio channels, reference channel configurations, metrics, and calibration.

Discussion (Question / Comment): From Qualcomm, it was commented that the main parameter should be defined by May or June 2005. From RAN1 convenor and some companies, it was commented that some evaluations for MIMO should be done until SI completed date. And there are some questions and comments on the PA back off and equalizer (FDE equalizer)
Decision: This document was noted.

R1-050271   Evaluation of Diversity in EUTRA   (Samsung)
08/04/2005 11:20 Presented by Dr. Farooq Khan

.   In this paper, Samsung proposes a way forward on diversity evaluation for Evolved UTRA study item and we recommend that any proposed diversity scheme should be evaluated under the following scenarios:
- No other diversity source present. This will provide an estimate of the maximum achievable gains by the proposed diversity approach when no additional sources of diversity are available or used.
- Additional sources of diversity present. This will give an estimate of the gains from the proposed approach when the scheme will be used along with other potential sources of diversity.
- If some form of diversity approach is mandated for Evolved UTRA, then this diversity should always be present when simulating performance for any additional form of diversity. An example could be the case for uplink where 2-way receives diversity is almost always available. Therefore, all uplink diversity evaluations can take into account the 2-way Rx-diversity.
Discussion (Question / Comment):
Decision: This document was noted.

R1-050275   Considerations for MA evaluation process   (LG Electronics)
08/04/2005 11:30 Presented by Mr. Dragan Vujcic.

In this document, LGE identifies some important aspects such as Bandwidth scalability and Development scenario, Symmetric/Asymetric access schemes, MA parameters, MIMO linked to the access schemes, Advanced techniques and enhancing methods, Channel model, PAPR issues, in an evaluation process. Within the given timeframe, LGE comments that the scope of evaluation process should be defined with the simple approach but under realistic assumptions. The spectral efficiency and "performances vs. complexity" trade-off should definitely be ones of the metrics to consider with the problematic, which multiple access schemes achieve the highest spectral and system efficiency for the uplink and the downlink.

Discussion (Question / Comment):
Decision: This document was noted.

R1-050278   Some consideration on evaluation method   (Fujitsu)
R1-050370   Some consideration on evaluation method   (Fujitsu) (Revision of R1-050278)
08/04/2005 11:35 Presented by Mr. Yoshihiro KAWASAKI.

Fujitsu proposes that multiple access scheme candidates for the Evolved UTRA be evaluated using conditions similar to those used for HSDPA and HSUPA evaluation, and also proposes to evaluate multiple access schemes which have been optimised for small cell environment(e.g. HSDPA/HSUPA-assumed environment), with larger cell environment(cell radius of e.g. 5 km) condition.
Discussion (Question / Comment): The concern was raised on cell radius; 5 km was quite large.
Decision: This document was noted.

R1-050279   On the evaluation of UTRAN LTE   (Ericsson)
08/04/2005 11:45 Presented by Dr. Stefan Parkvall.

Discussion (Question / Comment): From Ericsson, it was commented that we should defied the just parameter to need for starting the evaluation. One comment was raised on the calibration accuracy. => It doesn't need to take a long time.
Decision: This document was noted.

R1-050285   Multiple access scheme evaluation   (Vodafone Group)
08/04/2005 11:50 Presented by Mr. Yannick Le Pezennec.

Vodafone comments that we should keep in mind the following in the evaluation process:
- Only schemes which are in line with the requirements defined by TR 25.812 should be considered in the evaluation process. Requirements from TR 25.812 which can not be met by particular proposals should be highlighted.

- There should not be any contradictions in the evaluation methodology with respect to the requirements.
- The evaluation should purely focus on the MA, so it should be clearly defined what is in the scope of an MA proposal and what is not. Among the different families of multiple access schemes, there exists multiple variants, we should focus on baseline proposals and avoid evaluating variants (assuming these would not be precluded by the MA selection itself).
- The general trend in terms of complexity impact for each proposal should be outlined. It should particularly be highlighted if the MA has any specific incompatibilities with major techniques such as MIMO.

Discussion (Question / Comment): The concerns were raised on HARQ and MIMO evaluation; Why HARQ was only chase combining, not include IR, Why In a first stage MIMO is not simulated in a first stage. It was simulated with multiple access.
Decision: This document was noted.

R1-050286   Comparison of Multiple-Access and Duplex Schemes   (Philips)
08/04/2005 12:20 Presented by Mr. Matthew Baker.

To speed up the process for the choice of uplink and downlink multiple access schemes for the evolved RAN, Philips proposes in addition a more qualitative evaluation approach to allow at least initial screening of candidates, if not final selection.

Discussion (Question / Comment): The concern was raised that we could not catch up the full item of this document.
Decision: This document was noted.

R1-050292   Evaluation Process for Evolved UTRA   (RITT)
08/04/2005 14:40 Presented by Mr. Lin Hui.

Discussion (Question / Comment):
Decision: This document was noted.

Chairman's note

Pragmatic approach in RAN1, with basic simulation parameters agreed up to a "agreeable " level for the evaluation and concept building. Parameters for the second phase (of full concept) evaluation will be in worked on in RAN4

Continue discussion on basic simulation parameters over the RAN1 reflector until RAN1#41, target is to agree the parameters at RAN1#41

Continue discussion on specific requirement on the RAN1 TR structure over the reflector.

Not Available
R1-050268   Discussion on multiple access evaluation process and related RAN1 work plan
                                                                        (Nortel)

13.   Other Business

After the meeting, the new specification numbers for TS and TR were allocated as followed.

TR 25.826   3.84 Mcps TDD Enhanced Uplink: Physical Layer Aspects

TS 25.202   7.68Mcps TDD Option; Overall Description; Stage 2

14.   Closing of the meeting : Friday 5.00 PM

08/04/2005 16: 00. RAN1 Convener, Mr. Dirk Gerstenberger expressed his appreciation to the delegates and the host, the Huawei Technologies for their supports.

Annex A: List of participants at RAN1 #40bis

It was clarified that this (RAN1#40bis) meeting will have some effects on voting rights, but that RAN1#40 and RAN1#40bis will considered as "one" meeting for attendance/voting rights.

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Annex B: TSG RAN WG1 meetings in 2005

TITLE	TYPE	DATES	LOCATION	CTRY
3GPPRAN1#40	WG	14 - 18 Feb 2005	Scottsdale	USA
3GPPRAN1#40bis	WG	04 - 08April 2005	Beijing	China
3GPPRAN1#41	WG	09 - 13 May 2005	Athens	GR
3GPPRAN1 Ad Hoc LTE	AH	20-21 June 2005	Sophia Antipolis	FR
3GPPRAN1#42	WG	29 Aug -02 Sept 2005	London	UK
3GPPRAN1#43	WG	07 - 11 Nov 2005	Korea	Asia

MEETING TYPES

AH = Ad Hoc	CM = Chairmen's meeting
JM = Joint	OR = Ordinary
PM = Preparatory Meeting	RG = Rapporteurs Group
RM = Resolution Meeting	SG = Steering Group
ST = Startup Meeting	TG = Task Group
WG = Working Group	XO = Extraordinary

Annex C: List of CRs agreed at RAN1#40bis

Spec	CR	R	Cat	Rel	R1 Tdoc	Title	Work Item
211	203	1	F	Rel-6	R1-050359	Correction of text on E-RGCH duration	EDCH-Phys
212	202	-	F	Rel-5	R1-050258	Correction of HSDPA Bit Separation	HSDPA-Phys
212	203	-	F	Rel-6	R1-050258	Correction of HSDPA Bit Separation	HSDPA-Phys
212	206	-	F	Rel-6	R1-050329	E-HICH and E-RGCH serving/non-serving definition clarification	EDCH-Phys
213	075	1	F	Rel-6	R1-050355	Support of different HARQ profiles	EDCH-Phys
214	372	1	F	Rel-6	R1-050358	Support of different HARQ profiles	EDCH-Phys
214	373	-	F	Rel-6	R1-050346	Lowest reference E-TFC for the gain factor setting for E-DCH	EDCH-Phys

Annex D: List of Outgoing LSs

NUMBER	TITLE	WI	To	Cc
R1-050364	LS on the PSC/SSC proposal for VoIMS	RAB support enhancement	RAN2, RAN4	RAN3
R1-050373	Reply LS to ITU-R Ad hoc		ITU-R Ad hoc	
R1-050374	Reply LS on Performance Targets for HSUPA signalling channels	FDD Enhanced Uplink	RAN4	RAN2

Annex E: List of Tdocs at RAN1 #40bis

NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050235	Draft Agenda	RAN1 Convener	2		04/04/2005	Approved
R1-050236	Draft report from RAN1#40	RAN1 Secretary	3		04/04/2005	Revised in Tdoc R1-050352
R1-050237	Summary from TSG RAN#27	RAN1 Convener	4		04/04/2005	Noted
R1-050238	LS on Performance Targets for HSUPA signalling channels (To:RAN1, RAN2)	WG RAN4 (NTT DoCoMo)	5	= R4-050286	04/04/2005	Noted
R1-050239	Liaison statement MBMS User Service finalization(To:SA2, SA3, Cc:RAN1, RAN2, RAN3, RAN4, SA1, CN1, CN3)	WG SA4	5	= S4-050141	04/04/2005	Noted
R1-050240	Reply LS on Assumptions on MBMS measurement (R1-041252, R2-042217) (To:RAN1, RAN2)	WG RAN4 (Siemens)	5	= R4-050272	04/04/2005	Noted
R1-050241	LS on Outer-loop TPC behaviour in 0 bit TB reception for A-DPCH (To:RAN1, RAN2)	WG RAN4 (NTT DoCoMo)	5	= R4-050267	04/04/2005	Noted
R1-050242	Reply LS on the usage of the secondary scrambling code for VoIMS (To:RAN1, Cc:RAN2)	WG RAN4 (Siemens)	5	= R4-050220	04/04/2005	Noted
R1-050243	LS on MBMS UE capability and MCCH Reception (To:RAN4, Cc:RAN1,RAN3)	WG RAN2 (Motorola)	5	= R2-050711	04/04/2005	Noted
R1-050244	LS on alignment of MBMS transport channels (To:RAN3, Cc:RAN1)	WG RAN2 (Siemens)	5	= R2-050712	04/04/2005	Noted
R1-050245	Uplink Multiple Access for EUTRA	Motorola	12.2.1		07/04/2005	Noted
R1-050246	Downlink Multiple Access for EUTRA	Motorola	12.2.2		07/04/2005	Noted
R1-050247	Evaluation of EUTRA Multiple Access	Motorola	12.3		08/04/2005	Noted
R1-050248	Uplink Multiple Access Scheme for Evolved UTRA	NTT DoCoMo	12.2.1		07/04/2005	Noted
R1-050249	Downlink Multiple Access Scheme for Evolved UTRA	NTT DoCoMo	12.2.2		07/04/2005	Noted
R1-050250	Multiple Access Scheme Evaluation Process for Evolved UTRA	NTT DoCoMo	12.3		08/04/2005	Noted
R1-050251	Uplink Considerations for UTRAN LTE	Nokia	12.2.1		07/04/2005	Noted
R1-050252	Downlink Considerations for UTRAN LTE	Nokia	12.2.2		07/04/2005	Noted
R1-050253	UTRAN LTE Multiple access evaluation scenario in WG1	Nokia	12.3		08/04/2005	Noted

NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050254	Evolved UTRA : Uplink transmission scheme	Ericsson	12.2.1		07/04/2005	Noted
R1-050255	Evolved UTRA : Downlink transmission scheme	Ericsson	12.2.2		07/04/2005	Noted
R1-050256	Evaluation requirements for the evolved UTRA radio interface	Huawei	12.3		08/04/2005	Noted
R1-050257	25.214CR370(Rel-6, F) "DPCCH/E-DPDCH power difference"	Siemens	6.2		05/04/2005	Noted. It was decided to check with outcome of RAN2 discussion, and provide a CR for RAN1#41
R1-050258	25.212CR202(Rel-5, F)&CR203(Rel-6, A) "Correction of HSDPA Bit Separation"	Siemens	6.3		05/04/2005	Agreed
R1-050259	25.212CR204(Rel-6, F)"E-DCH Corrections"	Siemens	6.3		05/04/2005	This CR was principle agreed. Revisit at RAN1#41.
R1-050260	Multiple Access Scheme Evaluation for the SI 'Evolved UTRA and UTRAN' Uplink	Siemens	12.2.1		07/04/2005	Noted
R1-050261	Uplink Multiple access	QUALCOMM Europe	12.2.1		07/04/2005	Noted
R1-050262	Downlink multiplexing	QUALCOMM Europe	12.2.2		07/04/2005	Noted
R1-050263	Scope of the evaluation process	QUALCOMM Europe	12.3		08/04/2005	Noted
R1-050264	Compressed mode for E-DCH	Nortel	6.1		04/04/2005	Noted
R1-050265	Principles for the design of the UL multiple access schemes for E-UTRA	Nortel	12.2.1		07/04/2005	Noted
R1-050266	Proposal for the Uplink multiple access scheme for E-UTRA	Nortel	12.2.1		07/04/2005	Noted
R1-050267	Proposal for the Downlink multiple access scheme for E-UTRA	Nortel	12.2.2		07/04/2005	Noted
R1-050268	Discussion on multiple access evaluation process and related RAN1 work plan	Nortel	12.3			Not Available
R1-050269	Uplink Multiple Access for Evolved UTRA Radio Interface	Samsung	12.2.1		07/04/2005	Noted
R1-050270	Downlink Multiple Access for EUTRA Radio Interface	Samsung	12.2.2		07/04/2005	Noted
R1-050271	Evaluation of Diversity in Evolved UTRA	Samsung	12.3		08/04/2005	Noted
R1-050272	OFDM Air Interface with QoS at Cell Edge	Alcatel	12.2.2		07/04/2005	Noted

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NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050273	Key components of the EUTRA downlink multiple access scheme	Huawei	12.2.2		07/04/2005	Noted
R1-050274	Downlink multiple access scheme for LTE	LG Electronics	12.2.2		07/04/2005	Noted
R1-050275	Considerations for MA evaluation process	LG Electronics	12.3		08/04/2005	Noted
R1-050276	Proposal of multiplexing methods and interference mitigation methods for downlink for evolved UTRAN	Panasonic	12.2.2		07/04/2005	Noted
R1-050277	Considerations for LTE Multiple Access	ETRI	12.2.2		07/04/2005	Noted
R1-050278	Some considerations on evaluation process	Fujitsu	12.3			Revised in Tdoc R1-050370
R1-050279	On the evaluation of UTRAN LTE	Ericsson	12.3		08/04/2005	Noted
R1-050280	Multiple Access Considerations for Downlink UTRAN LTE	Intel	12.2.2		07/04/2005	Noted
R1-050281	LTE: Downlink Aspects	IPWireless	12.2.2		07/04/2005	Noted
R1-050282	LTE: Uplink Aspects	IPWireless	12.2.1		07/04/2005	Noted
R1-050283	Considerations on uplink multiple access for UTRAN LTE	Huawei	12.2.1		07/04/2005	Noted
R1-050284	Compressed Mode support for the 10 ms TTI	Vodafone Group	6.1		04/04/2005	Noted
R1-050285	Multiple access scheme evaluation	Vodafone Group	12.3		08/04/2005	Noted
R1-050286	Comparison of Multiple-Access and Duplex Schemes	Philips	12.3		08/04/2005	Noted
R1-050287	Uplink Multiple Access for Evolved UTRA	NEC, Telecom Modus	12.2.1		07/04/2005	Noted
R1-050288	Downlink Multiple Access for Evolved UTRA	NEC, Telecom Modus	12.2.2		07/04/2005	Noted
R1-050289	Multiple Access Scheme Evaluation for the SI 'Evolved UTRA and UTRAN' Downlink	Siemens	12.2.2		07/04/2005	Noted
R1-050290	Uplink consideration for LTE	RITT	12.2.1		07/04/2005	Noted
R1-050291	Downlink consideration for LTE	RITT	12.2.2		07/04/2005	Noted
R1-050292	Evaluation Process for Evolved UTRA	RITT	12.3		08/04/2005	Noted
R1-050293	UL Multiple Access Considerations for E-UTRA TDD	CATT, RITT	12.2.1		07/04/2005	Noted
R1-050294	DL Multiple Access Considerations for E-UTRA TDD	CATT	12.2.2			Withdrawn
R1-050295	E-DCH Compressed Mode Operations	Motorola	6.1		05/04/2005	Noted
R1-050296	E-AGCH Coding and Spreading Factor	Motorola	6.2		05/04/2005	Noted

NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050297	25.212CR205(Rel-6, F) "E-AGCH Channel Coding Specification"	Motorola	6.3		05/04/2005	Not agreed
~~R1-050298~~	~~Multiple Access Considerations for Uplink UTRAN LTE~~	~~Intel~~	~~12.2.1~~			Withdrawn
R1-050299	Information from Joint WG meeting on LTE	RAN1 Convener	12.1		07/04/2005	Noted
R1-050300	Principles for the design of the DL multiple access schemes for E-UTRA	Nortel	12.2.2		07/04/2005	Noted
R1-050301	DL Multiple Access schemes for UTRA evolution	FRANCE TELECOM & Orange	12.2.2		07/04/2005	Noted
R1-050302	Interactions with Compressed Mode	ZTE	6.1		04/04/2005	Noted
R1-050303	E-AGCH Aspects	ZTE	6.2		05/04/2005	Noted
R1-050304	Power offset values for E-DPDCH	Samsung	6.2		05/04/2005	Noted
R1-050305	25.213CR074(Rel-6, F) on power offset values for E-DPDCH	Samsung	6.3		05/04/2005	Noted
R1-050306	UTRAN Measurement for E-DCH RRM	Samsung	6.4		05/04/2005	Noted
R1-050307	25.215CR159(Rel-6,F) on UTRAN measurements for E-DCH RRM	Samsung	6.3		05/04/2005	Noted
R1-050308	Coding for E-AGCH	Samsung	6.2		05/04/2005	Noted
R1-050309	Set of draft CRs on Coding for E-AGCH	Samsung, Siemens	6.3		05/04/2005	Noted
R1-050310	25.214CR363r1(Rel-6,F) on Power control at the maximum power limit	Samsung	6.3		05/04/2005	Noted. It was decided to check with outcome of RAN2 discussion, and provide a CR for RAN1#41
~~R1-050311~~	~~25.214CR371(Rel-6,F) on UL/DL timing association~~	~~Samsung~~	~~6.3~~			Withdrawn
R1-050312	Support of different HARQ profiles	Samsung	6.2			Revised in R1-050354
R1-050313	25.213CR075(Rel-6,F) on support of different HARQ profiles	Samsung	6.3			Revised in R1-050355
R1-050314	25.214CR372(Rel-6,F) on support of different HARQ profiles	Samsung	6.3			Revised in R1-050356
R1-050315	Code utilisation and power impact of PLCCH and DPCH with smart antenna in TDD LCR	UTStarcom & IPWireless	11			Revised in R1-050365
R1-050316	Uplink Multiple Access Scheme for 3GPP Long Term Evolution	InterDigital	12.2.1		07/04/2005	Noted

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NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050317	Downlink Multiple Access Scheme for 3GPP Long Term Evolution	InterDigital	12.2.2		07/04/2005	Noted
R1-050318	SSC for IMS, Proposed Way Forward	Siemens	7		06/04/2005	Noted. LS on SSC for IMS was agreed in Tdoc R1-050364
R1-050319	E-DCH and Compressed mode	Ericsson	6.1		04/04/2005	Noted
R1-050320	Node B measurements for E-DCH	Ericsson	6.4		05/04/2005	Noted
R1-050321	25.211CR203(Rel-6,F) "Correction of text on E-RGCH duration"	Ericsson	6.3		05/04/2005	Revised in Tdoc R1-050359.
R1-050322	Handling of compressed mode with E-DCH	Philips	6.1		04/04/2005	Noted
R1-050323	Comparative Performance of Dedicated Mode with and without non-serving cell Relative Grant (RG)	Motorola	6.2		05/04/2005	Noted
R1-050324	Proposal for supporting Real Time services over HSDPA	Lucent Technologies	8		06/04/2005	Noted
R1-050325	General consideration on the quantization of E-DPDCH Tx power	LG Electronics	6.2		05/04/2005	Noted
R1-050326	Calculation of E-DPDCH gain factor	LG Electronics	6.2		05/04/2005	Noted
R1-050327	Compressed Mode handling	NEC	6.1		04/04/2005	Noted
R1-050328	RRM consideration	NEC	6.4		05/04/2005	Noted
R1-050329	25212CR206(Rel-6, F) "E-HICH and E-RGCH serving/non-serving definition clarification"	Nokia	6.3		05/04/2005	Agreed
R1-050330	On RTWP and RoT Measurements	Nokia	6.4		05/04/2005	Noted
R1-050331	3.84 Mcps TDD Enhanced Uplink: draft TR – Physical Layer Aspects	IPWireless	10		06/04/2005	The structure of the TR was agreed.
R1-050332	Optimization of DL channelisation code for HSDPA in 1.28 Mcps TDD	Siemens AG	11		06/04/2005	Noted
R1-050333	Interaction with compressed mode in 10ms TTI	Panasonic	6.1		04/04/2005	Noted
R1-050334	Timing topic on E-DCH	Panasonic	6.2		05/04/2005	Noted
R1-050335	Proposed CR to 25.993 [Rel-6] on Introduction of Streaming RABs over HSDPA	Siemens (RAN2)	5		04/04/2005	Noted. It was decided to raise concerns on the L1 parameters on the reflector before May 1st
R1-050336	Comments on EDCH RRM Measurements	Siemens	6.4		05/04/2005	Noted
R1-050337	E-DCH Compressed mode	Siemens	6.1		04/04/2005	Noted
R1-050338	E-DCH related gain factors	QUALCOMM Europe	6.2		05/04/2005	Noted

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R1-050339	~~UE procedure at TX power limit~~	~~QUALCOMM Europe~~	~~6.2~~			Withdrawn
R1-050340	HSDPA mobility enhancement	QUALCOMM Europe	8	= R2-050965	06/04/2005	Noted
R1-050341	Draft TS: "7.68Mcps TDD Option; Overall Description; Stage 2"	IPWireless	9		06/04/2005	The structure of the stage 2 was agreed.
R1-050342	TR25.809 v0.1.0	IPWireless	9		06/04/2005	This version was agreed.
R1-050343	Frame Structure for 7.68Mcps TDD Option	IPWireless	9		06/04/2005	Agreed to include for the stage 2 TS (to be included in the first official version) and for the TR.
R1-050344	Timing Advance for 7.68Mcps TDD Option	IPWireless	9		06/04/2005	Agreed to include for the stage 2 TS (to be included in the first official version) and for the TR with correction of Reference 3.
R1-050345	Synchronisation Aspects for 7.68Mcps TDD Option	IPWireless	9		06/04/2005	It was decided to provide simulation results to the scheme at next RAN1 from IPWireless and the decision on the text proposals to be taken there.
R1-050346	25.214CR373(Rel-6,F) on Lowest reference E-TFC for the gain factor setting for E-DCH	NTT DoCoMo, Samsung, Philips, Nokia, Siemens	6.3		05/04/2005	Agreed
R1-050347	Outer-loop TPC behavior in 0 bit transport-block reception	NTT DoCoMo	5		04/04/2005	Noted
R1-050348	E-DPCCH Gain Factor Settings over Re-transmissions	Lucent Technologies	6.2		05/04/2005	Noted
R1-050349	Bit Mapping for E-DPCCH	Lucent Technologies	6.2		05/04/2005	Noted
R1-050350	Aspects of CM with SF/2 for HSUPA	Nokia	6.1			Not Available
R1-050351	Draft contribution for ITU-R WP8F on current 3GPP activities toward IP applications over mobile systems	ITU-R Ad Hoc	5		05/04/2005	Noted
R1-050352	Revised draft report form RAN1#40	RAN1 Secretary	3	(R1-050236)	06/04/2005	Approved in Tdoc R1-050369
R1-050353	Draft reply LS on Performance Targets for HSUPA signalling channels	NTT DoCoMo	5			This draft LS was discussed on the RAN1 reflector after the meeting. The document was revised and approved in Tdoc R1-050374.
R1-050354	Support of different HARQ profiles	Samsung	6.2	(R1-050312)	05/04/2005	Revised in Tdoc R1-050357

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NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050355	25.213CR075r1(Rel-6,F) on support of different HARQ profiles	Samsung	6.3	(R1-050313)	05/04/2005	Agreed
R1-050356	25.214CR372r1(Rel-6,F) on support of different HARQ profiles	Samsung	6.3	(R1-050314)	05/04/2005	Agreed
R1-050357	Support of different HARQ profiles	Samsung	6.2	(R1-050354)	05/04/2005	Noted
R1-050358	25.214CR372r2(Rel-6,F) on support of different HARQ profiles	Samsung, LGE, Philips	6.3	(R1-050358)	05/04/2005	Agreed version
R1-050359	25.211CR203r1(Rel-6,F) "Correction of text on E-RGCH duration"	Ericsson, Philips	6.3	(R1-050321)	05/04/2005	Agreed
R1-050360	E-DPDCH compressed mode method for 10ms TTI	Nokia, Philips, Ericsson, Siemens, Motorola, Panasonic	6.1		05/04/2005	Noted
R1-050361	E-DCH RRM measurement accuracy	NTT DoCoMo, NEC, Samsung, Nokia, Ericsson, Siemens, Lucent, Motorola	6.1	= R4AH-05064	05/04/2005	Noted
R1-050362	Optimization of DL channelisation code for HSDPA in 1.28 Mcps TDD	Siemens AG	11	(R1-050332)	06/04/2005	Noted
R1-050363	E-DCH control channel error requirement	QUALCOMM Europe	5	=R4AH-0XXXX	05/04/2005	Noted
R1-050364	LS on the PSC/SSC proposal for VoIMS	WG RAN1	5	(R1-050318)	06/04/2005	Approved version
R1-050365	Code utilisation and power impact of PLCCH and DPCH with smart antenna in TDD LCR	UTStarcom & IPWireless	11	(R1-050315)	06/04/2005	Noted. It was decided to prepare a text proposal for RAN1#41by IPWireless and discuss concerns on the simulation on the reflector and aim for resolution at RAN1#41.
R1-050366	E-DPDCH compressed mode method fro 10ms TTI	Nokia, Philips, Ericsson, Siemens, Motorola, Panasonic	6.1	(R1=050360)	06/04/2005	Noted
R1-050367	Comparison for Multiple Access scheme fro E-UTRA Downlink : OFDM vs. CDMA	TI	12.2.2		07/04/2005	Noted

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NUMBER	TITLE	SOURCE	AGENDA ITEM	REVISED BY (From)	Treated Date (CET)	Conclusion/decision
R1-050368	Draft skeleton TR of Physical Layer Aspect for evolved UTRA	Edditor (NTT DoCoMo)	12.1			Revised in Tdoc R1-050372
R1-050369	Approved report form RAN1#40	RAN1 Secretary	3		04/04/2005	Approved Version
R1-050370	Some considerations on evaluation process	Fujitsu	12.3	(R1-050278)	08/04/2005	Noted
R1-050371	Draft reply LS to ITU-R ad hoc	TIM	5		08/04/2005	Approved in Tdoc R1050373
R1-050372	Revised Draft skeleton TR of Physical Layer Aspect for evolved UTRA	Edditor (NTT DoCoMo)	12.1		08/04/2005	Approved
R1-050373	Reply LS to ITU-R ad hoc	WG RAN1	5			Approved version
R1-050374	Reply LS on Performance Targets for HSUPA signalling channels	WG RAN1	5			Approved on the RAN1 reflector after the meeting.

Annex F: List of actions

- Regarding R1-050238, R1-050353 and R1-050363, It was decided to raise concerns on the proposed values over the reflector not later than April 18 9:00am CET, and to approve the LS to RAN4 (R1-050353) until Wed April 20th 18:00 CET.

- Regarding R1-050335, It was decided to raise concerns on the L1 parameters on the reflector before May 1st, then give indication to RAN2 at the beginning of RAN1#41.

- Regarding R1-050345, It was decided to provide simulation results to the scheme at next RAN1 from IPWireless and the decision on the text proposals to be taken there.

- Regarding R1-050365, CATT should raise the concerns about the simulation on the RAN1 reflector within one week after the meeting. It was decided to prepare a text proposal for RAN1#41by UTStarcom and IPWireless and discuss concerns on the simulation on the reflector and aim for resolution at RAN1#41

- Regarding R1-050316, InterDigital should send the overview of the proposed scheme on the reflector for clarifying the concerns from other delegates.

- Regarding the evaluation for evolved UTRA and UTRAN (Physical Layer Aspects),

  o Continue discussion on basic simulation parameters over the RAN1 reflector until RAN1#41, target is to agree the parameters at RAN1#41

  o Continue discussion on specific requirement on the RAN1 TR structure over the reflector.