

UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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SAMSUNG ELECTRONICS CO., LTD.,  
Petitioner,

v.

TELEFONAKTIEBOLAGET LM ERICSSON,  
Patent Owner

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**U.S. PATENT NO. 8,995,357**

Case IPR2021-00450

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**DECLARATION OF FRIEDHELM RODERMUND**  
**IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S.**  
**PATENT NO. 8,995,357**

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I, Friedhelm Rodermund, do hereby declare as follows:

**I. INTRODUCTION AND ENGAGEMENT**

1. I have been retained in this matter by Samsung Electronics Co., Ltd (“Petitioner” or “Samsung”) to provide testimony regarding 3GPP’s standard business practices for record keeping and publishing technical specifications, change request proposals, reports, and other documents developed during the course of standards activities carried out by the 3rd Generation Partnership Project (“3GPP”) and the European Telecommunications Standards Institute (“ETSI”).

2. I have been asked to provide my opinions regarding the authenticity and dates of public accessibility of the following 3GPP documents:

- T-doc R1-01-0079, which represents a document with the title “Variable TTI proposal for HSDPA” (hereinafter “R1-01-0079”) (Ex. 1013)
- T-doc R1-01-0312, which represents a document with the title “Downlink Model for HSDPA” (hereinafter “R1-01-0312”) (Ex. 1011)
- T-doc R2-071762, which represents a document with the title “Scheduling of D-BCH” (hereinafter “R2-071762”) (Ex. 1007)

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- T-doc R2-072183, which represents a proposed Liaison Statement from RAN WG2 to RAN WG1 on the provisioning of system information in LTE (hereinafter “R2-072183”) (Ex. 1005)
- T-doc R2-071911, which represents a document with the title “System information structure (with TP)” (hereinafter “R2-071911”) (Ex. 1012)
- T-doc R2-071337, which represents a document with the title “System information scheduling and change notification” (hereinafter “R2-071337”) (Ex. 1018)
- Version 7.1.0 of technical specification 3GPP TS 25.301 (“Technical Specification Group Radio Access Network; Radio Interface Protocol Architecture (Release 7)”) (hereinafter “TS 25.301 v7.1.0”) (Ex. 1009)
- Version 8.1.0 of technical specification 3GPP TS 36.331 (“Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Resource Control (RRC); Protocol specification (Release 8)”) (hereinafter “TS 44.018 v7.8.0”) (Ex. 1010)

3. As an ETSI Project Manager and Secretary, from June 1998 to December 2004, I have personal knowledge of 3GPP’s standard business and records keeping practices. I continued following 3GPP’s work ever since. Thus, based on my experience, personal knowledge, and review of 3GPP’s business

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records, I am able to testify regarding the authenticity of certain documents published by 3GPP and the timing of their publication.

4. I am also knowledgeable about document management practices and the usage of email reflectors in TSG RAN WG1 and TSG RAN WG2. This is due to the fact that all 3GPP working groups used the same document repository on <ftp.3gpp.org> and all working groups use the same email exploder tool. Thus, I'm able to testify regarding the availability and authenticity of any 3GPP documents.

5. I am being compensated for my time spent on this matter at my usual rate of €450 per hour. My fee is not contingent on the outcome of this or any matter, or on the content of any of the testimony I give in this declaration. I have no financial interest in Petitioner.

6. I have been informed that Telefonaktiebolaget LM Ericsson (hereinafter referred to as "Patent Owner") alleges ownership and is the current assignee of U.S. Patent No. 8,995,357 ("the '357 Patent") (Ex. 1001). I have no financial interest in the Patent Owner or the '357 patent nor to my recollection have I ever had any contact with the inventors.

**II. BACKGROUND AND QUALIFICATIONS**

7. I have more than 20 years of experience working with standards development organizations including the Third Generation Partnership Project ("3GPP"), the European Telecommunications Standards Institute ("ETSI"), and the

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Open Mobile Alliance (“OMA”). I have particular experience with the development of standards related to cellular telecommunications, including the standards for the Universal Mobile Telecommunications System (“UMTS”), Long Term Evolution (“LTE”), and 5G, which are all standards developed by the 3GPP.

8. I attended the University of Technology Aachen in Aachen, Germany, where I performed graduate studies in Electrical Engineering with a focus on telecommunications technologies (“Dipl.-Ing. TH” degree). I also attended the University of Technology Trondheim in Trondheim, Norway, and completed my Diploma thesis, “Design of a dual processor computer for digital signal processing in power electronics,” in 1993.

9. From December 1993 to June 1998, I worked at Mannesmann Mobilfunk as a System Engineer and Project Manager in Quality Assurance and Technical Standards. One of my responsibilities was to ensure by managing and performing related test activities that cellular network equipment was compatible with the Global System for Mobile Communications (“GSM”) standard developed by ETSI. During that time, I also started working as a standards delegate. I attended my first ETSI meeting in 1996 (although I was already following ETSI developments from 1992 during my studies).

10. From June 1998 to December 2004, I worked at ETSI as a project manager for various ETSI Special Mobile Group (“SMG”) and 3GPP working

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groups. First, I served as a secretary of SMG4 “Data Services” and SMG8 “Base Stations Testing.” Then, as a project manager with the ETSI Mobile Competence Center (“MCC”), I supported establishing 3GPP as the new international standards development organization for cellular telecommunications. One of my roles was acting as Secretary for 3GPP’s Technical Specifications Group Terminals, Working Group (“T2”), the group which played a leading role in the creation of standards for Multimedia such as the Multimedia Messaging Service (“MMS”).

11. Later, I was a secretary of the highest-level Technical Specifications Group Terminals which was besides other things responsible for the development of test specifications including tests for the radio interface.

12. I edited all technical specifications produced by my working groups and presented results to the parent body for approval. I attended all meetings (apart from some sub-working group meetings) and was also responsible for compiling meeting reports, for handling all the meeting documents, and managing the work plan. It was also my role to guide the groups and to advise the chairmen regarding 3GPP working methods and procedures including document handling, and to make sure delegates were aware of their company’s obligations under the 3GPP Intellectual Property Rights policy.

13. As part of my responsibilities at ETSI, I acted as a 3GPP custodian of records by personally managing 3GPP’s public File Transfer Protocol (ftp) folders,

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which I used to make publicly accessible various 3GPP documents, including versions of 3GPP specifications, technical reports, liaison statements, change requests, contributions, agendas, meeting reports, and other 3GPP documents from my working groups. I am also knowledgeable about document management practices used in other working groups and within 3GPP in general with regard to making documents publicly accessible through the same, public ftp server of 3GPP.

14. Since I left ETSI as a staff member in 2005, I have been continuously involved in standardization activities, including with Open Mobile Alliance, ETSI, and 3GPP. Since 2017, I also have been attending the ETSI IPR Special Committee, which is responsible for the maintenance of the ETSI IPR Policy.

15. After I left ETSI, I worked from January 2005 to October 2014 at Vodafone, first as a Project Manager for Mobile Broadcast Standards, and then as Vice Chairman of the Device Management working group of the Open Mobile Alliance, and then as a Senior Standards Strategist, all with responsibilities as described on my C.V. At Vodafone, I was deeply involved in standards work with ETSI and 3GPP and other standards setting organizations, including as a delegate to 3GPP SA1 "Services." As part of my responsibilities, I attended selected 3GPP meetings, submitted documents to 3GPP, used 3GPP resources (including 3GPP's ftp server) extensively, and remained knowledgeable about 3GPP policies and procedures with regard to document management and public accessibility. I was also



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involved in the creation of patents, defense activities related to patent litigations, and patent evaluation, mostly in the context of standards development.

16. Since leaving Vodafone in 2014, I have performed consulting work regarding Internet of Things (IoT) and Machine to Machine (M2M) technology and standards, first at Friedhelm Rodermund Consulting and then as the Founder and Director of IOTECC GmbH. In connection with my work, I regularly deal with standards such as OMA's Lightweight M2M, 3GPP's LTE, Narrowband IoT (NB-IoT) and 5G standards. And I have extensively used 3GPP resources and have remained knowledgeable about 3GPP policies and procedures with regard to document management and public accessibility.

17. I also provide consulting services related to patents, in particular around 3GPP Standard Essential Patents ("SEPs"), and I have been working as an expert witness on a number of occasions. I continue to closely follow the maintenance of the ETSI IPR Policy as a delegate to the ETSI IPR Special Committee. Furthermore, I am conducting a seminar on SEPs and the Internet of Things at the Technical University of Ilmenau, Germany.

18. At the time of writing this declaration, I am following – including attending selected meetings - the following standards committees: ETSI oneM2M, ETSI IPR Special Committee, Open Mobile Alliance, and 3GPP.

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19. A copy of my curriculum vitae, which includes a detailed description of my experience and education, is attached as Appendix A. A list of litigation matters on which I have worked over the last five years is also included in my curriculum vitae.

**III. SUMMARY OF MY OPINIONS**

20. It is my opinion that R1-01-0079 (Ex. 1013) is an authentic 3GPP T-doc and would have been publicly accessible through ftp.3gpp.org no later than January 22, 2001.

21. It is my opinion that R1-01-0312 (Ex. 1011) is an authentic 3GPP T-doc and would have been publicly accessible through ftp.3gpp.org no later than March 4, 2001.

22. It is my opinion that R2-071762 (Ex. 1007) is an authentic 3GPP T-doc and would have been publicly accessible through ftp.3gpp.org no later than May 4, 2007.

23. It is my opinion that R2-072183 (Ex. 1005) is an authentic 3GPP T-doc and would have been publicly accessible through ftp.3gpp.org no later than May 15, 2007.

24. It is my opinion that R2-071911 (Ex. 1012) is an authentic 3GPP T-doc and would have been publicly accessible through ftp.3gpp.org no later than May 4, 2007.

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25. It is my opinion that R2-071337 (Ex. 1018) is an authentic 3GPP T-doc and would have been publicly accessible through ftp.3gpp.org no later than March 22, 2007.

26. It is my opinion that TS 25.301 v7.1.0 (Ex. 1009) is a technical specification published by 3GPP and would have been publicly accessible through ftp.3gpp.org as of April 6, 2007.

27. It is my opinion that TS 44.018 v7.8.0 (Ex. 1010) is a technical specification published by 3GPP and would have been publicly accessible through ftp.3gpp.org as of March 2, 2007.

**IV. PUBLICATION OF 3GPP SPECIFICATIONS AND RELATED DOCUMENTS**

**A. General Practices**

28. Unless otherwise noted, the following is an accurate description of 3GPP general practices from 1998 to the present, regardless of whether I use the present or past tense to describe those practices.

29. 3GPP was established in 1998 by a group of telecommunications standard development organizations from Japan, Korea, China, Europe, and the United States to jointly develop worldwide standards for mobile telecommunications. Today, 3GPP consists of seven partners: Association of Radio Industries and Businesses, Japan (“ARIB”), Alliance for Telecommunications

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Industry Solutions, USA (“ATIS”), China Communications Standards Association (“CCSA”), European Telecommunications Standards Institute (“ETSI”), Telecommunications Technology Association, Korea (“TTA”), and Telecommunication Technology Committee, Japan (“TTC”). In addition to being one of the founding partners, ETSI hosts the Mobile Competence Centre (“MCC”), which provides administrative and technical support for the day-to-day work of 3GPP. Furthermore, ETSI manages 3GPP’s IT services such as the 3GPP website, ftp server, and email exchangers.

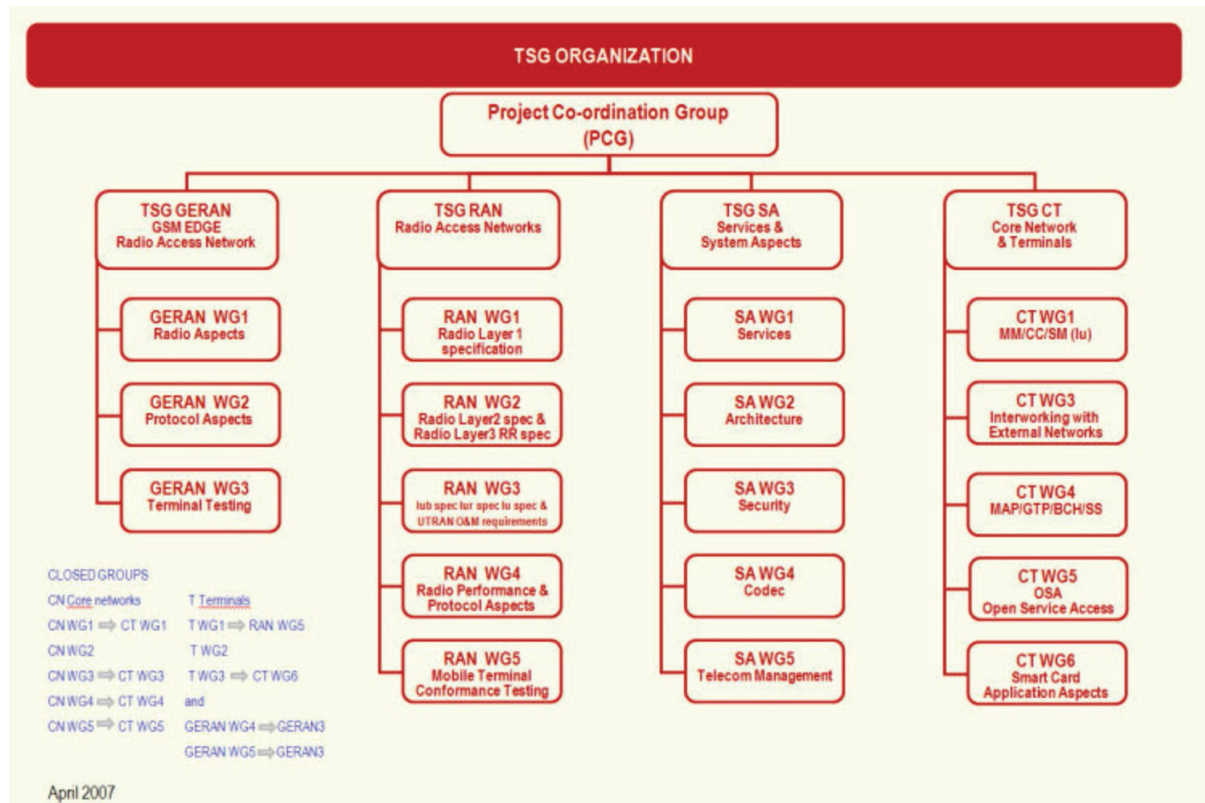
30. 3GPP is the world’s leading organization for developing and maintaining cellular telecommunications standards, which it has done since its foundation in 1998. As noted above and in my C.V., I began working for 3GPP, as part of my work at ETSI, the European-based organizational partner of 3GPP.

31. In the ordinary course of its regularly conducted business activities, and pursuant to its standard business practices, 3GPP publishes technical specifications, proposals, reports, and other documents related to the development of cellular telecommunications standards. Such documents are published for the purposes of discussion and establishment of industry standards for cellular telecommunications. This has been 3GPP’s ordinary course of business since when I began working at ETSI in 1998.

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32. In the ordinary course of 3GPP's regularly conducted business activities, and pursuant to its standard business practices, all draft technical specifications, proposals, reports, and other temporary documents to be discussed or considered in relation to 3GPP's telecommunications standards activities were, and continue to be, assigned a temporary document number and made publicly available, including on the ftp server associated with the 3GPP website, currently residing at ftp.3gpp.org. Such documents are referred to as "T-docs." Final versions of the technical specifications also were, and continue to be, publicly available from that same ftp server.

33. The names and the structure of 3GPP working groups, as of April 2007 can be found at <https://web.archive.org/web/20071230120440/http://www.3gpp.org/TB/home.htm> (reproduced below):



34. Each Technical Specification Group (TSG) or Working Group adopts a structured numbering system for the documents associated with their meetings, and those systems typically follow a consistent numbering system as shown in the following example: xminnzzzz. The numbering system normally comprises five logical elements: (1) x: a single letter corresponding to the TSG; wherein in 2007/2008 x was one of R (Radio Access Network), C (Core and Terminals), S (Service and System Aspects), or G (GSM/EDGE Radio Access Network); (2) m: a single character corresponding to the Working Group identity (typically 1, 2, 3, etc.) or, in the case of the TSG itself, the letter “P”; (3) i: normally the hyphen character

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“-”; (4) nn: the calendar year of the meeting to which the document was submitted; and (5) zzzz: a running number.

35. In the ordinary course of 3GPP’s regularly conducted business activities, and pursuant to its standard business practices, from December 1998 onwards, 3GPP published all of its T-docs and all final versions of its technical specifications on its ftp server, which has always been easily and publicly accessible from its website and currently resides at ftp.3gpp.org.

36. As early as December 1998, 3GPP’s ftp server was freely accessible to the general public with no login, password, or membership requirement.

37. By 1999, at least 100 companies were members of 3GPP (719 companies by December 2020), ranging from Bosch to Ericsson to Nokia to Samsung and generally including those interested in the discussion, creation, and adoption of cellular telecommunications standards, including UMTS. Each of these companies typically delegated multiple individuals to regularly participate in 3GPP meetings. Further, pursuant to 3GPP’s standard business practices, 3GPP working groups sent emails notifying these individuals as soon as new or additional documents had been uploaded to 3GPP’s ftp server. Thus, not only did the general public have access to the documents on the ftp server, but some of the most interested members of the public—those working to develop standards for cellular telecommunication or working to implement the standards—were personally

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informed of their availability by email. Based on my experience with 3GPP and the telecommunications industry, I would expect any person implementing a cellular network or device, e.g., an LTE network or device, to consult the corresponding specifications on the 3GPP ftp server, as well as other related documents. The whole purpose of 3GPP creating and making these specifications available was so that engineers and other individuals would have ready access to them when developing and implementing cellular networks and devices.

38. By June 1999, 3GPP's ftp server was well-known to persons in the cellular telecommunications industry as a source of public information regarding industry standards and technological advances.

39. 3GPP specifications bear a specification number consisting of four or five digits, e.g., 09.02 or 29.002. The first two digits define the specification series which are defined to group the different aspects of the 3GPP system into, e.g. requirements, service aspects, radio aspects codecs, security aspects, and test specifications. The series digits are followed by two additional digits for the 01 to 13 series or three further digits for the 21 to 55 series. The subjects of the individual specification series are explained on 3GPP's website at <https://www.3gpp.org/specifications/specification-numbering>, and reproduced below:



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Subject of specification series	3G and beyond / GSM (R99 and later)	GSM only (Rel-4 and later)	GSM only (before Rel-4)
General information (long defunct)			00 series
Requirements	21 series	41 series	01 series
Service aspects ("stage 1")	22 series	42 series	02 series
Technical realization ("stage 2")	23 series	43 series	03 series
Signalling protocols ("stage 3") - user equipment to network	24 series	44 series	04 series
Radio aspects	25 series	45 series	05 series
CODECs	26 series	46 series	06 series
Data	27 series	47 series (none exists)	07 series
Signalling protocols ("stage 3") -(RSS-CN) and OAM&P and Charging (overflow from 32.- range)	28 series	48 series	08 series
Signalling protocols ("stage 3") - intra-fixed-network	29 series	49 series	09 series
Programme management	30 series	50 series	10 series
Subscriber Identity Module (SIM / USIM), IC Cards. Test specs.	31 series	51 series	11 series
OAM&P and Charging	32 series	52 series	12 series
Access requirements and test specifications		13 series (1)	13 series (1)
Security aspects	33 series	(2)	(2)
UE and (U)SIM test specifications	34 series	(2)	11 series
Security algorithms (3)	35 series	55 series	(4)
LTE (Evolved UTRA), LTE-Advanced, LTE-Advanced Pro radio technology	36 series	-	-
Multiple radio access technology aspects	37 series	-	-
Radio technology beyond LTE	38 series	-	-

40. For example, the LTE radio standard is covered in the “36 series” and is further subdivided into separate sections or specifications. The LTE radio specification starts at TS 36.101 and ends at TR 36.978. Excluding withdrawn specifications, the LTE standard consists of more than 250 specifications. Each

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specification can span from a few pages to hundreds of pages. One full version of the LTE standard is massive, spanning tens of thousands of pages.

41. In the ordinary course of 3GPP's regularly conducted business activities, and pursuant to its standard business practices, T-docs are usually uploaded to 3GPP's ftp server and website before the meeting where they are to be discussed. Documents created or revised during the course of a meeting are normally uploaded at the latest during the week following the meeting (e.g., the meeting report of the meeting is usually published for review during the week following the meeting).

42. In the ordinary course of 3GPP's regularly conducted business activities, and pursuant to its standard business practices, 3GPP maintains archives that include different versions of the specifications, as well as email communications to its membership, including emails announcing the uploading of new or additional documents to 3GPP's ftp server. These archives are created at the time the emails are initially sent.

43. At least as early as July 1999, all of 3GPP's email archives, including the dedicated email list for TSG RAN WG1 and TSG RAN WG2 were freely accessible to the general public with no login, password, or membership requirement. Each of 3GPP's member companies typically assigned one or more individuals to regularly participate in these email lists. Thus, not only did the

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general public have access to the emails in 3GPP's email archives, but some of the most interested members of the public—those working to develop standards for cellular telecommunication—personally received copies of such emails through their participation in the email lists.

44. By June 1999, 3GPP's email archives were well-known to persons in the cellular telecommunications industry as a source of public information and of technical specifications, proposals, meeting announcements, technical discussions and reports regarding industry standards and technological advances.

45. Based on my experience with 3GPP and the telecommunications industry, I would expect a person interested in the development of cellular standards, e.g., UMTS, to consult the emails archives of the working groups and TSGs that person is interested in, and/or, to be subscribed to the corresponding email reflectors to receive any email notifications in real-time.

46. 3GPP specifications almost always are duplicated in at least two and sometime more locations on the ftp server. One location corresponds to a "snapshot" of the specifications corresponding to a particular plenary meeting cycle—for instance, the 2018-12 snapshot contains a snapshot of numerous specifications after the December 2018 3GPP plenary meetings. The second location is an "archive" that contains all versions over time for a given specification. While 3GPP aims to upload the updated specifications to both locations at the same time, occasionally there may

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be a small difference in the upload date, and thus the date stamp, for the same specification uploaded to the two locations. Additionally, specifications which are not yet approved (so call “draft” specifications) are available as T-docs at working group and at plenary meetings (as soon as the working group decides to submit the specification to the plenary meeting for information or approval).

47. The timestamp on 3GPP’s ftp server shows the date when the document was uploaded the last time. Thus, the timestamp shows the latest possible date the document became publicly available and accessible on 3GPP’s ftp server. The given document might have been available earlier and the original timestamp might have been overwritten because the document was uploaded again. According to my experience, this is something which happened quite frequently. Thus, the ftp timestamp is reliable as the latest possible upload date but one cannot determine whether it represents the first upload of a document to the ftp server.

48. 3GPP’s working practice to store their documents on its ftp server, as described above, has not changed over time. Starting from the first 3GPP meetings in 1998 until present, all WGs and plenary meetings are represented by dedicated meeting folders on the ftp server. These meeting folders include the documents discussed at the meetings. Both the folders and the documents are accessible to the public. Almost every week, a new meeting folder with the respective documents is added. In addition to the plenary and WG meeting folders, and some other folders,

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there is also the “Specs” folder, which holds all 3GPP specifications including the aforementioned “snapshot” and archive folders. Since the early days of 3GPP a new folder is added inside the “Specs” folder after each TSG plenary meeting to hold the latest versions of specifications approved at those TSG plenary meetings. This is still 3GPP’s working practice today; thus, this practice has not changed over time.

**B. Specific Documents**

**1. R1-01-0079**

49. Based on my personal knowledge and my review of 3GPP’s business records, I recognize Ex. 1013 as a true and correct copy of T-doc R1-01-0079, which represents a document with the title “Variable TTI proposal for HSDPA.” The document was authored by Lucent Technologies and discusses benefits and simulation results of a variable length transmission time interval (TTI) for the HS-DSCH. On its face, R1-01-0079 refers to the RAN WG1 meeting #18 held on January 15-19, 2001 in Boston, USA. The number of the meeting and the year was omitted from the document’s face; however, I was able to identify the correct meeting and year by retrieving the document from the corresponding RAN WG1 meeting #18 folder. Thus, based on my personal knowledge and experience with ETSI’s and 3GPP’s standard business practices, this information tells me that R1-01-0079 was available either prior to or during that meeting to at least all attending 3GPP members. The public availability of the document is confirmed by the date

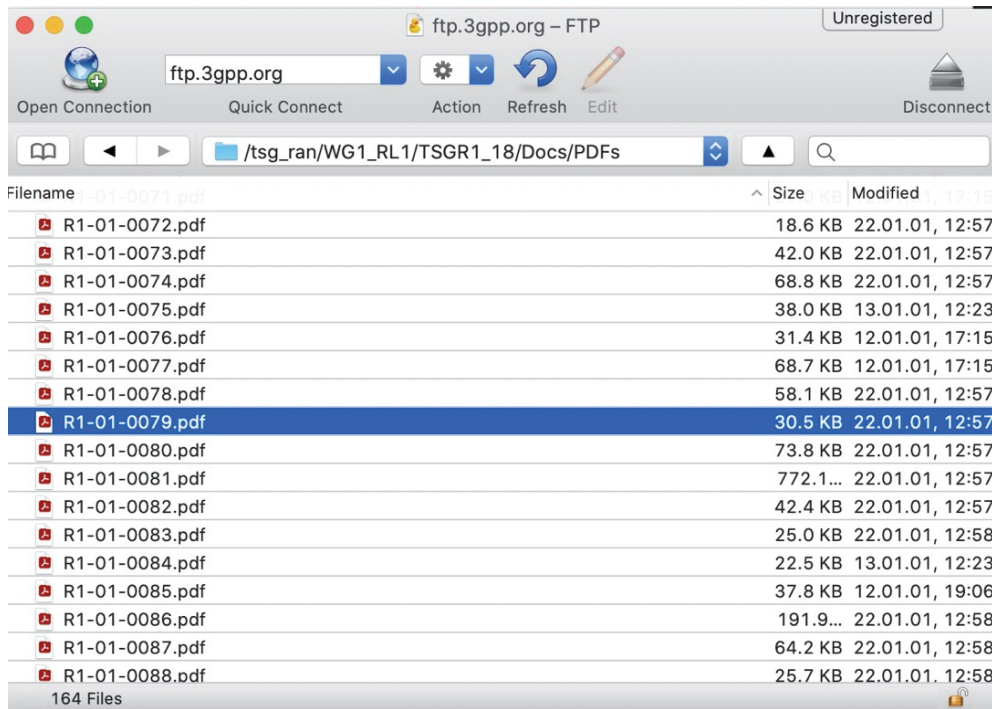
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stamp, January 22, 2001, shown on the historic 3GPP ftp server for the corresponding downloadable file (“R1-01-0079.pdf”), as maintained by the Internet Archive at

[https://web.archive.org/web/20010523025623/http://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_18/Docs/PDFs](https://web.archive.org/web/20010523025623/http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_18/Docs/PDFs). This information is also shown on the date stamp

for the present-day listing of the same document on the 3GPP ftp server at

[https://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_18/Docs/PDFs](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_18/Docs/PDFs), as shown in the screen shot below:



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50. In addition, metadata information for the downloaded and extracted T-doc file states a last Modified date of “22. Jan. 2001”, as shown in the screen shot below:

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TSG-RAN Working Group 1  
Boston  
January 15-19

**TSGR1#18(01)0079**

**Agenda item:** AH24, HSDPA  
**Source:** Lucent Technologies  
**Title:** Variable TTI proposal for HSDPA  
**Document for:** Discussion and decision

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### 1 Introduction

The notion of using a variable length transmission time interval (TTI) for the HS-DSCH was introduced in [1]. The benefits of this approach are elaborated upon here along with some simulation results.

### 2 Motivation

Previous approaches [2] and [3] have used fixed length TTIs for transmission of HSDPA frames. In [2] a TTI duration of 3.33ms (5 slots) has been used, while in [3] the TTI duration was fixed at 0.667 ms (1 slot). Keeping the TTI fixed results in difficulties on the following points:

- a) **Frame Fill Efficiency.** When the bit-rate assigned to a user is high, a large TTI could result in there being insufficient data to transmit over the duration of one TTI. This results in "frame-fill" inefficiency. As an example if the user is assigned a bit-rate of 10.8 Mbps and the TTI is 3.33ms, the HSDPA frame size is 4496 bytes. For typical internet traffic and packet sizes, this could result in considerable inefficiency.
- b) **Minimum Bit Rate Allowed.** With a small TTI and a reasonable value for the minimum code block size, the minimum assignable bit-rate may be too high. As an example, consider a minimum code block size of 320 bits (as used in [3]) and a TTI of 0.667 ms. The resultant minimum assignable bit-rate is 480 Kbps. Furthermore, small code block sizes would result in lower Turbo decoding gains and consequently, require higher energy-per-bit for same error rate.
- c) **MCS Level for Retransmissions.** The use of fixed TTI makes it necessary to use the same MCS level for retransmission (if soft combining is to be done) as the one used for the first transmission of a frame. The channel conditions, available power and/or code space at the time of retransmission (within the same cell or selected cell) may not permit the use of the same MCS level as the original transmission. By making the TTI variable, incremental redundancy (IR) operation can be made adaptive wherein retransmissions can be at a different MCS level from the original transmission (see [4] and [5]).
- d) **Signalling Overhead.** The user identification overhead with fixed and small TTI is higher in the low to medium data rates range as compared to a variable TTI. This is due to the fact that in a scheme with fixed TTI, lower rate implies smaller code block sizes. Consequently the user identification and other HARQ control overhead per information bit is high. The variable TTI approach allows the sub-block transmission over a larger number of slots for low data rates. This reduces the user identification and other HARQ control overhead per sub-block transmission.
- e) **Flexibility.** The code block size is coupled to the data rate with fixed TTI. With variable TTI, different rates can be achieved for the same code block size by varying the TTI. The variable TTI proposal also allows for different code block sizes at the same MCS level. This will make sure that the appropriate code block size is chosen for a given data rate and a given user buffer size. This achieves a good tradeoff between signalling overhead and padding. For example, suppose the supportable rate is 948Kbps and there are 1280 bits (4 transport blocks of size 320 bits each) in the user buffer. With a single slot fixed TTI these bits will be transmitted as two code blocks over two slots. Therefore, overheads (e.g. CRC) will be associated with each of the two transmissions. With a fixed TTI of five slots, a total of 3200 bits will have to be transmitted resulting in a padding of 1780 bits. With the variable TTI approach as proposed here, 1280 bits can be transmitted as a single code block over 2 slots. This results in only one set of overheads with no padding and thus provides more efficient transport as compared to either of the fixed TTI options.

1

R1-01-0079.pdf

PDF document - 31 KB

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InformationShow Less

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Created22. Jan 2001 at 12:57

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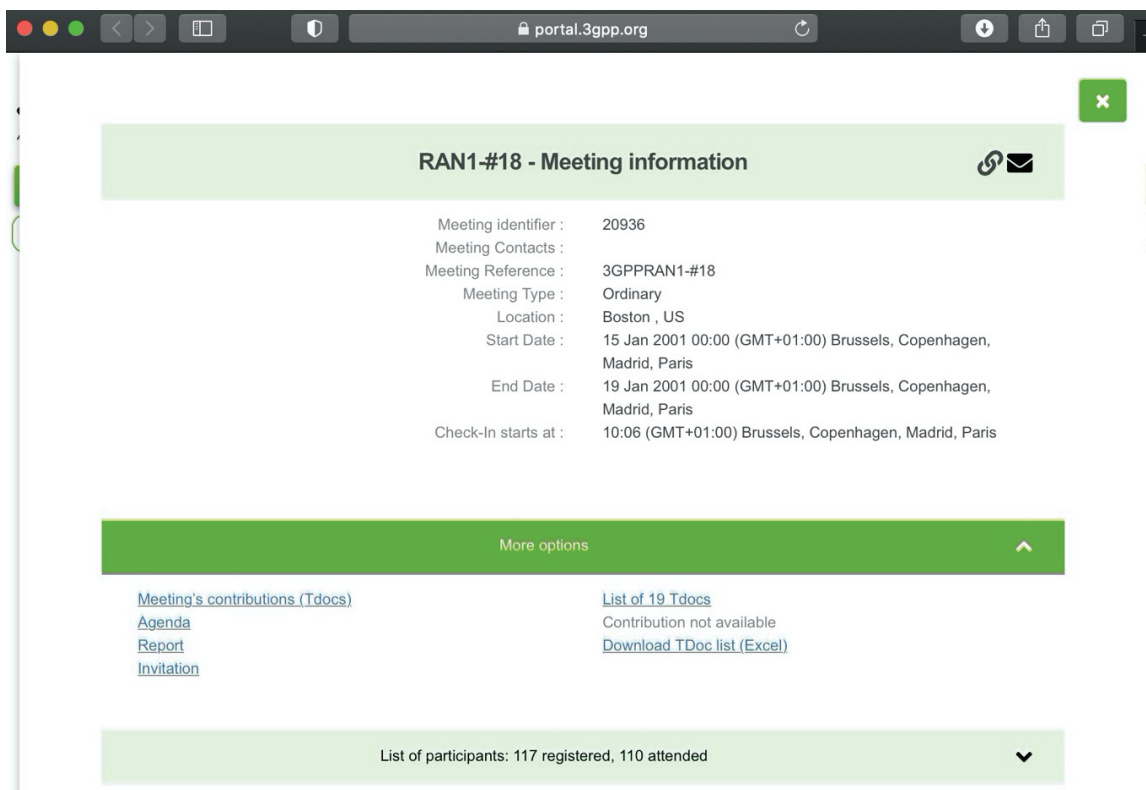
Modified22. Jan 2001 at 12:57

51. The official meeting report of the RAN WG1 meeting #18 held on January 15-19, 2001 can be found as T-doc R1-01-0188 in Appendix B. According



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to the 3GPP website at <https://portal.3gpp.org/Meetings.aspx#/> which is shown by the screen shot below, that meeting was attended by 110 individuals (out of 117 registered participants):



52. In the meeting report, T-doc R1-01-0079 is referred to on page 16. There the document is mentioned several times which clearly shows the document was available at the RAN WG1 meeting #18. The meeting report mentions on page 16 that the document raised a lot of questions as can be seen by the screen shot below:

There were quite a lot of questions and comments were made with respect to **R1-01-0079**, 81 and 82.

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53. Furthermore, the document was distributed via the 3GPP\_TSG\_RAN\_WG1 email exploder on January 14, 2001 as shown in Appendix C. At that time this email exploder had around 1000 subscribers as can be seen by the Internet Archive at <https://web.archive.org/web/20010330204214/http://list.3gpp.org/>.

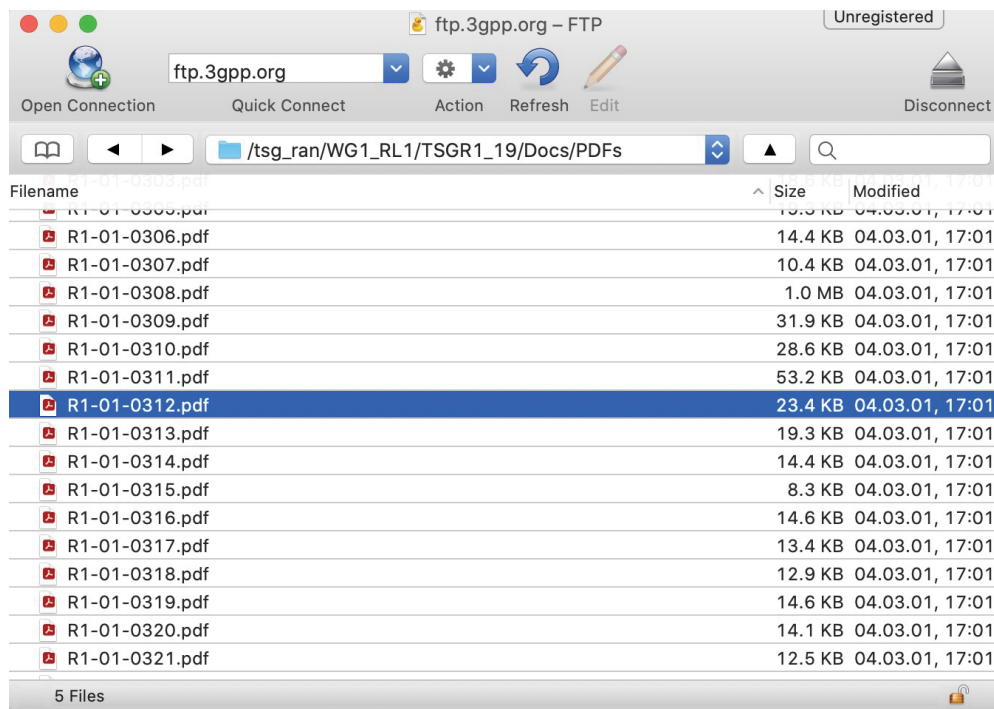
54. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that this document was available to all subscribers of the 3GPP\_TSG\_RAN\_WG1 email exploder by January 14, 2001, and to the general public by January 22, 2001 at the latest.

**2. R1-01-0312**

55. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1011 as a true and correct copy of T-doc R1-01-0312, which represents a document with the title "Downlink Model for HSDPA." The document was authored by Lucent Technologies and it provides clarifications to comments and questions on Lucent's Downlink model proposal for HSDPA. On its face, R1-01-0312 refers to the RAN WG1 meeting #19 held on February 26 – March 2, 2001 in Las Vegas, USA. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R1-

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01-0312 was available either prior to or during that meeting to at least all attending 3GPP members. The public availability of the document is confirmed by the date stamp, March 4, 2001, shown on the historic 3GPP ftp server for the corresponding downloadable file (“R1-01-0312.pdf”), as maintained by the Internet Archive at [https://web.archive.org/web/20010519154508/http://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_19/Docs/PDFs/](https://web.archive.org/web/20010519154508/http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_19/Docs/PDFs/). This information is also shown on the date stamp for the present-day listing of the same document on the 3GPP ftp server at [https://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_19/Docs/PDFs/](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_19/Docs/PDFs/), as shown in the screen shot below:



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56. In addition, metadata information for the downloaded and extracted T-doc file states a Last Modified date of “4. March 2001”, as shown in the screen shot below:

TSG-RAN Working Group 1 #19  
Las Vegas, USA  
February 26-March 2

**TSGR1#19(01)0312**

**Agenda item:** AH24, HSDPA  
**Source:** Lucent Technologies  
**Title:** Downlink Model for HSDPA  
**Document for:** Discussion

---

**1 Introduction**

In this paper, clarifications to comments and questions on Lucent's Downlink model proposal for HSDPA in TSG-RAN WG1#17, TSG-RAN WG1#18, and TSG-RAN WG2#19 are provided.

**2 Downlink Transport Channel Multiplexing Structure**

In [1], a new multiplex structure is proposed. Figure 1 shows the proposed structure with two HS-DSCH transport channels input from the MAC layer. The MAC HS-DSCH is a new entity proposed in [2] to support HSDPA and is terminated in Node B.

Figure 1: Proposed HSDPA Multiplex Structure [1]

1

R1-01-0312.pdf

PDF document - 24 KB

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Information

Created
4. March 2001 at 17:01

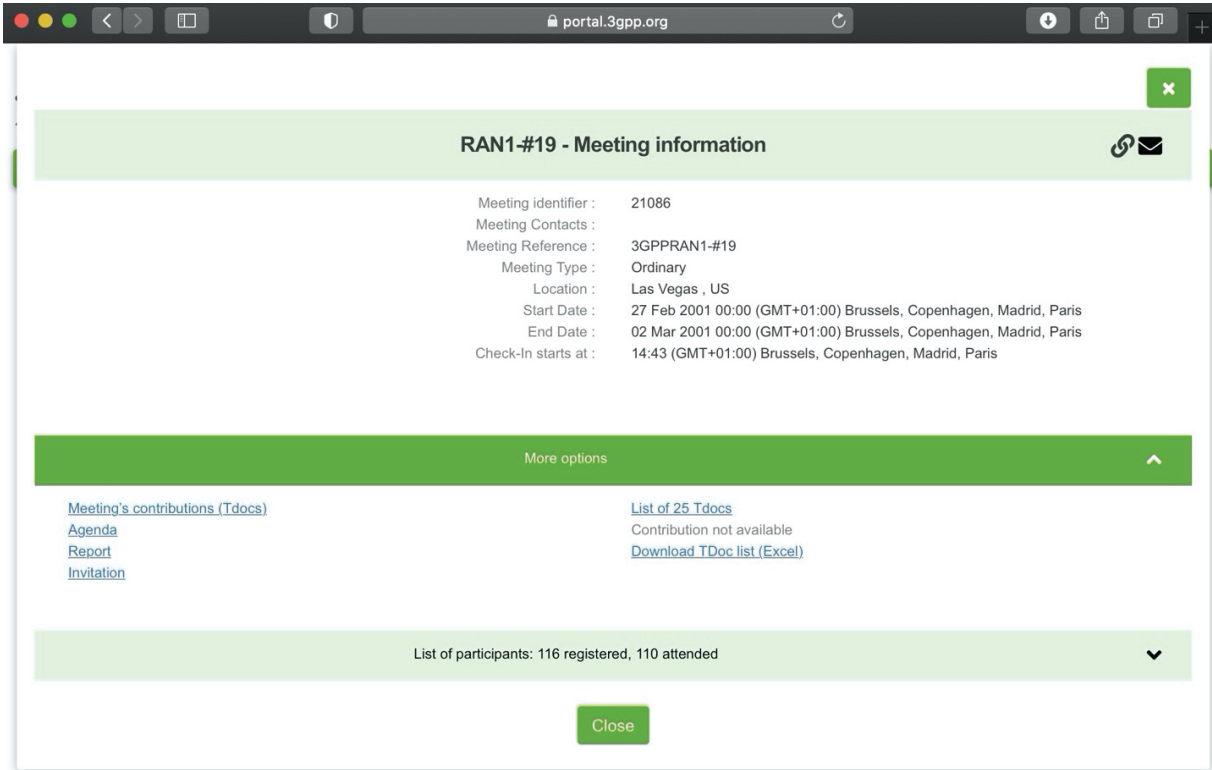
Modified
4. March 2001 at 17:01

57. The official meeting report of the RAN WG1 meeting #19 held on

February 26 – March 2, 2001 can be found as T-doc R1-01-0435 in Appendix D.

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According to the 3GPP website at <https://portal.3gpp.org/Meetings.aspx#/> which is shown by the screenshot below, that meeting was attended by 110 individuals (out of 116 registered participants):



58. In the meeting report, T-doc R1-01-0312 is referred to on page 22. There the document is mentioned as “Noted” which clearly shows the document was available at the RAN WG1 meeting #19. Furthermore, a discussion of the document can be found on page 28 (item \*30). The screenshot below shows the excerpt of page 22:

136	24	R1-01-0312	Downlink Model for HSDPA	Lucent	Noted	(*30) Day 4, 14:11-15:23
-----	----	------------	--------------------------	--------	-------	-----------------------------

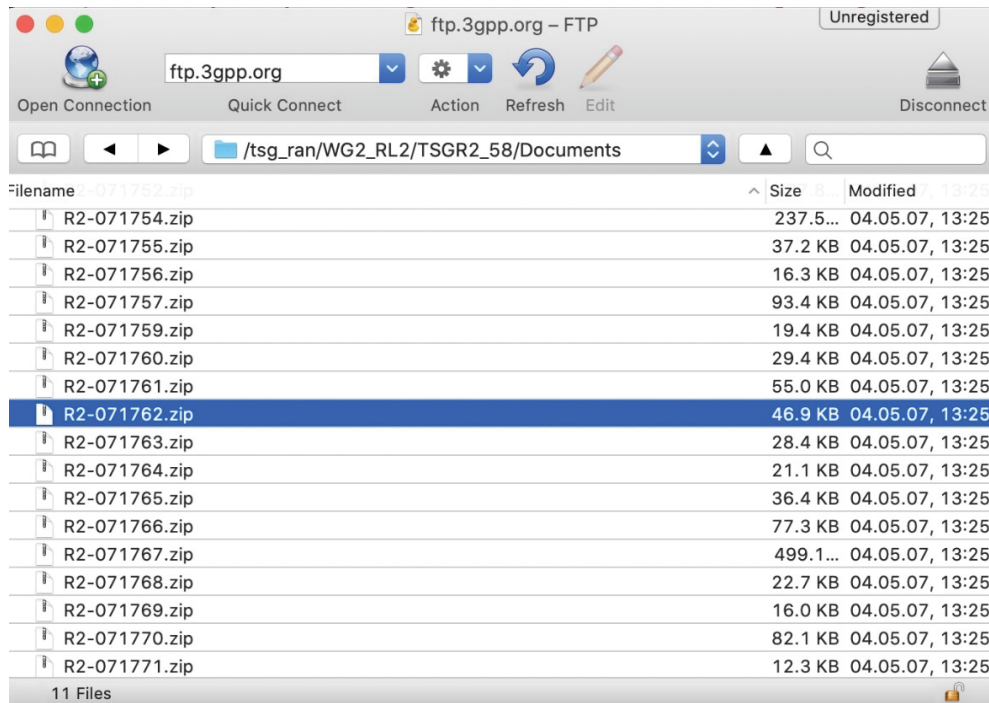
59. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that this document was available to all participants of the RAN WG1 meeting #19 by March 2, 2001, and to the general public by March 4, 2001 at the latest.

**3. R2-071762**

60. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1007 as a true and correct copy of T-doc R2-071762, which represents a document with the title "Scheduling of D-BCH." The document was authored by Qualcomm Europe and it discusses how to implement the agreement that system information is divided into scheduling units, with SU-I carrying scheduling information for the other SUs. On its face, R2-071762 refers to the RAN WG2 meeting #58 held on 7-11 May 2007 in Kobe, Japan. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-071762 was available either prior to or during that meeting to at least all attending 3GPP members. The public availability of the document is confirmed by the date stamp, May 4, 2007, shown on the historic 3GPP ftp server for the corresponding downloadable file ("R2-071762.zip"), as maintained by the Internet Archive at

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[https://web.archive.org/web/20070716092822/http://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_58/Documents](https://web.archive.org/web/20070716092822/http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_58/Documents). This information is also shown on the date stamp for the present-day listing of the same document on the 3GPP ftp server at [https://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_58/Documents](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_58/Documents), as shown in the screen shot below:



61. In addition, metadata information for the downloaded and extracted T-doc file states a last Modified date of “1. May 2007”, as shown in the screen shot below:



# Ex. 1035 - Declaration of Friedhelm Rodermund

1

3GPP TSG-RAN WG2 #58 **R2-071762**  
7-11 May 2007  
Kobe, Japan

**Agenda Item:** 4.5  
**Source:** QUALCOMM Europe  
**Title:** Scheduling of D-BCH  
**Document for:** Discussion

## 1. Introduction

At RAN2857, it was agreed that the system information is divided into scheduling units, with SU-1 carrying scheduling information for the other SUs. This document attempts to take some steps towards understanding how this agreement can be implemented in practice.

## 2. Discussion

### 2.1. Simple approaches to scheduling

Once the UE has read the primary (and secondary, if applicable) BCH and camped on a cell, it needs to receive the rest of the system information from the D-BCH. It is fairly clear how this happens in general terms: TS 36.300 specifies that SU-1 includes "(s)cheduling information of the other Scheduling Units", so presumably the UE monitors the scheduling channel for an indicator of SU-1, then reads further scheduling information from there.

In the simplest interpretation, this text could mean that SU-1 contains explicit pointers to the resource blocks that contain the other SUs. In this case, a separate 1/2 control channel for the D-BCH might not actually be needed (with the consequence that when any SU changed, all affected UEs would need to read the P-BCH and then SU-1 to find the updated version). This situation is shown in Figure 1.

**Figure 1: Explicit scheduling in SU-1**

However, it should be remembered that some SUs, such as the container for the positioning information, could be delivered over a very long period (e.g. tens of seconds to minutes), and it is not clear that it would be realistic to expect the scheduler to know this far in advance exactly how resource blocks would be assigned. Therefore it could be impractical to expect SU-1 to carry a complete set of explicit scheduling for all the other SUs.

On the other hand, if such a complete set is not present in SU-1, the question arises of how exactly the UE does receive scheduling for such a long-period SU. The simplest approach is to assume that the "scheduling information" in SU-1 just consists of a pointer to a control channel for the D-BCH, and other SUs are scheduled independently using that control channel, as shown in Figure 2. (A "hybrid" approach could also be used, where some SUs were indicated explicitly in SU-1, but longer-period ones whose scheduling could not be known in advance would be scheduled independently using the control channel.)

## R2-071762.doc

93 KB

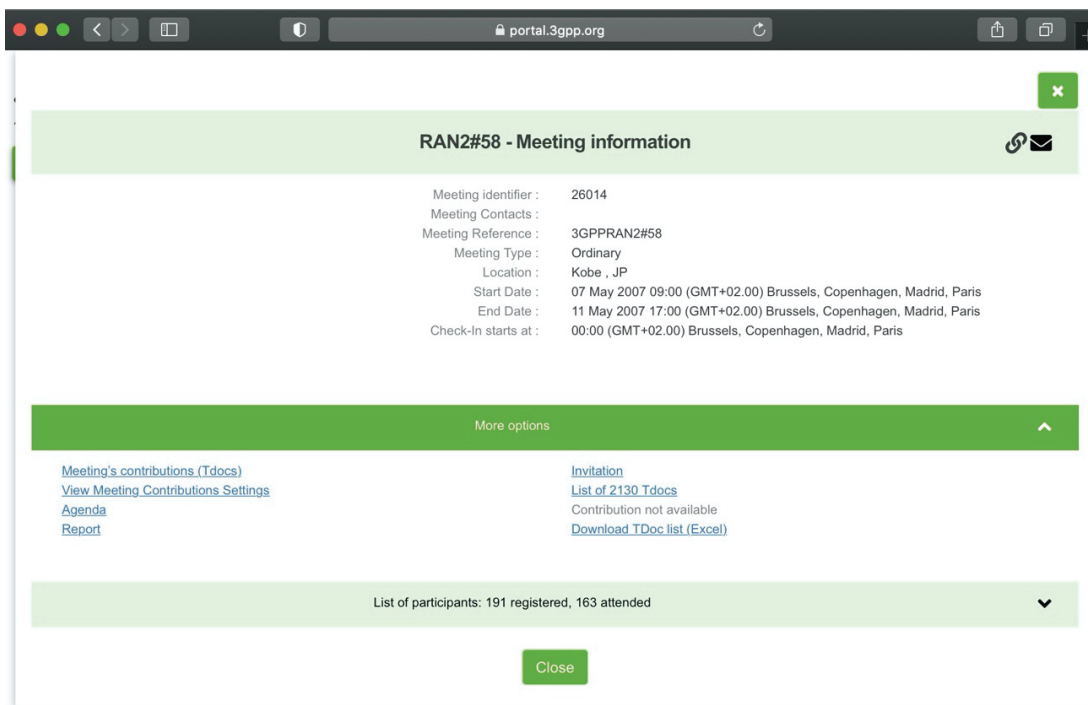
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## Information

Created	1. May 2007 at 11:52
Modified	1. May 2007 at 11:52

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62. The official meeting report of the RAN WG2 meeting #58 held on 7-11 May 2007 can be found as T-doc R2-072901 in Appendix E. According to the 3GPP website at <https://portal.3gpp.org/Meetings.aspx#/> which is shown by the screenshot below, that meeting was attended by 163 individuals (out of 191 registered participants):



63. The meeting report mentions on page 15 that the document R2-071762 was “presented” and “noted” which clearly shows the document was available at the RAN WG2 meeting #58, as can be seen by the screen shot below:

**R2-071762** Scheduling of D-BCH  
The document was presented by Nathan (...) from Qualcomm.  
**Discussion:** is there really an issue for low cycle broadcast? It remains predictive  
**Decision:** noted

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64. Furthermore, the document was distributed via the 3GPP\_TSG\_RAN\_WG2 email exploder on May 1, 2007 as shown in Appendix F. At that time this email exploder had 892 subscribers as can be seen by the Internet Archive at <https://web.archive.org/web/20070624072559/http://list.3gpp.org>.

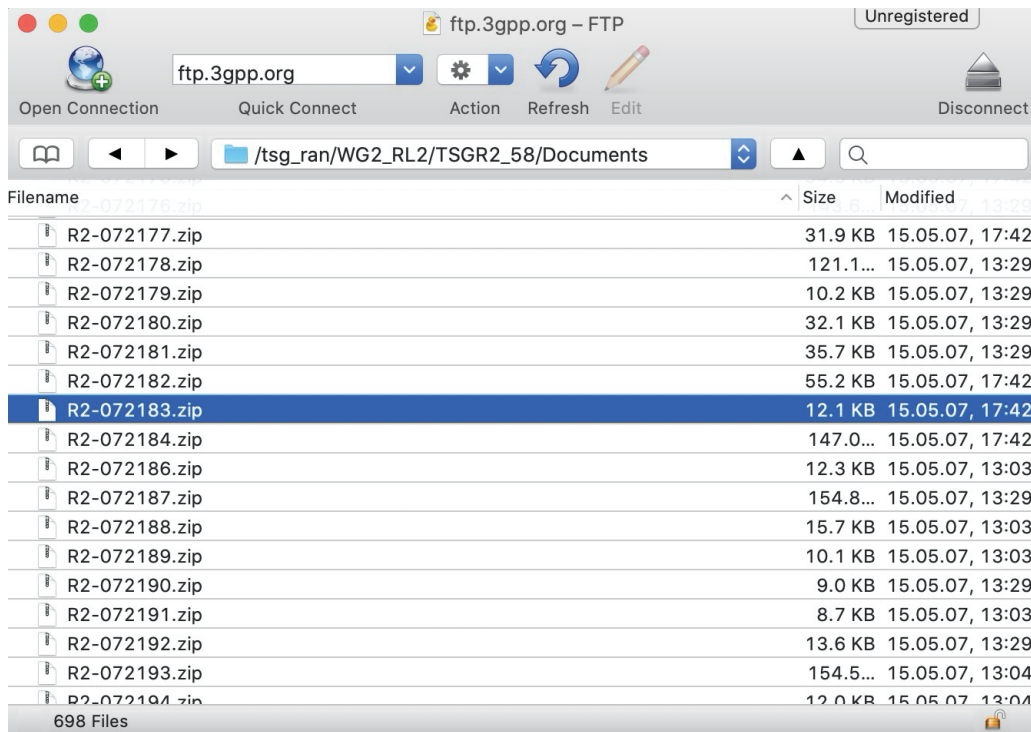
65. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that this document was available to all subscribers of the 3GPP\_TSG\_RAN\_WG2 email exploder by May 1, 2007, and to the general public by May 4, 2007 at the latest.

**4. R2-072183**

66. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1005 as a true and correct copy of T-doc R2-072183, which represents a proposed Liaison Statement from RAN WG2 to RAN WG1 on the provisioning of system information in LTE. On its face, R2-072183 refers to the RAN WG2 meeting #58 held on 7-11 May 2007 in Kobe, Japan. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-072183 was available either prior to or during that meeting to at least all attending 3GPP members. The public availability of the document is confirmed by the date stamp, May 15, 2007, shown on the historic 3GPP ftp server for the corresponding downloadable file ("R2-

Ex. 1035 - Declaration of Friedhelm Rodermund

072183.zip”), as maintained by the Internet Archive at [https://web.archive.org/web/20070716092822/http://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_58/Documents](https://web.archive.org/web/20070716092822/http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_58/Documents). This information is also shown on the date stamp for the present-day listing of the same document on the 3GPP ftp server at [https://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_58/Documents](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_58/Documents), as shown in the screen shot below:



67. In addition, metadata information for the downloaded and extracted T-doc file states a last Modified date of “9. May 2007”, as shown in the screen shot below:

# Ex. 1035 - Declaration of Friedhelm Rodermund

3GPP TSG RAN WG2#58 R2-072183  
Kobe, Japan, 07-11 May 2007

**Title:** System Information  
**Response to:**

**Source:** Samsung  
**To:** TSG RAN1  
**Cc:**  
**W:** SAE/LTE

**Contact Person:**  
**Name:** Gert-Jan van Lieshout  
**Phone:** +31 (0) 570615651  
**E-mail Address:** gert.vanlieshout@samsung.com  
**Attachments:** —

**Introduction**  
During RAN2#58 RAN2 has taken several decisions w.r.t. the provisioning of system information in LTE. With this liaison we would like to inform RAN1 about this progress and request RAN1 to look into several questions that came up during these discussions.

**Decisions made in RAN2#58**  
For the questions in this liaison, the following RAN2 decisions are relevant:

1. RAN2 confirmed the approach of having information on the P-BCH transport channel periodically. The information content of the P-BCH is now called "MB", and a periodicity/TTI of 40ms is currently assumed.
2. RAN2 also confirmed the approach that the remaining broadcast system information is provided on BCCH over DL-SCH. On the BCCH over DL-SCH, the information is structured in "Scheduling Units" (SU), where an SU consists of one or more System Information Blocks (SIBs).
3. One complete SU may be sent in one DL-SCH transmission (1 TB in 1 subframe), or an SU can be segmented in which case one segment is sent in 1 TB in a subframe, with different segments provided in consecutive subframes.
4. For the BCCH over DL-SCH, there will be 1 PDCCH allocation per SU or SU-segment in a subframe (using the BCCH RNTI). Further optimisations can be considered later.

For information, in the end of this liaison, the remaining RAN2 decisions made during RAN2#58 w.r.t. system information are indicated.

**Questions**  
RAN2 assumes that it should be possible for an eNB to schedule BCCH over DL-SCH and DL-SCH-unicast transmissions in the same TTI. This will allow unicast transmissions to continue relatively normally even while BCCH over DL-SCH transmissions are provided during potentially quite many consecutive TTIs.

**Question 1:** RAN2 was wondering whether it would be possible for a UE to receive in parallel a BCCH over DL-SCH transmission and a DL-SCH-unicast transmission provided in the same TTI?

RAN2 assumes that when the situation arises that one SU (e.g. a last segment of an SU) is not completely filling a subframe, it might be preferable to schedule one or more other SU's (or SU-segments) in the same subframe.

**Question 2:** RAN2 was wondering whether it would be possible for a UE to receive more than 1 SU (or SU-segment) i.e. different TB transmissions, if multiple SU (or SU-segments) are scheduled in the same subframe? If the answer is "yes", how many SU's (or SU-segments) could be received by a UE in parallel?

**Question 3:** If the answers to the above questions 1) and 2) is "yes", how many SU's (or SU-segments) would a UE be able to receive in addition to a DL-SCH unicast transmission?

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## R2-072183 LS to RAN1 on system Info.doc

65 KB

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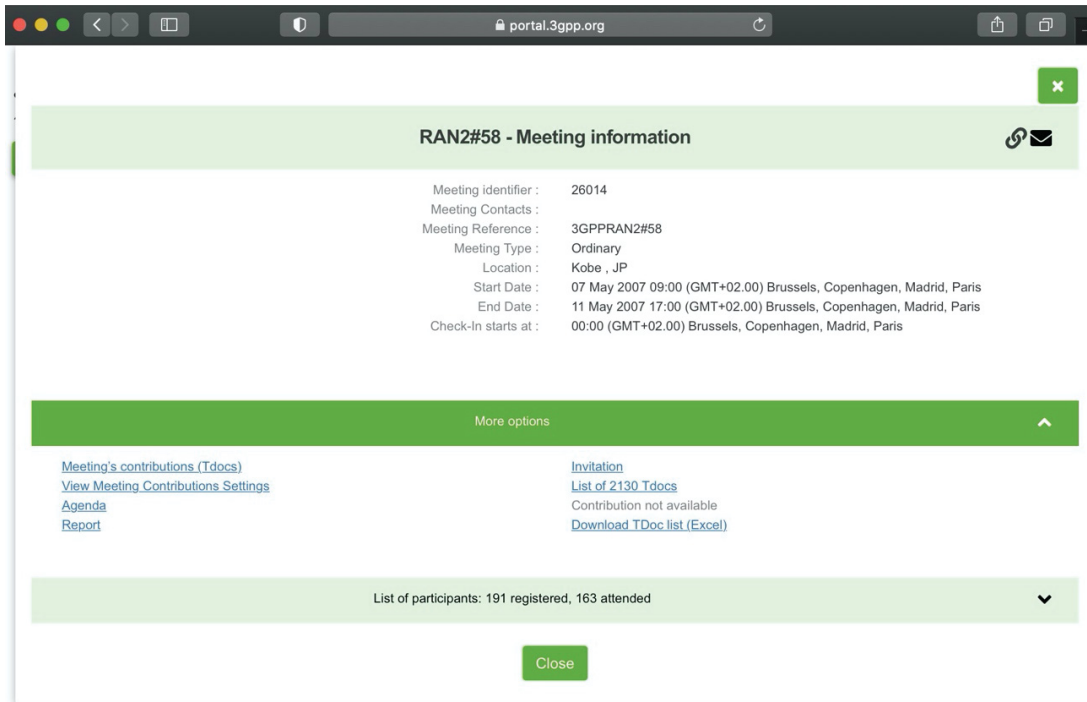
## Information

Created	9. May 2007 at 13:05
Modified	9. May 2007 at 13:05

68. The official meeting report of the RAN WG2 meeting #58 held on 7-11 May 2007 can be found as T-doc R2-072901 in Appendix E. According to the

Ex. 1035 - Declaration of Friedhelm Rodermund

3GPP website at <https://portal.3gpp.org/Meetings.aspx#/> which is shown by the screenshot below, that meeting was attended by 163 individuals (out of 191 registered participants):



69. In the meeting report, T-doc R2-072183 is referred to on page 94. There it states that “The LS was revised after presentation in R2-072186”.

**R2-072183** LS on System Information Broadcast  
The LS was revised after presentation in R2-072186.

70. This clearly shows that T-doc R2-072183 was treated during the RAN WG2 meeting #58, thus, available during that meeting. Furthermore, the last Modified date of May 9, 2007 as shown above is during the week the meeting was held (7-11 May 2007). As shown above, the date stamp on the public 3GPP ftp server

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shows May 15, 2007. As I explained in paragraph [46] this reflects the latest date a document was uploaded. Furthermore, the meeting report clearly shows the document was available to the 163 delegates during the meeting at the latest by May 11, 2007.

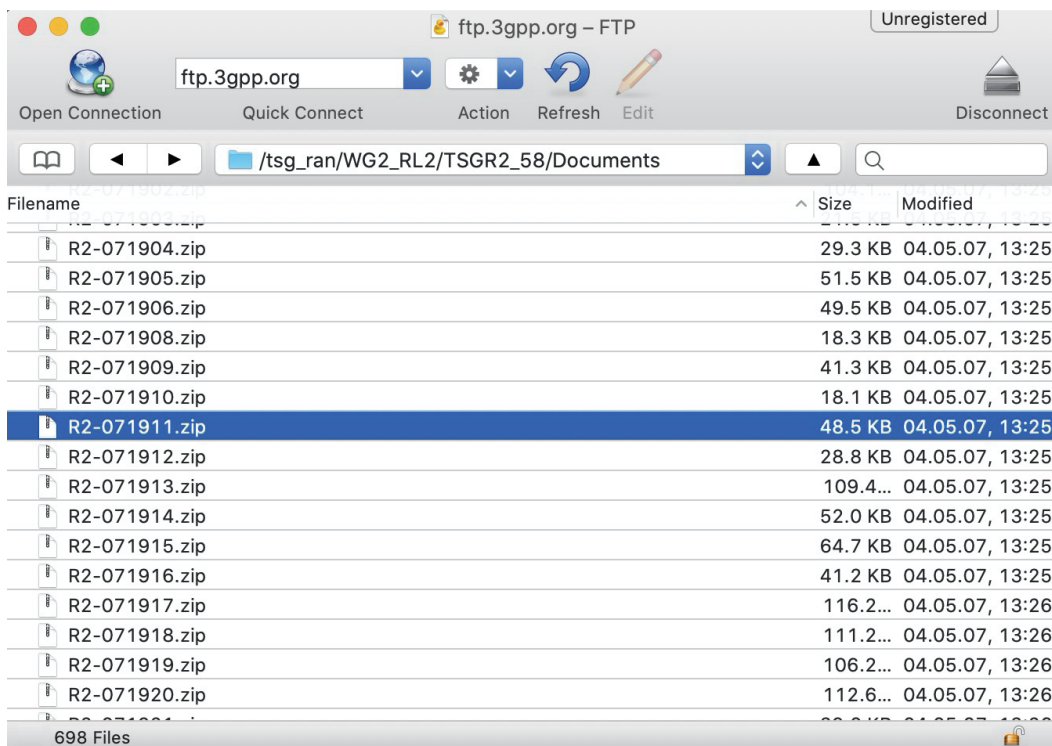
71. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that this document was available to all delegates at the RAN WG2 meeting #58 by May 11, 2007, and to the general public by May 15, 2007 at the latest.

**5. R2-071911**

72. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1012 as a true and correct copy of T-doc R2-071911, which represents a document with the title "System information structure (with TP)". The document was authored by Samsung and categorised the most time critical system information, considering the main mobility scenarios. On its face, R2-071911 refers to the RAN WG2 meeting #58 held on 7-11 May 2007 in Kobe, Japan. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-071911 was available either prior to or during that meeting to at least all attending 3GPP members. The public availability of the document is confirmed by the date stamp,

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May 4, 2007, shown on the historic 3GPP ftp server for the corresponding downloadable file (“R2-071911.zip”), as maintained by the Internet Archive at [https://web.archive.org/web/20070716092822/http://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_58/Documents](https://web.archive.org/web/20070716092822/http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_58/Documents). This information is also shown on the date stamp for the present-day listing of the same document on the 3GPP ftp server at [https://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_58/Documents](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_58/Documents), as shown in the screen shot below:





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73. In addition, metadata information for the downloaded and extracted T-doc file states a Last Modified date of “3. May 2007”, as shown in the screen shot below:

# Ex. 1035 - Declaration of Friedhelm Rodermund

3GPP TSG-RAN WG2 Meeting #58 R2-071911 (Update of R2-071377)  
Kobe, Japan, 7<sup>th</sup>-11<sup>th</sup> May 2007

Agenda Item: 4.5  
Title: System information structure (with TP)  
Source: Samsung  
Document for: Discussion and decision

### 1. Introduction

In this paper we have categorised the most time critical system information, considering the main mobility scenarios. This analysis is performed to assist concluding the required BCH periodicity. Furthermore, based on that conclusion, a proposal is included regarding the organisation of the concerned system information i.e. what information to divide over separate SIBs.

### 2. Discussion

#### 2.1 Recap of current status and main BCH structuring criteria

During the RAN2#57 meeting it was agreed that:

- BCH can be mapped to BCH (often referred to as P-BCH) and to DL-SCH (sometimes referred to as D-BCH), while the need for mapping to an S-BCH is FFS
- Scheduling information (starting times) is provided for a group SIBs having the same scheduling requirements, also referred to as a Scheduling Unit (SU). BCH includes the scheduling information of the most frequently repeated Scheduling Unit (SU-1)
- The high level contents of BCH and SU-1 have been identified

Before summarising the content of BCH and SU-1, we would like to highlight the rationale for including information within BCH, SU-1 or a less frequently transmitted SU. Concerning this rationale, our assumptions are as follows:

**BCH** should include the following type of information:

- All parameter necessary to perform handover (i.e. step 1 & 2 in sec. 5.1) including the parameters needed to access the target cell, except for the parameters that may be provided via dedicated signalling e.g. sRACH configuration
- All parameters needed to measure and rank cell re-selection candidates (i.e. step 1 in sec. 6.1)

**SU-1** should include the following type of information:

- All parameters needed to validate accessibility of the cell re-selection target (i.e. step 2 in sec. 6.1)

Our assumption is that the other mobility related parameters e.g. common channel configuration information (i.e. related to the cell re-selection step 3 in 5.1) may be included in other SUs, scheduled less frequently. The following section provides further details on the actual information elements

#### 2.2 Further analysis of BCH contents and periodicity

This section summarises our progress in the discussion regarding the transmission requirements for system information.

##### A. What is needed to measure a neighbouring cell (Cell re-selection)

In summary: To measure neighbouring cells with sufficient performance, it is most important that the UE knows the system bandwidth i.e. from a measurement performance perspective it is less essential for the UE to also know the antenna and the control channel configuration

- Cell identity: Our assumption is that the SCH-based identity needs to be locally unique, since it determines the scrambling code and the hopping pattern i.e. if two nearby cells use the same SCH based cell id and by accident are time-aligned it will be impossible to measure these cells. In other words: from a measurement cell identification perspective, an additional cell identity on BCH is useless
- Cell bandwidth: In our opinion this is the most important parameter from a measurement performance perspective. Our assumption is that it should be provided.
- Antenna configuration: RAN1 has not concluded whether the antenna configuration will

## R2-071911 Discussion on system info...tructure.doc

186 KB

### Information

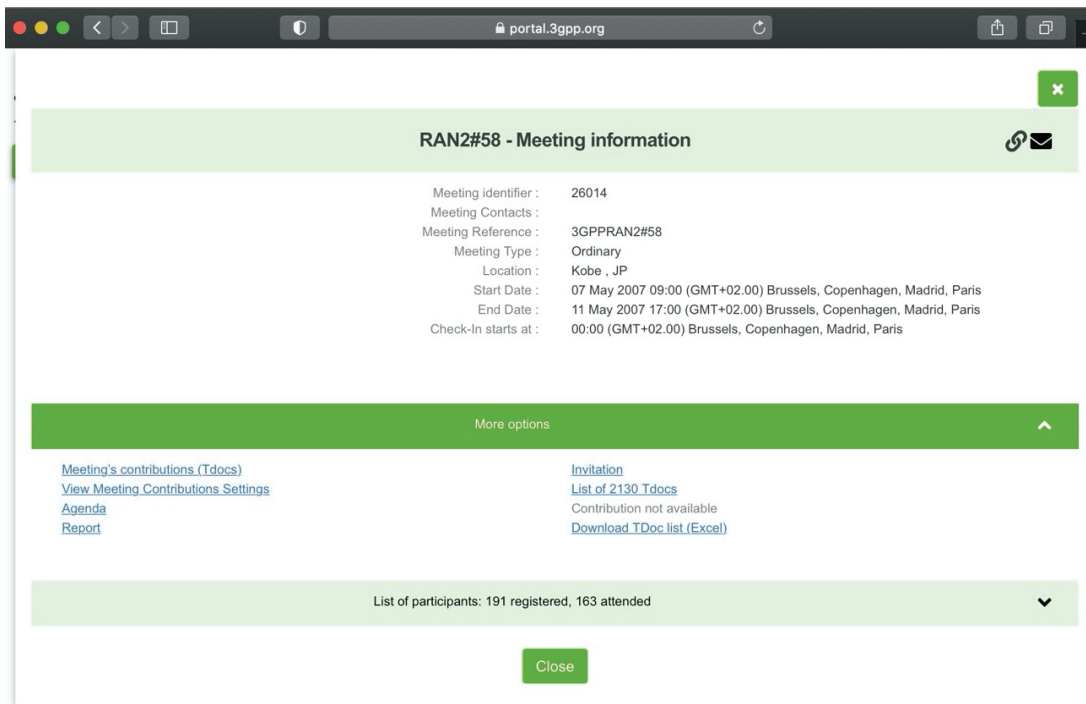
Created 3. May 2007 at 16:32

Modified 3. May 2007 at 16:32

74. The official meeting report of the RAN WG2 meeting #58 held on 7-11 May 2007 can be found as T-doc R2-072901 in Appendix E. According to the 3GPP website at <https://portal.3gpp.org/Meetings.aspx#/> which is shown by the

## Ex. 1035 - Declaration of Friedhelm Rodermund

screen shot below, that meeting was attended by 163 individuals (out of 191 registered participants):



75. In the meeting report, T-doc R2-071911 is referred to on page 15. There it states that “The document was presented by Himke (...) from Samsung” which clearly shows the document was available at the RAN WG2 meeting #58, as can be seen by the screen shot below:

**R2-071911** System information structure (with TP)  
The document was presented by Himke (...) from Samsung.

76. Furthermore, the document was distributed via the 3GPP\_TSG\_RAN\_WG2 email exploder on May 3, 2007 as shown in Appendix G.

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At that time this email exploder had 892 subscribers as can be seen by the Internet Archive at <https://web.archive.org/web/20070624072559/http://list.3gpp.org>.

77. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that this document was available to all subscribers of the 3GPP\_TSG\_RAN\_WG2 email exploder by May 3, 2007, and to the general public by May 4, 2007 at the latest.

**6. R2-071337**

78. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1018 as a true and correct copy of T-doc R2-071337, which represents a document with the title "System information scheduling and change notification." The document was authored by Samsung and it discusses details of the system information scheduling and analyses different options for indicating system information changes. On its face, R2-071337 refers to the RAN WG2 meeting #57bis held on 26-30 March 2007 in St. Julian's, Malta. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-071337 was available either prior to or during that meeting to at least all attending 3GPP members. The public availability of the document is confirmed by the date stamp, March 22, 2007, shown on the historic 3GPP ftp server for the corresponding downloadable file

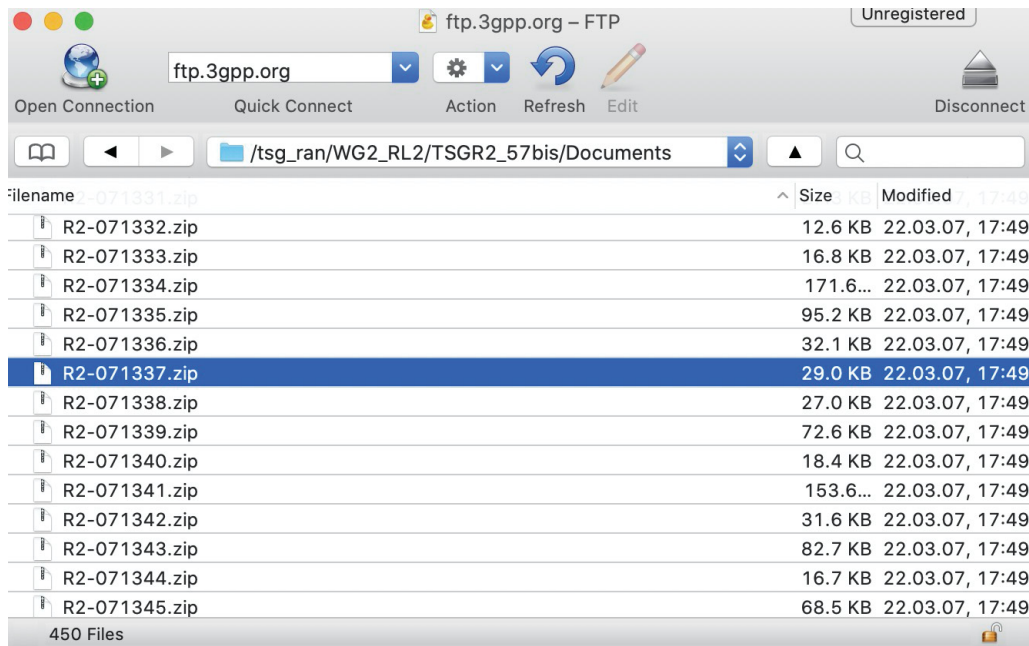
Ex. 1035 - Declaration of Friedhelm Rodermund

(“R2-071337.zip”), as maintained by the Internet Archive at

[https://web.archive.org/web/20070716092330/http://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_57bis/Documents](https://web.archive.org/web/20070716092330/http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_57bis/Documents). This information is also shown on the date

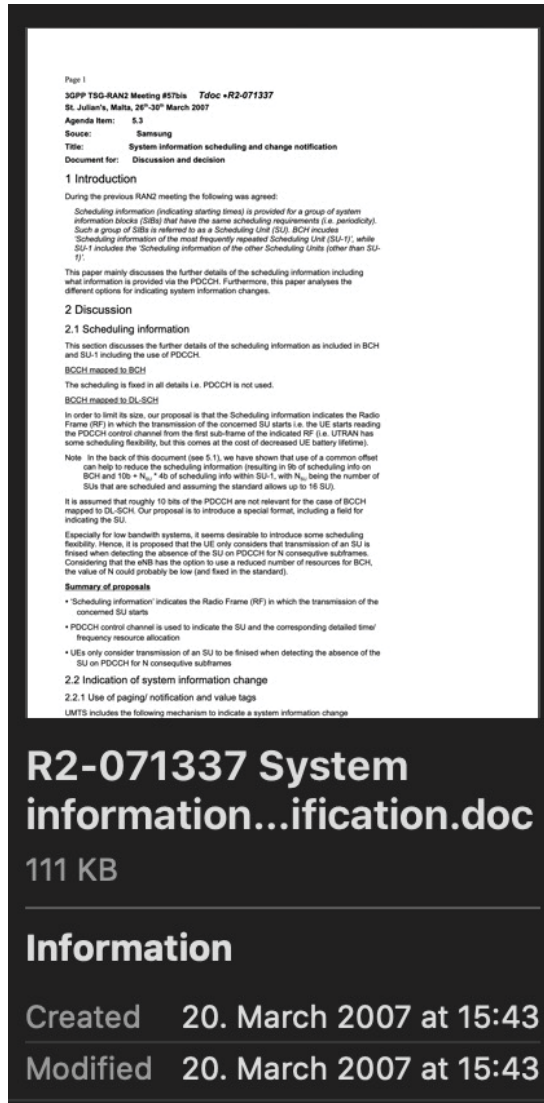
stamp for the present-day listing of the same document on the 3GPP ftp server at

[https://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_57bis/Documents](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_57bis/Documents), as shown in the screen shot below:



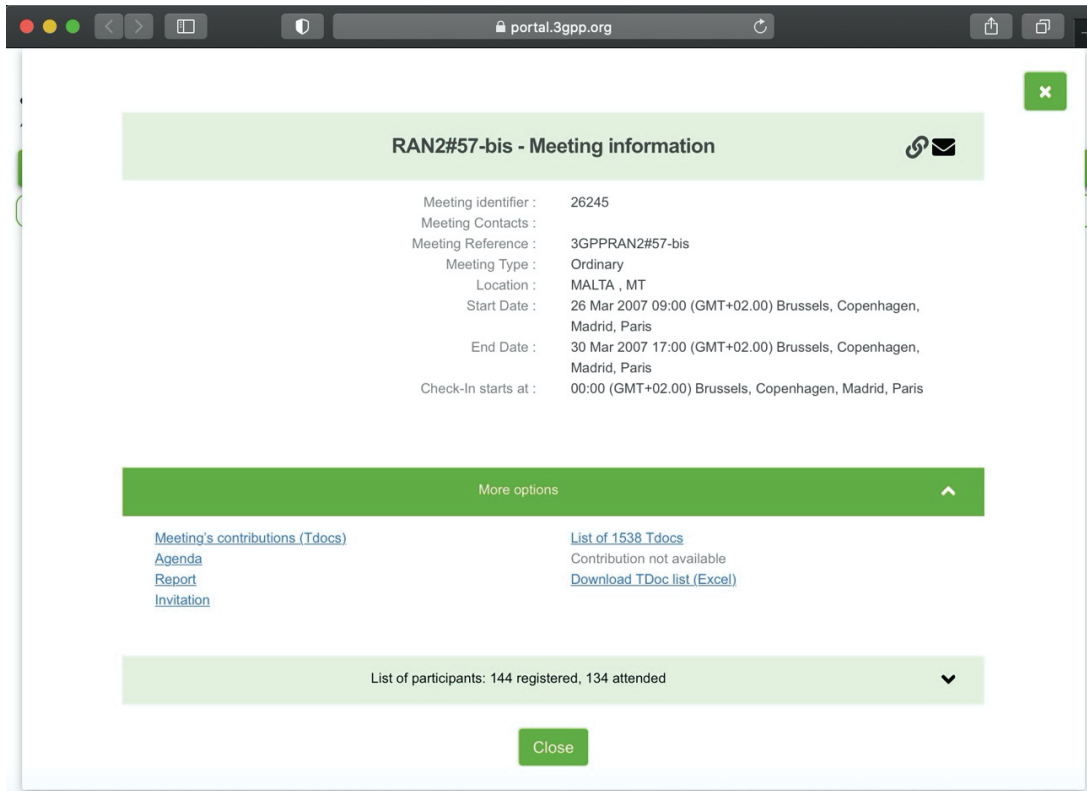
79. In addition, metadata information for the downloaded and extracted T-doc file states a last Modified date of “20. March 2007”, as shown in the screen shot below:

Ex. 1035 - Declaration of Friedhelm Rodermund



80. The official meeting report of the RAN WG2 meeting #57bis held on 26-30 March 2007 can be found as T-doc R2-072131 in Appendix H. According to the 3GPP website at <https://portal.3gpp.org/Meetings.aspx#/> which is shown by the screenshot below, that meeting was attended by 134 individuals (out of 144 registered participants):

## Ex. 1035 - Declaration of Friedhelm Rodermund



81. The meeting report mentions R2-071337 on page 17 and page 81 which clearly shows the document was registered for the RAN WG2 meeting #57bis. The screen shot below shows the excerpt from page 17:

**R2-071337** System information scheduling and change notification

82. Furthermore, the document was distributed via the 3GPP\_TSG\_RAN\_WG2 email exploder on March 21, 2007 as shown in Appendix I. At that time this email exploder had around 900 subscribers as can be seen by the

Ex. 1035 - Declaration of Friedhelm Rodermund

Internet Archive at

<https://web.archive.org/web/20070223072732/http://list.3gpp.org:80/>.

83. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that this document was available to all subscribers of the 3GPP\_TSG\_RAN\_WG2 email exploder by March 21, 2007, and to the general public by March 22, 2007 at the latest.

#### 7. TS 25.301 v7.1.0

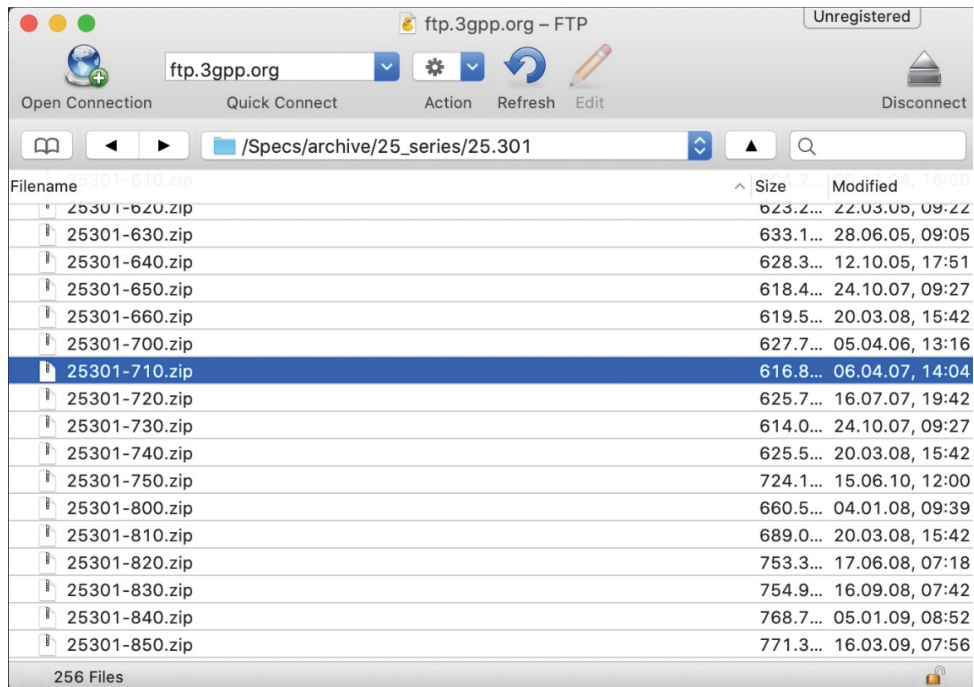
84. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1009 as a true and correct copy of version 7.1.0 of technical specification 3GPP TS 25.301 ("Technical Specification Group Radio Access Network; Radio Interface Protocol Architecture (Release 7)"), which shows on its cover page "2007-03," indicating the year (2007) and month (March) during which this document was released by 3GPP. The document was published and freely available on 3GPP's ftp server by April 6, 2007. The public availability of the document is confirmed by the date stamp shown on the historic 3GPP ftp server for the corresponding downloadable file ("25.301-710.zip"), as maintained by the Internet Archive, available at

[https://web.archive.org/web/20070430162821/http://www.3gpp.org/ftp/Specs/archive/25\\_series/25.301](https://web.archive.org/web/20070430162821/http://www.3gpp.org/ftp/Specs/archive/25_series/25.301). This information is also shown on the date stamp for the



Ex. 1035 - Declaration of Friedhelm Rodermund

present-day listing of the same document on the 3GPP ftp server, available at [https://www.3gpp.org/ftp/Specs/archive/25\\_series/25.301](https://www.3gpp.org/ftp/Specs/archive/25_series/25.301), and as shown by the screen shot below:



85. Thus, based on my personal knowledge and experience with ETSI’s and 3GPP’s standard business practices, this information tells me that this document was available to all 3GPP members and the general public by April 6, 2007 at the latest.

86. In addition, metadata information for the downloaded specification file states a last Modified date of “6. April 2007”, as shown in the screen shot below:

# Ex. 1035 - Declaration of Friedhelm Rodermund

Page 1

**3GPP TS 25.301 V7.1.0 (2007-03)**  
*Technical Specification*  
**3rd Generation Partnership Project;  
Technical Specification Group Radio Access Network;  
Radio Interface Protocol Architecture  
(Release 7)**



The present document has been developed within the 3<sup>rd</sup> Generation Partnership Project (3GPP)<sup>TM</sup>, and may be further elaborated for the purposes of 3GPP. The present document has not been subject to any approval process by the 3GPP Organizational Partners and shall not be implemented. This Specification is provided for future development work within 3GPP only. The Organizational Partners accept no liability for any use of this Specification. Specifications and reports for implementation of the 3GPP<sup>TM</sup> system should be obtained via the 3GPP Organizational Partners Publications Offices.

3GPP TS 25.301 V7.1.0 (2007-03)  
4  
Release 7

CR page 1

**Keywords**  
UMTS, radio, architecture

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**25301-710.doc**  
2,1 MB

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Created 6. April 2007 at 16:04  
Modified 6. April 2007 at 16:04

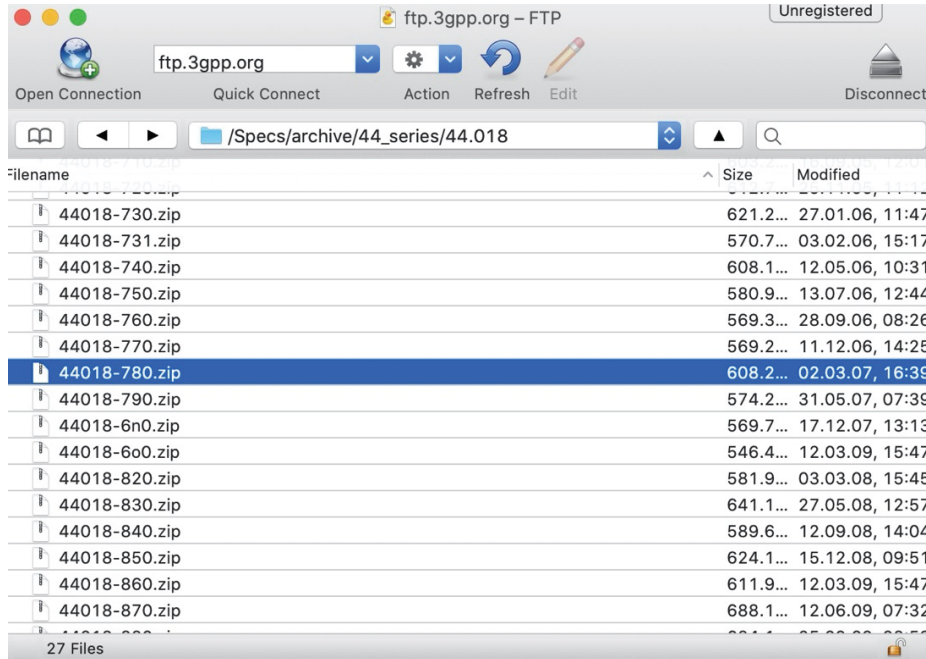
**8. TS 44.018 v7.8.0**

87. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1010 as a true and correct copy of version 7.8.0 of technical specification 3GPP TS 44.018 ("Technical Specification Group GSM/EDGE Radio Access Network; Mobile radio interface layer 3 specification; Radio Resource Control (RRC) protocol (Release 7)"), which shows on its cover page "2007-03" as the year (2007) and month (March) during which this document was released by 3GPP. The document was published and freely available on 3GPP's ftp server by March 2, 2007. This is confirmed by the date stamp shown on the historic 3GPP ftp server for the corresponding downloadable file ("44018-780.zip"), as maintained by the Internet Archive at

[https://web.archive.org/web/20070516095440/http://www.3gpp.org/ftp/Specs/archive/44\\_series/44.018](https://web.archive.org/web/20070516095440/http://www.3gpp.org/ftp/Specs/archive/44_series/44.018). This information is also shown on date stamp for the present-day listing of the same document on the 3GPP ftp server at

[https://www.3gpp.org/ftp/Specs/archive/44\\_series/44.018](https://www.3gpp.org/ftp/Specs/archive/44_series/44.018), as shown by the screen shot below:

## Ex. 1035 - Declaration of Friedhelm Rodermund



88. Thus, based on my personal knowledge and experience with ETSI’s and 3GPP’s standard business practices, this information tells me that this document was available to all 3GPP members and the general public by March 2, 2007 at the latest.

89. In addition, metadata information for the downloaded and extracted specification file states a last Modified date of “2. March 2007”, as shown in the screen shot below:

Ex. 1035 - Declaration of Friedhelm Rodermund

**3GPP TS 44.018 v7.8.0 (2007-03)**  
Technical Specification

**3rd Generation Partnership Project;  
Technical Specification Group GSM/EDGE Radio Access Network;  
Mobile radio interface layer 3 specification;  
Radio Resource Control (RRC) protocol  
(Release 7)**



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Specification and request for implementation of the 3GPP™ system should be obtained via the 3GPP Organizational Partners' Publications Office.

3GPP TS 44.018 V7.8.0 (2007-03)  
283  
Release 7

**Keywords**  
GSM, radio, access, network, layer 3, protocol

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**44018-780.doc**

5,1 MB

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**Information**

Created	2. March 2007 at 13:51
Modified	2. March 2007 at 13:51

**V. AVAILABILITY FOR CROSS-EXAMINATION**

90. In signing this declaration, I recognize that the declaration may be filed as evidence in a contested case before the Patent Trial and Appeal Board of the

Ex. 1035 - Declaration of Friedhelm Rodermund

United States Patent and Trademark Office. I also recognize that I may be subject to cross examination in the case and that cross examination will take place within the United States. If cross examination is required of me, I will cooperate to the best of my ability to appear for cross examination within the United States during the time allotted for cross examination.

**A. Right To Supplement**

91. I reserve the right to supplement my opinions in the future to respond to any arguments that the Patent Owner raises and to take into account new information as it becomes available to me.

**B. Signature**

92. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

93. I declare under penalty of perjury that the foregoing is true and correct.

Dated: February 1, 2021



---

Friedhelm Rodermund

# Appendix A

# CURRICULUM VITAE

---

## I. PERSONAL DATA

Name: **Friedhelm RODERMUND**

Mailing address: Am Steiner Graben 18  
56077 Koblenz, Germany

Phone: +49 172 2606489

Email: friedhelm.rodermund@iotecc.com

---

## II. PROFESSIONAL EXPERIENCE

### Summary

Senior expert in telecommunications and Internet of Things (IoT) technology. 25 years of experience within the mobile communications industry, and several years in the IoT domain in various roles such as project management, technology innovation and evolution, standards development, technology strategy, patent creation and support of patent litigations, and development/introduction of new services.

Widely recognized standards expert who was actively involved in leading roles in the development of key standards for mobile telephony/data and service enablers across standards development organizations such as 3GPP, ETSI, GSMA, IETF, OMA, and oneM2M. Currently focussing on standards for the Internet of Things.

Founder and director of IOTECC GmbH which provides consulting services around technologies and standards enabling the Internet of Things, and provides consulting services related to patents for mobile telecommunications and IoT.

**01/2015 – present IOTECC GmbH Koblenz, Germany**

#### Founder and CEO

- Mobile telecommunications, Internet of Things (IoT) and Machine to Machine (M2M) technology and standards consulting
- Telecommunications and IoT patent consulting
  - Consulting services around telecommunications and IoT patents in particular related to ETSI, 3GPP, and OMA standards
  - State of the art/prior art research services related to patent creation e.g. for new 5G patents
  - Prior art research, patent infringement analysis related to litigations and validity actions
  - Advising on Standards Development Organisations (SDO) working processes and IPR policy, ETSI IPR Special Committee delegate
  - Experienced expert witness (please see section III for a list of supported actions)

**11/2014 – 12/2014 Friedhelm Rodermund Consulting Koblenz, Germany**

#### Internet of Things (IoT) Consultant

- M2M/IoT standards development and introduction of new M2M/IoT services



# CURRICULUM VITAE

---

- 01/2011 – 10/2014**    **Vodafone Germany / Vodafone Group R&D**    **Düsseldorf, Germany**
- Senior Standards Strategist
- Representing Vodafone in various standardisation bodies
  - Driving the standardisation of the Internet of Things
  - Work item lead, technical editor and key contributor of Open Mobile Alliance (OMA) “Lightweight M2M (LwM2M)” – the new standard for the Internet of Things
  - Advising and supporting various M2M projects related to e.g. automotive, smart metering, health, industry
  - Advising on the introduction of new M2M technologies and services
  - Leading Proof of Concepts of emerging technologies
  - Involved in innovation projects
  - Supporting the creation and protection of Intellectual Property
- 01/2009 – 12/2010**    **Vodafone Germany**    **Düsseldorf, Germany**
- Vice Chairman Open Mobile Alliance (OMA) Device Management (DM)
- Responsible for Vodafone’s Device Management standardisation
  - As OMA DM Vice Chairman, co-leading the group, chairing committee meetings and web conferences, steering the technical direction, management of the different work items
  - Editor of several specifications, rapporteur of various work items
  - Support of projects for the introduction of device management
  - Delegate to 3GPP SA1 where I was responsible for the introduction of MTC (machine type communications) related service/network requirements
- 01/2005 – 12/2008**    **Vodafone Germany**    **Düsseldorf, Germany**
- Project Manager Mobile Broadcast Standards
- Responsible for Mobile Broadcast standardisation across different broadcast systems/standards bodies and across all Vodafone local operations
  - Responsible for Mobile Broadcast standardisation strategy development and implementation
  - Delegation Lead for the Open Mobile Alliance (OMA) BCAST working group
  - Initiated and managed the BCAST device profile development in the BMCO Forum
  - Leading the "Service Protection" (pay-TV) stream of the German DVB-H Consortium
  - Filed several patents
  - Supporting patent litigations and patent portfolio evaluation (various technical areas)
- 04/2003 – 12/2003**    **GSM Association**    **London, United Kingdom**
- Member of the MMS Task Force
- Verification of the MMS operator interworking framework
  - Supporting the definition and specification of the MMS functional evolution
  - Acting as a “link” between 3GPP and GSMA in the area of MMS
- 06/1998 – 12/2004**    **European Telecommunications Standards Institute (ETSI)**  
**Sophia Antipolis, France**
- 01/2002 – 12/2004: Secretary 3GPP Technical Specifications Group “Terminals” and Terminals Working Group 2 “Terminal Services and Capabilities”
- 01/1999 – 12/2001: Secretary 3GPP Terminals Working Group 2 “Terminal Services and Capabilities” and GERAN 3 “Base Station Testing”

## CURRICULUM VITAE

---

06/1998 – 03/1999: Secretary ETSI SMG4 “Data Services” and SMG8 “Base Station Testing”

- Supported the establishment of 3GPP (3<sup>rd</sup> Generation Partnership Project) as the leading standards organization for mobile telecommunications
- Project manager and secretary of TSG “Terminals” responsible for Terminal Conformance Testing, Terminal Services and Capabilities, Universal Subscriber Identity Module (USIM)
- Project manager and secretary of Terminals Working Group 2 “Terminal Services and Capabilities” that was responsible for Terminal Execution Environments, Messaging including Short Message Service (SMS), Cell Broadcast Service (CBS), Enhanced Messaging Service (EMS), Multimedia Messaging Service (MMS), Terminal Interfaces incl. AT-commands, Generic User Profile, Data Synchronization and others
- Establishment and management of the Work Plan and follow-up and report on the progress of the related work items
- Advising the chairmen and the standards groups on technical, procedural and political issues
- Editorship of various GSM and UMTS technical specifications
- Responsible for presenting the technical results of the working groups to the parent body
- Responsible for the communication with other standards bodies inside and outside 3GPP
- PR activities (articles, interviews)

12/1993 – 06/1998

**Mannesmann Mobilfunk GmbH**

**Düsseldorf, Germany**

System Engineer and Project Manager in Quality Assurance and Technical Standards

- Leadership and management of acceptance test projects in the area of GSM Base Station Controller (BSC) and GSM Base Station (BTS) hardware and software.
- Leading project teams of around 15 people
- Responsible for the clearance of releasing new software/hardware into the network
- Supported Request for Quotations, supplier evaluation and pre-selection, project manager of System Verification as a central part of the supplier selection process.
- Representation of Mannesmann Mobilfunk to the ETSI standardization group “Standardization Technical Committee SMG3 System Architecture”
- Conduction of product and hardware development quality audits
- Representative of Mannesmann Mobilfunk in A-interface interoperability testing activities
- Member of BSS product planning group which was defining operator requirements for future BSS releases
- Development of process improvements for type acceptance

## CURRICULUM VITAE

---

### III. LIST OF SUPPORTED PATENT LITIGATIONS AND VALIDITY ACTIONS

- 2021  
Optis Cellular Technology LLC et al. v. Apple  
Claim No. HP-2019-000006 (High Court of Justice, Business and Property Courts of England and Wales)  
On behalf of Apple  
Counsel: WilmerHale  
Role: Expert witness and consulting services
- 2020  
Panoptis Patent Management LLC et al. v. Apple Inc.  
Civil Action No. 2:19-cv-66 (E.D. Tex.)  
On behalf of Apple  
Counsel: WilmerHale  
Role: Expert witness (export report, deposition testimony, trial testimony) at bench trial
- 2020  
Sol IP, LLC v. AT&T Mobility, LLC et al.  
Civil Action No. 2:18-cv-526 (E.D. Tex.)  
On behalf of AT&T, Verizon, Sprint  
Counsel: Gibson Dunn  
Role: Expert witness (export report) and consulting services
- 2020  
Bell Northern Research LLC v. LG Electronics Inc. et al.  
Civil Action No. 18-CV-2864-CAB-BLM (S.D. Cal.)  
On behalf of LG Electronics Inc.  
Counsel: Fish&Richardson  
Role: Expert witness (declaration) and consulting services
- 2019  
Conversant Wireless Licensing S.a.r.l. v. LG Electronics Deutschland GmbH  
Civil Action No. 7 O 3277/18 (Landgericht Munich, Germany)  
On behalf of LG Electronics Deutschland GmbH  
Counsel: Wildanger Kehrwald Graf von Schwerin & Partner mbB  
Role: Expert witness (export report) and consulting services
- 2019  
Bell Northern Research, LLC v. Huawei Device Co., Ltd, et al.  
Civil Action No. 3:18-cv-01784-CAB-BLM  
On behalf of Huawei  
Counsel: Fish&Richardson  
Role: Expert witness (declaration) and consulting services
- 2019  
Uniloc USA, Inc., et al. v. Samsung Electronics America, Inc. and Samsung Electronics Co. Ltd.  
Civil Action Nos. 2:18-cv-00040-JRG, 2:18-cv-00041-JRG, 2:18-cv-00042-JRG and 2:18-cv-00044-JRG (United States District Court for the Eastern District of Texas)  
On behalf of Samsung  
Counsel: Greenberg Traurig  
Role: Expert witness (export report, deposition testimony) and consulting services
- 2019  
Uniloc USA, Inc., et al. v. Huawei Device USA, Inc. et al.  
Civil Action No. 2:18-cv- 00072-JRG-RSP (E.D. Tex.)  
On behalf of Huawei  
Counsel: McGuireWoods

## CURRICULUM VITAE

---

Role: Expert witness (export report) and consulting services

2019

Microsoft Corporation v. Uniloc 2017 LLC  
Inter Partes Review of U.S. Pat. No. 7,167,487  
Inter Partes Review of U.S. Pat. No. 7,075,917  
On behalf of Microsoft and on behalf of Apple as joinder petitioner  
Counsel: Klarquist Sparkman (Microsoft), Erise IP (Apple)  
Role: Expert witness (declarations) and consulting services

2019

Qualcomm v. KFTC  
South Korean Case, Seoul High Court  
On behalf of intervenor Apple supporting the KFTC  
Counsel: Boies Schiller Flexner  
Role: Expert witness (trial testimony)

2018/19

Evolved Wireless, LLC v. Apple, Inc.  
Civil Action No. 1:15-cv-00542-JFB-SRF  
On behalf of Apple  
Counsel: DLA Piper  
Role: Expert witness (export report, deposition testimony) and consulting services

2018/19

Cisco Systems Inc. v. Traxcell Technologies  
Inter Partes Review of Traxcell Technologies patents  
On behalf of Cisco  
Counsel: King&Spalding  
Role: Expert witness (declaration) and consulting services

2018/19

Qualcomm Inc. v. Apple Inc.  
Civil Action No. 3:17- cv-02398-DMS-MDD (United States District Court for the Southern District of California)  
Civil Action No. 3:17-cv-02402-WQH-MDD  
Certain Mobile Electronic Devices and Radio Frequency and Processing Components Thereof (II), Inv. No. 337-TA-1093  
Inter Partes Review of U.S. PATENT NO. 9,154,356  
Cases IPR2019-00047, IPR2019-00048, IPR2019-00049, IPR2019-00128, IPR2019-00129  
On behalf of Apple and Intel  
Counsel: WilmerHale  
Role: Expert witness (declaration) and consulting services

2018/19

Apple Inc. v. Qualcomm Inc.  
Civil Action No. 3:17-CV-00108-GPC-MDD (United States District Court for the Southern District of California)  
On behalf of Apple  
Counsel: Fish&Richardson, Boies Schiller Flexner  
Role: Expert witness (declaration, export report, deposition testimony) and consulting services

2018

3G Licensing, S.A. et al. v. LG Electronics Inc. et al  
Inter Partes Review of U.S. Patent No. 7,995,091  
On behalf of LG Electronics  
Counsel: Fish&Richardson  
Role: Expert witness (declaration)

2017

Huawei Technologies Co. LTD. v. T-Mobile US, Inc. & T-Mobile USA, Inc.

## CURRICULUM VITAE

---

E.D. Tex. Case Nos. 2:16-cv-00052-JRG-RSP; 2:16-cv-00055-JRG-RSP; 2:16-cv-00056-JRG-RSP; and 2:16-cv-00057-JRG-RSP

On behalf of T-Mobile

Counsel: Gibson Dunn

Role: Expert witness (expert reports, deposition testimony) and consulting services

2016

Koninklijke KPN N.V. v. Samsung Electronics America, Inc. et al.

Civil Action No. 14-cv-1165

On behalf of Samsung Electronics

Counsel: Baker Botts

Role: Expert witness (declaration and deposition testimony) and consulting services

2016

SSH v. Sony

OLG Düsseldorf, Germany

On behalf of SSH

Counsel: Cohausz&Florack

Role: Technical expert support

2015/16

LG Electronics v. Core Wireless Licensing S.A.R.L.

Inter Parties Review of U.S. Patent No. 8,165,049

On behalf of LG Electronics

Counsel: Greenberg Traurig

Role: Expert witness (declaration and deposition testimony)

2015/16

Core Wireless Licensing S.A.R.L. v. LG Electronics Inc. and LG Electronics MobileComm U.S.A., Inc

Civil Action No. 2:14-cv-911 (lead case) and Civil Action No. 2:14-cv-912 (consolidated)

On behalf of LG Electronics

Counsel: Greenberg Traurig, Sidley Austin

Role: Expert witness (expert report and deposition testimony)

2015

Intellectual Ventures I LLC v. T-Mobile USA, Inc. & T-Mobile US, Inc.

D. Del. Case No. 1:13-cv-01632

Intellectual Ventures II LLC v. T-Mobile USA, Inc. & T-Mobile US, Inc.

D. Del. Case No. 1:13-cv-01633

On behalf of T-Mobile

Counsel: Gibson Dunn

Role: Technical expert support

## IV. EDUCATION

- |                          |  |                          |
|--------------------------|--|--------------------------|
| <b>10/1984 – 10/1993</b> | <b>University of Technology Aachen</b>   | <b>Aachen, Germany</b>   |
|                          | <u>Graduate of Electrical Engineering with a focus on telecommunications technologies (Dipl.-Ing. TH)</u>      |                          |
| <b>10/1992 – 04/1993</b> | <b>University of Technology Trondheim</b>  | <b>Trondheim, Norway</b> |
|                          | <u>Diploma Thesis "Design of a dual processor computer for digital signal processing in power electronics"</u> |                          |

## V. LANGUAGES

German, English, French

### VI. RECENT PUBLICATIONS

- "Unlocking the internet of things and driving the need for interoperability", Global Telecoms Business, December 2013
- "The need for standardisation in the M2M services layer", Global Telecoms Business, February 2014
- Co-authored white paper "Lightweight M2M: Enabling device management and applications for the internet of things", Open Mobile Alliance, March 2014
- "Objects are a new way to create M2M applications", Global Telecoms Business, April 2014
- "The need for standardisation in the M2M services layer", M2M Now, July 2015

# Appendix B

**Agenda Item:** -  
**Source:** Secretary  
**Title:** Draft minutes of WG1 #18 meeting  
**Document for:** Approval

---

### **Draft Minutes for 3GPP TSG-RAN WG1 18<sup>th</sup> Meeting**

Meeting start: January 15<sup>th</sup>, 2001, in Boston, MA, U.S.A.

Day 1, started at 09.17

#### **1. Opening of the meeting** (09:17-09:21)

The chairman, Mr. Antti Toskala (Nokia), opened the meeting.  
On behalf of the hosting company, the representative welcomed the meeting.

#### **2. Approval of agenda (R1-00-1498)** (09:22-09:36)

Chairman made a brief introduction of the agenda on the screen.  
Regarding HSDPA discussion, chairman suggested that we should treat items which have direct link to RAN WG2 a bit later because RAN WG2 was having Ad Hoc session for Rel-4/5 issues in parallel with us on Monday and Tuesday in UK and we were expecting some information from their meeting. Chairman suggested that simulation results and issues on implementation complexity aspects could be covered first without minding RAN WG2 discussion. Mr. Guiliang Yang (CWTS) requested postponing of 1.28Mcps Ad Hoc one day because of the preparation status. Having this request, chairman decided not to have parallel Ad Hoc sessions on Day2 that had been originally suggested in the draft agenda.  
Agenda was approved with no other comments.

#### **3. Report from TSG RAN#10 From Bangkok (R1-01-0067)** (09:52 –10:17)

1. Release 99 CRs  
All Release '99 CRs WG1 presented were approved by TSG RAN.
2. Open item for release 99  
1st interleaver memory with the UE capabilities was reported to TSG RAN as an open Release'99 item under discussion in WG1
3. TS on UE capabilities  
New Release'99 specification was created out of TR 25.926. TS 25.306 replaced TR 25.926, with the first version 3.0.0 as agreed in TSG RAN. Thus any UE capability issue (FDD or TDD) is to be reflected for TS 25.306. The 1.28 Mcps TDD UE capabilities need to be reflected to this TS as well. The TR on 1.28 Mcps TDD UE capabilities is for 3GPP internal use only (as all 25.8xx series).  
(Chairman clarified this because there had been a question in the RAN WG1#17 meeting whether there would be a separated specific TR on 1.28 TDD UE capabilities. Now it was clarified that all UE capabilities issues should finally go to TS 25.306.)
4. How to proceed with CRs for release 99 and release 4
  - In case we produce CRs which would impact both releases then 2 sets of agreed CRs need to be created – i.e. one per release.
  - But before release 4 specifications have been created, even if the change will impact on both release, the only CR for release 99 is to be made. MCC will implement release 99 CRs until release 4 specifications have been created. When creating release 4 specifications, all TSG approved CRs for release 99 shall also be implemented in the release 4 version.



- Once release 4 specifications have been created, then those release 4 specifications would deviate from release 99 specifications by being applied release 4 specific CRs

## 5. Release 4/5 issues

- 1) **Terminal power saving feature (DPCCH gating)**
  - The WG1 TR 25.840 was presented to TSG RAN as 2.0.0.
  - The milestone remained 03/01.
  - WG2 reported uncertainty whether they have conclusions/consensus on all the aspects of this feature for 03/01. WG1 TR stayed as 2.0.0
  - Impact of compressed mode (on the gains) was mentioned as one issue which WG1 should cover as well.
- 2) **DSCH power control improvement in soft handover**
  - TR 25.841 was presented and approved by TSG RAN.
  - TR is now version 4.0.0 and under CR process if there is need for change.
  - WG3 has draft TR on this under preparation
- 3) **TDD Node B synchronization**
  - The TR 25.836 was presented and approved by TSG RAN to 4.0.0
  - The milestone was kept as 03/01
- 4) **Uplink Synchronous Transmission Scheme**
  - WG1 indicated that study report would be delivered 03/01
  - The milestone for the study report was kept was 03/01
- 5) **1.28Mcps (Low Chip Rate) UTRA TDD Physical Layer**
  - There was not much discussion on RAN WG1 issues.
  - Issues to work with still as reported to TSG RAN
    - 1: Uplink synchronization
    - 2: Handover measurements for GSM for data rates above 32 kbits/s
  - TDD status of co-existence studies were briefly discussed in TSG RAN.
    - It was decided that the base station to base station interference scenario needs to be further analysed and solutions for interworking needs to be found. RAN WG4 was tasked to do this work.
  - RAN WG1 was requested to submit TR 25.928 for approval for RAN for RAN #11 although we are now working on *Working CRs*.
- 6) **Smart Antennas**
  - Work item was deleted. There was no topic identified to be worked on under this work item.
- 7) **High Speed Downlink Packet Access (HSDPA)**
  - There had been activity only in RAN WG1 on this topic (since TSG RAN#9).
  - RAN WG2 expected to address the topic beginning of this week (Jan 15 -16).
    - Some inputs from RAN WG2 could be expected during RAN WG1#18 meeting.
  - Joint Ad Hoc between RAN WG1 and RAN WG2 was suggested by TSG RAN. This will be coordinated with RAN WG2 chairman after the RAN WG2 has addressed HSDPA during their current meeting.
- 8) **Other Topics**
  - Hybrid ARQ
    - No activity reported, most likely to be covered as part of HSDPA
  - Improved cell FACH state
    - No activity reported
  - Positioning
    - WG1 chairman's understanding is that OTDOA-PE method is not for Release 4 time frame.
  - Tx Diversity
    - We aim to have our conclusion for June for release 5.
- 9) **TSG RAN/SA level workshops agreed**
  - TSG RAN Workshop UTRAN Evolution, Feb. 5-6
    - Based on the contributions presented in TSG RAN#10, TSG RAN felt that there is a need to organize a 2-day workshop discussing the UTRAN evolution beyond Release 4, i.e., on IP based UTRAN architecture, Iub, Iur, Iu and possible new internal UTRAN interfaces. The goal of the workshop is to identify requirements for the UTRAN evolution in co-operation with other groups that may have requirements or otherwise are linked to the UTRAN evolution. In addition, individual companies are invited to provide their vision of the UTRAN evolution.
  - TSG SA workshop UE in idle mode, Feb 7-8
    - The goal of the workshop is to review and address the following topics, both from a requirement and functional point of view:
      - PLMN selection
      - Cell selection and reselection
      - Handovers
- 10) **RAN Plenary will have 4 days meetings from RAN #11 onwards.**

#### 4. Identification of the incoming liaison statements and actions in the answering

No.	Title	Source	To/Cc	Tdoc No.	Originator of the LS	Notes
1	Liaison to RAN WG1 and RAN WG2 on the Efficiency of Packet-Switched Conversational Multimedia Service	SA WG4	TO	R1-01-0029 (S4-000700R)	Siemens	Answer LS will be sent (*1) <small>Day1 10:19-10:32</small>
2	On Iub NBAP Signalling Support for CPCH	RAN WG3	CC	R1-01-0028 (R3-003105)	Samsung	Noted (*2) <small>Day1 11:18-11:24</small>
3	Response to LS on request to review timing requirements in Idle mode test cases	CN WG1	CC	R1-01-0027 (N1-001329)	Ericsson	No Comments Noted (*3) <small>Day1 11:25-11:29</small>
4	LS on Results of HSDPA Study Item Ad Hoc	R2	TO	R1-01-0145 (R2-010205)	Motorola	(*4) <small>Day3 13:50-14:06</small>

(\*1) Chairman presented this LS.

SA WG4 is setting up a new work item called “Multimedia Codecs and Protocols for Conversational Packet-Switched Services” that is targeting Rel4 and Rel5. And then they confronted questions on the efficiency constraint caused by applying RTP onto AMR speech codec, that is the impact of equal error protection rather than unequal protection. They listed 3 questions for RAN WG1 as well as RAN WG2 regarding the efficient solutions for the transportation of such RTP encapsulated media.

Ms. Evelyne Le Strat (Nortel) commented.

As for the impact of equal error protection, we had done some evaluation last year performed by NTT DoCoMo and Nortel on different coding strategies and so we should be able to provide some indication on this. However regarding the question on how we could effectively do unequal error protection if we are in packet-switched domain, RAN is not appropriate group to provide indication because the request is for the core network when they made question on the sub-flows with different quality of services. We provide radio bearers, all the transport channels to provide such quality of service. But we do not see RTP payload. We are relatively transparent. So question is to be answered by SA group itself.

Chairman agreed with this opinion and added that we had to be careful in answering the gain of unequal vs. equal error protection because what has been done studied for this is circuit-switched domain AMR. If there are some headers that need some kind of error protection, it would have an impact on the situation. So we have to say that our answer, for instance, the gain of 1dB does not include any impacts on quality of service by RTP header, etc. Finally chairman asked Ms. Evelyne Le Strat to draft an answer liaison statement. It was drafted in **R1-01-0090** and reviewed on Day4 and approved in **R1-01-0170**. (See No. 109)

/\*\* Coffee break 10:33-11:15 \*\*/

(\*2) Delegate from Samsung presented this LS.

This LS was sent from RAN WG3 as the answer to the LS from RAN WG2 (R3-002350, R2-001846) on Iub NBAP signalling support for CPCH.

Ms. Evelyne Le Strat (Nortel) pointed out that there are again some terminology problems mixing CPCH with CPCH set and mixing the access resource with traffic resource.

Chairman agreed with this comments.

(\*3) Mr. Dirk Gerstenberger (Ericsson) presented this LS.

This LS was sent from CN WG1 as the answer to the LS from T WG1(N1-001167, T1-000161) in which T WG1 had requested CN WG1 to review the attached documents (those documents were also attached to this LS) on timing requirements in idle mode. In this LS CN WG1 stated that these timing requirements should also be reviewed and studied in RAN WG1, RAN WG2 and GERAN WG2.

Chairman commented that we should somehow inform our RAN WG4 colleagues about this document because this is about the timing requirements and RAN WG4 would be impacted. He added this topic would come up in the Work Shop on UE idle mode (See section 3-9) and this is expected to be handled in that workshop.

(\*4) See No. 57

## 5. Issues postponed / identified in RAN WG1 #17

### 5.1 Preconfigurations for GSM handover

No.	Tdoc	Title	Source	Conclusion	Notes
5	R1-01-0037	Proposed parameter values for default configurations	Ericsson	17:00-52	(*1) <small>Day1 12:06</small>

(\*1) Mr. Dirk Gerstenberger (Ericsson) presented this document.

In RAN WG1#17 we received the LS (**R1-00-1412**, R2-002463) from RAN WG2. RAN WG2 was requesting us to provide some guidance on the parameter values for default configurations, the values for some transport channel and physical channel parameters which are not covered in TS 34.108. In RAN WG1#17 though we made a discussion on this request we could not reach the conclusion partly because the background of RAN WG2 request was not quite clear from the LS. Chairman suggested offline discussion in RAN WG1#17.

Now with this paper Mr. Dirk Gerstenberger explained the background of RAN WG2 LS and proposed the answer values for the following configurations with rationales.

- 13.6 kbps SRB
- 12.2 kbps speech + 3.4 kbps SRB
- 64kbps conv. CS- data + 3.4 kbps SRB
- 57.6 kbps streaming CS- data + 3.4 kbps SRB

There were some discussions.

1. PC preamble length 0.

In case RRC connection has not yet been established on the handover, then RRC connection establishment message would be transmitted first of all and therefore PC preamble length 0 can be considered inappropriate.

→ Major opinion preferred to keep it 0 as it was proposed. The reason was same as described in the rationale section of the paper.

2. Regarding uplink DPCH power control, are the 2 parameters of power control step size and uplink power control algorithm going to be informed ? or would there be default values ?

→ In case there would be default values then they should be normal algorithm (algorithm1) and normal 1 dB power control step size. This should be mentioned in the LS to RAN WG2.

3. Regarding dpch-PowerOffset, in case no bits are available for message, it would be better to use 1dB or something else as the default value.

As a conclusion, LS to RAN WG2 shall be created including the comments received. LS would be drafted by Mr. Dirk Gerstenberger in **R1-01-0101**. This was reviewed on Day 2 and approved. (See No. 105)

Finally chairman added that if companies would submit proposals for the values for the default configurations which are not covered by this document, those proposals should be posted on RAN WG1 reflector as well so that RAN WG1 people can review them before those proposals go to RAN WG2.

### 5.2 Limitation on the downlink rate matching repetition

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
6	102	-	25.212	R1-01-0057	Limitation on the downlink rate matching repetition	F	Panasonic	Postponed	(*1) <small>Day 1 12:08-12:26</small>
7	XXX	-	25.306	R1-01-0040	Downlink rate matching limitation	F	Ericsson	Postponed	(*1) <small>Day 1 12:27-12:34</small>
8	XXX	-	25.306	R1-01-0010	Clarifications to UE capability in the first de-interleaving phase	F	Nokia	Postponed	(*1) <small>Day 1 12:34-12:42</small>
9	-	-	-	R1-01-0169	Repetition limitation discussion	-	Panasonic Ericsson Nokia	Noted	(*2) <small>Day 4 12:06-12:38</small>

(\*1) R1-01-0057 was presented by Mr. Hidetoshi Suzuki (Panasonic).

R1-01-0040 was presented by Mr. Dirk Gerstenberger (Ericsson)

R1-01-0010 was presented by Mr. Markku Tarkiainen (Nokia)

All these 3 documents treated the problem of unlimited downlink rate matching repetition on UE memory requirements which had been originally raised by **R1-00-1456** (Panasonic and Mitsubishi) in RAN WG1#17 meeting. Since it was foreseeable that it would take time to reach conclusion, chairman suggested the offline discussion over the lunch by the proponents and interested parties after having short introduction of these papers in the plenary before the lunch break.

R1-01-0057 proposed to limit the transport channel capabilities in TS 25.212 by putting the upper limits to each of the transport channel capabilities (all transport blocks, convolutional coded transport blocks and turbo coded transport blocks defined in TS 25.306.).

R1-01-0040 proposed to put one limitation on the maximum number of bits of all transport blocks in TS 25.306.

R1-01-0010 also proposed to make changes in TS 25.306.

/\*\*\Lunch break 12:43-14:06 \*\*/

After lunch break it was announced by the proponents that they would need more time to reach conclusion. Chairman remarked that we would come back to this again later. (See No.9)

(\*2) The issue of limitation on the downlink rate matching repetition was revisited on Day4 noon.

Mr. Hidetoshi Suzuki (Panasonic) explained current situation with this table which compares the proposals of 3 companies.

At this moment of time the consensus had not yet been reached by 3 companies.

Panasonic and Ericsson proposals would not introduce new capability classes and hence can be applicable to either TS 25.212 or TS 25.306 however Nokia's proposal request new capability class and is only implemented to TS 25.306.

Conclusion had not been reached before the lunch break but during the offline discussion in the lunch break it was reached and LS was drafted. (See No.115)

/\*\* Lunch break 12:40- 13:44 \*\*/

## 6. Change Requests for WGI Release –99 specifications

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
10	092	-	25.211	R1-01-0056	Clarification of the S-CCPCH frame carrying paging information	F	Panasonic	Rejected LS would be sent.	(*1) Day1 14:32
11	091	-	25.211	R1-01-0034	DSCH reading indication	F	Ericsson	Approved	No (*2) Comments Day1 14:37
12	104	-	25.212	R1-01-0077	Addition of compressed mode gap length “8 slots”	C	Nokia	Postponed	(*3) Day1 14:52
13	144	-	25.214	R1-01-0052	Removal of the power balancing algorithm from TS 25.214	F	NEC	Approved	No (*4) Comments Day1 14:58
14	145	-	25.214	R1-01-0053	Clarification of Nid parameter – when SSDD and uplink compressed mode are in operation	F	NEC, Telecom Modus	Approved	No (*5) Comments Day1 15:02
15	146	-	25.214	R1-01-0085	Clarification of closed loop transmit diversity mode 1 and mode 2 operation during compressed mode	F	Motorola	Approved	No (*6) Comments Day1 15:05
16	079	1	25.215	R1-01-0076	Correction of the observed time difference to GSM measurement	F	Nokia	To be revised	(*7) Day1 15:14
17	081	-	25.215	R1-01-0071	Removal of UE SIR measurement	F	Ericsson	Approved	(*8) Day1 15:25
18	039	-	25.221	R1-01-0016	Corrections of PUSCH and PDSCH	F	Siemens	To be revised	(*9) Day1 16:19
19	045	-	25.224	R1-01-0016	Introduction of closed-loop Tx diversity for the PDSCH and DTX for the PUSCH/PDSCH	F	Siemens	Approved	No Comments Day1 16:19
20	037	1	25.221	R1-01-0019	Bit Scrambling for TDD	F	Siemens	Approved	No (*10) Comments Day1 16:27
21	051	1	25.222	R1-01-0019	Bit Scrambling for TDD	F	Siemens	Approved	No (*10) Comments Day1 16:27
22	040	-	25.221	R1-01-0021	Alteration of SCH offsets to avoid overlapping midamble	F	Siemens	Postponed	(*11) Day1 16:34
23	041	-	25.221	R1-01-0022	Clarifications & Corrections for TS25.221	F	Siemens	Postponed	(*12) Day1 16:41
24	054	-	25.222	R1-01-0023	Corrections & Clarifications for TS25.222	F	Siemens	Postponed	(*12) Day1 16:41
25	046	-	25.224	R1-01-0017	Corrections of TDD power control sections	F	Siemens	Approved	No (*13) Comments Day 1 16:46
26	142	-	25.214	R1-01-0024	Uplink power control in compressed mode	F	Philips	To be revised	(*14) Day 1 16:52
27	142	1	25.214	R1-01-0112	Uplink power control in compressed mode	F	Philips	Approved	No (*15) Comments Day 4 11:51
28	079	2	25.215	R1-01-0107	Correction of the observed time difference to GSM measurement	F	Nokia	Approved	No (*16) Comments Day 4 11:54
29	023	-	25.225	R1-01-0107	Correction of the observed time difference to GSM measurement	F	Nokia	Approved	No (*16) Comments Day 4 11:54
30	039	1	25.221	R1-01-0111	Corrections of PUSCH and PDSCH	F	Siemens	Approved	No (*17) Comments Day 4 11:58
31	040	-	25.221	R1-01-0021	Alteration of SCH offsets to avoid overlapping Midamble	F	Siemens	Approved	No (*18) Comments Day 4 12:00
32	041	-	25.221	R1-01-0022	Clarifications & Corrections for TS25.221	F	Siemens	Approved	No (*19) Comments Day 4 12:01
33	054	-	25.222	R1-01-0023	Corrections & Clarifications for TS25.222	F	Siemens	Approved	No (*19) Comments Day 4 12:01
34	037	-	25.224	R1-01-0073	RACH random access procedure	F	InterDigital	Approved	(*20) Day 4 14:08
35	036	-	25.224	R1-01-0153	DTX and Special Burst Scheduling	F	InterDigital	Approved	No Comments Day 4 14:12

- (\*1) Mr. Hidetoshi Suzuki (Panasonic) presented this CR.  
 This CR proposed to clarify that the S-CCPCH which carries the paging information should be one single frame. The rationale behind this proposal is that if it is sure that paging associated S-CCPCH would be sent in one single frame and not in multiple frames, UE would be able to turn off the receiver in order to improve the power consumption as soon as it has received that one S-CCPCH.  
 There were several comments.
- If this kind of CR is to be approved in RAN WG1 then similar kind of CR should be approved in RAN WG3.
  - That paging associated S-CCPCH is single is already clearly stated in the first sentence of that section (7.2).  
 " *Figure 30 illustrates the timing between a PICH frame and its associated S-CCPCH frame, (singular)*"  
 If we put the word "single" as is proposed in the CR, it means there could be multiple frames. In that case the plural would be used in the first sentence instead of singular.
  - Are we really sure that there would not be consecutive messages to the same UE sent by the network ?  
 Are we sure whether the scenario of consecutive frames on paging indicator channel is allowed or not ?
  - Can UEs buffer more than 2 consecutive frames once it receives paging indicator channel ?
- Conclusion : This CR was rejected. LS would be sent to RAN WG2 and RAN WG3 asking whether there would be consecutive frames on the paging indicator channel or not.  
 LS would be drafted in **R1-01-0105**. This was reviewed on Day4 and approved. (See No. 108)
- (\*2) This CR proposed to remove the option of higher layer signalling to indicate UE should read the DSCH because DSCH reading indication by higher layer signalling is not supported in RRC.  
 This CR had been sent on the e-mail reflector prior to the meeting.
- (\*3) Mr. Ville Steudle (Nokia) presented this CR.  
 This CR proposed the addition of compressed mode gap length of "8 slots" in TS 25.212 following the decision made in RAN WG4. (RAN WG4 had decided to include a compressed mode transmission gap length of 8 slots into their specifications.)  
 There were some comments that since this was something more than correction and therefore we need to have more information on the benefits of using transmission gap length of 8 from RAN WG4. Furthermore it is a bit late to introduce this kind of changes even if we could agree to the motivations.  
 Chairman suggested 2 approaches;
1. If everybody is happy then we consider this as a release 99 correction.
  2. We consider this as an improvement of inter-frequency measurements (release 4)
- It was suggested to send a liaison statement to RAN WG4 to ask the background of their change. The LS was drafted in **R1-01-0106** by Mr. Ville Steudle. It was reviewed and approved in **R1-01-0167** on Day4. (See No.107)  
 (It was informed by Mr. Ville Steudle that there would be a liaison statement from RAN WG4 on this issue.)  
 The decision of this CR was postponed.
- (\*4) Mr. Takashi Mochizuki (NEC) presented this CR.  
 This CR proposed to remove the description of the power-balancing algorithm from TS 25.214 in order to make specifications consistent because the power-balancing algorithm was described in TS 25.214 and TS 25.433 in a different manner. (In TS 25.433 it was described as normative whereas in TS 25.214 informative.) According to the proponent TS 25.433 had been modified in RAN in September, 2000 in this respect.
- (\*5) Mr. Takashi Mochizuki (NEC) presented this CR.  
 This CR proposed to clarify the definition of  $N_{id}$  parameter because current definition was considered misleading.
- (\*6) It was proposed to remove the irrelevant text from section 7.2.3.1 and 7.3.3.1 which implies a UE could receive CPICH during a downlink compressed mode gap.
- (\*7) Mr. Ville Steudle (Nokia) presented this CR.  
 This CR proposed to clarify the definition of "Observed time difference to GSM cell" in TS 25.215 by adding the relationship between measurement and reported value.  
 A couple of comments were made that the added description was somewhat unclear and should be modified.  
 " *For calculating the reported time difference, the frames are assumed to be ideal.*" Is this clear ?  
 " *For the actual measurement, the reference points shall be.*" the term *reference point* is already used for different purpose.  
 So this was set to be revised. Chairman requested the proponents to add more words to the "reason for change" field in the cover sheet in conformity to RAN practice. The revision was made in **R1-01-0107** and reviewed on Day4 and approved with no comments. (See No.28,29)
- (\*8) Mr. Dirk Gerstenberger (Ericsson) presented this CR.  
 This CR proposed to remove the SIR measurement from the UE measurements in TS 25.215 because SIR measurement by UE is a physical layer internal measurement and is not reported by UE to UTRAN in any RRC messages. No performance requirements on SIR measurement are specified in TS 25.113.  
 Mr. Matthew Baker (Philips) remarked that deleting SIR measurement itself would not be a problem but somewhere in the specifications there should be retained the definition of SIR target or the information regarding SIR measurement, something like (RSCP/ISCP) $\times$ (SF/2) because otherwise there would be confusion in downlink power control with UEs having different definition of SIR targets. For instance some UEs would take into account the spreading factor in their definition and other UEs would not include it.  
 There took place some discussion regarding this comment. Major concern was that it is the definition of SIR target that would be needed and not the definition of SIR.  
 Finally chairman concluded based on the comments received that the removal of the SIR measurement from TS 25.215 which is proposed in this CR is fine because SIR measurement would not be reported over the air but at the same time the definition of SIR target including the definition of SIR should be retained in the informative annex

of TS 25.214 because otherwise there would be an impact on the downlink power control as Mr. Matthew Baker pointed out. Chairman stated that this CR was approved here with the condition that another CR for TS 25.214 should be submitted to RAN with this CR. Chairman asked Mr. Matthew Baker to draft a CR for this purpose. **R1-01-0108 CR 25.214-148** was allocated for this CR. This CR was not presented during this meeting. Siemens will check whether a similar change request (removal of SIR measurement for TDD) is needed or not. (In RRC, for FDD part Nokia presented CR to remove SIR measurement in the previous RAN WG2 meeting, but for TDD part there likely still remains SIR measurement.)

/\*\* R1-01-0108 would be discussed on the e-mail reflector prior to the next meeting. \*\*\*/

/\*\* Coffee break 15:26-16:06 \*\*/

- (\*9) It was proposed by the proponent to add "Note" in section 5.3.6.4 to state that the method 1) and 2) are not supported in release 99.

Mr. Alexander Lax (3G.com) questioned whether it is possible to rephrase the last sentence in section 5.3.6 from "*only one UE may share the PDSCH time slot at the same time*" to "*only one UE may share the same PDSCH time slot*"

It was answered that here intention is not only the same time slot but also the same slot and the same frame and therefore this rephrasing would be misleading.

Chairman suggested rewording could be possible to clarify the relation with TTI.

As a conclusion, this CR was to be revised to add one "Note" and to modify the section 5.3.6.4 to reflect the comments received. Chairman suggested that the "reason for change" field would be better to have more words, for instance the description of what currently is missing.

The revision can be found in **R1-01-0111**. This was reviewed on Day4 and approved with no comments.

(See No.30)

/\*\* But this revision is not based on the current spec but on the **R1-01-0016** with respect to section 5.3.6.4.

This should be revised again before RAN submission. \*\*\*/

- (\*10) Mr. Marcus Purat (Siemens) presented this CR.  
In RAN WG1#17 meeting (in the TDD Ad Hoc), it was already proposed to have bit scrambling function in order to solve the problematic situation where the data to be transmitted have DC offset due to the long sequence of same data symbol. (**R1-00-1340**) But there had been raised a concern regarding the usage of bit scrambling for uplink.  
In this paper Siemens clarified the necessity for the uplink bit scrambling. (Even if the NodeB's receiver may be DC coupled, the transmitter of a simple UE may cancel the DC offset. The scrambling polynomial and the scrambling function itself will be implemented in the UE in any case for DL.)  
As for the actual CRs there had been made some notational change to those presented in RAN WG1 #17.
- (\*11) Mr. Marcus Purat (Siemens) presented this CR.  
This CR proposed to change the formula that gives  $t_{\text{offset}}$  for the SCH codes in order to avoid overlap midamble. Simulation results were presented to show the improvement which new sync offsets will have.  
It was requested to postpone the conclusion to Day3 so that people can check in detail.  
Chairman accepted this request and postponed the approval to Day4. (See No. 31)
- (\*12) Mr. Marcus Purat (Siemens) presented these CRs.  
There has been a discussion about the re-allocation of coding section for layer1 control command (TPC and paging indicator) from TS 25.222 to TS 25.221 because though we can consider it as a kind of coding it is not really coding.  
R1-01-0022 contains CR 25.221-041 in which coding of TPC is transplanted in section 5.2.2.5 from TS 25.222.  
R1-01-0023 contains CR 25.222-054 in which coding of TPC is removed. (Whole section 4.3.3 is to be removed.)  
However R1-01-0023 CR 25.222-054 contained other 2 independent changes regarding the information on SF selection in the rate matching section (4.2.7.1) and numbering of physical channels in section 4.2.11.  
Although there was no comment on the change for re-allocation of coding of TPC description there was a request to postpone the conclusion to Day3 with respect to other changes in R1-01-0023. Therefore the approval of both documents was postponed to Day4. (See No. 32, 33)
- /\*\* R1-01-0020 was postponed to the next meeting. \*\*\*/
- (\*13) This CR proposed to remove the description of TDD open loop power control for the uplink from TS 25.224 because it is also described in TS 25.331. There is a corresponding CR in RAN WG2 which adds some details of open loop power control in TS 25.331 which had been covered in TS 25.224.
- (\*14) Mr. Matthew Baker (Philips) presented this CR.  
This CR proposed to make a correction to the CR which had been approved in RAN WG1#17 (**R1-00-1400** CR 25.214-140) in terms of terminology. This CR introduced  $\Delta\text{SIR}_{\text{PILOT}}$  instead of  $\Delta\text{PILOT}$  in the calculation of  $\text{SIR}_{\text{cm\_target}}$  to avoid potential misunderstanding in section 5.1.2.3.  
Mr. Ville Steudle (Nokia) pointed out that the term "transmission gap patterns" should now be replaced by "transmission gap pattern sequences".  
Mr. Matthew Baker agreed with comment and stated that he would provide the revision to incorporate this comments. The revision can be found in **R1-01-0112**. This was reviewed on Day4 and approved. (See No. 27)
- (\*15) This is the revision of R1-01-0024 which was reviewed on Day 1. (See No. 26) (Above notes)  
"transmission gap patterns"s have been replaced by "transmission gap pattern sequences"s.
- (\*16) This is the revision of **R1-01-0076** which was reviewed on Day 1. (See No.16 )  
The corresponding CR for TS 25.225 (CR 25.225-023) was added in this revision.
- (\*17) This is the revision of **R1-01-0016** which was reviewed on Day 1 (See No. 18). Since this CR is based on the R1-01-0016, **this must be revised again.**

- (\*18) It was requested on Day1 to postpone the decision of this CR in order to have offline checking. (See No.22) This was revisited on Day 4 and approved without being reviewed again.
- (\*19) It was requested on Day1 to postpone the decision of these CRs in order to have offline checking. (See No.23, 24)  
These were revisited on Day 4 and approved without being reviewed again.
- (\*20) Mr. Stephen Dick (InterDigital) presented this CR.  
TS25.224, Section 4.7 *Random access procedure* contained several inconsistencies. It referred to sub-channels, but did not define sub-channels for TDD. It also described overall process functionality without clearly segregating the Layer 1 functions from those of the higher layers.  
There were 3 coordinating CRs to RAN WG2 and RAN WG3. Mr. Stephen Dick stated that he had confirmed by the telephone that both RAN WG2 and RAN WG3 had approved those CRs.  
Chairman stated responding to a comment that if there were problems with this or with any other coordinating CRs found before the next meeting, we can discussed them in the next meeting. He added that we can put CRs on-hold as well in the RAN plenary.

/\*\*\* R1-01-0020 was postponed to RAN WG1 #19 \*\*\*/



Day 2, started at 09.00

## 7. Release 4/5 issues

### Ad Hoc configuration

- AH21 : TDD 1.28 Mchips functionality
- AH22 : Terminal power saving features
- AH23 : Compressed mode
- AH24 : High speed downlink packet access
- AH25 : Hybrid ARQ
- AH26 : Tx-diversity
- AH27 : Radio link performance enhancements
- AH28 : Improved Common DL Channel for Cell FACH State
- AH29 : Positioning
- AH30 : TDD NodeB synchronisation
- AH31 : Uplink Synchronous Transmission

### 7.1 High Speed Downlink Packet Access (Ad Hoc 24)

#### 7.1.1 Reviewal of the revised TR (TR 25.848 v0.2.1) (Day1 17:37-18:45)

At the end of the RAN WG1#17 meeting, the new revision of the TR (v0.2.0) was distributed in **R1-00-1480** by Motorola. At that time it was not reviewed because the document was pretty big and apparently it needed offline checking. Prior to RAN WG1 #18 there had been comments made to the v0.2.0 on the e-mail reflector and Motorola made a further revision (v0.2.1) to reflect those comments and sent it on the e-mail reflector with the file name "**R1-00-18xx-HSDPA-TR\_25\_848.zip**". (This file was not provided in the meeting.)

Mr. Amitabha Ghosh (Motorola) presented this revision on the screen and explained what had been done so far on the sections regarding "Simulation assumptions", "Simulation results", "Complexity" (all in section 7). Those sections which have direct link to RAN WG2 would be reviewed later.

There were several comments made and discussions took place.

- Section 7.1.1. 'Conclusion' should be modified to clarify that these simulation results assume that MCS level does not change in the re-transmission and further these assume AMC in conjunction with HARQ.
- Section 7.2 'Hybrid ARQ' No comments. There would be Nokia proposal on this section.
- Section 7.4.1 'MIMO performance evaluation'

Mr. Serge Willenegger (Qualcomm) remarked that there would be some introduction text needed in the header that clarifies that this is the initial state of results and specific set of simulation conditions was provided by single company because these results have not been confirmed by other companies and the conditions of the simulation have not been confirmed to be representative of typical environment.

At first Lucent opposed this proposal but finally agreed to this suggestion saying that text can be changed in the future. Lucent also encouraged the people to do the simulations and provide the results in the next meeting.

After some discussion chairman concluded that a small text as following would be better to be inserted somewhere in the text on the *system level* simulation results.

" It may be noted that the **system level simulation** did not use all the assumptions as outlined in Annex A."

- Chairman suggested to create new (blank) section 7.4.3 for "MIMO Node-B Complexity Evaluation"
- Section 7.4.2 'MIMO UE Complexity Evaluation'

Motorola made a comment which is summarized in **R1-01-0109**.

Chairman suggested to leave section 7.4.2 with revision mark because we would see R1-01-0109 later.

- Mr. Volker Höhn (Mannesmann Mobilfunk) questioned whether the impacts on Iub/Iur aspects should be included or not. Chairman answered that we could expect RAN WG2 and RAN WG3 to do it.

New revision (v0.3.0) that includes all of the comments received can be found in **R1-01-0117**.

/\*\* Day1 closed at 18:46 \*\*/

### 7.1.2 Reviewal of T-docs related to HSDPA

Taking into account of the parallel RAN WG2 Ad Hoc session, Chairman organised presentation so that the simulations and complexity issues could be treated first.

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
36	24	R1-01-0006	Text proposal on HARQ complexity to TR25.848	Nokia	To be revised	(*1) Day 3 09:09-09:38
37	24	R1-01-0059	UE complexity for AMCS	Sony	Noted	(*2) Day 2 09:38-09:54
38	24	R1-01-0060	Text Proposal for AMCS complexity evaluation section of TR25.848	Sony	To be revised	(*3) Day 2 09:53-09:58
39	24	R1-01-0044	Performance Comparison of Hybrid-ARQ Schemes – Additional Results	Motorola	→ Text proposal	(*4) Day 2 10:06-10:24
40	24	R1-01-0004	System Level simulation results of HSDPA estimating downlink channel quality from the transmit power of DPCH	Panasonic	Noted	(*5) Day 2 10:26-10:38
41	24	R1-01-0046a	HSDPA system performance with/without FCS (faded but no motion)	Motorola	→ Text Proposal	(*6) Day 2 11:15-11:37
42	24	R1-01-0047	HSDPA system performance with/without CPICH errors and H-ARQ	Motorola	→ Text Proposal	(*7) Day 2 11:38-11:50
43	24	R1-01-0049	HSDPA system performance based on simulation (II update → III)	Motorola	→ Text Proposal	(*8) Day 2 11:50-11:52
44	24	R1-01-0102	Multipath Interference Canceller (MPIC) for HSDPA and Effect of 64QAM Data Modulation	NTT DoCoMo	Noted	(*9) Day 2 11:53-12:08
45	24	R1-01-0036	HSDPA System Performance	Ericsson	Noted	(*10) Day 2 12:09-12:27
46	24	R1-01-0050	Performance of AMCS and HARQ for HSDPA in the non-ideal measurement and feedback situations	Wiscom	→ Text Proposal	(*11) Day 2 13:53-14:05
47	24	R1-01-0051	Effect of MCS selection delay on the performance of AMCS and HARQ for HSDPA	Wiscom	→ Text Proposal	(*12) Day 2 14:06-14:17
48	24	R1-01-0025	On the Need of Long-Range Prediction (LRP) of Channel Estimation in HSDPA and Text Proposal	Wiscom	Noted	(*13) Day 2 14:17-14:31
49	24	R1-01-0109	Comments on MIMO complexity text in technical report	Motorola	→Offline	(*14) Day 2 14:41-14:48
50	24	R1-01-0043	Comments/Questions on Throughput Simulations for MIMO	Motorola	Noted	(*15) Day 2 16:07-16:17
51	24	R1-01-0131	Link level results for HSDPA using multiple antennas in correlated channels	Lucent	→ Text Proposal	(*16) Day 2 16:18-16:44
52	24	R1-01-0079	Variable TTI proposal for HSDPA	Lucent	Noted T.P. postponed	(*17) Day 2 16:45-17:02
53	24	R1-01-0081	A <sup>2</sup> IR - An Asynchronous and Adaptive HARQ Scheme for HSDPA	Lucent	Noted	(*18) Day 2 17:02-17:30
54	24	R1-01-0082	Throughput Results for Asynchronous and Adaptive Incremental Redundancy (A <sup>2</sup> IR) for HSDPA	Lucent	Noted	(*18) Day 2 17:30-18:09
55	24	R1-01-0134	Complexity of Node B for MIMO architectures	Lucent	→ Text Proposal	(*19) Day 2 18:13-18:32
56	24	R1-01-0018	Techniques to Support HSDPA for TDD Mode	Siemens	→ Text Proposal	(*20) Day 2 18:33-18:43
57	24	R1-01-0145	LS on Results of HSDPA Study Item AdHoc	RAN WG2	Noted	(*21) Day 3 13:50-14:06
58	24	R1-01-0128	Text proposal on HARQ complexity to TR25.848, Rev. 1	Nokia	→ TR	(*22) Day 3 14:08-14:14
59	24	R1-01-0129	Updated Text Proposal for AMCS complexity evaluation section of TR25.848	Sony	→ TR	No (*23) Comments Day 3 14:15-14:22
60	24	R1-01-0132	Text proposal on system perf. w/wo FCS (faded but no motion, 0047)	Motorola	→ TR	(*24) Day 3 14:23-14:34

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
61	24	R1-01-0079	Variable TTI proposal for HSDPA	Lucent	To be revised	(*25) Day 3 14:38-15:09
62	24	R1-01-0007	Considerations on HSDPA HARQ concepts	Nokia	Noted	(*26) Day 3 15:10-15:33
63	24	R1-01-0008	Relationship between frame error rate and TrCH block error rate	Nokia	Noted	(*26) Day 3 15:10-15:33
64	24	R1-01-0005	Text proposal on HARQ for HSDPA TR	Nokia	→ Offline Discussion	(*27) Day 3 16:07-16:23
65	24	R1-01-0124	Text Proposal for the TR 25.848	Lucent		(*27) Day 3 16:24-16:42
66	24	R1-01-0031	Proposal of bit mapping for type-III HARQ	Panasonic	Noted	(*28) Day 3 16:43-17:00
67	24	R1-01-0048	Clarifications on Dual-Channel Stop-and-Wait HARQ	Motorola	→ Offline Discussion	(*29) Day 3 17:01-17:16
68	24	R1-01-0045	Physical Layer Structure for HSDPA – Text Proposal for Section 6.1	Motorola	→ Offline Discussion	(*30) Day 3 17:18-17:20
69	24	R1-01-0116	Text proposal for TR25.848 on physical layer structure	Nortel		(*30) Day 3 17:21-17:38
70	24	R1-01-0033	Power Control for Fast Cell Selection in HSDPA	Samsung	Noted	(*31) Day 3 17:38-17:53
71	24	R1-01-0083	Context sensitive modulation and coding sets	Lucent	Noted	(*32) Day 3 17:54-18:31
72	24	R1-01-0074	Use of TPC for DL Channel Quality Estimation	Sony	→ Further inputs requested	(*33) Day 3 18:32-18:38
73	24	R1-01-0113	Comments on proposed update of TR 25.848 version 0.2.1	Nortel	Noted	No Comments Day 3 18:39-18:43
74	24	R1-01-0168	TR25.848 v0.3.1	Drafting Group	To be revised	(*34) Day 4 14:50-15:31
75	24	R1-01-0140	Complexity of Node B for MIMO architectures	Lucent	Approved with modifications	(*35) Day 4 15:32-15:43
76	25	R1-01-0144	Text Proposals for TR25.848 and TR25.950	Siemens Nokia	Approved → TR	No (*36) Comments Day 4 15:44-15:48

(\*1) Mr. Jussi Kahtava (Nokia) presented this document.

Nokia had presented the first complexity text proposal (Section 7.1) in the RAN WG1#17 meeting. This is further continuous work on this section. Section 7.1.1.4 *UE and RNS processing time considerations* was newly added. Furthermore some tables were added in the end of section 7.1.1.2 (examples of UE buffer size.)

Ms. Evelyne Le Strat (Nortel) remarked that there is a kind of inconsistency in the paper because in figure 1 "Average receiver L1 buffer size for dual channel SAW HARQ", TTI of 15 slots is assumed as one case but on the other hand there is no case of TTI of 15 slots in the buffer/memory tables neither in the processing time consideration section. She added that shorter TTI has some benefits but it also have problem with signalling being complicated and therefore in terms of feasibility study at this point TTI 15 slots should be considered.

Mr. Jussi Kahtava agreed with this comments and answered that he would provide the revised text proposal.

There were some discussion on the relation between (shorter) TTI and processing time. Chairman remarked that it should be clarified that it is not feasible to have 1 slot TTI from the feasibility study point of view because there is no time for processing at all regardless how many bits there are.

Mr. Erik Dahlman (Ericsson) commented on Figure .1 that this is average receiver L1 buffer size however what is the actual receive buffer size ? → the "average" will be removed in the actual TR.

Mr. Erik Dahlman added that there should be conclusion added in this text proposal otherwise the intention of this text would be ambiguous. Chairman agreed with this comment and remarked that this text should have a conclusion which hopefully states that HARQ is feasible, can be implemented. Chairman also remarked that Section 7.1.1.4 *UE and RNS processing time considerations* had better be put in one level higher section because 7.1 is UE complexity evaluation.

Chairman asked Mr. Jussi Kahtava to provide the revision to the editor of the TR. The revision can be found in **R1-01-0128**.

(\*2) Mr. Kasutoshi Itoh (Sony) presented this document.

This paper presented UE complexity issues regarding AMCS for which no text proposal had been made so far. UE complexity with respect to AMCS was analysed in view of performance sensitivity to the estimation errors. Following factors were analysed with the simulation results provided.

- Sampling timing
  - CPICH estimation (as the Phase /Amplitude reference)
  - Downlink channel quality
- Ideal AD conversion (no quantizing error) was assumed for the simulation.
  - 3.3ms TTI is assumed for simulation.
  - "TUI" in figure 5 stands for Transmit Unit Interval(5-slot, 3.33msec) and so the curve entitled "3-TUI average" corresponds to 10ms TTI from the average point of view. → This should be clarified in the actual text proposal.
- Mr. Erik Dahlman (Ericsson) questioned regarding Figure. 1 *Sensitivity to sampling timing error* what kind of channel coding has been assumed for release 99 case. He added it would be somehow misleading to put 'TTI=10ms' on the release 99 curve because TTI would not affect on sensitivity to the sampling timing error and therefore rather the channel coding type should be put on the curve instead.
- Mr. Katsutoshi Ito agree with this comment and answered 'QPSK + 1/3 turbo coding' had been assumed for all release 99 results.
- 32 times over sampling was used for the simulation and from those data, the errors were estimated for each corresponding to 4times, 8 times, 16 times over sampling cases. (in figure 1)
- (\*3) This document was not actually presented. Proponent stated that they had not incorporated figures presented in **R1-01-0059** into this text proposal. Chairman suggested that the figures had better be included in order to be understood well. Chairman invited proponent to provide the revision during this meeting. The revision of this text proposal which includes relevant figures in R1-01-0059 was drafted in **R1-01-0129**. It was reviewed and approved on Day3. (See No. 59)
- (\*4) (Motorola) presented this document.
- This is the further study result of comparison of Chase combining and Incremental Redundancy (IR) combining. (There had been 2 contributions regarding this comparison in RAN WG1#17 meeting. Those are **R1-00-1396** [Motorola] and **R1-00-1428** [Ericsson] in which Motorola presented the comparison between Chase combining and Partial Incremental Redundancy combining whereas Ericsson presented the comparison between Chase combining and Full Incremental Redundancy combining and both results rather opposed to each other.) In this contribution, several simulation results were presented and following conclusion were drawn.
- For QPSK, full IR benefits over Chase are not significant in the region of interest.
  - For higher order modulation (MCS-6 and MCS-7), the full IR provides more than 1dB gain in Ior/Ioc in a fading channel. However, the gain occurs in a region where a lower MCS may have been selected.
  - The decoder and signalling complexity of the full IR scheme over Chase combining needs to be evaluated, and weighed against the likelihood of the MCS selection process degrading to the point where a significant overall throughput gain is seen for the full IR
- There were several comments made.
- The curves do not accommodated the fact that 64 QAM is more sensitive to things like estimation errors.
  - Is it correct to understand that Full IR is beneficial only for 64QAM ? → Yes
  - These results agree very much with the ones shown in **R1-00-1428** (Ericsson). The results in R1-00-1428 should be referred in the conclusion in the TR.
  - These results assume that MCS level would not be changed in re-transmission. → this is link level simulation. → This should be clarified in the assumption in TR. (chairman)
  - The conclusion should be reached on the system level simulations because many aspects like feedback delay and asynchronous operation of Chase or IR combining are being ignored here.
- Chairman concluded that since it is beneficial to have these curves in the TR from the feasibility study point of view and RAN WG2 was waiting for this kind of results, some of these curves should be included in the TR. But in the TR, he added, it should not cover all the aspects, why Chase or why IR etc. But it should just have the link level simulation results assuming MCS is constant in the re-transmission and just put what can be concluded. He asked Mr. Amitabha Ghosh to provide text proposal for this in **R1-01-0130**.
- /\*\* Eventually R1-01-0130 was not produced. Text proposal was combined in **R1-01-0133** \*\*\*/
- (\*5) This paper addressed a scheme in which the downlink channel quality is estimated by the transmit power of DPCH instead of having explicit channel quality reports from UE. It was shown with some system level simulation results that this proposed scheme works well and can achieve almost the same throughput as in the case with channel quality report.
- A couple of comments were made.
- The error in TPC commands was not considered in the simulation.
  - What is going to happen if the UE velocity becomes higher than 3km/h ? → For further study.
- Chairman concluded we should note from this contribution that there is also some possibilities in Node B side to use other information besides UE report. When we finalize the scheme for MCS selection, we should keep in mind this kind of possibility as well.
- /\*\* coffee break 10:39-11:14 \*\*/
- (\*6) This paper presented simulation results on HSDPA system performance with/without fast cell selection(FCS). It was shown that FCS improves throughput and residual FER for UEs in soft handover regions. It was also shown that overall system benefit due to FCS is more significant with fair schedulers such as Round Robin compared to maximum C/I schedulers. No mobility was assumed in the simulation.
- There took place some questions-answers session on the simulation assumptions.
- Finally chairman concluded taking into account the fact that there has been no text proposal on this topic that a text proposal based on this paper should be produced including 4 tables and some curves. He added that it should be clearly stated in the TR that there any assumption about delay on protocol sides has not been done so that RAN

WG2 can clearly understand that for their aspects no delay assumption has been made. He suggested a sample statement.

*the time for transfer between Node-B's are not included in simulation results.*

The text proposal would be produced in **R1-01-0132**.

- (\*7) This paper presented simulation results on HSDPA system performance with/without CPICH errors and H-ARQ. It was shown that a drop in packet call throughput is between 5% and 10% with 1 dB CPICH measurement error however the packet call throughput drop approaches 50% when CPICH measurement error becomes 3dB. It was also shown that compared to the case with HARQ there is a significant drop in packet call throughput in the case without HARQ.

It was pointed out that the over the air throughput in Table 5 (CPICH Error  $\sigma = 1$  dB) looks better than that in Table 4 (CPICH Error  $\sigma = 0$  dB).  $\rightarrow$  Motorola had not realized it. But for packet call throughput, Table 4 is better than Table 5. Chairman commented that we should not pay much attention for this, it is small difference.

As a conclusion, in order to show performance degradation related to estimation error, this results should be included in the TR. Text proposal would be produced in **R1-01-0133**.

- (\*8) This is the update of **R1-00-1397** which was presented in RAN WG1#17 meeting. Since the results in R1-00-1397 had been implemented in the TR already, those tables corresponding to Table 1 and Table 2 in this paper should be replaced by those in this paper.

- (\*9) Mr. Masafumi Usuda (NTT DoCoMo) presented this document.

This paper introduced new technique called Multi-Path Interference Canceller (MPIC) which can mitigate severe multipath interference. It was shown that with this technique it is possible to obtain high throughput using high order modulation such as 64QAM even in the multipath environment. Figure 3 showed drastically improved performance by this technique in 2 path environment.

There were several comments made.

- How much receiver complexity will this technique have ?  
 $\rightarrow$  Not yet analysed but NTT DoCoMo will show the complexity study report in the future meeting.
- Section 2 says that effective spreading factor (not actual spreading factor) becomes nearly 1.
- This is interesting technique and we should definitely evaluate this.
- equal power path was assumed for the 2 path environment in figure 3.
- As for the delay profile in the simulation, NTT DoCoMo will inform it later.

Chairman concluded that this is something to think about.

- (\*10) Mr. Erik Dahlman (Ericsson) presented this document.

This paper presented several simulation results including,

- Scheduler performances
- Performance gain with higher-order modulation
- Gain achieved by fast cell selection
- Impacts of fast fading and time dispersion

and concluded

- There is a significant gain with fast scheduling and fast adaptive modulation/coding.
- The gain with fast cell selection is most notable for Round-Robin scheduling while, with a scheduler that already takes the channel conditions into account in the scheduling, the gain with fast cell selection is smaller.
- Both fast fading and time dispersion has significant negative impact on the HSDPA performance. However, in both cases, the performance can most likely be improved by means of more advanced UE signal processing.

Mr. Erik Dahlman remarked that results here confirmed the results of Motorola and there was no need to put these results in this paper into the TR because these had already been quite well covered Motorola.

/\*\* Lunch break 12:28- 13:47 \*\*/

- (\*11) This document presented the performance evaluation of adaptive modulation and coding schemes (AMCS) and fast HARQ in the non-ideal measurement and feedback situations for HSDPA and compared them with the performance in the ideal case.

It was shown that for the typical value of  $E_c/I_{oc}$ , the channel measurement accuracy has large impact on the throughput. It was also shown that at slow vehicle speed the performance between the ideal and non-ideal case is about 1 to 2 dB for most  $E_c/I_{oc}$  except very low values (less than  $-15$  dB). Based on the results it was suggested that at slow vehicle speed, longer time CPICH average might be necessary for more accurate measurement to improve the throughput though at fast vehicle speed, the long time average might fail to track the channel condition closely.

There was small question-answer discussion.

Chairman stated that this is something that needs to be discussed further but it is not necessary to be included in the TR at this point of time. Proponent requested that this should be included in the simulation section. Chairman agreed to this request. The text proposal for this paper shall be provided in **R1-01-0136**.

- (\*12) This document presented simulation results of the effect of MCS selection delay on the performance of AMCS and HARQ for HSDPA.

It was shown that the performance loss due to the MCS delay is not significant at very slow vehicle speed however it increases at higher vehicle speeds and larger MCS selection delays. It was also shown that the throughput loss due to MCS selection delay is about 1 dB or 22% throughput loss. It was suggested that the technique to predict the channel condition might help to reduce such performance loss.

Chairman remarked that the text proposal of the previous paper (**R1-01-0136**) should contain the results of this paper as well. Chairman stated that it should be clearly mentioned in the text proposal about what is included in

the non-ideal case, which error are included.

(\*13) Mr. Robert C. Qiu (Wiscom) presented this document.

This paper proposed to include Long Range Prediction(LRP) for channel estimation in the TR. It has been already shown by several simulation results so far presented that the throughput performance is very sensitive to the channel estimation and thus the accurate channel estimation is essential especially in the case of higher modulation, high coding rate and high mobility. This paper proposed to include such LRP technique in the TR by having separate section for it.

There were several comments made against this proposal of having separate section (separate technology) for this. Main opinion was that LRP could be useful technique but it is just an implementation issue and it is one method of improving the performance of adaptive modulation and coding scheme. It cannot be considered as a fundamental or new technology for HSDPA. It could be mentioned in the adaptive modulation and coding performance section. Chairman supported this major opinion and concluded.

There is no reason to rush with this now. This is not anything essential for RAN WG2 to know. For the next meeting we can probably figure out where and how to reflect this.

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Chairman introduced the e-mail distribute by RAN WG2 chairman on the RAN WG1 reflector.

< E-mail sent on January 16, 01:06 >

(14:33-14:40)

> Dear Antti and RAN WG1 colleagues,

>

> I am writing a small mail in order to inform you of the progress made today during the first of the 2 days R2 ad-hoc where HSDPA is treated. I can expect that this is important for Antti to use the already available results so that he organises the work in RAN WG1 based on correct assumptions.

>

> There has been a decision (that will not surprise so many people) of having a new function in the Node B, called MAC hs-DSCH, which has the following functions:

- > - flow control to the RNC
- > - Hybrid ARQ repetition protocol
- > - scheduling
- > - TFC selection

>

> This MAC operates over a number of DSCH, similarly to what we have today in the CRNC for MAC c/sh. This MAC uses services of Transport Channels (hs-DSCH) according to the existing rel 99.

>

> It was agreed that the same model should be used also for TDD, although the actual protocol operation (in particular the associated signalling) may differ for the allocation of DSCH resources.

>

> RAN WG2 will study the HARQ protocol tomorrow, and in particular study the requirements that it places on the Transport Channels provided by the layer 1. Since we only perform a feasibility study, there is no need to close on the detailed protocol before we start on release 5. Still, we must describe one feasible scheme, and show its performance so that we can report to RAN Plenary, with the corresponding proposed Work Items.

>

> As agreed with Antti, the results of the layer 1 simulations will be input into the RAN WG2 TR so that it can be approved in RAN Plenary. This means that everything needs to be finished by our next meetings. Then after the plenary (before looks difficult given time schedule) the proposal would be to have a joint meeting where the RAN WG2 TR can be used to kick off actual work.

>

> RAN WG2 intends to send a LS with an update of the R2 TR on HSDPA ASAP so that the work in RAN WG1 can now progress on stable ground. This should be probably Wednesday morning your time at the latest.

>

> BR

> Denis Fauconnier

> RAN WG2 Chairman

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(\*14) Motorola presented comments on the text in the TR (R1-01-0117) regarding section 7.4.2, *MIMO UE complexity evaluation*.

Comments were made on

- UE form factor
- RF complexity
- Base band complexity
- Antenna spacing required to achieve required decorrelation
- Multiple antenna reference

Chairman remarked that he thought the comments are more or less relevant. He added a comment on the base band complexity that in case some values are used, regardless the units it should be clarified what are the assumptions behind the value so that everybody can repeat similar calculation. Some information on the assumptions is definitely needed.

Chairman suggested offline discussion among interested parties for the necessary clarifications or additions to the text. **R1-01-0138** was allocated for the possible revision for MIMO UE complexity evaluation section.

(\*15) Mr. Amitabha Ghosh (Motorola) presented this document.

Comments and questions on **R1-00-1387** titled "Throughput Simulations for MIMO and Transmit Diversity Enhancements to HSDPA" were presented.

Lucent answered briefly on each items on line. Concerning closed loop diversity, it was mentioned that closed loop diversity is not appropriate reference to be used. They will provide some results for this. Furthermore there are going to be further simulation results and some updates on the simulation assumption. Detailed discussion will be made offline.

- (\*16) This document presented simulation results on MIMO performance in highly correlated channels. In the last meeting it was questioned by Siemens what would happen to the MIMO performance in highly correlated channels. Lucent provided this paper as the answer to the question raised by Siemens and they did not have any intention to put this study into the TR. It was mentioned that the channel used here is unrealistic and we do not expect this kind of channel in practice. It was shown that the MIMO has a very robust performance even in highly correlated channels.

There were a lot of comments/questions were raised.

Finally chairman remarked that it would be good to have these results in the TR unless somebody has problem with this because the sensitivity to the correlated channel is interesting and one important area.

With respect to this chairman's proposal, Siemens requested to postpone the decision until next meeting so that they can have offline checking. Chairman agreed to this request.

- (\*17) This paper introduced the notion of using a variable length TTI for the HS-DSCH which had been originally presented in **R1-00-1381** in RAN WG1#17. In this paper the benefits of variable length TTI were shown along with some simulation results. The variable TTI concept allows using larger code block sizes even for lower data rates in order to get maximum Turbo coding gains. For higher data rates, the transmission time is kept to minimum to fully exploit the scheduling gains, while still achieving high Turbo interleaving gains. This paper also contains the text proposal on variable length TTI for the TR. Chairman remarked as follows.

We should not enter discussion on the text proposal for this section 6 before we get the updated technical report from RAN WG2. Our intention is that we should cover something for the simulation results and complexity issue first. In order to have this kind of detailed discussion on whether we should vary TTI or not we need to see what kind of principles RAN WG2 is laying out there even though the fact that for the larger block size we can get better turbo coding gain would not be controversial issue.

Lucent proposed to present **R1-01-0081** before they get comments because **R1-01-0079** and R1-01-0081 are closely related. R1-01-0081 has algorithm, detailed scheme for which they are going to give simulation results in **R1-01-0082** and R1-01-0081 itself is not directly related to TR

Chairman accepted this proposal but added that we would only see what has been simulated and what is to be demonstrated by those results. We would not treat text proposals or what is supposed to be reflected in the concept at this point of time. As for the text proposal, we would come back later after we received RAN WG2 updated technical report.

- (\*18) This is power point presentation. The complete description of this scheme is given in **R1-01-0080**.(Word file) This paper presented details of Asynchronous and Adaptive Incremental Redundancy (A<sup>2</sup>IR) proposal for HSDPA which had been proposed in **R1-00-1382** in RAN WG1#17. **R1-01-0082** contains simulation results on this scheme and reviewed in succession right after the presentation of **R1-01-0081**.

There were quite a lot of questions and comments were made with respect to R1-01-0079, 81 and 82.

- What is idea of *Aggressive approach* on the scheduling ?
- Simulation results presented are the link level simulation (no traffic model involved). We definitely need to have system level simulation to see what actually the benefit is.
- Throughput comparison for synchronous/asynchronous should be modified. Stop-and-Wait scheme is wrongly treated.
- We have to take into account of the complexity.
- Comparison of variable TTI and variable code allocation is needed.
- What is the frame in frame error rate in R1-01-0079? → equal to block size
- How should we read the table 1 in R1-01-0079 ?
- How much is the aggressive method related to IR ? Can we use Chase combing with the aggressive method?  
→ Chase combing can be used with aggressive method though the simulation results (gain) would be different because MCS level is changed in the re-transmission in IR.
- etc.

For every question, Lucent made answer.

Chairman remarked that we need to have system level simulation for the average throughput before we made a conclusion.

/\*\* Lucent explained for information that R1-01-0084 contains Lucent's response to a document (R1-00-HARQ-Issues) which had been distributed on the e-mail reflector by Ericsson. \*\*/

- (\*19) This contribution addressed the complexity at the Node B for MIMO architectures over those requirements for conventional HSDPA transmission with a single antenna. The additional baseband processing required for MIMO transmission and the antenna separation requirements for sufficient channel decorrelation were analysed.

Several comments were made.

- The number of power amplifiers (for each antenna) should be mentioned.
- Does MIMO have same requirement as Tx-diversity in terms of exact timing sensitivity ? → could be addressed.
- The assumption not only this document but in general concerning MIMO looks as if there were only one single transport channel with fix bit rate allocated to one user. What is going to be the impact on Node B when we have to switch configurations with/without MIMO ? In Node B we also have other channels than HSDPA at the same time which may not use MIMO and then we will end up with PA having different powers for transmitting those

conventional channels and other transmitting the MIMO operating channels. We should try to reflect this kind of things in the complexity analysis. → Lucent proposed offline discussion concerning this comment.

- Is MIMO only applicable to HS-DSCH ?

→ Analysis have shown that in case where you have multiple users with lower bit rate environment MIMO is not the best solution. Tx-diversity and Rx-diversity technique would achieve compatible gain as MIMO in such environment. Lucent will probably provide the document addressing this issue in the next meeting.

- In MIMO system if we need channel estimation at each antenna element then complexity will increase n times than single antenna cas ? → It is true that MIMO needs channel estimation at each antenna element but this should be mentioned in MIMO UE complexity.

Chairman concluded that this document should be converted into the text proposal reflecting the comments received. **R1-01-0140** was allocated for this text proposal.

(\*20) This document presented applicability consideration of those HSDPA techniques proposed in FDD mode to TDD mode. In conclusion this paper stated that in general the proposed techniques are applicable for the TDD mode as well. It was proposed that HSDPA techniques for TDD mode be considered for release 5 and harmonization of TDD and FDD was desired in order to optimise the system for both modes.

Chairman suggested that we should have some section that include TDD specific consideration in the TR. There is no need to duplicate the common stuffs. **R1-01-0141** was allocated for the text proposal on this issue. But later this number was cancelled and new number **R1-01-0144** was reallocated for this text proposal. (See No. 76 )

(\*21) This is a LS from RAN WG2 HSDPA Study/Item Ad Hoc (R2-010205) sent to RAN WG1 and RAN WG4. This was received on Day3 morning. TR (TR 25.950 *UTRA High Speed Downlink Packet Access* v0.1.0) was attached. Chairman presented the LS on the screen.

Besides the attached TR they also were asking 5 questions on HSDPA. As for the TR attached, a lot of sections were left blank to be filled by RAN WG1.

RAN WG2 was not clearly saying anything about RAN WG1 TR what they expect. Probably they expect those simulations and assumptions and in most cases they would just try to use them putting references to our TR in their TR.

Mr. Said Tatesh (Lucent) remarked regarding the questions raised by RAN WG2 that Lucent was happy to volunteer in providing draft answers.

Chairman answered before having a draft provided by one company we have to make a discussion on what kind of answers we should make. → Discussion will be made in the night session.

(\*22) Mr. Jussi Kahtava (Nokia) presented this document.

This is the text proposal on HARQ complexity. This is the revision of R1-01-0006 which was reviewed on Day2 (See No. 36) Comments received were reflected in this revision.

Mr. Erik Dahlman (Ericsson) remarked that it should be mentioned somewhere in the text that there is a difference in complexity between different HARQ schemes (Chase combining vs. IR) though these differences do not justify that any scheme is discarded at this stage.

Chairman agreed with this comment and suggested this should be mentioned in the conclusion.

Mr. Amitabha Ghosh (Motorola) questioned whether we should include something regarding memory access time for Turbo codes ? → It should be considered a little bit later stage. (Chairman)

Conclusion : This text proposal was approved with one addition to conclusion about complexity issue mentioned above.

(\*23) Mr. Kasutoshi Itoh (Sony) presented this document.

This is the revision of **R1-01-0060** which was reviewed on Day2 (actually it was R1-01-0059 that was reviewed.). (See No. 37, No. 38 )

Some of the curves in **R1-01-0059** were incorporated into the text proposal as was requested by chairman.

(\*24) Mr. Amitabha Ghosh (Motorola) presented this document.

This is the revision of **R1-01-0046a** which was reviewed on Day 2 (See No. 41)

Chairman remarked that it should be mentioned that *the possible delay due to the time for transfer between Node-B's are not included in simulation results* as it had been discussed in the Day2 discussion. → Mr. Amitabha Ghosh agreed.

(\*25) This document had already been reviewed on Day3 (See No. 52) But the text proposal part had been postponed until we received the LS from RAN WG2. Now that the LS was received and thus it was proposed to review the text proposal.

There took place a bit long discussion.

The main opinion was that the text proposal provided in this paper is not balanced, neutral because only benefits of variable TTI scheme were listed and no disadvantages, difficulties were mentioned. Furthermore there were several opinion that the background assumptions on which the benefits stands were not necessary valid. Several examples were given to show that it is not necessary valid assumptions. Lucent side also explained their background and validity of the assumptions and benefits. There were also opinions that this kind of scheme should definitely included in the TR as an option to be investigated though the current proposal text itself is not balanced and therefore needs to be modified.

Finally chairman concluded as follows.

My personal view is that we should definitely cover this scheme of variable TTI in the technical report. But I sense that people feels that the text proposal what is put in this paper is not neutral. We need to have a bit more neutral and generic text proposal on this topic. So this should be revised.

**R1-01-0149** was allocated for the revision. Lucent expressed their welcome for any contribution on this topic.

(\*26) Mr. Jussi Kahtava (Nokia) presented these documents. (R1-01-0007, R1-01-0008)



This paper discussed a couple of concepts on HSDPA.  
 R1-01-0008 was reviewed in conjunction with R1-01-0007.  
 There was one remark for more specific explanation why variable TTI will complicate the scheduling.  
 It was answered the scheduling would be complicated from the comparison point of view with release 99 specs.  
 Questioner was not satisfied with this answer. → Chairman suggested offline discussion.  
 Mr. Amitabha Ghosh (Motorola) made a comment on the simulation results in R1-01-0007 that Motorola also had performed similar kind of simulation with release 99 system and had arrived same conclusion.  
 Chairman remarked that since RAN WG2 is expecting this kind of results as well, we could consider this result should be included in the TR somehow.  
 (conclusion of R1-01-0007 : *It seems sensible to do the HARQ ack/nacks and retransmissions at the frame level (TTI level), and not separately for each TrCH block.*)

/\*\* Coffee Break 15:34-16:04 \*\*/

- (\*27) Mr. Jussi Kahtava (Nokia) presented R1-01-0005.  
 This is the continuation work of **R1-00-1369** which was discussed in RAN WG1#17.  
 Text proposal on HARQ was presented. Not solution but what kind of things has to be considered when we further investigate actual scheme for HSDPA was explained.  
 Since Lucent had provided the text proposal on the same section as this paper, chairman proposed to have a look at Lucent paper (**R1-01-0124**) in succession.  
 Lucent presented R1-01-0124.  
 In this paper, in addition to Nokia's proposal, following text proposals are included.
- Fully asynchronous operation
  - Adaptive HARQ operation in which MCS can be changed in re-transmissions
  - FCS operation
- There were some discussion took place.
- We should avoid duplication of the description with RAN WG2 TR. We should only focus on layer1 issue. For instance, regarding synchronous / asynchronous operation, 2 signalling possibilities have already been documented in RAN WG2 TR. From RAN WG1 point of view we should clarify what is effectively simulated. What has been simulated ? What do we need to explain in addition to RAN WG TR ?
  - Ideally if RAN WG2 description is in that detail we could just refer to that and cover the topic. But probably we need to have some picture in RAN WG1 TR as well because some of the RAN WG2 picture are not necessary the best ones we can have. (Chairman)
  - We should try to have neutral description in the TR. Let's not draw any recommendations or conclusions for the topics we have not reached consensus. (Chairman)
- Chairman suggest offline discussion to make one proposal. If we can refer to RAN WG2 TR, then we should avoid repetition. Overview section had better be brief. **R1-01-0150** was allocated for the revised text proposal.
- (\*28) This document presented new scheme on bit-mapping for type-III HARQ. In this scheme sender transmits systematic bits and parity bits on separated symbols and then receiver combines retransmitted packets' symbol before calculating the log-likelihood ration. Simulation results were also presented.  
 It was shown that proposed new scheme can achieve better performance than conventional type-III HARQ and requires less size of receiver buffer compared to that of conventional one.  
 It was pointed out related to figure 5 that in case of QPSK case there is no difference between so-called symbol combining and conventional combining in the computation of log-likelihood ratio. We should be more specific about how the difference is in figure 5.  
 Panasonic agreed with this comment and stated that they would examine the results of QPSK case again.  
 Chairman stated that this could be one alternative of implementing IR and be incorporated in the TR at some point of time if everybody thinks OK. Some clarification should be done on the e-mail reflector before the next meeting. Then in the next meeting we can approve the text proposal on this topic for the TR. This kind of transmitter / receiver structures on the complexity issue could be included to current complexity section. From the memory size viewpoint this kind of proposal is very important. The channel interleaver operation should be elaborated more using one explanatory picture.
- (\*29) Mr. Amitabha Ghosh (Motorola) presented this document.  
 This document proposed to clarify the purpose, possible configurations, and signalling requirements of Dual-Channel Stop-and-Wait Hybrid ARQ (DC-SW-HARQ). Since similar paper had already reviewed (R1-01-0005, Nokia, See No. 64) Mr. Amitabha Ghosh presented this briefly.  
 Chairman remarked that this text proposal seemed to have been submitted to RAN WG2 as well because more or less same text was included in RAN WG2 TR and so in our TR, we could just put references to RAN WG2 report. (There was one comment that although this text was adopted in RAN WG2 TR it is no way aligned with RAN WG2 usual terminology.)  
 Mr. Amitabha Ghosh will join the drafting of R1-01-0150. (See No. 64)
- (\*30) Both of these 2 documents (R1-01-0045 and R1-01-0116) contained the text proposal for the same section (6.1).  
 Chairman proposed to review both documents together.  
 Mr. Amitabha Ghosh (Motorola) presented R1-01-0045 and Ms. Sarah Boumendil (Nortel) presented R1-01-0116. There was a bit long discussion regarding the treatment of 3<sup>rd</sup> bullet and 4<sup>th</sup> bullet in section 6.1.3 in R1-01-0116. There was a comment that 3<sup>rd</sup> and 4<sup>th</sup> bullet points are RAN WG2 issues and it does not agree with RAN WG2 TR. Ms. Evelyne Le Strat (Nortel) explained the background why Nortel drafted this text proposal. She added that they can agree not to include their text proposal however then they cannot agree to Motorola's text proposal because it explicitly states fixed spreading factor which is not in line with RAN WG2 TR.

- Chairman suggested offline discussion. The revised text proposal on this section will be made in **R1-01-0152**.
- (\*31) The paper discussed the impact of FCS on power control and presented possible power control strategies for the dedicated channels associated with HSDPA.  
 There was one concern raised on this proposed strategy for the uplink.  
 Chairman stated that this proposal was noted at this point of time since this issue is not critical at this stage from the feasibility study point of view. Later after the feasibility study this may be revisited when we discuss power control issue for FCS if necessary.  
 Mr. Erik Dahlman (Ericsson) remarked that it is important to consider this issue of power control for FCS in the feasibility study phase, however when it comes to solution, it should be done in later phase. Furthermore he added he is sceptical with this solution.
- (\*32) It was proposed in this paper that the transport block is not necessary always tied to the code space and therefore in case of HARQ we could have variations in the code space however transport block size has been fixed, we will have to change the code rate.  
 It was pointed out that the proposal is actually the relationship between different transport formats. We will have to consider the fact that we have limited signalling capability for the definition of transport formats to be used by certain UE. How the UE should derive the transport formats from broadcasted code availability. This is out of RAN WG1 scope.  
 It was also pointed out that the terminology should be aligned as much as possible with what is used in RAN WG1 and RAN WG2.  
 Chairman agreed with above comments and concluded if we want to introduce this kind of schemes then we should introduce it in RAN WG2 for the first place and there make them aware what the proposal really is. It is difficult to initiate the discussion from RAN WG1 perspective because this does have impact eventually on RRC signalling and broadcast channel contents.
- (\*33) Mr. Kasutoshi Itoh (Sony) presented this document.  
 This is the extensional work of **R1-00-1378** which was reviewed in RAN WG1 #17 in which it had been proposed to use TPC commands in order to adjust the reported DL channel quality and to recover the throughput lost by the delay of feed back. In this new paper an extended method was proposed in which TPC commands are used to reduce the required reporting frequency for DL channel quality. It was mentioned in the presentation that this method would require an additional signalling message to indicate reporting frequency. Sony will provide the performance evaluation results in the next meeting in case the proposed method is considered to be feasible.  
 Chairman stated that we would wait for further inputs on the performance evaluations in the upcoming meetings.
- (\*34) Mr. Amitabha Ghosh (Motorola, editor of the TR) present this revised TR.  
 This is the output of the drafting session which took place on Day3 night.  
 Chairman gathered comments on section-by-section basis.  
 Section 5.4 : "Third" → "Furthermore"  
 Section 6.1.1 : "The argument for this alternative is lower UE complexity." should be removed at this point of time. This issue would be revisited in the next meeting.  
 Section 6.1.2 : Square brackets should be removed. Sentence in the square bracket should be kept.  
 Revision will be made in **R1-01-0177**.
- (\*35) This is the revision of **R1-01-0134** which was reviewed on Day 3 (See No.55). This was reviewed right after the TR reviewal because in the TR the text concerning MIMO Node B complexity had still been blank. Intention was to review this text proposal here and to put it in the section 7.4.3 in the TR before we sent TR to RAN WG2 if the text proposal was agreeable.  
 Mr. Amitabha Ghosh (Motorola) was opposed to having concrete numbers in this text. He insisted that text should be general.  
 Finally with removal of the concrete numbers and with some modification on the text, this text proposal was approved.  
 Chairman suggested that from now on TR needs to be self-containable and no references to RAN WG1 documents (R1-\*\*-\*\*\*\*) nor references to public documents should be put in.  
 Lucent remarked that they would provide the document [3] (IEEE document) on the e-mail reflector.
- (\*36) This is the text proposal regarding inclusion of TDD to the TR. This was based on the discussion of **R1-01-0018** which was reviewed on Day 3. (See No. 56) This document also contained a very short text proposal for RAN WG2 TR just putting the reference to RAN WG1 TR so that RAN WG2 can simply refer to RAN WG1 TR in their section concerning TDD mode.  
 Chairman concluded that the text proposal for RAN WG2 TR would be sent together with RAN WG1 TR in the LS to RAN WG2. RAN WG2 will decide what they should do with the text proposal.

/\*\*/ Day 4 coffee break 15:53 -16:05 /\*\*/

/\*\*/ Day3 plenary meeting ended at 18:55 /\*\*/

### 7.1.3 TR 25.848 Drafting session Day3 20:00 - 24:00?

## 7.2 TDD Node B Synchronizations ( Ad Hoc 30 )

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
74	XXX	-	25.223	R1-01-0003	Working CR on Node B sync over air interface in UTRA TDD R'4 – Description of the cell synchronisation codes	B	Mitsubishi	Approved in principle	No (*1) Comments Day2 15:06-15:10
75	042	-	25.221	R1-01-0068	Introduction of the cell sync burst	B	Siemens	Approved in principle	(*2) Day2 15:10-15:14
76	044	-	25.224	R1-01-0002	Layer 1 procedure for Node B synchronisation	B	Siemens	To be revised	(*3) Day2 15:15-15:24
77	022	-	25.225	R1-01-0013	Measurements for Node B synchronisation	B	Siemens	Approved in principle	(*4) Day1 15:24-15:27

(\*1) Mr. Marian Rudolf (Mitsubishi) presented this CR.

This CR is based on the contribution which was discussed and agreed in principle in the TDD Ad Hoc session in RAN WG1#17 meeting. (**R1-01-1351**). This CR had been sent on the e-mail reflector one week prior to this meeting. This was agreed in principle. After getting CR number for release 4, this will be approved in the next meeting.

(\*2) Mr. Stefan Oestreich (Siemens) presented this CR.

This CR proposed to insert a note indicating that there might be other transmission than RACH on the PRACH. Note reads,

In case of Node B synchronisation the PRACH may be used for the transmission of a cell sync burst [8] based on a higher layer schedule. The cell sync burst shall be transmitted at the beginning of a timeslot. In this case the transmission of a RACH may be prohibited on higher layer command.

Ms. Evelyne Le Strat (Nortel) questioned regarding this whether it is clear in RAN WG2 specification that this is allowed or whether there is any model in RAN WG2 showing this.

Mr. Stefan Oestreich answered that Siemens has an accompanying CR in RAN WG2 for this procedure but maybe they do not know that cell sync burst will be transmitted because this is something in physical layer. It should be checked whether this CR will have an impact on TS 25.302 or not.

Chairman concluded that the final approval decision will be made in the next meeting.

(\*3) Mr. Stefan Oestreich (Siemens) presented this CR.

Main part of this CR (creation of new section 4.9 *Node B synchronisation procedure*) is coming from the technical report.

Mr. Stephen Dick (InterDigital) requested offline discussion on higher layer functionalities.

Chairman remarked that it would be better to have reference to the corresponding RAN WG3 specifications.

He also made a comment that it might be better to mention in the some of the specifications that this is not only one method for synchronization. It is not necessary that all the Node Bs implement exactly this kind of method.

There was one editorial comment that the description should be in line in the specification.

Chairman concluded that the final approval decision will be made in the next meeting.

(\*4) Mr. Stefan Oestreich (Siemens) presented this CR.

Two new UTRAN measurements for Node B synchronization were introduced, they are *Cell Sync Burst Timing* and *Cell Sync Burst SIR*.

Chairman concluded that the final approval decision will be made in the next meeting.

/\*\* Coffee break 15:28-16:04 \*\*/

## 7.3 DSCH power control in Soft handover

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
78	27	R1-01-0125	TFCI power control in split mode	LGE	Not release 4	(*1) Day2 18:45-18:58
79	27	R1-01-0063	Text proposal for TR 25.841 : Improvement of Power control for DSCH in soft handover	LGE	Next meeting	(*2)

(\*1) The concept of this proposal had been presented in RAN WG1#17 meeting in **R1-00-1429**. Chairman had also mentioned this in his report to RAN. This document was continuous work on that and comparison of proposed method and release 99 method was presented. It was requested that this method be included in the TR.

Mr. Jussi Kahtava (Nokia) asked for quantitative analysis on how much gain and improvement of power consumption will be achieved by this method. → concrete estimation was not provided at least in the meeting. Chairman asked people whether we should treat this for release 4 but no support except proponents was made. Based on this chairman concluded that we should treat this issue as a possible proposal for release 5.

(\*2) This document was not presented.

LGE explained that this is the text proposal on the topic described in **R1-01-0125**. Since now the TR is placed under change control, CR procedure is needed for a change. Chairman stated that if you prepare the CR (for rel. 5) then it would be better placed under the section of "beyond release 99".

Day 3, started at 09.14

#### 7.4 Terminal power saving features (Ad Hoc 22)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
80	22	R1-01-0032	Revision of TR25.840 Terminal Power Saving Features (v2.0.0)	Samsung	Approved	No (*1) Comment Day3 09:21-09:26
81	22	R1-01-0039	Impact of compressed mode on the performance of DPCCH gating	Ericsson	LS will be produced	(*2) Day3 09:27-10:08
82	22	R1-01-0114	Interactions between DPCCH gating and monitoring for handover purposes	Nortel		
83	22	R1-01-0009	Further clarifications on outer loop power control during DPCCH gating	Nokia	Agreed	(*3) Day3 10:09-10:14
84	22	R1-01-0011	Revision of TR25.840 Terminal Power Saving Features including changes to facilitate OL PC to be based on CRC during DPCCH gating	Nokia	To be revised	(*4) Day3 10:14-10:26
85	22	R1-01-0038	Comments on TR 25.840 Terminal Power Saving features	Ericsson	Discussed	(*5) Day3 10:27-10:44
86	22	R1-01-0142	Answers to Comments on TR 25.840 "Terminal Power Saving Features"	Samsung Nokia		
87	22	R1-01-0164	Revision of TR25.840 Terminal Power Saving Features including changes to facilitate OL PC during gating and clarifications based on the comments made during R1 #18	Samsung Nokia	To be revised	(*7) Day4 16:32-16:44

(\*1) This is the revision of **R1-00-1444** (v1.2.0). After WG1 #17 meeting, there were some e-mail discussions on the following 2 issues.

- Interaction of gating with compressed mode
- Assumptions under which UE battery life enhancement calculation was performed

This revision includes some clarifications on above discussions and some minor editorial corrections.

According to the decision in RAN WG1#17 meeting on the description of impacts to RAN WG3, RAN WG3 TR 25.938 "Terminal Power Saving Features (Iur/Iub aspects)" is referenced.

(\*2) Mr. Dirk Gerstenberger (Ericsson) presented **R1-01-0039** and Ms. Sarah Boumendil (Nortel) presented **R1-01-0114**. Both of these documents discussed the impact of compressed mode on the achievable gains of DPCCH gating. Since DPCCH gating is terminated during the compressed mode, these 2 documents concluded that the achievable gains by DPCCH gating are very dependent on the use of compressed mode (total time for which compressed mode is active) and thus the claimed battery savings are not likely to be met.

There was a bit long discussion took place.

- We need to consider the possibility of gating mode being automatically disabled by layer 1 during the compressed mode so that we can still get benefits of gating mode. There is always significant number of frames without transmission gap. (Mr. Matthew Baker (Philips))
- Some realistic value would be used for amount of compressed mode due to the fact that the compressed mode deteriorate the system capacity. It should be minimized. (Mr. Markku Tarkiainen (Nokia))
- Who can say that compressed mode is going to be used for 90% of the time or going to be used 10% of the time? Probably RAN WG4 is the best place to give some feed back on this kind of issue because it depends on the deployment scenarios, etc. Some kind of LS to RAN WG4 would probably be good for their next meeting then we can get feed back in Las Vegas. (Chairman)
- We are mixing 2 different things which are the percentage of time when the compressed mode is active and the percentage of compressed frames. You can activate compressed mode pater indefinitely, this is allowed by RRC signalling. It does not mean that every frame is going to be compressed and the way the compressed mode is activated as was described in Ericsson's paper is an operators' choice. If operators decide to use infinite duration for compressed mode pattern sequence without compressing every frame it will completely forbid the use of DPCCH gating. (Ms. Sarah Boumendil (Nortel))
- Time duration of an active transmission gap pattern sequence is not immediately related to the amount of compressed mode in terms of compressed frames. If we had a discussion saying that we should not use that long or maybe RAN WG4 should say some recommendation of the certain use of RRC parameters then we are actually limiting the operators freedom to use the compressed mode in the most optimum way. We are limiting parameterisation of compressed mode if we ruled out some of the possibilities. In what sense RAN WG4 will be able to do work on that?  
The time when the compressed mode or transmission gap pattern sequences is active is not immediately related to performance. (Mr. Dirk Gerstenberger (Ericsson))
- Operators will not be restricted. They will set parameters as they wish. If they set compressed mode infinitive then it will just mean gating is disabled. This will not restrict the operators. Even in GSM, terminal battery life is strongly depending on the network setting and this is not putting any restrictions to the operators.

(Chairman)

Conclusion : We would send LS to RAN WG4 indicating that we want to receive some guidance on this aspect of the use of the compressed mode. Then we will derive the conclusion on what can be achieved for release 4 in Las Vegas. The LS should also sent to RAN WG2 and RAN WG3 as CC so that they also can have an answer from RAN WG4.

Chairman asked Ms. Sarah Boumendil and Mr. Markku Tarkiainen to draft the LS in **R1-01-0143**.

This LS was reviewed on Day 4 and approved in **R1-01-0173** (See No.112).

(\*3) Mr. Markku Tarkiainen (Nokia) presented this document.

This is a revision of **R1-00-1460** which was reviewed in RAN WG1#17 meeting.

It was proposed that outer loop power control based on CRC attached to zero transport block will be used also during DPCCH gating because DPCCH BER will not offer good enough performance for outer loop. This method means that DPCCH gating concept will correspond to DPCCH + DPDCH gating. Regarding the impact of this method on the potential DPCCH gating gains in battery saving, it was concluded this method does not have any deterioration.

Mr. Dirk Gerstenberger (Ericsson) remarked though it sounds strange in some way that we have to start transmitting on DPDCH in order to keep the outer loop power control alive when we consider why DPCCH gating was introduced, it seems to be sensible to use the CRC on zero transport blocks.

(\*4) Mr. Markku Tarkiainen (Nokia) presented this document.

This is the revision of the TR 25.840 which included the outer loop control during DPCCH gating discussed in R1-01-0009.

Several comments for corrections were made.

- "zero transport channel blocks" should be replaced by "zero length (or bit) transport blocks"
- "DPCCH and DPDCH fields", "field" is not necessary.
- In section 6.1 , "DPDCH field is sent in the same slot ... " gives an impression that the transport format corresponding to zero length transport block is already there but this is not necessary the case.

These comments shall be reflected to the next revision.

(\*5) Mr. Dirk Gerstenberger (Ericsson) presented this document.

This is the commenting paper on TR 25.840 *Terminal Power Saving Features* v2.0.0.

Detailed comments were provided in this paper on the following topics.

- Gated DPCCH transmission scheme in FDD – Terminology
- Detection of DPDCH frame during gating
- Power control parameters
- Operation with other features
- Impact to WGs
- Reference and history sections
- Performance

Since there had been prepared an answer paper for this commenting paper (**R1-01-0142**) by Samsung and Nokia, chairman proposed to have it presented at first and then to start discussions afterwards.

\*\*\* Coffee break 10:44-11:24 \*\*\*

(\*6) This was the answer paper for the commenting paper (**R1-01-0038**).

For each comment raised in R1-01-0038, answer was provided.

After this presentation, several discussions were made between Mr. Dirk Gerstenberger (Ericsson) and Samsung and chairman.

- "non-DPDCH period" is not necessary appropriate → Regarding terminology issue, chairman suggested offline discussion.
- Detection of DPDCH frame during gating  
Mr. Dirk Gerstenberger remarked that if the transmission of TFCI in uplink is really useless, it is a waste of uplink capacity and some method like the one used in the downlink should be considered. Samsung answered there is a room for modifying the method in uplink. They said that the current method has just been chosen for simplicity.
- Now that the outer loop power control is to be included in the TR, issues on recovery period and power control step size need to be reviewed again.
- With respect to SSDT, second bullet point could be more elaborated in terms of the relation with gating.
- Issues related to compressed mode should be treated after we received feed back from RAN WG4.
- Regarding UE battery life enhancement it should be mentioned in the TR that there some dependencies on the implementation.

Mr. Lee Hyeonwoo (Samsung) made a comment on the transmission of TFCI in the uplink in gating at the end of discussion that the reason we transmit the TFCI even in gating mode is to avoid unnecessary switching in gating. He stated that if we do not transmit TFCI in gating mode then the switching rate of UE would be doubled and so that is not recommended. He added Samsung believes transmission of TFCI in uplink in gating is preferred solution.

Against this remark, Mr. Dirk Gerstenberger proposed offline checking.

(\*7) This is the revision of the TR (**R1-01-0032**). Discussion which had taken place in this meeting was included.

There were a couple of comments made to the section 8.1.2.2.3 *Impact of Compressed Mode on Battery Life Enhancement* and the revised part in conclusion section (8.1.2.3) that they did not reflect the discussion well. Chairman concluded that section 8.1.2.2.3 and revised part in section 8.1.2.3 should be removed.

TR should be revised with above correction and be v2.1.0. The revision can be found in **R1-01-0179**.

## 7.5 Positioning (Ad Hoc 29)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
88	29	R1-01-0118	Simulation results on TDD LCS	Siemens	Noted	No (*1) Comments Day3 12:05-12:09
89	29	R1-01-0014	Clarifications about TDD-LCS and IPDL scheme proposal	Siemens	Postponed LS to be sent	(*2) Day3 12:09-12:22
90	29	R1-01-0064	RTD measurement in UTRAN	Nokia	LS will be sent.	(*3) Day3 12:23-12:34

(\*1) This document presented further simulation results on the location services for TDD mode. It was shown that a sufficient accuracy is achieved with an average of 3 measurements and the proposed IPDL scheme for TDD provides enough accuracy and coverage for LCS.

(\*2) Mr. Siegfried Bär (Siemens) presented this document.

In RAN WG2#17 it was proposed to introduce an IPDL like enhancement to the OTDOA method for TDD. RAN WG2 had asked us to study its feasibility and evaluate performance improvements achieved by IPDL in **R1-00-1415** (R2-002466). In relation to this request, **R1-00-1355 LCS for 3.84 Mcps TDD** was reviewed in RAN WG1#17 meeting. R1-00-1355 showed that IPDLs are necessary to provide sufficient accuracy and coverage for LCS however it also received several comments/questions on the simulation assumptions.

This paper (**R1-01-0014**) addressed those comments/questions and provided an updated scheme for IPDLs.

This paper also recommended to include the proposed IPDL scheme for TDD in TR 25.847 and to send LS to RAN WG2.

Mr. Stephen Dick (InterDigital) remarked that offline checking (further study) is needed to evaluate the impact on power control performance in case the beacon channels are switched off. (impacts should be clarified.)

There were some concerns raised.

- What is the impact on the cell search ? ( This should not be forgotten.)
- Backward compatibility for release 99 UEs.

Chairman suggested offline discussion with the interested parties over the lunch and those raised concerns should be reflected in the LS.

LS shall be drafted in **R1-01-0148**. This was reviewed on Day4 and approved in **R1-01-0174**. (See No. 113)

(\*3) Mr. Jussi Kahtava (Nokia) presented this document.

This document proposed new UTRAN measurement for the support of OTDOA measurements in UTRAN Rel.-4 UE positioning. In TS 25.305 *Stage 2 Functional Specification of UE Positioning in UTRAN*, v3.4.0, the need for the relative time difference (RTD) measurement is described. In order to support this RTD measurement, it was proposed to include SFN-SFN observed time difference for UTRAN.

This document also contained a draft LS to other WGs to get feedbacks on this issue from them.

Mr. Dirk Gerstenberger (Ericsson) questioned where this measurement is supposed to be performed. Node B or RNC ? . → It maybe in Node Bs. (chairman)

There were 2 comments on the attached draft LS raised by Mr. Dirk Gerstenberger.

- "STD" in the 3<sup>rd</sup> line should be "RTD" and the sentence below the definition box should be reworded.
- A question should be put regarding where this measurement is thought to take place (Node B or RNC) ?

There was no other comment and the attached draft LS was approved with correction mentioned above.

**R1-01-0147** was allocated for the approved version of the LS. (See No. 106)

/\*\* Lunch break 12:34-13:48 \*\*/

## 7.6 TDD 1.28 Mcchips functionality (Ad Hoc 21)

### 7.6.1 Physical Ad Hoc session took place Day 3 20:00 – 00:50

### 7.6.2 Report from Ad Hoc #21: 1.28 Mcps TDD (R1-01-0151) / Source : Ad Hoc 21 chairman (Day4 13:46-14:00)

Mr. Marcus Purat (Siemens, Ad Hoc 21 chairman) presented this document.

Ad Hoc 21 recommended to update the working CRs with the following contributions including the comments made during the discussion.

#### TS 25.221:

R1-01-0120 *Beamforming for 1.28 Mcps TDD*

CATT/CWTS

R1-01-0121 *Time Slot Formats for 1.28 Mcps TDD*

CATT/CWTS

R1-01-0099 *Changes to the physical random access channel (PRACH) for 1.28 Mcps TDD*

Siemens

R1-01-0096 *Coding of SS commands in 1.28 Mcps TDD*

Siemens

#### TS25.222:

R1-01-0092 *Coding of FPACH*

Siemens

#### TS25.223:

R1-01-0126 *Modulation of the SYNC-DL*

Siemens

#### TS25.224:

R1-01-0119 *DTX of radio frames for 1.28 Mcps TDD*  
R1-01-0122 *Transmit power control for 1.28Mcps option*

CATT/CWTS  
CATT/CWTS

The updated working CRs will be posted to the RAN1-reflector immediately after the WG1#18 meeting. Comments shall be provided before the WG1#19 meeting.

For following 3 documents, revisions shall be presented in the plenary for approval.

R1-01-0091, "Description of the FPACH", Siemens → **R1-01-0158** (See No.94), **R1-01-0159** (See No.93)  
R1-01-0075, "Correction of the Mapping of TFCI Code Word for very short TFCI for 8PSK", Samsung → **R1-01-0157**  
(See No. 95)

R1-01-0094, "Transmission of TPC commands in 1.28 Mcps TDD", Siemens → **R1-01-0160** (See No.92)

For following 2 documents, offline discussions were needed. In case agreements were reached, they should be reviewed in the plenary session.

**R1-01-0093**, "Main path Rx Timing Deviation for 1.28 Mcps TDD", Siemens (Not reviewed in the plenary after all.)  
**R1-01-0098**, "Timing Advance (T<sub>ADV</sub>) Measurement in 1.28 Mcps TDD", Siemens (See No. 91)

The Ad Hoc report was approved without any comments.

Chairman reminded people of the technical report which was requested by RAN to be completed by the next RAN plenary. Chairman suggested that the best approach would be that we should prepare a single text proposal for the TR and check it in the next meeting together with the working CRs which would be submitted to RAN. TR needs to be aligned with working CRs.

### 7.6.3 Leftovers from Ad Hoc 21

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
91	<b>21</b>	R1-01-0098	Timing Advance (T <sub>ADV</sub> ) Measurement in 1.28Mcps TDD	Siemens	Approved	(*1) <small>Day4 16:51-16:53</small>
92	<b>21</b>	R1-01-0160	Transmission of TPC commands in 1.28Mcps TDD	Siemens	Approved	No comments <small>Day4 16:54-16:55</small>
93	<b>21</b>	R1-01-0159	The use and generation of the information fields transmitted in the FPACH	Siemens	Approved	(*2) <small>Day4 16:55-16:59</small>
94	<b>21</b>	R1-01-0158	Description of the FPACH	Siemens	Approved	No comments <small>Day4 16:59-17:03</small>
95	<b>21</b>	R1-01-0157	Revision of "Correction of the Mapping of TFCI Code Word for Very Short TFCI for 8PSK"	Samsung	Approved	No comments <small>Day4 17:04-17:05</small>

(\*1) This document had gone through the offline discussion and was reviewed in the plenary. It was mentioned as an outcome of the offline discussion that following correction shall be done to this text proposal before being implemented into working CR.

- Removal of the granularity of (1/8 chips) because this is subject of RAN WG4
- Following should be included at the end

"Note: This measurement can be used for uplink synchronisation or location services."

(\*2) Table X should be removed from section 5.6.2.1.

Section 5.6.2.1.4, "may" should be inserted to the second sentence as follows

*The network **may** set this value based on the measured interference level (I) (in dBm) on the specific PRACH and on the desired signal to interference ratio (SIR) (in dB) on this channel as follows:*

(\*3) There was a comment on section 6.3.3.1.4 that the mapping of the power level to logical space should be done in RAN WG4 for the first place.

It was proposed and agreed to replace the sentence in 6.3.3.1.4 with

"The transmit power level command is transmitted in 7 bits."

Day 4, started at 09.04

### 7.7 RAN technical small enhancements and improvements ---Improved Uplink Power Control

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
96	147	-	25.214	R1-01-0087	Improved Uplink Power Control	C	Siemens	Approved in principle	(*1) <small>Day4 09:06-09:20</small>
97	-	-	-	R1-01-0115	Impact of the introduction of improved power control at power control limits	-	Nortel	LS will be sent to R4	(*1) <small>Day4 09:21-09:45</small>

(\*1) In R1-01-0087 besides the proposed CR, further simulation results were also presented. In addition, answers for the questions raised to **R1-00-1447** in RAN WG1#17 meeting were also provided.

R1-01-0115 discussed the possible ways of introducing the proposed feature in release 4 and the potential impact on the system performance in terms of power management at the RNC level. The main concern in this paper was the improved power control behaviour for the release 4 UE implementing this feature in Release 99 networks.

This paper listed 2 possible way of introducing this feature into the system.

There was a comment that in release 99 networks, release 4 UE must act as an release 99 UE and therefore there would be no problem.

It was answered that there is no corresponding test case in RAN WG4 for this feature. For the release 4 UE implementing this feature there is only one algorithm and even when in release 99 network we will have this behaviour because this is not addition of the new feature but the replacement of the behaviour. ?

Chairman concluded to send LS with R1-01-0087 attached to RAN WG4 as was proposed by Nortel in order to ask their view on this feature.

The LS was drafted by Nortel in **R1-01-0162**. This was reviewed in afternoon and approved in **R1-01-0171**.

(See No. 110)

There was question on the approval of the CR. Chairman answered that CR was approved in principle and it should be mentioned in the LS as well. Having RAN WG4 on this issue, we will make a decision in the next meeting. There was one comment that as was stated by the proponent, the description of the CR is not necessary easy to understand and therefore some kind of block diagrams should be included. Chairman invited proponent to provide the revision for readability on the e-mail so that people can check it before the next meeting.

### 7.8 Radio link performance enhancements (Ad Hoc 27)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
98	27	R1-01-0030	Further Results on CPICH Interference Cancellation as A Means for Increasing DL Capacity	Intel	Noted	(*1) <small>Day4 09:45-09:57</small>

(\*1) This paper is the continuation work of **R1-00-1371** which was reviewed in RAN WG1#17 meeting.

Further simulation results on the proposal for the UE to cancel multiple access interference (MAI) associated with the pilot channels of the active and neighbouring base stations were presented. It was shown again that CPICH cancellation can increase capacity by 10% or more with relatively small computational complexity. As was suggested in RAN WG1#17, the proponent is going to present this scheme in RAN WG4.

Mr. Peter Chambers (Siemens) remarked that since this is considered as release 5 or after item, the improved performance requirements on the UE receiver would likely be on the release 5 UEs only. In that case, with the mixture of release 99, release 4 and release 5 UEs, can we still achieve the said capacity increase ?

→ Capacity increase here will require all UEs to use this procedure. (Intel)



## 7.9 Tx Diversity (Ad Hoc 26) (Release 5)

The concepts of the proposed method should be provided in TSG RAN #12 (June, 2001) which means we have to have some sort of conclusion by our meeting in May at the latest

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
99	26	R1-01-0103	Simulation Results of the Tx Diversity Scheme with Beamforming Feature	Fujitsu	Noted	(*1) <small>Day4 09:58-10:07</small>

(\*1) This is a continuation work of **R1-00-1065**. In the Ad Hoc 26 in RAN WG1 #15 meeting, Fujitsu proposed a new multiple antenna Tx-diversity scheme with a beamforming feature which supports a variety of antenna configurations and beamforming algorithms to achieve efficient Tx-diversity / beamforming gain depending on the spatial correlation characteristics. However R1-00-1065 did not contain any simulation result. In this current paper (R1-01-0103) the first simulation results were presented as agreed in RAN WG1#15 in order to show the benefits of this scheme. Following main points were shown in this paper with the simulation results.

- Simple extension of Tx diversity Mode 1 rapidly degrades the performance in the high mobility region due to the limited feedback bandwidth.
  - Proposed scheme combining Tx diversity and beamforming improves the performance regardless of UE mobility. Average Tx Ec/Ior can be reduced about 1.8–2.0 dB.
  - Beamforming gain of the proposed scheme is independent of channel model and geometry.
- Antenna spacing between sub-arrays was about  $\lambda/2$  and soft handover was not considered in the simulations.

## 7.10 USTS (Ad Hoc 31) (Release 4 study item)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
100	31	R1-01-0110	Study report for USTS (v0.0.2)	SK Telecom Nokia	Agreed	(*1) <small>Day4 10:09-10:37</small>
101	31	R1-01-0061	Comparison of soft handover schemes for USTS	LGE	Approved	No (*2) comments <small>Day4 11:06-11:17</small>
102	31	R1-01-0062	TAB Field Improvements for USTS in Soft Handover	LGE	Noted	(*3) <small>Day4 11:17-11:25</small>
103	31	R1-01-0070	Code allocation rule for USTS	Samsung SK Telecom	Noted	(*4) <small>Day4 11:26-11:39</small>

(\*1) In RAN WG1 #17 meeting the first version of this TR (v0.0.0) (**R1-00-1380**) was presented and reviewed. It got a lot of comments for the revision and SK Telecom provided the revision of TR (v0.0.1) (**R1-01-0054**) in prior to the RAN WG1#18.

But during the meeting and before the reviewal, it was further revised into v0.0.2. The only one but still one astonishing change was made in section 4.1.3.2 compared to v0.0.1. Nokia joined the source companies in v0.0.2. Mr. Erik Dahlman (Ericsson) remarked regarding the following sentence in section 4.1.1 the cell size should not be restricted to 10km radius because when we consider the solutions (application of USTS like WLL) it should not be limited to 10km. If we put the value of 10km as *an example* then it would be OK. Is there any fundamental reason for this 10km?

*The proposed value for  $T_{ref}$  is the maximum one-way propagation delay and it comes to 128 chips for a cell radius of 10 km and a chip rate of 3.84 Mcps (this cell size is sufficiently large for indoor and micro cell environments).*

→ Of course there must some limitation radius exist in terms of uplink synchronous transmission requirements. Mr. Volker Höhn (Mannesmann Mobilfunk) made a comment that the "10km cell" and still "indoor" or "micro cell" would not fit and therefore some rewording should be done.

Chairman suggested to remove the sentence in parentheses.

There was another comment regarding section 6.3 *Different scrambling/channelisation code usage* that though there is a statement of "USTS does not require any additional hardware." in this section it is not true.

→ Chairman suggested changing it to "USTS requires a small amount of additional hardware".

Conclusion : Revision should be made reflecting the above suggestions from chairman. Next version will be v0.1.0 without revision mark. Revision can be found in **R1-01-0163**.

Hopefully by the end of the next meeting we will have the TR for RAN #11.

/ \*\*\* Coffee break 10: 38 - 11:05 \*\*\* /

(\*2) Soft handover schemes for USTS, in which both original and target Node Bs are operated in USTS are discussed in this paper.

No comments were raised.

Chairman suggested that the text of this contribution would be incorporated in the TR v0.1.1 with revision marks.

(\*3) 2 methods for improving the reliability of Timing Alignment Bit (TAB) in soft handover were presented in this paper. They are

- Allocation of higher power offset to TAB
- Increase of the transmission rate of TAB

Mr. Jussi Kahtava (Nokia) remarked that according to the latest USTS TR, the timing feed back to Node B had been changed from 20ms to 200ms. (See section 4.1.3.2) but TAB is still to be sent every 20ms which means UE can have 10 TABs in between making timing feed backs. By combining of these 10 TABs somehow it is possible to make more reliable TAB decision without having extra means proposed by this contribution.

But this corresponds to the second method proposed by this contribution because it had not been made known until this meeting that the feedback rate is to be changed from 20 msec to 200 msec. (See No. 100 )

(\*4) This is the revision of **R1-00-1160** which was reviewed in RAN WG1#17 meeting. In the reviewal in RAN WG1 #17 it was pointed out that this proposed method did not have any explicit improvement in code allocation efficiency if we chose the proper code allocation scheme for the comparison.

Samsung provided this paper in order to show what the improvement in code allocation efficiency really is by comparing with another OVSF code allocation scheme.

Chairman stated that still it is not quite clear what the benefit of this scheme is. (Situation has not changed at all since RAN WG1#17 meeting.)

There were no answers, no remarks made. Chairman concluded that this was noted.

## 8. Approval of the liaison statements as output from WG1

No.	Discussed Tdoc	Source	To/Cc	Title	Approved Tdoc	Notes
104	R1-01-0104	Philips Ericsson	R3 Cc:R4,R2	Answer LS to R1-00-1334 "RL timing adjustment by UTRAN"	R1-01-0135	No (*1) Comment <small>Day2 13:51</small>
105	R1-01-0101	Ericsson	R2	Answer to LS on Default configurations	R1-01-0101	(*2) <small>Day2 19:14</small>
106	R1-01-0064	Nokia	R2,R4 Cc:R3	RTD measurement in UTRAN	R1-01-0147	(*3) <small>Day3 12:34,Day4 16:25</small>
107	R1-01-0106	Nokia	R4	LS on compressed mode transmission gap length (TGL) 8	R1-01-0167	No (*4) Comment <small>Day4 11:41</small>
108	R1-01-0105	Panasonic	R2 Cc:R3	LS to PCH message length	R1-01-0105	(*5) <small>Day4 11:48</small>
109	R1-01-0090	Nortel	S4 Cc:R2	Reply LS on: "Liaison to 3GPP TSG RAN WG1 and 3GPP TSG RAN WG2 on the Efficiency of Packet-Switched Conversational Multimedia Service"	R1-01-0170	No (*6) Comment <small>Day4 14:20</small>
110	R1-01-0162	Nortel	R4 Cc:R2	LS on introduction of uplink power control at power control limits	R1-01-0171	(*7) <small>Day4 14:30</small>
111	R1-01-0069	Samsung	R2, R3	LS on DSCH TFCI Split Mode	R1-01-0172	(*8) <small>Day4 14:36</small>
112	R1-01-0143	Nortel	R4 Cc: R2,R3	LS on impact of compressed mode on DPCCCH gating benefits	R1-01-0173	(*9) <small>Day4 14:42</small>
113	R1-01-0148	Siemens	R2 Cc: R3	IPDL scheme for location services in TDD mode	R1-01-0174	(*10) <small>Day4 14:46</small>
114	R1-01-0154	Lucent, Nokia Nortel	R2 Cc:R4	Answer to LS R2-010205 (R1-01-0145) "Results of HSDPA Study Item AdHoc"	R1-01-0176	(*11) <small>Day4 16:23</small>
115	R1-01-0178	Ericsson Nokia Panasonic	R2	UE capability	R1-01-0178	No (*12) Comment <small>Day4 16:31</small>
116	R1-01-0165	Samsung	R2,R3,R4	LS on revision of TR 25.840 v2.1.0 on Terminal Power Saving Features	R1-01-0180	(*13) <small>Day4 16:47</small>

(\*1) Mr. Matthew Baker (Philips) presented this LS.

This is the answer liaison to **R1-00-1334** (R3-002726) in which RAN WG3 asked RAN WG1 how often a Radio Link Timing adjustment procedure might be required and whether RAN WG1 considers that the current WG3 solution, whereby a RL is deleted and established again, is sufficient for R99. R1-00-1334 was reviewed in RAN WG1 #17 meeting and T-doc **R1-00-1423** was allocated for the answer. Eventually the answer was not presented in RAN WG1#17. Now the answer was drafted in R1-01-0104 based on the discussion on the e-mail reflector.

*Current WG3 solution is adequate for release99 but RAN WG1 would like to ask RAN WG3 to consider implementing a RL adjustment procedure for a future release.*

(\*2) Mr. Dirk Gerstenberger (Ericsson) presented this LS.

(For the background information, see No.5)

In the draft LS the value of "8dB" was proposed for the example of dpccch-PowerOffset but it was removed because it is considered very huge step size. Instead chairman suggested to put "range" in the following sentence.

*"RAN1 believes that it would be feasible to use a granularity and range requiring less bits for the parameter than currently used."*

/\* \*\* Day2 ended at 19:14 \*\* \*/

(\*3) Mr. Jussi Kahtava (Nokia) presented this LS.

The draft LS was reviewed on Day 3. (See No.90) Mr. Jussi Kahtava (Nokia) presented revised version R1-01-0147 on Day4 and it was approved.

(\*4) Mr. Ville Steudle (Nokia) presented this LS. This was based on the discussion of **R1-01-0077** (See No.12 )

(\*5) Mr. Hidetoshi Suzuki (Panasonic) presented this LS. This was based on the discussion of **R1-01-0056**. (See No.10) Mr. Serge Willenegger (Qualcomm) remarked that it should be confirmed in this LS that there are no cases where consecutive frames carrying PCH would need to be received by UE.

(Because this was the point we discussed in Day1.)

(\*6) Ms. Sarah Boumendil (Nortel) presented this LS in behalf of Ms. Evelyne Le Strat (Nortel).

This is the answer LS to **R1-01-0029** (S4-000700R) which was reviewed on Day 1. (See No.1)

(\*7) Ms. Sarah Boumendil (Nortel) presented this LS. This was based on the discussion of **R1-01-0115**. (See No. 97) A small discussion was made regarding the first sentence in 4<sup>th</sup> paragraph that this could give the impression that there is already problem (impact) on the radio resource management.

*During RAN WG1#18, it was discussed in [3] that simply replacing the release 99 UE behaviour at power control limits by the proposal contained in [2] could have some impact on the radio resource management.*

Chairman suggested that "could" had better be replaced by "might".

(\*8) This LS is based on the discussion of **R1-00-1269** which was discussed in RAN WG1#17 meeting.

Now this current LS is asking RAN WG2 and RAN WG3 view whether we should study the enhancement on hard split to support variable bit length TFCI for DCHs and DSCHs as a Rel4/5 issue.

Chairman stated that we should put it as Rel-5 issue instead of putting Rel-4/5 issue because it is pretty late if we asked guidance of something to be studied for release 4.

- (\*9) Ms. Sarah Boumendil (Nortel) presented this LS. This was based on the discussion of **R1-01-0039** and **R1-01-0114**. (See No. 81 and No.82)

Chairman suggested that some phrase like "in the current concept" would better be put before the sentence of *DPCCCH gating cannot be used during these periods between compressed frames.*

in the second paragraph because we are not talking something specified in the current specifications.

- (\*10) Mr. Siegfried Bär (Siemens) presented this LS. This was based on the discussion of **R1-01-0014**. (See No. 89)

Chairman suggested that following sentence had better be added to the last so as not to give an impression that we are talking about some kind of no-go features.

"RAN WG1 hopes to be able to solve the remaining concerns in RAN WG1#19."

- (\*11) This is the answer liaison statement to **R1-01-0145** (R2-010205) which arrived at RAN WG1 and reviewed on Day 3. (See No. 57). To each of 5 questions RAN WG2 raised in their LS, RAN WG1 answer was provided. Chairman remarked that the answer for question 4 should be modified as follows.

*Therefore, it is well understood that the architecture will support multiple transport channels on a single CCTrCH for HS-DSCH*

Mr. Amitabha Ghosh (Motorola) remarked regarding the answer for question 3 that the following sentence should be removed because it is already mentioned in the TR.

*Also, variable TTI is well suited for fat-pipe scheduling techniques such as those enabled by the Downlink Shared Channel.*

This remark was agreed.

Chairman stated that the text proposal for RAN WG2 TR contained in **R1-01-0144** (See No. 76) should be put in the LS.

There were no other comments and LS was approved as amended.

Chairman suggested to attach the RAN WG1 TR to this LS before sending it to RAN WG2. Since revised TR (**R1-01-0177**) was not available in the meeting, this LS shall be sent by the secretary after the R1-01-0177 is made available on the e-mail reflector.

- (\*12) After offline discussion, Panasonic, Ericsson and Nokia reached conclusion. The conclusion was summarized in this LS. This LS also contains a small proposed CR for TS 25.306 (CR 25.306-001).

Chairman remarked in responding to the comment from Mr. Serge Willenegger (Qualcomm) that in case there are comments/problems on this topic later, of course we will come back to this again and make a discussion in the next meeting.

- (\*13) Chairman remarked that following 2 bullet points should be removed because they had been removed from the revised TR. (See No.87)

- Include the results showing the impact of compressed mode on battery life enhancement

- Include the comments on the implementation dependency of UE battery life enhancement

Meeting closed at 17:08

## 9. WG1 meeting schedule in year 2000 -2002(Tentative)

Meeting	Year	Month	Date	Location	Hosts
RAN WG1 #10	2000	January	18-21	China	Nokia
RAN WG1 #11	2000	February	29 – March 3	USA	TIP1
RAN #7	2000	March	13-15	Madrid, Spain	
RAN WG1 #12	2000	April	10-13	Korea	TTA
RAN WG1 #13	2000	May	22-25	Tokyo, Japan	NTT DoCoMo
RAN #8	2000	June	21-23	Dusseldorf, Germany	
RAN WG1 #14	2000	July	4-7	Finland	Nokia
RAN WG1 #15	2000	August	22-25	Germany	Siemens
RAN #9	2000	September	20-22	Hawaii	
RAN WG1 #16	2000	October	10-13	Pusan, Korea	Samsung, LGIC
RAN WG1 #17	2000	November	21-24	Stockholm, Sweden	Ericsson
RAN #10	2000	December	6-8	Bangkok, Thailand	Unisys
RAN WG1 #18	2001	January	15-18	U.S.A. Boston	North American Friends of 3GPP
RAN WG1 #19	2001	February	27 – March 2	U.S.A. Lasvegas	Motorola
RAN #11	2001	March	13-16	Palm Springs, CA U.S.A.	North American Friends of 3GPP
Physical Ad Hoc	2001	April	5-6 (?)	Sophia Antipolis with R2	
RAN WG1 #20	2001	May	21-25 (5days)	Cheju ?, Korea withR2,3	Samsung
RAN #12	2001	June	12-15	Stockholm, Sweden	Ericsson
RAN WG #21	2001	June	26-29	Paris, France	Nortel(tentative)
RAN WG #22	2001	August	27-31	T.B.D.	Host needed
RAN #13	2001	September	18-21	Beijing, China	Lucent, CWTS
RAN WG #23	2001	October	8-12	T.B.D.	Host needed
RAN WG #24	2001	November	19-23	T.B.D.	Host needed
RAN #14	2001	December	11-14	Kyoto, Japan	ARIB, TTC
RAN #15	2002	March	5-8	(Korea)	TTA
RAN #16	2002	June	4-7	(Europe)	Motorola
RAN #17	2002	September	3-6	(France)	Alcatel
RAN #18	2002	December	3-6	(U.S.A.)	North American Friends of 3GPP

**Annex A : List of approved CRs (Approved in RAN WG1 #18 meeting)**

**1. TS 25.211**

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.211	091	-	R1-01-0034	DSCH reading indication	F	Ericsson	18-11	3.5.0	3.6.0

**2. TS 25.214**

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.214	142	1	R1-01-0112	Uplink power control in compressed mode	F	Philips	18-27	3.5.0	3.6.0
2	25.214	144	-	R1-01-0052	Removal of the power balancing algorithm from TS 25.214	F	NEC	18-13	3.5.0	3.6.0
3	25.214	145	-	R1-01-0053	Clarification of Nid parameter – when SSDT and uplink	F	NEC, Telecom	18-14	3.5.0	3.6.0
4	25.214	146	-	R1-01-0085	Clarification of closed loop transmit diversity mode 1 and	F	Motorola	18-15	3.5.0	3.6.0

**3. TS 25.215**

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.215	079	2	R1-01-0107	Correction of the observed time difference to GSM	F	Nokia	18-28	3.5.0	3.6.0
2	25.215	081	-	R1-01-0071	Removal of UE SIR measurement	F	Ericsson	18-17	3.5.0	3.6.0

**4. TS 25.221**

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.221	037	1	R1-01-0019	Bit Scrambling for TDD	F	Siemens	18-20	3.5.0	3.6.0
2	25.221	039	1	R1-01-0111	Corrections of PUSCH and PDSCH	F	Siemens	18-30	3.5.0	3.6.0
3	25.221	040	-	R1-01-0021	Alteration of SCH offsets to avoid overlapping midamble	F	Siemens	18-31	3.5.0	3.6.0
4	25.221	041	-	R1-01-0022	Clarifications & Corrections for TS25.221	F	Siemens	18-32	3.5.0	3.6.0

5. TS 25.222

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.222	051	1	R1-01-0019	Bit Scrambling for TDD	F	Siemens	18-21	3.5.0	3.6.0
2	25.222	054	-	R1-01-0023	Corrections & Clarifications for TS25.222	F	Siemens	18-33	3.5.0	3.6.0

6. TS 25.224

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.224	036	-	R1-01-0153	DTX and Special Burst Scheduling	F	InterDigital	18-35	3.5.0	3.6.0
2	25.224	037	-	R1-01-0073	RACH random access procedure	F	InterDigital	18-34	3.5.0	3.6.0
3	25.224	045	-	R1-01-0016	Introduction of closed-loop Tx diversity for the PDSCH and	F	Siemens	18-19	3.5.0	3.6.0
4	25.224	046	-	R1-01-0017	Corrections of TDD power control sections	F	Siemens	18-25	3.5.0	3.6.0

7. TS 25.225

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	V_old	V_new
1	25.225	023	-	R1-01-0107	Correction of the observed time difference to GSM	F	Nokia	18-29	3.5.0	3.6.0

(\*1) Total 18 CRs were approved in RAN WG1#18 meeting. One CR for TS 25.306 was approved and sent to RAN WG2 (See No. 115)

(\*2) CR number for the CR contained in R1-01-0017 has been changed from 031 to 046 by the secretary because there was a contradiction between T-doc subject and actual CR number put in the cover sheet.

CR database is also suggesting that it should be 046. If Siemens can clarify which is correct, it will be appreciated, though...

(\*3) R1-01-0111 CR 25.221-039 needs to be revised. (See No.18, 30)

## Annex B The Participants List

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# Appendix C



### 3GPP\_TSG\_RAN\_WG1 Archives

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**Subject:** [AH24: HSDPA Lucent contributions](#)  [Reply](#)  
**From:** "Tatesh, Said (Said)" <statesh@LUCENT.COM>  
**Reply-To:** Tatesh, Said (Said)  
**Date:** Sun, 14 Jan 2001 01:03:21 -0000  
**Content-Type:** multipart/mixed  
**Parts/Attachments:**  [text/plain](#) (24 lines) , [R1-01-0078.zip](#) (24 lines) , [R1-01-0079.zip](#) (24 lines) , [R1-01-0080.zip](#) (24 lines) , [R1-01-0081.zip](#) (24 lines) , [R1-01-0082.zip](#) (24 lines)

Dear Colleagues

Please find attached the following Lucent contributions to HSDPA study item.

- R1-01-0078 "Link level results for HSDPA using multiple antennas in correlated channels"
- [R1-01-0079](#) "Variable TTI proposal for HSDPA"
- R1-01-0080 "A2IR - An asynchronous and adaptive Hybrid ARQ scheme for HSDPA"
- R1-01-0081 "A2IR - An asynchronous and adaptive Hybrid ARQ scheme for HSDPA" power point presentation
- R1-01-0082 "Throughput Results for Asynchronous and Adaptive Incremental Redundancy (A2IR) for HSDPA"

Regards  
 Said  
 Lucent Technologies

```



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# Appendix D

**Agenda Item:** -  
**Source:** Secretary  
**Title:** Revised minutes of WG1 #19 meeting  
**Document for:** Approval

---

**Revised Minutes for 3GPP TSG-RAN WG1 19<sup>th</sup> Meeting**

Meeting start: February 27th, 2001, in Las Vegas, NV, U.S.A.

Day 1, started at 09.08

**1. Opening of the meeting** (09:08-09:12)

The chairman, Mr. Antti Toskala (Nokia), opened the meeting.

On behalf of the hosting company(Motorola), Mr. Amitava Ghosh welcomed the meeting.

**2. Approval of agenda (R1-01-0189)** (09:12-09:21)

For agenda point 3 *Report from TSG RAN Ad Hoc on UTRAN Evolution*, Chairman announced that he would present it in the afternoon. It was presented at the end of Day1 very briefly and document was not distributed. (See section 5 )  
Chairman added agenda point 4 for the election of the officials. Checking of the candidates would take place in the afternoon.

### 3. Identification of the incoming liaison statements and actions in the answering

No.	Title	Source	To/Cc	Tdoc No.	Source Company	Notes
1	LS to TSG-T WG1 on cell selection timing	GE RAN	CC	R1-01-0191 (GP-010386)	T-Mobil	Noted. (*1) <small>Day1 09:25-09:28</small>
2	LS on UE Simultaneous Physical Channels Combinations for 1.28 Mcps TDD	R2	TO	R1-01-0192 (R2-010244)	CATT	Noted. (*2) <small>Day1 09:29-09:34</small>
3	Response to LS (R1-010180) on Revision of TR 25.840 V1.1.0 on Terminal Power Saving Features	R2	TO	R1-01-0193 (R2-010245)	Samsung	Noted. (*3) <small>Day1 09:34-09:55</small>
4	Response to LS (R1-010172) on DSCH TFCI Split Mode	R2	TO	R1-01-0194 (R2-010246)	Samsung	Noted. (*4) <small>Day1 09:55-09:59</small>
5	Response LS on DSCH TFCI Split Mode	R3	TO	R1-01-0264 (R3-010327)	Samsung	Noted. (*5) <small>Day1 09:59-10:07</small>
6	Response to LS (S4-000700R) on Efficiency of Packet Switched Conversational Multimedia Service	R2	CC	R1-01-0195 (R2-010251)	Siemens	Noted. (*6) <small>Day1 10:07-10:09</small>
7	Clarification request on measurements definition and accuracy	R3	TO	R1-01-0196 (R3-010325)	Nortel	Noted. (*7) <small>Day1 10:10-10:14</small>
8	LS on power balancing accuracy requirement	R4	TO	R1-01-0197 (R4-010161)	Nokia	Postponed to Day2(*8) <small>Day1 10:15-10:27</small>
9	Response to LS (R1-010173) on impact of compressed mode on DPCH gating benefits	R4	TO	R1-01-0198 (R4-010194)	Nokia	Noted. (*9) <small>Day1 10:27-10:36</small>
10	LS to RAN WG1: Amendments to application of beam forming in release 4	R4	TO	R1-01-0199 (R4-010202)	Nokia	Noted. (*10) <small>Day1 11:11-11:19</small>
11	Response to RAN WG1 LS on compressed mode transmission gap length (TGL) 8 and further limitations on compressed mode usage in 25.133	R4	TO	R1-01-0200 (R4-010223)	Nortel	Noted. (*11) <small>Day1 11:19-11:37</small>
12	LS for UMTS-1800 work required from other working groups	R4	TO	R1-01-0230 (R4-010352)	Motorola	Noted. (*12) <small>Day1 11:41-11:44</small>
13	LS on TSG-SA4 request for information with regard to RAN handling of bit erroneous SDUs within packet switched domain radio bearers	S4	-	R1-01-0298 (S4-000652)	?	Noted. (*13) <small>Day1 11:46-11:53</small>
14	LS on power control preamble	R2	TO	R1-01-0316 (R2-010742)	Ericsson	Noted → CR (*14) <small>Day1 17:42-17:45</small>
15	Response to LS (R4-010193) on Effect of a repeater on OTDOA-based positioning accuracy	R2	CC	R1-01-0323 (R2-010753)	Panasonic	Noted. (*15) <small>Day1 18:12-18:13</small>
16	LS on Release 4 UE Support for CPCH	R2	CC	R1-01-0314 (R2-010740)	GBT	Noted → Day3 (*16) <small>Day1 18:14-18:23</small>
17	Response to LS (R1-010105) on PCH message length	R2	TO	R1-01-0315 (R2-010741)	Nortel	Noted. (*17) <small>Day1 18:23-18:24</small>
18	LS on Power offset P <sub>Pilot</sub> -DPDCH	R2	TO	R1-01-0318 (R2-010744)	NTT DoCoMo	Noted. (*18) <small>Day1 18:26-18:40</small>
19	LS on Physical Channels Combinations for 1.28 Mcps TDD	R2	TO	R1-01-0321 (R2-010747)	CWTS/ CATT	Treated in AH21 See R1-01-0367
20	Response to LS (R3-010317, R3-010325 and R1-010147) on RTD measurement in UTRAN	R2	TO	R1-01-0319 (R2-010745)	Qualcomm	Noted. (*19) <small>Day2 09:15-09:21</small>
21	LS on DSCH related updates for Rel4 UE capabilities for the UE Radio Access Capability parameter combinations	R2	TO	R1-01-0320 (R2-010746)	Nokia	Noted. (*20) <small>Day2 09:22-09:28</small>
22	LS on Improved OLPC for FACH	R2	TO	R1-01-0322 (R2-010749)	GBT	Noted → Day3 (*21) <small>Day2 09:28-09:31</small>
23	Response to LS (S4-000652) on RAN handling of bit erroneous SDUs within packet switched domain radio bearers	R2	CC	R1-01-0324 (R2-010756)	Nokia	Noted. (*22) <small>Day2 09:32-09:38</small>
24	LS on Delay times in the control plane	R2	CC	R1-01-0365 (R2-010752)	Samsung	Noted. (*23) <small>Day2 11:53-12:04</small>
25	LS Answer on Introduction of Uplink Power Control at Power Control Limits	R4	TO	R1-01-0364 (R4-010471)	Siemens	Noted. (*24) <small>Day2 12:07-12:23</small>
26	LS on Default configurations	R2	TO	R1-01-0362 (R2-010748)	Ericsson	Noted. (*25) <small>Day2 16:29-17:10</small>



27	Reply on Default Configurations for Handover	S4	TO	R1-01-0201 (S4-010122)	Ericsson	Noted. (*25) <small>Day2 16:37-16:50</small>
28	LS for "Reply on Default Configurations for Handover"	N4	TO	R1-01-0208 (N4-010283)	Tellabs Ericsson	Noted. (*25) <small>Day2 16:50-16:53</small>
29	Answer LS on clarification request on measurements definition and accuracy	R4	TO	R1-01-0363 (R4-010364)	Qualcomm	Noted. (*26) <small>Day2 17:12-17:14</small>
30	LS on TDD DPCH Transmit Diversity Indication	R2	TO	R1-01-0317 (R2-010743)	Interdigital	Postponed. (*27) <small>Day2 17:15</small>

- (\*1) This is the answer liaison from GERAN to TSG T WG1. RAN WG1 received this LS as CC. Since there was no action expected from RAN WG1, chairman concluded this as 'Noted'. There were some issues related to RAN WG4 and RAN WG2.
- (\*2) In this LS which had been sent out from RAN WG2#18, RAN WG2 was requesting RAN WG1 for its review of the attached CR which covers aspects of UE simultaneous physical channel combinations for 1.28 Mcps TDD. Our answer was expected to be provided before RAN WG2#19. Since RAN WG2#19 had been scheduled to be held one week earlier than RAN WG1#19, this LS had been put on the RAN WG1 e-mail reflector for comments right after the RAN WG2#18. After having some comments, chairman sent RAN WG1 view on this issue to RAN WG2 e-mail reflector. (Copy was also sent on the RAN WG1 e-mail reflector on Feb. 15 as well) Based on this view, RAN WG2 continued their work in RAN WG2 #19 and produced a new liaison in **R1-01-0321**. As this new liaison was not available in the morning of Day1, Chairman proposed to revisit this issue after everyone got the R1-01-0321. After all, it was reviewed in TDD Ad Hoc and not reviewed in the plenary. (See No. 19)
- (\*3) This is the answer liaison statement to **R1-01-0180** which we sent out in RAN WG1#18 meeting. We had asked them to study the "Terminal Power Saving Feature" based on RAN WG1 TR attached. This LS informed us a kind of drastic change in the view of the benefit of the Gating scheme in RAN WG2. It says  
*RAN2 would like to inform RAN1 and RAN4 of its status. RAN2 has discussed on the work item and one concern is issued regarding the benefits of the gated DPCCCH transmission associated with DSCH over using CELL\_FACH process. It was recognized that moving to CELL\_FACH is better from terminal saving point of view. Still, gains were claimed from the point of signalling load and delay aspects. Contributions were invited for WG2#19 on comparing delay aspect and signalling between using CELL\_FACH and gating and an e-mail discussion would be held to discuss comparison.*  
At the time of this LS presentation, we had received no continuous LS from RAN WG2#19 and so we were not able to see the latest situation in RAN WG2 on this topic. But it was quite clear that in RAN WG2, the issue was still open (further fundamental discussion is needed). Chairman suggested that in RAN WG1 we should aim to finalize the issue on the TR then discuss in coming RAN about what should be done on the Gating which is release 4 work item. Chairman stated that there would be no point in going to the approval of the CRs on this topic during this week in RAN WG1 in case the issues are still open in RAN WG2 because for release 4 issues, it is a key that all linked CRs of all groups are available. Even if we approved the CRs they will not be treated in RAN if other working groups do not agree on the issue.  
There took place a bit long discussion on how we should proceed with this topic.  
Conclusion: This LS was noted. We would not approve any CRs on this topic in this meeting. We will review and finalize the TR. RAN will be asked the guidance on how we should proceed with this work item. There may be a joint session with RAN WG2 on this issue in May in Korea because we would have collocated meeting with RAN WG2 and RAN WG3. On day2 we received related new LS from RAN WG2. (See No. 24)
- (\*4) Mr. Ju Ho Lee (Samsung) presented this LS.  
This is the answer liaison statement to **R1-01-0172** which we sent out from RAN WG1#18 meeting in which we asked RAN WG2 and RAN WG3 whether our understanding on DSCH TFCI split mode is correct or not. RAN WG2 was answering that our understanding is correct and also encouraged RAN WG1 to study the enhancement on hard split to support variable bit length TFCI for DCHs and DSCHs as Release 5 issue.
- (\*5) Mr. Ju Ho Lee (Samsung) presented this LS.  
This is the answer liaison statement from RAN WG3 to **R1-01-0172** (See above). RAN WG3 made almost similar comment as RAN WG2.  
Ms. Evelyn Le Strat (Nortel) remarked that we should note in order to avoid misunderstandings that we are speaking here about a set of fixed length TFCI which is just different from 5 + 5. We are definitely not speaking about variable length TFCI and we should not speak about it. She added that on whether we should allow all possible combinations or we should have certain number of possible combinations subset, it is up to RAN WG1 to see what would be feasible from channel coding point of view having opinions from RAN WG2 and RANWG3. There was another comment saying that we should not have different coding scheme for different split.
- (\*6) Mr. Marcus Purat (Siemens) presented this LS.  
In RAN WG1 #18 meeting we received LS from SA WG4 on the efficiency of packet-switched conversational multimedia service(**R1-01-0029**). We already discussed it and sent our answer to SA WG4(**R1-01-0170**). RAN WG2 also received same LS from SA WG4 and this is its answer to SA WG4 and SA WG2. They sent this to us as CC.  
RAN WG2 was indicating that there is nothing that prevents UTRAN from supporting multiple flows with unequal error protection for IP multimedia services and suggesting that SA WG4 seeks guidance from SA WG2

and RAN WG3 on the architectural issue.

No comments were raised. Chairman concluded that this was noted.

(\*7) Ms. Sarah Boumendil (Nortel) presented this LS.

RAN WG3 has identified the need for several measurements for the purpose of UE Positioning function and they were asking in this LS to RAN WG1 to define RTD measurement as describe in TS 25.305. In addition, RAN WG3 was also asking relevant accuracy issues to RAN WG4.

Chairman remarked that we would see some CRs related to this RTD measurement during this meeting.

Mr. Serge Willenegger (Qualcomm) pointed out that R1-01-0319 is the answer from RAN WG2 to this LS.

Mr. Sarah Boumendil indicated that there is relevant LS coming from RAN WG4 (**R4-010364**). As this RAN WG4 LS was not received at this point of time, chairman suggested that we would review those relevant 2 liaisons when we go through the RTD related CRs.

R4-010364 was received on Day2 and numbered as **R1-01-0363**. This was reviewed on Day (See No. 29)

(\*8) Mr. Markku Tarkiainen (Nokia) presented this LS.

This is the answer from RAN WG4 to RAN WG3 LS (R3-002576) in which RAN WG3 proposed to move accuracy requirement related to power balancing algorithm from its specification TS 25.423 (RNSAP) and TS 25.433 (NBAP) to RAN WG4 specifications introducing new parameter  $\alpha$ . But RAN WG4 felt it is not necessary to define new parameter  $\alpha$ . As an alternative RAN WG4 proposed to modify the description in TS 25.214 so that it would indirectly refer to existing requirement set for power control step sizes. They attached to this LS a sample text proposal for TS 25.214.

There was one concern raised that the need for this change is not quite clear.

Chairman suggested offline checking with our RAN WG4 colleagues. He postponed the decision to Day2.

(See No.41)

(\*9) Mr. Markku Tarkiainen (Nokia) presented this LS.

This is the answer LS from RAN WG4 to **R1-01-0173** which we sent out from RAN WG1#18 meeting in Boston in which we asked RAN WG4 about the foreseen use of compressed mode in terms of percentage of time when the compressed mode is active because it could lead to a degradation of the battery savings benefits brought by DPCCH gating.

Although there was no concrete answer in terms of percentage, RAN WG4 answered in this LS that it believes that continuous use of compressed mode should be avoided and there will be always a notable number of users in operators' network who do not have compressed mode activated. In addition RAN WG4 proposed to use DPCCH gating even during the compressed mode because even if compressed mode pater is active, not every frame is compressed. In general, this LS seemed to support the benefit of DPCCH gating.

Mr. Dirk Gerstenberger (Ericsson) remarked that there seems a mixture of compressed frames and compressed mode in the bullet points in the LS.

Chairman suggested discussing this issue when we review DPCCH gating documents later.

Philips had prepared related paper on this issue (text proposal to TR 25.840) in **R1-01-0280**. This was reviewed and approved on Day 2. (See No. 95)

/\*\*coffee break 10:38-11:10 \*\*/

(\*10) Mr. Markku Tarkiainen (Nokia) presented this LS.

RAN WG4 is studying and introducing requirements for UE when beam forming without S-CPICH. In this case UE would need to use dedicated pilots for a phase reference. RAN WG4 aims to have related test included for release 4 and is recommending that RAN WG1 provide needed amendments for release 4 WG1 specifications so that beam forming concept using dedicated pilots can be finalized in all levels of RAN specifications for release 4. Chairman remarked that there would be a couple of Nokia CRs addressing this issue including CRs for release 99 specifications. He proposed to review all these CRs in the reviewal of release 99 CRs because they are closely related to each other.

Ms. Evelyne Le Strat (Nortel) remarked having a look at those CRs that release 99 CRs may be more than correction for release 99. This comment was noted.

Since there was no action expected from this LS, chairman concluded that this LS was noted.

Relevant CRs were reviewed and approved after some modifications. (See No. 32,33,63,64)

(\*11) Ms. Sarah Boumendil (Nortel) presented this LS.

This is the answer LS from RAN WG4 to **R1-01-0167** which we sent out from RAN WG1#18 meeting in Boston. In RAN WG1#18 there was a CR(**R1-01-0077** CR 25.212-104) which proposed to introduce transmission gap length of 8 slot as used in some of the compressed mode parameter examples in TS 25.133. But since this change was more than a correction, we sent LS (**R1-01-0167**) to RAN WG4 to ask for the reason why they introduced TGL=8 in their specifications.

In the current LS, RAN WG4 was answering that in RAN4#15 meeting in Boston it was agreed that, while TGL=8 does provide some advantage, similar performance could also be achieved using the existing TGL value of 10 and the late introduction of a new value into the specifications could not be sufficiently justified. It was therefore agreed to remove the associated patterns from TS 25.133. With respect to the possible inclusion of TGL values of 8 in Release 4 specifications, RAN WG4 has not reached any conclusion at this point.

So, receiving this answer there is no more point for RAN WG1 to include TGL=8 in our specification for release 99. Therefore CR25.212-104 in R1-01-0077 which had been on-hold was rejected. As Nokia had prepared CR addressing this issue for release 4, this would be reviewed later during this meeting. (See No. 61)

Chairman suggested offline checking with RAN WG4 colleagues regarding the bullets point in this LS whether we should put something in our specifications or not.

Mr. Tim Mousley (Philips) remarked that we might need to send an answer LS to RAN WG4 to inform RAN

- WG1 situation on this issue. Chairman agree with this comment. But after all no answer was made in this meeting.
- (\*12) The delegate from Motorola presented this LS.  
 /\*\* Although the source of the LS is being put as "Motorola", this was officially approved in RAN WG4 #16 meeting \*\*/  
 At RAN#9 a work item on UMTS-1800 was agreed for which RAN4 is the leading working group. Whilst the majority of this work falls within the scope of RAN4 there are a few aspects that should be covered by other RAN working groups. The intention of this LS is to inform other working groups the outline of the work required by other groups.  
 According to this LS, there is no work envisaged by RAN WG4 for RAN WG1 on this work.  
 Mr. Tim Mouldsley (Philips) remarked that although we do not have to do anything with this particular LS, but we need to bear in mind what will be done on the UE capabilities especially for compressed mode in relation to this work item. This comment was noted.
- (\*13) This LS was sent from SA WG4 to RAN WG2 originally. But RAN WG2 considered that this needs to be looked at by RAN WG1 as well and so they forwarded this to RAN WG1.  
 Chairman presented this LS.  
 SA4 has started working on definition of codecs for packet switched multimedia services, both for the conversational real-time services provided by the IM Subsystem and the transparent packet switched multimedia streaming service. SA4 assumption is that codec data is encapsulated into RTP/UDP/IP packets and header compression is performed by the PDCP layer. During discussion SA4 felt the needs for clarifications from radio protocol technical point of view and they sent questions on following 2 issues.  
 - Residual bit errors and handling of erroneous SDUs  
 - CRC options  
 Chairman remarked that question on CRC options would fall into RAN WG1 scope and some answer should be sent. Chairman asked Ms. Evelyne Le Strat (Nortel) to draft an answer.  
 The answer was drafted in **R1-01-0339**. This was reviewed on Day4 and approved into **R1-01-0426**. RAN WG2 has also sent an answer to SA4. We received their answer as CC in **R1-01-0324**(R2-010756). This was reviewed on Day2. (See No. 23)
- (\*14) Mr. Dirk Gerstenberger (Ericsson) presented this LS.  
 This LS was informing the result of RAN WG2#19 discussion on power control preamble. RAN WG2 concluded a series of discussion on this issue. (See **R1-00-1293**, **R1-00-1413**, **R1-00-1491**). They did not see a need to introduce special behaviour or handling in RAN WG2 specifications handling the TFC or TFCI value used during the power control preamble. This was seen as L1 functionality and is only referenced in RRC. Having our request, RAN WG2 increased the power control preamble length to a maximum of 7 frames. And in the course of this discussion they identified one problem regarding TTI alignment in relation to PCP. Ericsson had prepared new CR for this issue. It was reviewed right after the review of this LS. (In fact, CR had been reviewed before this LS, but the decision was postponed until we review this LS.) (See No. 53, 54, 70)
- (\*15) This was an answer LS from RAN WG2 to RAN WG4. Because this was sent to us as CC and no action seems to be expected from RAN WG1 (Chairman confirmed this with Mr. Hidetoshi Suzuki (Panasonic)), chairman concluded this as noted without going through the LS.
- (\*16) Mr. Joe Kwak (GBT) presented this LS.  
 In RAN WG2#19, it discussed CR 25.306-009 (R2-010664, embedded in this LS) which proposed to add UE support for CPCH as optional in 32 kbps uplink class and mandatory for all other uplink classes in Release 4. This LS was informing us the discussion points in RAN WG2. Since the CR had not been proposed in RAN WG2, no decision was taken and the CR had not been agreed. As the proposal seems to involve RANWG1 aspects, RANWG2 was requesting in the LS that RANWG1 discuss the CR and provide recommendations to next RAN.  
 Mr. Joe Kwak explained that GBT has 3 more documents on this CPCH topic and he proposed to discuss all these documents on Day3 with other release 4 topics. Chairman agreed with this proposal. (See section 8.7)
- (\*17) Ms. Sarah Boumendil (Nortel) presented this LS.  
 This was answer LS to **R1-01-0105** which was sent out from RAN WG1#18 meeting regarding the length of the PCH message.  
 RAN WG2 confirmed that the paging message length sent on PCH is limited to one 10 ms frame length. Therefore no segmentation is performed in the higher layer (i.e. RLC). RAN WG2 confirmed also that there are no cases where consecutive frames carrying PCH transport blocks have to be received by a particular UE.  
 R1-01-0105 was the outcome of the discussion related to **R1-01-0056** which proposed to clarify that the S-CCPCH carrying the paging information should be one single frame. Since we received the answer from RANWG2 that there are no cases where consecutive frames carrying PCH transport blocks have to be received by the UE, Panasonic presented the revision of R1-01-0056 (CR 25.211-092r1, **R1-01-0368**) on Day2 and this was approved. (See No. 60)
- (\*18) Mr. Masafumi Usuda (NTT DoCoMo) presented this LS.  
 In RAN WG2#19, a CR which specifies that the power-offset value is signalled to the UE for each radio link was approved. However it was pointed out during the RAN WG2 discussion whether the power offset value is necessary for each radio link or one power offset value per UE. In this LS, RAN WG2 was asking RAN WG1 guidance on this issue.  
 Some discussion took place. Conclusion was as follows.  
 If we have the same power offset for all the radio links (per UE) it would simplify SIR estimation process. Unless we see the reason why there should be different power offsets for different radio links or benefit for having different offset, we should consider the same power offset at least for release99 from physical layer point of

view.

Chairman proposed that in order to avoid the mess in RAN (by killing RAN WG2 CR) we should admit RAN WG2 CR as it is and instead put the restriction in RAN WG1 specs that all radio links should have the same power offset. RAN WG2 specs would be revised in the future to reduce unnecessary signalling for this. RAN WG2 and RAN WG3 needs to be informed that there would be some inconsistency (restriction in R1) on this issue.

Though **R1-01-0360** CR 25.214-162 was allocated for this CR it was not presented during the meeting due to the lack of time. After the meeting was over Mr. Markku Tarkiainen (Nokia) posted R1-01-0360 on the e-mail reflector. Chairman proposed on the reflector to submit this CR to RAN with source name as Nokia in order to avoid e-mail approval of the CR. But in RAN 11 this CR was not presented. (to my understanding.)

- (\*19) Mr. Serge Willenegger (Qualcomm) presented this LS.

This is an answer LS to **R1-01-0147** which we sent out from RAN WG1#18 meeting.

In RAN WG1#18 meeting, a document(**R1-01-0064**) was discussed in which new UTRAN measurement for the support of OTDOA measurement in UTRAN Rel-4 UE positioning to be in line with the description of RTD measurement in TS 25.305 *Stage 2 Functional Specification of UE Positioning* in UTRAN, v3.4.0.

In this answer LS, RAN WG2 was informing us that the measurement we proposed is in line with their expectation. We also received relevant LS from RAN WG3 and RAN WG4. (See No. 7, 29)

Siemens and Nokia prepared CR for inclusion of RTD measurement for TDD and FDD respectively. Having this LS from RAN WG2, those CRs were reviewed and approved on Day4. (See No. 89 and 91)

- (\*20) Mr. Markku Tarkiainen (Nokia)

This is an answer LS to **R1-00-1483** which was sent from RAN WG1#18 meeting. RAN WG2 was informing us that it approved a CR which we attached to R1-00-1483 in which the DSCH related capability, support of PDSCH, is modified for the 384kbps class by changing the indication Yes/No to Yes. In addition RAN WG2 was considering similar change to 128 kbps class and was asking RAN WG1 to provided the revision of the attached CR to RAN if RAN WG1 agrees with RAN WG2 on this issue.

Mr. Dirk Gerstenberger (Ericsson) opposed to this idea. Chairman agreed and concluded that we would not touch 128 kbps class.

- (\*21) Mr. Joe Kwak (GBT) presented this LS.

RAN WG2 was asking RANWG1 to study the Layer 1 DL Probe procedure for Improved OLPC for FACH described in the attached document. (**R2-010341**) There were several questions listed in the LS regarding DL probe procedure mainly on the benefits of this procedure.

Mr. Joe Kwak (GBT) proposed to treat this issue in the similar way of CPCH issue on Day3 with other release4 topics. (See Section 8.7)

- (\*22) Mr. Markku Tarkiainen (Nokia) presented this LS.

On Day1 we treated LS from SA WG4 (S4-000652) which had not been sent to us directly but had been forwarded by RAN WG2 for discussion. We discussed the LS in **R1-01-0298** (See No.13) and concluded that we should make an answer for the CRC option part of their questions.

The current LS is the RAN WG2 answer to SA WG4(S4-000652). They send a copy to RAN WG1. In this answer LS, RAN WG2 mentioned to SA WG4 that more detailed view on CRC issue might be provided by RAN WG1. This is in line with our intention.

- (\*23) Mr. Ju Ho Lee (Samsung) presented this LS.

In RAN WG2 there have been discussions on the benefits of Gated DPCCH Transmission (Gating) over using CELL\_FACH state. The gains of Gating over using CELL\_FACH are being discussed in terms of signalling load and delay aspects. Regarding these signalling load and delay aspects, RAN WG2 sent LS to RAN WG3 to ask for their guidance. RAN WG2 sent this LS to RAN WG1 as CC informing the current situation in RAN WG2 on DPCCH gating. RAN WG2 has not yet reached a conclusion on Gating.

- (\*24) Siemens presented this LS.

This is the answer LS to **R1-01-0171** which we sent out from RAN WG1#18 meeting in which we asked RAN WG4 2 questions regarding the feasibility of *introduction of uplink power control at power control limits* in terms of backward compatibility and performance requirements.

In this LS RAN WG4 was answering that although they do not see any problem on the backward compatibility issue, there were concerns raised on accuracy issues. RAN WG4 confirms the gain but it could be achieved only by using the algorithm in the ideal conditions which means in order for this scheme to achieve gain, the accuracy requirements may need to be unacceptably tightened. Complexity will be increased considerably.

Siemens remarked that although Siemens does not see any complexity increase, other companies do have complexity increase. Having this LS received Siemens proposed to postpone the proposal of *Improved uplink power control* and continue the discussion for release 5. Siemens stated that the last paragraph of the this LS should be noted because it was pointing out some possible problems from an implementation point of view regarding the power control algorithm specified in the current TS 25.214, section 5.1.2.6., where it is stated that scaling shall not be applied if a UE operating below -50 dBm receives power up commands.

Chairman encouraged the people to consider this problem and make some inputs offline.

**R1-01-0387** was allocated for this input.

On Day4 it was announced by Siemens that after having offline discussion with Mr. Tim Mousley (Philips) Siemens concluded that we do not see the necessity to change RAN WG1 specification since we do not really understand what the problem is. Moreover it can be considered that RAN WG4 can solve this problem within their specifications from the implementation point of view. Therefore this T-doc (R1-01-0387) was withdrawn. Chairman agreed with this decision and stated the he would have some clarification from RAN WG4 chairman

- on this issue in the next RAN. (Day4 09:25)
- (\*25) Mr. Dirk Gerstenberger (Ericsson) presented all these 3 LSs.  
Main LS was **R1-01-0362**(R2-01-0748) and other 2 LSs **R1-01-0201** (S4-010122), **R1-01-0208** (N4-010283) were presented for supplementary information. R1-01-0201 was the answer LS from SA WG4 to RAN WG2 (R2-002463) which we had treated in RAN WG1#17 meeting. SA WG4 was pointing out the differences UMTS\_AMR2 codec in terms of the restriction of the switching time. Chairman remarked that if this information from SA WG4 had already been reflected in RAN WG2 CR which was contained in R1-01-0362 then there would be nothing for us to worry about. Mr. Dirk Gerstenberger informed that the RAN WG2 could not see any difference among those restrictions and therefore the results had not been reflected in the RAN WG2 CR. Ms. Evelyne Le Strat (Nortel) pointed out that RAN WG2 CR does not include the requests from SA WG4. There is nothing on variable bit rate configuration. Chairman stated that this inconsistency will be clarified in the next RAN.  
R1-01-0208 was answer LS from CN WG4 to SA WG4(S4-01022, above). This was noted.  
In R1-01-0362 RAN WG2 was asking to check their draft CR for the outstanding 6 default configurations which needs RAN WG1 guidance. In case there are needs to modify the values, RAN WG2 was requesting us for modifications and put the revision on the RAN WG2 e-mail reflector in advance to next RAN.  
Since Mr. Yannick Le Pezennec (Vodafone) had already done with this homework in **R1-01-0272**, it was reviewed in succession.

**R1-01-0272** *Proposed parameter values for 2G-3G handover preconfigurations*

Source : Vodafone Group, France Telecom, Telia

- This paper proposed the values for the default preconfigurations requested by RAN WG2 LS (R1-01-0362). After presentation of this paper, chairman asked Mr. Yannick Le Pezennec to modify the draft RAN WG2 CR contained in R1-01-0362 using the values listed in this paper (R1-01-0272). Chairman encouraged the people to go to Mr. Yannick Le Pezennec if they want to do some modifications. Chairman also asked Mr. Yannick Le Pezennec to draft a LS to RAN WG2 which would contain the revised CR. This LS was drafted in **R1-01-0393**. It was reviewed on Day4 and approved in **R1-01-0421**. (See No. 160)
- (\*26) Mr. Serge Willenegger (Qualcomm) presented this LS.  
This was an answer LS from RAN WG4 to RAN WG3 informing that RAN WG4 had not yet completed the work on the accuracy definitions for RTD and ATD measurements.  
We had already received relevant LS from RAN WG2 (**R1-01-0319**, R2-010745, See No. 20).  
RAN WG2 LS was bit more specific on this issue.  
Chairman concluded this was noted.
- (\*27) The reviewal of this LS was postponed. Interdigital was preparing the relevant CR with this LS but during the meeting offline discussion was going on and conclusion was not reached.

#### 4. Change Requests for WG1 Release –99 specifications

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
31	015	1	25.223	R1-01-0020	Code Specific Phase Offsets for TDD	F	Siemens	Approved	No (*1) Comments Day1 12:22
32	095	-	25.211	R1-01-0254	Phase Reference for Secondary CCPCH carrying FACH	F	Nokia	To be revised	(*2) Day1 14:46
33	093	-	25.211 Rel-4	R1-01-0217	Application of beamforming and combination of beamforming with TX-diversity on UTRA FDD downlink	F	Nokia	To be revised	(*3) Day1 14:46
34	094	-	25.211	R1-01-0218	Clarification on PICH and S-CCPCH timing relation	F	CWTS/ Huawei	Rejected	(*4) Day1 15:11
35	039	-	25.213	R1-01-0261	Clarification of the scrambling code of a power control preamble	F	Panasonic	To be revised	(*5) Day1 15:15
36	038	-	25.213	R1-01-0247	Clarification of channelization codes when SF=512	F	Siemens Panasonic	Approved	No (*6) Comments Day1 15:17
37	156	-	25.214	R1-01-0282	Clarification of initialisation procedure	F	Philips	Approved	No (*7) Comments Day1 15:22
38	148	-	25.214	R1-01-0108	Clarification of UE SIR estimation	F	Ericsson, Philips	To be revised	(*8) Day1 15:34
39	155	-	25.214	R1-01-0279	Correction of Limited Power Raise	F	Ericsson	Approved	No Comments Day1 16:11
40	161	-	25.214	R1-01-0327	Correction of the UE behaviour in SSDT mode	F	Vodafone	To be revised	(*9) Day1 16:25
41	157	-	25.214	R1-01-0284	Power balancing algorithm accuracy description	F	Nokia	To be revised	(*10) Day1 16:35
42	158	-	25.214	R1-01-0285	Definition of power control step size for algorithm 2	F	Nokia	Approved	No (*11) Comments Day1 16:39
43	160	-	25.214	R1-01-0325	DL PC behaviour during UL out-of-sync	F	Nokia	To be revised LS to be sent	(*12) Day1 16:59
44	150	-	25.214	R1-01-0262	Clarification of the order of SSDT signalling in 2 bit FBI	F	Panasonic	To be revised	(*13) Day1 17:03
45	083	-	25.215	R1-01-0294	Correction of GPS Timing measurement	F	Ericsson	Approved	No Comments Day1 17:05
46	046	-	25.221	R1-01-0265	Clarification of TFCI transmission	F	Siemens	Approved	No Comments Day1 17:08
47	045	-	25.221	R1-01-0238	Corrections on the PRACH and clarifications on the midamble generation and the behaviour in case of an invalid TFI combination on the DCHs	F	Siemens	Approved but revised	(*14) Day1 17:16
48	054	1	25.222	R1-01-0242	Corrections & Clarifications for TS25.222	F	Siemens	Approved (update)	No (*15) Comments Day1 17:18
49	046	1	25.224	R1-01-0239	Corrections of TDD power control sections	F	Siemens	To be revised	(*16) Day1 17:30
50	053	-	25.224	R1-01-0252	Known TFCI for the TDD Special Burst	F	InterDigital	Approved	No Comments Day1 17:34
51	050	-	25.224	R1-01-0209	Use of a Special Burst in reconfiguration	F	InterDigital	Approved	No Comments Day1 17:36
52	006	-	25.944	R1-01-0256	Corrections for TDD sections	F	Siemens	Approved	No Comments Day1 17:40
53	096	-	25.211	R1-01-0278 R1-01-0359	Uplink power control preamble	F	Ericsson	Approved	(*17) Day1 15:04 and 18:05
54	154	-	25.214	R1-01-0278	Uplink power control preamble	F	Ericsson	To be revised	(*17) Day1 15:04 and 18:05
55	-	-	-	R1-01-0328	Downlink channelization code phase (for discussion)	-	Panasonic	Offline discussion	(*18) Day2 09:41-09:56
56	039	1	25.213	R1-01-0348	Clarification of the scrambling code of a power control preamble	F	Panasonic	Approved	No (*19) Comments Day2 17:54

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
57	148	1	25.214	R1-01-0352	Clarification of UE SIR estimation	F	Ericsson Philips	Approved	No (*20) Comments Day2 17:56
58	150	1	25.214	R1-01-0357	Clarification of the order of SSDT signalling in 2 bit FBI	F	Panasonic	Approved	No (*21) Comments Day2 17:58
59	082	1	25.215	R1-01-0340	Correction of GSM reference	F	Panasonic	Approved	No (*22) Comments Day2 17:59
60	092	1	25.211	R1-01-0368	Clarification of the S-CCPCH frame carrying paging information	F	Panasonic	Approved	No (*23) Comments Day2 18:03
61	104	1	25.212 Rel-4	R1-01-0390	Addition of compressed mode gap length "8 slots" (Rel4)	C	Nokia	Postponed →rejected	(*24) Day3 09:30
62	161	1	25.214	R1-01-0353	Correction of the UE behaviour in SSDT mode	F	Vodafone Nokia	Approved	No (*25) Comments Day4 08:46
63	095	1	25.211	R1-01-0346	Phase Reference for Secondary CCPCH carrying FACH	F	Nokia	Approved	No (*26) Comments Day4 08:51
64	093	1	25.211 Rel-4	R1-01-0347	Application of beamforming and combination of beamforming with TX-diversity on UTRA FDD downlink	F	Nokia	Approved	No (*27) Comments Day4 08:57
65	033	2	25.221	R1-01-0350	Correction to SCH section	F	InterDigital	Approved	No Comments Day4 09:01
66	048	-	25.221	R1-01-0341	Corrections to Table 5.b "Timeslot formats for the Uplink"	F	InterDigital Siemens	Approved	No Comments Day4 09:03
67	045	1	25.221	R1-01-0379	Corrections on the PRACH and clarifications on the midamble generation and the behaviour in case of an invalid TFI combination on the DCHs	F	Siemens	Approved updates	No (*28) Comments Day4 09:05
68	046	2	25.224	R1-01-0358	Corrections of TDD power control sections	F	Siemens	Approved	No (*29) Comments Day4 09:06
69	037	1	25.224	R1-01-0351	RACH random access procedure	F	InterDigital	Approved updates	No (*30) Comments Day4 09:09
70	154	1	25.214	R1-01-0359	Uplink power control preamble	F	Ericsson	Approved	No (*31) Comments Day4 10:49
71	ZZZ	-	25.213	R1-01-0399	Defining the code phase reference of downlink channelisation codes	F	Siemens	Not Approved	(*32) Day4 10:57
72	163	-	25.214	R1-01-0419	Correction on downlink synchronisation primitives	F	NTT DoCoMo	Approved	(*33) Day4 16:24
73	086	-	25.215	R1-01-0419	Correction on transport channel BLER	F	NTT DoCoMo	Approved	(*33) Day4 16:42

(\*1) This CR had been postponed from RAN WG1#18 meeting. No revision had been done from RAN WG#18. Mr. Marcus Purat (Siemens) presented this CR.

This CR proposed to apply code specific phase offset of  $\pi/2$  in order to solve the potential problem of high peak to average power ratios that may occur if the same data is transmitted on all or at least some downlink physical channels within one slot. This issue had been discussed in RAN WG1#17 in Stockholm. In the discussion in RAN WG1#17, 3 main concerns were raised on the usage of code specific phase offsets for the uplink. The paper presented answers for those questions and proposed to use Code Specific Phase Offsets of  $\pi/2$  both for the UL and the DL.

/\*\*\* Day1 Lunch break 12:24–14:01 \*\*\*/

(\*2) Mr. Markku Tarkiainen (Nokia) presented this CR.

Having received a liaison statement from RAN WG4 on *Amendments to application of beam forming in release 4 (R1-01-0199, See No. 10)* Nokia provided these 2 CRs, one for release 99 specification (R1-01-0254) and one for release 4 specification (R1-01-0217).

In R1-01-0254 (CR 25.211-095), it was proposed to remove the option of having Secondary CPICH or no CPICH at all as a phase reference for S-CCPCH carrying FACH only.

Some concerns were raised that the rationale for removing the option of using S-CCPCH carrying FACH together with S-CPICH as phase reference is not clear.

A bit long discussion took place. The main discussion point was whether we should keep the option that release 99 or release 4 UE should support Secondary CPICH as a phase reference for S-CCPCH carrying FACH only.

Finally it was concluded that we should keep the possibility for the use of S-CPICH as phase reference for the S-CCPCH carrying FACH only for future use and consequently the changes of this CR other than the modification in the very last line were not agreed. This was to be revised. The revision was presented in **R1-01-0346** and approved on Day 4. (See No.63)

(\*3) Although this is the CR for release 4 specification, this is directly linked with the above CR (CR 25.211-095) and

therefore was discussed in succession.

Some questions were made.

- Is it clear what is meant by the word "beamforming" ? Is there any explicit definition of this ?

→ It would be defined what kind of beamforming the UE needs to cope with in the form of test cases in RAN WG4 specifications for release 4. (although this needs to be checked). This is somewhat similar to the "out of sync" case in which there is no explicit definition but it is actually defined by the test cases in RAN WG4 specifications. (Chairman answered.)

- Though table 11 has 2 columns they are identical. What are these 2 columns for ?

→ 2 columns are needed if beamforming is allowed for S-CCPCH with FACH only. We need probably to add one row and modify 2 rows with respect to S-CCPCH channel type of table 11. One is for S-CCPCH carrying FACH only and the other is S-CCPCH carrying PCH. The CR had been drafted with anticipation for some possible changes in mind. Similar modification is also needed to table 12. → To be revised.

- Could this be in informative annex ? → It would be a bit funny to have this in informative annex. (Chairman)

Regarding this, there was one concern raised that there could be a confusion if we treat beamforming and closed loop transmission techniques at the same time because these are 2 different schemes and issue of beamforming is not yet closed.

→ Chairman suggested offline discussion on this.

According to the comments received this was revised into **R1-01-0347** and the revision was approved with no comments on Day4. (See No. 64)

Chairman remarked that he would present the outcome of these discussions in his report to RAN. We would not send answer LS to RAN WG4 because any particular answer was not requested in the LS from RAN WG4.

(\*4) Mr. Guiliang Yang (CWTS) presented this CR

This CR proposed to modify the figure 29 *Radio frame timing and access slot timing of downlink physical channels* because the current figure is not necessary clear.

Mr. Dirk Gerstenberger (Ericsson) remarked that there seems to be misunderstanding of the figure 29 and text. He explained that the intention of the figure 29 is not to show the relation of the contents but to show the timing of downlink physical channels relative to the P-CCPCH. He added that the current figure is completely correct and should not be changed.

Chairman agreed with this remark and concluded that this CR was rejected.

(\*5) Mr. Hidetoshi Suzuki (Panasonic) presented this CR.

This CR proposed to remove the description of alignment of power control preamble because now PCP length is defined by the number of frames.

Mr. Dirk Gerstenberger (Ericsson) made a comment that the whole paragraph should be removed saying that it is no use to keep the middle sentence. Mr. Hidetoshi Suzuki answered that there had been a comment on the reflector that the middle sentence should be kept.

Since no one in the meeting opposed to remove the middle sentence, it was agreed to remove whole paragraph.

The revision was made into **R1-01-0348** and approved with no comments on Day 2. (See No.56)

(\*6) Mr. Peter Chambers (Siemens) presented this CR.

This was a clarification type CR and approved without any comments.

(\*7) Mr. Tim Mouldsley (Philips) presented this CR.

This CR proposed to provide clarification to the initialisation procedure by adding one sentence to the description of the criteria for reporting synchronisation status. There had been some discussion on the e-mail reflector which indicated that the current text in TS 25.214 section 4.3.1.2 describing the reporting of "in-sync" during radio link establishment could be misunderstood because it is not clear when the first phase begins although it is stated when it ends. The sentence "*The first phase starts when higher layers initiate physical dedicated channel establishment (as described in [5]) and lasts*" was added. This is consistent with TS 25.331.

(\*8) Mr. Dirk Gerstenberger (Ericsson) presented this CR.

In RAN WG1#18 a CR (**R1-01-0071**, CR 25.215-081, Ericsson) which proposed to remove the SIR measurement from the UE measurements in TS 25.215 because SIR measurement by UE is a physical layer internal measurement and is not reported by UE to UTRAN was approved. There was a concern raised by Mr. Matthew Baker (Philips) which said that deleting SIR measurement itself would not be a problem but somewhere in the specifications there should be retained the definition of SIR target or the information regarding SIR measurement, something like (RSCP/ISCP)x(SF/2) because otherwise there would be confusion in downlink power control with UEs having different definition of SIR targets. Chairman agreed with this comment and concluded that the CR 25.215-081 was approved on condition that another CR which includes above SIR measurement information should be submitted to RAN with CR 25.215-081.

The current CR is proposed as this companion CR and proposed to add clarification to informative annex B.2. It was proposed to clarify that UE internal SIR estimation for inner loop power control shall be done excluding the SF.

It was remarked that although this is an addition to the informative annex, the description of "*the spreading factor shall not be considered in the SIR estimation*" gives an impression that it is something mandatory.

Chairman suggested offline discussion for rewording of the very last sentence of this CR.

Finally this was revised into R1-01-0352. It was reviewed on Day 2 and approved. (See No. 57)

/\* \*\* Day1 Coffee break 15:35 -16:09 \*\* \*/

(\*9) Mr. Yannick Le Pezennec (Vodafone) presented this CR.

Regarding the UE behaviour in SSDT mode there is only an example of potential implementation given in the informative annex in the current specification and therefore UE could derive the uplink TPC commands in



different ways. This CR proposed to move that example in annex to the section describing the derivation of the TPC procedure so that the implementation can be done more uniform manner.

Chairman briefly explained the background of the specification (why it has been put in informative annex.).

In the RAN WG1#15 meeting in Berlin, NEC proposed to specify that UE should measure downlink reception quality only on the primary cell signal in SSDT mode in the very last minutes of the meeting (CR 25.214-128, **R1-00-1136**). Though this had been the basic assumption of SSDT and had been considered from the beginning of the proposal of SSDT it had been missing in the specification. There were several concern raised to that late introduction of the assumption. The test cases for SSDT in RAN WG4 are without power controls and there is no test cases on how this should operate. NEC provided the revision of the CR(CR 25.214-128r1, **R1-00-1126**) in RAN WG1#16 meeting in Pusan, taking into account the situation of that point of time and introduced the procedure of how to derive TPC commands into informative annex. But in any case, RAN WG4 specification will not test the SSDT behaviour together with power control activated in release 99 and release 4.

Mr. Tim Mouldsley (Philips) pointed out that the current proposal is insufficient and without moving whole informative annex (B.2) to the mandatory part it would not achieve significant change because proposed text does not say anything about what should be done with  $SIR_{est}$  and this is subject to the informative annex.

Chairman stated that even if we specify the behaviour in our specifications it is difficult to expect uniformed UE behaviour if we do not have any performance test cases. We need to have test cases.

Chairman suggested that we should keep the annex as it is. He added that he would discuss with RAN WG4 chairman in the next RAN on whether RAN WG4 would do something on SSDT with power control activated during this year.

Mr. Yannick Le Pezennec asked whether we can have general statement in 5.2.1.4.2 saying that the generation of TPC commands are based on the primary cell only. Chairman agreed to this proposal.

This was so revised in **R1-01-0353**. The revision was reviewed on Day 4 and approved. (See No. 62)

- (\*10) Mr. Markku Tarkiainen (Nokia) presented this CR.

This CR is based on the LS from RAN WG4 (**R1-01-0197**, See No.8)

Although we had agreed to remove the description of the power-balancing algorithm from TS 25.214 from the informative annex in CR 25.214-144 (**R1-01-0052**) in RAN WG1#18 in Boston, we received the LS from RAN WG4 which is requesting us to introduce an accuracy definition for  $P_{bal}$  to TS25.214 and define it with respect to power control step size  $\Delta TPC$ . They provided us with a text proposal. This CR proposed to incorporate this text proposal to TS 25.214. This does not contradict with CR 25.214-144 because RANWG3 had not removed everything but removed the accuracy definition only.

Mr. Dirk Gerstenberger (Ericsson) remarked that before approving this CR we need to check the motivation of this change with RAN WG4, what had been discussed in RANWG4. He added that the formula needs to be revised.

Chairman agreed with the comment. Modification was needed to the formula. So this was to be revised. Chairman invited people to check the motivation with RAN WG4 before we come back to this issue. On Day4, Mr. Markku Tarkiainen announced that Nokia would like to postpone this issue to the next meeting.

- (\*11) Mr. Markku Tarkiainen (Nokia) presented this CR.

Currently in the power control step size is signalled for power control algorithm 1 only but not for algorithm 2.

The power control step size for algorithm 2 needs to be specified and there are 2 ways of doing this. One is to be signalled by higher layer parameter and other is to fix it as 1 dB. This CR proposed to specify in section 5.1.2.2.1 that power control step size for algorithm 2 is always 1dB.

There were small discussion on why currently the power control step size for algorithm2 is not specified in RRC. It seems that that it had been just simply being missed out.

This CR was approved with no comment.

- (\*12) Mr. Markku Tarkiainen (Nokia) presented this CR.

Currently there is no description about how Node B should set its transmission power in case uplink is in out-of-sync state in Node B, that is, in case no TPC commands are received in the uplink.

This CR proposed adding a description on the layer1 behaviour of Node B in TS 25.214. In order to facilitate the UE TPC command generation during the UL out-of-sync, an IE "UL TPC pattern 01 count" is proposed to be added to the NBAP signalling.

There were several comments.

- Is this talking about the case of uplink out-of-sync or the case where Node B has not yet obtained uplink synchronization (Initial state) ? → This applies out-of-sync case only. ← Then this needs to be revised because there is a sentence that says that "*Node Bs that have not yet achieved uplink synchronisation shall follow...*" and this is misleading.
- Title of this added section , "*TPC command generation on uplink during the period of out-of synchronization*" is quite confusing. Is this talking about uplink or downlink ? The behaviour of UE ? or Node B ? It should be clarified that this is Node B power settings when uplink is out-of-sync.
- We need to consider whether this is really needed or not ?
- This is something for release 4 rather than for release 99. Is this essential for release 99 ?
- Before having this CR, we should ask to RAN WG3 whether this needs to be specified or not.
- Second last sentence should be removed.

Conclusion : LS is to be sent to RAN WG3 inquiring whether there is a need for RAN WG1 to define a specific Node B transmit power setting for the case of UL out-of-sync state.

**R1-01-0356** was allocated for the LS. This LS was reviewed on Day4 and approved into **R1-01-0431**.

(See No. 164)

- (\*13) Mr. Hidetoshi Suzuki (Panasonic) presented this CR.  
This CR proposed to clarify how the ID code bits should be transmitted in 2bit FBI case (Table 4)  
The intention was agreed but rewording was suggested. This was revised in **R1-01-0357** and approved in Day 2.  
(See No. 58)
- (\*14) Mr. Stephen Dick (InterDigital) requested offline checking. Chairman proposed that we approve the CR at this point of time but if some problem is identified by Day4, the revision shall be done. Eventually after offline discussion this CR was revised in terms of editorial point in **R1-01-0379** and approved on Day 4.(See No. 67)
- (\*15) Mr. Marcus Purat (Siemens) presented this CR.  
This was the revision of already approved CR. (CR 25.222-054, **R1-01-0023**, approved in RAN WG1#18)  
In the original CR the order of the physical channel mapping was clarified with the reference to the RRC specification. After it was approved, Siemens received a comment saying that the proposal was not necessary good way to describe it because this order is not only for UE but also the same order is to be applied to Node B. So Siemens revised the original approved CR to define physical channel order. The new change was added only in section 4.2.11.
- (\*16) This was the revision of already approved CR. (CR 25.224-046, **R1-01-0017**, approved in RAN WG1#18)  
There was one comment on new annex A.1 that the word "may" should be replaced by "should" in the following paragraph.  
"The power control may be realized by two cascaded control loops. The outer loop controls the transmission quality, whose reference value is set by higher layers [15], by providing the reference value for the inner loop. This reference value **may** be the SIR at the UE [15]. The inner loop controls the physical quantity for which the outer loop produces the reference value (e. g. the SIR) by generating TPC commands. This may be done by comparing the measured SIR to its reference value."  
There was another comment saying that some rewording might be needed.  
Chairman suggested offline discussion about the rewording including above "may", "should" issue.  
Eventually this was revised into **R1-01-0358** in which "may" was replaced by "should". This was approved on Day4. (See No.68)
- (\*17) Mr. Dirk Gerstenberger (Ericsson) presented this CR.  
This is a kind of follow-up CR for the discussion RAN WG2 had week before. (See LS **R1-01-0316**, No. 14)  
RAN WG2 made decision to extend the power control preamble length to a maximum 7 frames as requested by RAN WG1. (See **R1-00-1293**, **R1-00-1413**, **R1-00-1491**) Further in order to handle the potential loss of complete messages, RAN WG2 introduced a signalling radio bearer (SRB) delay applied during the first frames after the PCP. During the discussion in RAN WG2, one problem was identified that if the UE is configured to use a TTI > 10ms, TTI boundary must be reached before the first data transmission and this will cause in the worst case an additional period of up to 7 frames.  
As a solution of this problem this CR proposed to align the end of the uplink PCP (start of SRB delay) with the start of DPDCH transmission and to clarify that during uplink PCP no DPDCH transmission is done independent of the selected TFCI value.  
CR for TS 25.211 was approved with no comments.  
Some discussion was made on the CR for TS 25.214 part on following sentence in section 4.3.2.2 whether we need to clarify that this is the case where there is data to be transmitted.  
*The transmission of the uplink DPCCCH power control preamble shall start Npcp radio frames prior to the start of the uplink DPDCH transmission,...*  
After some discussion, chairman suggested offline discussion on this issue. Eventually this was revised in **R1-01-0359**. The phrase "*if any data is to be transmitted*" was added to the above sentence. The revision was reviewed and approved on Day4. (See No. 70)  
/\*\* This was further revised in RP-010224 during the RAN #11 \*\*/
- (\*18) Mr. Hidetoshi Suzuki presented this discussion paper.  
This paper discussed that there are 2 possible ways of understanding of the downlink channelisation code phase with respect to the phase alignment to the channel in case of SF=512, that is, whether the channelisation code is to be aligned to CPICH or to DPCH frame timing. This paper also proposed one possible modification to TS 25.213 which may reduce the hardware complexity irrespective of the understandings.  
Chairman remarked that we need some kind of picture for the people to understand what the actual problem is. He added that we need to understand whether there are really 2 kind of different understandings.  
Mr. Peter Chambers (Siemens) proposed offline discussion on this issue until next meeting. Chairman agreed with this proposal.
- (\*19) This is the revision of **R1-01-0261** which was reviewed on Day1.(See No. 35) The whole last paragraph in section 4.3.2.4 was removed in accordance with the discussion on Day1.
- (\*20) This is the revision of **R1-01-0108** which was reviewed on Day1.(See No. 38) The last sentence was slightly modified according to the outcome of the offline discussion.
- (\*21) This is the revision of **R1-01-0262** which was reviewed on Day1. (See No.44) The sentence was reworded for clarification.
- (\*22) Mr. Hidetoshi Suzuki (Panasonic) presented this CR.  
This CR proposed to change the reference document in section 2 [20] from "GSM03.03" to "TS 25.133"  
For consistency reason chairman asked people to check whether TDD version does also need this modification.
- (\*23) Mr. Hidetoshi Suzuki (Panasonic) presented this CR. This is the revision of R1-01-0056 which was reviewed and rejected in RAN WG1#18 meeting. Now that the confirmation has been received from RAN WG2 in the LS **R1-01-0315** (R2-010741) (See No. 17), Panasonic prepared the slightly revised version of R1-01-0056.

- (\*24) Mr. Ville Steudle (Nokia) presented this CR.  
 This CR was proposing the addition of compressed mode gap length of "8 slots" in TS 25.212. Originally this CR had been presented in RAN WG1#18 meeting. For the background, See No.11. Now it was proposed for release 4. In RAN WG4, the benefit of this introduction was agreed but they decided not to introduce this for release 99. It has not yet discussed in RAN WG4 for release 4 because they are still busy for release 99 issues.  
 Mr. Dirk Gerstenberger (Ericsson) remarked that looking the LS (**R1-01-0200**, R4-010223) from RAN WG4, it is clearly stated that RAN WG4 has not reached any conclusion whether this is useful or not. He added as an information from RAN WG4 colleagues that even if we do not use TGL=8, similar performance can be achieved using existing TGL value of 10.  
 Ms. Sarah Boumendil (Nortel) supplemented that although RAN WG4 evaluates that similar performance can be achieved by TGL=10, TGL=8 is worth considering for total performance.  
 Mr. Dirk Gerstenberger proposed to postpone the decision by Day4. He would try to get information from RAN WG4 by that time.  
 On Day4, Mr. Dirk Gerstenberger stated that according to the information he got there was no convincing argumentation for the benefit of TGL=8 and no conclusion was reached in RAN WG4. He added that we should not be too fast in introducing this.  
 Mr. Ville Steudle agreed to this comment and state that although even if we see some advantage it seems that some parties has not yet convinced and therefore we need to provide some more simulation results and justification for this. Consequently he proposed to postpone this.  
 Having this comment, chairman concluded that this CR is rejected in this meeting.
- (\*25) Mr. Yannick Le Pezennec (Vodafone) presented this CR.  
 This is a revision of **R1-01-0327** which was reviewed on Day1. (See No. 40) Following the discussion, in this revision only one sentence saying "*based on the downlink signals from the primary cell only*" was added to section 5.2.1.4.2 and annex was kept as it had been.
- (\*26) Mr. Markku Tarkiainen (Nokia) presented this CR.  
 This is the revision of **R1-01-0254** which was reviewed on Day1. (See No. 32) Following the discussion, the very last line of the original CR had been kept in this revision.
- (\*27) Mr. Markku Tarkiainen (Nokia) presented this CR.  
 This is the revision of **R1-01-0217** which was reviewed on Day1. (See No. 33)
- (\*28) This is the revision of **R1-01-0238** which was approved on Day1. (See No. 47)
- (\*29) This is the revision of **R1-01-0239** which was reviewed on Day1. (See No. 49) After offline discussion, the word "may" was replaced by "should" in Annex A.1.
- (\*30) Ms. Liliana Czaplá (InterDigital) presented this CR.  
 This is the revision of CR (CR 25.224-037, **R1-01-0073**) which was approved in RAN WG1#18.  
 After the approval in RAN WG1#18, it was pointed out the proposed text for PRACH was a bit misleading. In this revision it was clarified that a PRACH is defined by a timeslot and a channelization code, which is randomly selected from the PRACH Channelisation Code List (TS 25.331) signaled by higher layers.
- (\*31) Mr. Dirk Gerstenberger (Ericsson) presented this CR.  
 This is the revision of **R1-01-0278** which was reviewed on Day1. (See No. 54) CR 25.211-096 part was untouched. CR 25.214-154 part was revised to reflect the comment received.
- (\*32) Mr. Peter Chambers (Siemens) presented this draft CR.  
 This paper contained 2 possible versions of draft CR to define the code phase for the channelization code in case SF=512. It is open if the code phase reference is the CPICH frame boundary or the DPCH (or other) frame boundary and this CR was trying to fix this. This CR seems to have its base on **R1-01-0328**. (See No. 55)  
 There were a couple of comments saying that the current specification is not unclear. From section 5.1 we can understand that scrambling is to be done on the symbol basis, that is DPCH frame boundary.  
 Having these comments chairman concluded that for the timing there is no CR needed on this issue.
- (\*33) Mr. Yukihiko Okumura (NTT DoCoMo) presented these 2 CRs.  
 The current description of "Downlink synchronisation primitives" in TS25.214 and "Transport channel BLER" in TS25.215 still have some ambiguities in case of blind transport format detection i.e. no TFCI used. If there is a transport channel, which includes a transport format with zero transport blocks, this transport channel should be excluded from the criterion of the downlink synchronisation primitives and from measurement of transport channel BLER because no CRC is attached on the zero transport blocks.  
 There was a rather long discussion took place.  
 CR 25.214-163 :  
 It was pointed out that the in TS 34.108 we have some cases which are inconsistent with this proposal. e.g. there is stand alone DCCH where there is no TFCI and there is transport format zero block. Since there were no objection raised to this clarification, chairman concluded this approved.  
 However he remarked that proponent should confirm with their T colleagues that there is no problem with their specification by adding this sentence to our specification.  
 CR 25.215-086 : There were no objection raised for this CR but there took place long discussion on whether we need this clarification or not. Chairman remarked as his personal opinion that it is a bit funny to put this kind of clarifications into measurement definition place.  
 Finally it was approved but chairman added that if anybody found problem especially in terms of consistency then put this on-hold in the RAN plenary meeting.  
 Mr. Dirk Gerstenberger (Ericsson) remarked that it would be useful to have some kind of CR for the next meeting in order to clarify this in terms of BTFD.

## 5. Report from TSG RAN Ad Hoc on UTRAN Evolution (Day1 18:55 - 18:56)

Chairman presented one slide on the screen.

Work shop took place on Feb. 5 and 6 in Helsinki.

Certain architecture studies were identified during the work shop. They do not have any impact on the radio interface. Discussion are taking place on the e-mail reflector. In the next RAN it will be discussed how to proceed with these issues.

## 6. Election of the officials

### 6.1 Position for Chairmanship

Mr. Antti Toskala (Nokia) was elected as chairman of RAN WG1 for the next term. (Day1 18:57)  
(There was no other candidate hence no voting took place.)

### 6.2 Positions for Vice chairmanship

There were following 3 candidates announced candidacies for the 2 positions of vice chairman.

Mr. Hyeon Woo Lee (Samsung)

Mr. Masafumi Usuda (NTT DoCoMo)

Mr. Alex Lax (3G.com UK)

Votings took place on Day3 and

Mr. Masafumi Usuda (NTT DoCoMo) (elected by 1<sup>st</sup> voting)

Mr. Hyeon Woo Lee (Samsung) (elected by 2<sup>nd</sup> voting)

were elected.

## 7. Ad Hoc 21 session (Day1 night session)

(Day1 19:40-21:30)

### 7.1 Report from Ad Hoc #21: 1.28 Mcps TDD (R1-01-0367)

(Day2 17:18-17:26)

Mr. Marcus Purat (Siemens, Ad Hoc 21 chairman) presented this report.

As a conclusion of discussion, Ad Hoc 21 was recommending to RAN WG1 the approval of following CR for 1.28Mcps TDD.

- TS25.201 (updated version in **R1-01-0377**)

- TS25.221 (updated version in **R1-01-0371**)

- TS25.222 (updated version in **R1-01-0372**)

- TS25.223 (updated version in **R1-01-0373**)

- TS25.224 (updated version in **R1-01-0374**)

- TS25.225 (updated version in **R1-01-0375**)

- TR25.944 (no update necessary, **R1-01-0255**)

One text proposal to working CR (**R1-01-0369**) for TS 25.224 was updated to reflect the discussion. This was remaining to be approved in the plenary. This CR was reviewed right after the Ad Hoc report. (See 7.2)

Ad Hoc 21 also recommended the approval of TR25.928 on 1.28 Mcps TDD (**R1-01-0376**) as version 2.0.0 for RAN submission.

Chairman proposed to review all the above CRs on Day4 and encouraged people to prepare those CRs by Day3.

All 1.28Mcps related CRs were approved on Day4 (See 8.8)

The Ad Hoc 21 report was approved with no comments.

### 7.2 Approval of remaining text proposal to working CR

Uplink Synchronisation Procedure (**R1-01-0369**) (17:28-17:31)

This was the revision of R1-01-0223.

There was one comment on terminology. In section 5.2.1.2, the term "normal" time-slot is used. It was discussed in RAN WG1#15 that the term "normal" should rather be used however on the other hand there is a request that terminology should be aligned with 3.84Mcps TDD where the term "traffic" is used.

Chairman suggested to use the same terminology as 3.84Mcps in order to avoid confusion. For section 5.2.1.2, "normal" should be replaced by "traffic" in transplation process to the TR.

Day 2, started at 09.10

## 8. Release 4/5 issues

### Ad Hoc configuration

- AH21 : TDD 1.28 Mchips functionality
- AH22 : Terminal power saving features
- AH23 : Compressed mode
- AH24 : High speed downlink packet access
- AH25 : Hybrid ARQ
- AH26 : Tx-diversity
- AH27 : Radio link performance enhancements
- AH28 : Improved Common DL Channel for Cell FACH State
- AH29 : Positioning
- AH30 : TDD NodeB synchronisation
- AH31 : Uplink Synchronous Transmission
- AH32 : DSCH Power Control Improvement in soft handover

### 8.1 TDD Node B sync situation (Ad Hoc 30) Work Item Code : *RANimp-NBsync*

No.	CR	rev.	TS/TR	Tdoc	Title	Cat	Source	Conclusion	Notes
74	001	-	25.836	R1-01-0137	Additions to the node B synchronisation procedure	C	Siemens	offline discussion	(*1) <small>Day2 09:58-10:07</small>
75	042	1	25.221	R1-01-0241	Introduction of the Physical Node B Synchronization Channel	B	Siemens	Approved but revised	No (*2) Comments <small>Day2 10:07-10:08</small>
76	044	1	25.224	R1-01-0243	Layer 1 procedure for Node B synchronisation	B	Siemens	Approved but revised	No (*2) Comments <small>Day2 10:08-10:11</small>
77	016	-	25.223	R1-01-0202	Cell synchronisation codes for R'4 Node B sync over air interface in UTRA TDD	B	Mitsubishi	Approved	No (*2) Comments <small>Day2 10:12-10:15</small>
78	022	-	25.225	R1-01-0013	Measurements for Node B synchronisation	B	Siemens	Approved	No (*2) Comments <small>Day2 10:15-10:15</small>
79	042	2	25.221	R1-01-0381	Introduction of the Physical Node B Synchronization Channel	B	Siemens	Approved updates	No (*3) Comments <small>Day4 09:12</small>
80	001	1	25.836	R1-01-0382	Additions to the node B synchronisation procedure	C	Siemens	Approved	No (*3) Comments <small>Day4 09:14</small>
81	044	2	25.224	R1-01-0383	Layer 1 procedure for Node B synchronisation	B	Siemens	Approved	No (*4) Comments <small>Day4 09:16</small>

(\*1) This is a CR for the TR 25.836 v4.0.0.

Mr. Stefan Oestreich (Siemens) presented this CR. This CR proposed to introduce an additional procedure in order to support frequency acquisition. With current procedure as it is Node B should have quite accurate clock built in but it is wished for manufacturer also for the operator that Node B or Cell can operate with clock with less accuracy. And for this clock with less accuracy it is quite straightforward to introduce this frequency acquisition procedure in addition to Node B synchronization procedure so that this less accurate clock can obtain frequency synchronization.

Mr. Stephen Dick (InterDigital) remarked that all this procedure should be optional. He added that other WG (RAN WG3) CR would be needed to support this CR. Finally he proposed rewording of this CR in the offline discussion.

Mr. Stefan Oestreich answered that in fact RAN WG3 specifications needs to be modified. He stated that the plan is first to introduce this to the TR and then to introduce CRs to the specifications.

Chairman suggested offline discussion.

(\*2) All these CRs are in line with the TR and they had been presented in RAWG1 #18 already as well. These were approved with no comments.

CR 25.225-022 (R1-01-0013) was approved without reviewal because it had been already approved in principle in RAN WG1#18 and no comments made so far.

But CR 25.221-042r1(**R1-01-0241**) and CR 25.224-044r1(**R1-01-0243**) were revised on Day4.

(See No. 79 and 81)

Having all these CRs approved (although one CR for TR is still pending), chairman stated that we can close this work item at least form physical layer point of view.

(\*3) Mr. Stefan Oestreich (Siemens) presented this CR. This CR is update of already approved CR (CR 25.221-042r1,

**R1-01-0241**, See No. 75). The first sentence in section 5.3.8 was changed from

"In case of Node B synchronisation via the air interface the PNBSCH shall be used...." to

"In case cell sync bursts are used for Node B synchronisation the PNBSCH shall be used...."

because there was a comment which says that the synchronization via the air interface might not necessary mean the use of cell sync burst.

- (\*4) Mr. Stefan Oestreich (Siemens) presented this CR. This is the revision of **R1-01-0137** which was reviewed on Day2 (See No. 74) After offline discussion, some more or less editorial modification has been done for clarification.
- (\*5) Mr. Stefan Oestreich (Siemens) presented this CR. This CR is update of already approved CR (CR 25.224-044r1, **R1-01-0243**, See No. 76) Newly "Frequency Acquisition Phase" was introduced in section 4.9.1 in accordance with the CR 25.836-001r1 (**R1-01-0382**).

## 8.2 DSCH Power Control Improvement in soft handover (Ad Hoc 32)

Work Item Code : *R1nImp-DSCHsho*

No.	CR	rev.	TS/TR	Tdoc	Title	Cat	Source	Conclusion	Notes
82	001	-	25.841	R1-01-0246	TFCI power control for DSCH in split mode (Release 5)	B	LGE	To be revised	(*1) <small>Day2 10:25-10:41</small>
83	149	-	25.214	R1-01-0216	DSCH Power Control Improvement in soft handover	B	Nokia	Approved but revised	(*2) <small>Day2 11:24-11:35</small>
84	001	1	25.841	R1-01-0380	TFCI power control for DSCH in split mode	B	LGE	Approved	No (*3) Comments <small>Day4 09:28</small>
85	149	1	25.214	R1-01-0414	DSCH Power Control Improvement in soft handover	B	Nokia	Approved updates	(*2) <small>Day4 16:11-16:15</small>

- (\*1) The concept of this proposal had been presented in RAN WG1#17 meeting in **R1-00-01429**. Further continuous document was presented in RAN WG1#18 in **R1-01-0125**. In the discussion in RAN WG1#18 it was concluded that this should not be included at least in release 4 because the actual (concrete) benefits of this scheme had not been clarified and no support was obtained from the floor except proponents. Chairman concluded we should treat this as a possible proposal for release 5 in RAN WG1#18.

Having this conclusion LGE provided this CR for the TR 25.841 for release 5.

Ms. Evelyne Le Strat (Nortel) remarked that if we approve this CR at RAN then it would trigger the creation of release 5 version of the TR without having corresponding work item.

Chairman agreed with this comment and stated that probably proponents made mistake because this CR should be CR for release 4 TR. There is no TR for release 5 on this topic. Intention was to have this scheme as a possible proposal for release 5 or beyond release 4 and in order for that the text should be made under the section 6.2 *Other Solutions* in the context of beyond release 4. Therefore no new section as done in this CR should be created.

Chairman added that the current text proposal is too detail and it should be revised so that the level of description should be in line with other solutions in section 6.2. The description should be brief at this stage.

Chairman suggested offline discussion in drafting the revision among interested parties. The revision was made in **R1-01-0380** and approved on Day4. (See No. 84)

/\*\* Day2 coffee break 10:43-11:20 \*\*/

- (\*2) Mr. Markku Tarkiainen (Nokia) presented this CR.

This is a CR for inclusion of DSCH power control improvement in soft handover to TS 25.214 release 4 and is in line with the TR 25.841.

Ms. Sarah Boumendil (Nortel) questioned on section 5.2.1.4.1 what is meant by "*In case SSdT is used in the uplink direction only,...*". It should be both direction at the same time.

Chairman answered that there is RAN WG2 CR that allows to tell the UE whether the SSdT is assumed in release 99 or it is only sending SSdT signalling on the uplink but the downlink is transmitted as without SSdT(Release 4).

This CR was approved without other comment. Chairman encourage the proponent to check the consistency with RAN WG3 TR/CR since they were having meeting in parallel with us.

This CR was revised on Day4. (See No. 85)

- (\*3) This is the revision of **R1-01-0246** which was reviewed on Day2. (See No. 82) Following the discussion on Day2, now the description of "TFCI Power control for DSCH in split mode" was put in section 6.2.3 briefly.
- (\*4) Mr. Markku Tarkiainen (Nokia) presented this CR.

This is a revision of **R1-01-0216** which was approved on Day2. In RAN WG3 it was concluded that in case that the Node B is a primary one, a power offset given for the primary case is rather subtracted from the power value for the PDSCH frame for the given UE. This revision was done to reflect this RAN WG3 conclusion in section 5.2.2.

### 8.3 Positioning (Ad Hoc 29) Work Item Code : LCSI-UEpos-enh

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
86	-	-	-	R1-01-0228	Clarifications about power control and cell search related to idle periods for UTRA TDD	-	Siemens	Agreed LS to be sent	No (*1) Comments Day2 12:26-12:33
87	044	-	25.221	R1-01-0226	Correction of beacon characteristics due to IPDLs	C	Siemens	Approved	No Comments Day2 12:34
88	048	-	25.224	R1-01-0227	Idle periods for IPDL location method	B	Siemens	To be revised	(*2) Day2 12:35-12:38
89	025	-	25.225	R1-01-0229	RTD measurement in UTRAN for UP-TDD	B	Siemens	Approved	No (*3) Comments Day2 14:13-14:18
90	048	1	25.224	R1-01-0389	Idle periods for IPDL location method	B	Siemens	Approved	No (*4) Comments Day4 09:24
91	085	-	25.215	R1-01-0411	RTD measurement in UTRAN for FDD	B	Nokia	Approved	No (*5) Comments Day4 16:11

(\*1) Mr. Siegfried Bär (Siemens) presented this document.

This paper provided the answers to the concerns raised in RAN WG1#18 meeting regarding proposed IPDL scheme. Mr. Siegfried Bär proposed to send LS to inform that the solutions were found to the concerns raised in RAN WG1#18. (Those concerns had been informed to RAN WG2 in the LS **R1-01-0174**).

Chairman agreed with this proposal. **R1-01-0388** was allocated for the LS. LS was reviewed on Day4 and approved in **R1-01-0415**. (See No.159)

(\*2) Mr. Mirko Aksentijevic (Nokia) remarked that the following sentence in section 5.1 should be reworded.

*During idle periods all channels are silent simultaneously, except for the SCH.*

Chairman suggested offline discussion for rewording.

This was revised into **R1-01-0389** and approved on Day4. (See No. 90)

/\*\* Lunch break 12:39-14:10 \*\*/

(\*3) Mr. Siegfried Bär (Siemens) presented this CR.

This CR proposed to introduce "SFN-SFN observed time difference" to the UTRAN measurement in order to support RTD measurement and to be in line with 25.305 *Stage 2 Functional Specification of UE Positioning* in UTRAN, v3.4.0.

The inclusion of RTD measurement was originally proposed by Nokia in RAN WG1#18 meeting in **R1-01-0064**. LS **R1-01-0147** had been sent to RAN WG2 to ask their view on this proposal. On Day1 we received answer LS from RAN WG2 (**R1-01-0319**, See No.20) in which RAN WG2 was answering that the proposal of inclusion of RTD measurement is in line with their expectation.

Mr. Siegfried Bär remarked that we should liaise with RAN WG2, RAN WG3 and RAN WG4 to inform them that RAN WG1 agreed to include RTD measurement not only in FDD but also TDD.

Chairman answered that he would report this in his report to RAN and it would be sufficient.

FDD version of this CR was presented by Nokia in **R1-01-0411** on Day4. (See No. 91)

(\*4) Mr. Siegfried Bär (Siemens) presented this CR.

This is the revision of **R1-01-0227** which was reviewed on Day 2. (See No.88) After offline discussion the sentence in question was changed from

"During idle periods all channels are silent simultaneously, except for the SCH." to

"During idle periods only the SCH is transmitted."

and another editorial correction had been done.

(\*5) Mr. Ville Steudle (Nokia) presented this CR. This is the TDD version of **R1-01-0229**. (See No. 89)

#### 8.4 Terminal power saving features (Ad Hoc 22) Work Item Code : *RInImp-TPS*

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
92	22	R1-01-0349	Modification of SSDT Operation to Support Gated DPCCH Transmission in Soft Handover Region with SSDT Activated	Samsung Nokia	Noted	(*1) <small>Day2 14:19-14:56</small>
93	22	R1-01-0283	Revision of TR25.840 Terminal Power Saving Features introducing UE capability with DPCCH gating	Nokia	Noted	(*2) <small>Day2 14:56-15:06</small>
94	22	R1-01-0336	Further clarifications to outer loop power control during DPCCH gating	Nokia Samsung	Noted	(*3) <small>Day2 15:08-15:28</small>
95	22	R1-01-0280	Text proposal for gating during compressed mode	Philips	Agreed in principle	(*4) <small>Day2 15:28-15:49</small>
96	22	R1-01-0296	Revision of TR25.840 "Terminal Power Saving Features" v2.2.0	Samsung	Approved	(*5) <small>Day2 17:36-17:50</small>
97	22	R1-01-0395	Revision of TR25.840 "Terminal Power Saving Features" to version 2.3.0	Samsung	Offline check	(*6) <small>Day4 09:55-10:11</small>
98	22	R1-01-0417	Revision of TR25.840 "Terminal Power Saving Features" to version 2.3.0	Samsung	Approved	(*6) <small>Day4 17:20-17:26</small>

(\*1) Mr. Ju Ho Lee (Samsung) presented this paper.

This paper proposed to introduce the procedure (guidance) to the TR on how the RNC should behave in the different situation with gating in order to enable the use of gating during SSDT is activated.

There took place long discussion.

- What is the added benefit (gain) of this proposal ? We need to see the benefit because it would add more complexity to the normal gating operation.  
→ This proposal would not increase complexity in terms of UE implementation. In fact, no change is needed to physical layer specifications.
- Then what is the change ?  
→ This proposal is just trying to give the guidance on how the RNC should behave. It is summarized in the table 1.
- This is not solving the problem on the fact that Gating and SSDT cannot co-exist but just suggesting the RRC procedures in terms of which message is effectively to be transmitted first over the air and then Lub. This is just suggesting the sequence of activation and de-activation done by the RNC in order to take advantage of both feature. This is really RAN WG2 and RAN WG3 issue.  
And we need also to consider the gating in the uplink.  
→ This is not RRC issue. → Yes it is RRC issue...

Finally chairman stopped the discussion and suggested offline discussion. He proposed just to put in the TR that this issue (operation of gating with SSDT feature) needs to be further studied.

(\*2) Mr. Markku Tarkiainen (Nokia) presented this paper.

In the last RAN meeting there was a question raised on the DPCCH gating with respect to the UE capability and during RAN WG1#18 meeting we did not address the topic. It was discussed in the previous RAN that RAN WG1 should formulate the view and then provide it to the other WGs. Thus, this papers proposing that UE's capability with gating is optional.

Mr. Dirk Gerstenberger (Ericsson) remarked that the scope of this gating feature had changed dramatically in the RAN WG2#18 meeting and now higher layers are getting more involved. There is a question whether we should keep this work item itself. Therefore we had better wait until all the details on gating are clarified in all relevant working groups before we decided optional/mandatory issue.

Chairman agreed with this comment and stated that we should keep this optionality issue blank for the time being and he will present the situation in his report to RAN as follows.

*In the past there has been view in WG1 that gating is fully optional, but it's understood that the situation needs to be revisited once all the details and impacts to capacity etc. are finalise.*

(\*3) Mr. Markku Tarkiainen (Nokia) presented this paper.

In RAN WG2#19, the outer loop power control modifications during basic gating period were approved. It was proposed that outer loop power control based on CRC attached to zero transport block will be used also during DPCCH gating. This is because DPCCH BER will not offer good enough performance for outer loop.

Consequently, this requires changes in multiplexing definitions in the TS 25.212. However, the current implementation of changes in TS 25.212 is not fully optimal. The paper clarified further the effects of outer loop power control to multiplexing chains.

Some discussion took place.

- How many repetition will actually be used ? much more than 1 or 2 ? → for further study
- Too much repetitions of CRC bits seems to be some kind of problem that we do not have in the non gating case. → It is independent of gating. It could occur even in non gating when long period of zero length transport block with CRC.



Chairman concluded further consideration is needed on this issue.

(\*4) Mr. Tim Mouldsley (Philips) presented this paper.

This paper looks at the problem of gating and compressed mode. The current assumption is that gating should be disabled before initiating compressed mode. Now this does not seem to be a necessary restriction. In this paper a solution to using gating and compressed mode patterns at the same time is provided.

Mr. Dirk Gerstenberger (Ericsson) questioned to Samsung why they in the first place disabled gating during compressed mode in the TR.

Mr. Ju Ho Lee (Samsung) answered that is because of simple operation of gating. But Samsung had studied the further possibility of co-existence with SSDT and with compressed mode.

- Is there any problem with power control ? → No.

Chairman concluded that we agreed on this text proposal in principle though there may be some rewording needed.

For the details of text proposal chairman suggested offline discussion.

/\*\* Day2 Coffee break 15:54 –16:28\*\*/

(\*5) Mr. Ju Ho Lee (Samsung) presented this revised TR.

This revision includes some clarifications on the discussions before RAN WG1#19 and some editorial corrections.

Although the version number v2.1.0 is being put on the cover page, correct version number of this TR is v2.2.0.

Mr. Dirk Gerstenberger (Ericsson) remarked that

- Description (including figure) on the impact of compressed mode on battery life improvement should be included since we have received an answer from RAN WG4.
- Section 8.1.2.3 (Conclusion section) needs to mention that UE battery life improvement depends on UE implementation.

Chairman agreed with this comment. These would be incorporated at the same time with inclusion of **R1-01-0280**.

Mr. Dirk Gerstenberger questioned how we should proceed with this TR.

Chairman explained the reason why this TR had not been raised to v4.0.0. in the previous RAN. It was because the impacts to the other WGs were not clear at that time. Now, RAN WG3 has its own TR and RAN WG4 has discussed and we received input based on that discussion. Current situation is that we now do not see what are the impacts in RAN WG2. Mr. Ju Ho Lee informed that RAN WG2 is going to finalize the relevant works by May meeting as release 4. Chairman stated that he would write in his report to RAN that impact on RAN WG2 section remains empty because the work is now on-going in RAN WG2.

Chairman concluded that this TR was approved and new text proposal in R1-01-0280 as well as the comments from Mr. Dirk Gerstenberger will be incorporated in the next revision. The revision was made in **R1-01-0395** and reviewed on Day 4. (See No. 97)

(\*6) Mr. Ju Ho Lee (Samsung) presented this revised TR.

This is the revision of **R1-01-0296**. (See No.96)

Mr. Dirk Gerstenberger (Ericsson) remarked that something is wrong in figure 9 in newly added section 8.1.2.2.3. According to the table 12, 13, improvements cannot never be more than 65% however in the figure 9, it is more than 95%.

Mr. Ju Ho Lee answered that the data in the table 12, 13 were calculated by Nokia whereas figure 9 is based on the calculation from Samsung. He added that the gain of gating depends on the implementation and hence table and figure can be different. Chairman remarked that some explanation is needed and suggested offline discussion for this explanation.

Mr. Dirk Gerstenberger questioned again how we should proceed with this TR.

/\*\* Day4 coffee break 10:13-1045 \*\*/

(\*7) Mr. Ju Ho Lee (Samsung) presented this revised TR.

According to the offline discussion, section 8.1.2.2.3 was removed and instead at the end of 8.1.2.2.2, the description of the impact of compressed mode and UE battery life improvement was added.

There was no comments raised and this TR was approved. The new version can be found in **R1-01-0428**.

Dirk Gerstenberger (Ericsson) questioned if we are to submit this TR for the next RAN for approval or not.

Chairman answered as follows.

From RAN WG1 point of view we could perhaps do that. However I see one problem with the TR. That is that RAN WG2 section is empty and RAN WG2 does not have a TR of their own. So I think we just provide this TR to RAN as a part of this work item reporting. In the last RAN, comment was that RAN WG2 section was missing and it was not proposed for approval. I think we can say that from RAN WG1 point of view we have things more or less there. Some minor details needs to be improved but I guess from the RAN WG1 point of view TR is completed and could be approved. But we understand that RAN WG2 part is missing. At least this is my understanding of this TR.

Mr. Dirk Gerstenberger stated that it would be good to express also that there are concerns in RAN WG1 of this solution, for instance, concerns on complexity.

Chairman answered that he would mention in his report to RAN that there are still concerns mentioned in RAN WG1.

**8.5 USTS (Ad Hoc 31) (Release 4 study item) Study Item Code : RInImp-USTS**

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
99	<b>31</b>	R1-01-0232	Revision of TR25.854 (Study report on USTS)	SK Telecom Nokia	Approved	No (*1) Comments <small>Day2 18:11-18:17</small>
100	<b>31</b>	R1-01-0245	Considerations on Timing Alignment Bits for USTS	LGE SK Telecom	Not Approved	(*2) <small>Day2 18:17-18:39</small>

(\*1) Mr. Duk Kyung Kim (SK Telecom) presented this TR.

The revision has been done to reflect the comments received in RAN WG1#18 meeting.

The version number is to be updated to v0.2.0 in **R1-01-0396**.

Eventually the version number was raised after the meeting to **v1.0.0** for RAN submission. (for information)

(\*2) This paper discussed several aspects of TABs for USTS regarding the TAB bit pattern and TAB transmission in Node B. This is a kind of revision of **R1-01-0062** which was reviewed in RAN WG1#18 meeting taking into account the comments received and the fact that timing interval had been changed from 20ms to 200ms.

Ms. Evelyne Le Strat (Nortel) questioned whether this scheme is to be applied only in soft handover case or not because Node B can never know whether the UE is in soft handover or not. It was answered that this scheme is to be applied irrespective of soft handover.

After having some discussion, chairman concluded that we should not include this scheme into the TR at this point of time because it seems that it would need further clarification including the necessity of the scheme.

/\*\* Day 2 closed at 18:39 \*\*/

Day 3, started at 09.14

**8.6 High Speed Downlink Packet Access (Ad Hoc 24) Study Item Code : RInImp-HSDPA**

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
101	24	R1-01-0392	25.950 (v1.1.0) UTRA High Speed Downlink Packet Access	TSG RAN WG2	Noted	No (*1) Comments Day3 09:32-09:35
102	24	R1-01-0205	Clarification of simulation results of type-III HARQ bit mapping proposal	Panasonic	Noted	No (*2) Comments Day3 09:41-09:44
103	24	R1-01-0206	Text Proposal for HARQ complexity evaluation section of TR25.848	Panasonic	To be revised	(*3) Day 3 09:44-09:56
104	24	R1-01-0331	Peak to Average Impact at Node-B due to HSDPA	Motorola	→ Text proposal	(*4) Day 3 10:00-10:17
105	24	R1-01-0332	Physical Layer Structure for HSDPA – Text Proposal for Section 6.1	Motorola	To be revised	(*5) Day 3 10:19-10:25
106	24	R1-01-0329	Complexity Analysis on MPIC for HSDPA	NTT DoCoMo	Noted	No (*6) Comments Day3 10:30-10:36
107	24	R1-01-0330	Text Proposal for performance of MPIC in TR25.841	NTT DoCoMo	To be revised	(*7) Day 3 10:36-10:45
108	24	R1-01-0338	Reduction of DL channel quality feedback rate for HSDPA	Sony	→ Text proposal	(*8) Day 3 11:45-12:10
109	24	R1-01-0207	System Level simulation results of HSDPA estimating downlink channel quality from the transmit power of DPCCH	Panasonic	Offline checking	(*9) Day 3 12:10-12:27
110	24	R1-01-0309	Semi-static Code Space Division of physical HS-DSCH	Lucent	Offline	(*10) Day 3 12:29-13:13
111	24	R1-01-0274	System aspects of power control for Fast Cell Selection in HSDPA	NEC	Text proposal	(*11) Day 3 14:45-14:52
112	24	R1-01-0281	Cell Selection in HSDPA	Philips	Noted	(*12) Day 3 14:53-15:28
113	24	R1-01-0248	Use Long-Range Prediction to Improve the Performance of AMCS and HARQ with MCS Delay	Wiscom	Noted	(*13) Day 3 15:30-15:37
114	24	R1-01-0249	Long-Range Prediction (LRP) of Faded Signals in HSDPA for FDD and TDD	Wiscom	Not included in the TR	(*13) Day 3 15:37-15:56
115	24	R1-01-0258	Double data rate for FDD downlink through channel code puncturing in MIMO channels	Nokia	Noted	(*14) Day 3 16:38-16:49
116	24	R1-01-0333	Alternatives in MIMO Link Design	Motorola	Noted	(*15) Day 3 16:51-16:56
117	24	R1-01-0307	Technical Report text change proposal for Section 7.4.1	Lucent	Approved	No Comments Day3 16:56-16:58
118	24	R1-01-0306	MIMO physical layer description	Lucent	Approved	No Comments Day3 16:58-17:02
119	24	R1-01-0313	Further Discussion on UE Complexity for MIMO architectures	Lucent	→ Text Proposal	(*16) Day 3 17:05-17:22
120	24	R1-01-0308	Link level results for HSDPA using multiple antennas in correlated and measured channels	Lucent	→ Text proposal	(*17) Day 3 17:22-17:42
121	24	R1-01-0286	Link Level Simulation Results for HSDPA: Comparison between MIMO and Tx Diversity	Fujitsu	Noted	(*18) Day 3 17:42-17:56
122	24	R1-01-0290	Stand-alone DSCH principles and benefits	Nortel Wavecomm France Telecom	Noted	(*19) Day 3 18:02-18:20
123	24	R1-01-0292	WCDMA based Stand-alone DSCH physical layer related aspects	Nortel Wavecom	Noted	(*19) Day 3 18:23-19:36
124	24	R1-01-0391	OFDM as a candidate for stand-alone DSCH	Wavecomm France Telecom Nortel	Noted	(*19) Day 3 19:36-20:29
125	24	R1-01-0295	HSDPA System Level Simulations	Nokia	Noted	(*20) Day 4 11:12-11:34

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
126	24	R1-01-0240	AMCS Performance Evaluation for TDD	Siemens	Noted	(*21) Day 4 11:35-11:43
127	24	R1-01-0408	Text proposal for section 8 of TR 25.848	Siemens	To be revised	(*22) Day 4 11:43-12:00
128	24	R1-01-0251	Link Level Simulation Results of HSDPA in TDD Mode	Wiscom	Noted	(*23) Day 4 12:00-12:11
129	24	R1-01-0250	Proposal of a HSDPA Frame Structure in TDD Mode	Wiscom	Noted	(*24) Day 4 12:11-12:22
130	24	R1-01-0259	METRA project results: Link-level simulation results for standard-friendly MIMO techniques in the TDD mode of UTRA	Nokia	Noted	No Comments Day 4 12:22-12:25
131	24	R1-01-0409	Text Proposal for HARQ section of TR25.848	Panasonic	Approved	No (*25) Comments Day 4 12:28-12:30
132	24	R1-01-0244	Impact of block length on turbo-code performance for HSDPA	Ericsson	Discussed	(*26) Day 4 13:57-14:05
133	24	R1-01-0310	Further results on the impact of code block size on HSDPA performance	Lucent		(*27) Day 4 14:05-14:40
134	24	R1-01-0237	Enhanced HARQ Method with Signal Constellation Rearrangement	Panasonic	Noted	(*28) Day 4 14:44-15:00
135	24	R1-01-0311	Methodology for HARQ System Simulations	Lucent	Noted	(*29) Day 4 15:01-15:10
136	24	R1-01-0312	Downlink Model for HSDPA	Lucent	Noted	(*30) Day 4 15:11-15:23
137	24	R1-01-0401	Revised Text Proposal for performance of MPIC in TR25.841	NTT DoCoMo	Approved	No (*31) Comments Day 4 15:26-15:28
138	24	R1-01-0400	Physical Layer Structure for HSDPA – Text Proposal for Section 6.1	Motorola	Approved	No (*32) Comments Day 4 15:28-15:29
139	24	R1-01-0406	Text contribution on MIMO UE complexity	Lucent	Approved Ref. removed	(*33) Day 4 15:29-15:34
140	24	R1-01-0407	Text contribution on MIMO performance	Lucent	Approved Ref. removed	(*34) Day 4 15:35-15:38
141	24	R1-01-0405	Text contribution on MIMO physical layer description	Lucent Nokia	Approved	No (*35) Comments Day 4 15:38-15:41
142	24	R1-01-0410	Text Proposal for MIMO and Tx Diversity Comparison Section	Fujitsu	Not approved →Offline	(*36) Day 4 15:41-15:46
143	24	R1-01-0397	Text proposal for associated downlink signaling on TR25.848	Sony	Approved	No (*37) Comments Day 4 15:47-15:49
144	24	R1-01-0423	Text proposal for section 8 of TR 25.848	Siemens	Approved	No (*38) Comments Day 4 16:04-16:05
145	24	R1-01-0413	Text proposal in TR for Semi-static Code Space Division of physical HS-DSCH	Lucent	Approved	No (*39) Comments Day 4 16:49-16:50
146	24	R1-01-0420	Stand-alone DSCH, proposed text for inclusion in TR 25.848 v 0.4.0	Nortel	Approved	No (*40) Comments Day 4 16:50-16:55
147	24	R1-01-0422	Text Proposal for Section 7.1.2.1.2 – Complexity Impacts to RNS	Motorola	Approved	No (*41) Comments Day 4 16:55-16:57
148	24	R1-01-0425	Recommendations on HSDPA	Drafting Group	To be revised into LS	(*42) Day 4 16:57-17:12

(\*1) This is the RAN WG2 TR on HSDPA. Some sections were left blank for inclusion of appropriate texts from the RAN WG1 TR.

In section 14.1, RAN WG2 listed their recommendation as follows.

1. RAN WG2 has determined the MAC-HSDSCH at the Node B with HARQ and scheduling functionality to be feasible and recommends that this be adopted for inclusion in Rel-5 to enable the techniques being addressed for HSDPA.
2. Adaptive Modulation and Coding - RAN WG1 to make recommendation.
3. RAN WG1 to provide recommendations on intra-Node B Fast Cell Selection. RAN WG2 proposes not to include inter-Node B fast cell selection in Rel-5.
4. RAN WG1 to provide recommendation on MIMO. RAN2 has determined impacts on WG2 to be minimal

based on current understanding.

5. RAN WG1 to provide recommendation on Stand-alone DSCH. RAN WG2 recommends that UTRAN evolution should enable the introduction of this technique if found necessary in future releases.

(\*2) Panasonic presented this paper. This is a follow up paper of **R1-01-0031** which was reviewed in RAN WG1#18. In RAN WG1#18 it was pointed out that there is no difference between so-called symbol combining and conventional combining in QPSK case. Panasonic conducted simulation and the results put in this paper shows that there is actually no difference in QPSK case. Having this result, Panasonic proposed the proposed mapping method to be used for 16QAM or higher level modulation because proposed method can reduce the receiver's buffer size achieving the same performance as the conventional method for those modulations.

Text proposal of this scheme is in **R1-01-0206**.

(\*3) This is the text proposal of **R1-01-0205** (Above).

Mr. Erik Dahlman (Ericsson) remarked that although this is an interesting proposal he was a bit reluctant to introduce this kind of detailed description into the feasibility study report.

Mr. Amitava Ghosh (Motorola) supported this comment and added we should just point out general techniques. Chairman suggested that we would not include this long text proposal as it is but just put simple statement in connection with the existing type III HARQ complexity values (table1).

Panasonic agreed with this suggestion and provided brief text proposal in **R1-01-0409**. This was reviewed on Day4 and approved. (See No.131)

(\*4) Mr. Amitava Ghosh (Motorola) presented this paper.

This paper shows peak-to-average power ratio impact at Node B in case of multi-level modulation, higher order modulation. In conclusion it says that it can be concluded that the PAP (Peak to Average Power ratio) is not affected for a W-CDMA system using HS-DSCH with higher order modulation.

Ms. Evelyne Le Strat (Nortel) remarked that we need to be a bit cautious when analysing the result of this analysis because the assumption of 20 users utilizing Walsh of size 32 and equiprobable mix of QPSK, 16 QAM and 64 QAM does not necessary reflect the real system (peak bit rate/user). In the case of small number of the users using high order modulation, result may be different from what is presented here. We need to have RAN WG4 to consider this issue in terms of RF characteristics of the Node B. Chairman remarked that in case of small number of the user PAP is getting much more easier.

Regarding this Mr. Amitava Ghosh stated that there is a typo in this paper on the assumption. 20 user should be replaced by 20 codes.

Then one user for HSDPA and others users with QPSK ?

Mr. Amitava Ghosh stated there should be some more simulation done where other users assigned QPSK, 16 QAM and 64 QAM.

What should we put in the TR ? The relevant section is still blank. We should not put an optimistic indication in the TR.

After some discussion, chairman concluded that a small text proposal without curves on this issue be made by Mr. Amitava Ghosh. We will check it on the screen before it is implemented in the TR. Eventually very short text proposal was made in **R1-01-0422**. This was reviewed on Day 4 and approved with no comment. (See No. 147)

(\*5) Mr. Amitava Ghosh (Motorola) presented this paper.

This paper is the text proposal of Stop and Wait protocol to be added to Section 5.2.

One comment was raised by Lucent which stated that there is a contradiction in the description. In the description of Stop-and-Wait it says that UE has to have only one block memory and it says N channel operation offers solution to the particular problem of Stop-and-Wait. But if we have parallel channel operation like N channel operation, then Stop-and-Wait would not have any memory advantage over the selective repeat.

Mr. Amitava Ghosh agreed to this comment. Chairman suggested offline work for revision between Motorola and Lucent. **R1-01-0400** was allocated for the revision. It was reviewed on Day4 and approved. (See No. 138)

(\*6) Mr. Masafumi Usuda (NTT DoCoMo) presented this paper.

This paper showed the results of complexity analysis on multipath interference canceller(MPIC) which had been newly introduced in RAN WG1#18 meeting in **R1-01-0102**. In RAN WG1#18 there had been a request for complexity analysis for this method. As promised in RAN WG1#18, NTT DoCoMo provided this paper.

The analysis is based on the number of computation operations, such as multiplication and addition, and the complexity of MPIC is compared with a conventional matched filter (MF) based Rake receiver without MPIC.

It was shown that MPIC with 2/3/4-stage requires approximately 3/5/7 times larger number of multiplications and additions compared with a conventional MF based Rake receiver without MPIC.

(\*7) Mr. Masafumi Usuda (NTT DoCoMo) presented this paper.

This is a text proposal of the performance of MPIC for the TR.

Mr. Serge Willenegger (Qualcomm) questioned on Figure 1 about the reason why the throughput of 2path with MPIC is better than 1path in some points in case of MCS1. It was answered that is because of diversity effect.

Mr. Amitava Ghosh (Motorola, editor of the TR) asked if it is possible to condense the text. Mr. Masafumi Usuda agreed with this comment.

Mr. Tim Mouldsley (Philips) remarked that there should be a description in the TR on how we actually exploit this kind of technique, e.g. choice of modulation at Node B in the knowledge of some receiver property.

Chairman suggested offline discussion for revision. The revision was provided in **R1-01-0401**. It was reviewed on Day4 and approved for TR. (See No. 137)

/\*\*/ Day3 coffee break 10:45 - 11:15 \*\*\*/

/\*\*/ First voting for vice-chairman position started after the coffee break. \*\*\*/

(\*8) Mr. Katsutoshi Itoh (Sony) presented this paper.

This paper was the revision of **R1-01-0231** which had been distributed on the e-mail reflector.

A proposal was made in RAN WG1#18 in **R1-01-0074** which exploits TPC commands to reduce the feedback rate for downlink channel quality estimation. The current paper presented system simulation results to show that the proposed scheme can actually be used to reduce the feedback rate without impacting the system throughput. It was also suggested that this scheme enables network to do trade-off between uplink capacity and channel quality estimation accuracy by giving UTRAN the control of the channel feedback rate.

Mr. Erik Dahlman (Ericsson) remarked that though he agrees with the proposed method, he does not think that OTA(over the air throughput) is an appropriate performance measure. Performance measure here should be both of service throughput (the number of correct bits from transmitter to receiver) and quality measure (average packet call throughput). OTA is not relevant because it does not take into account re-transmissions and OTA does not take into account the load, either.

Mr. Katsutoshi Itoh answered that to be sure we need to have quality measure but for the service throughput, the OTA is relevant. The results shown in this document does include the re-transmissions and it corresponds to the true throughput seen from Node B and not from UE. He added that service throughput including the load can be calculated approximately through the values in the table.

Motorola clarified that the definition of OTA does take into account the re-transmission.

There was another comment that for the TR, it is too much detail.

Chairman concluded that proponent prepare a brief text proposal. **R1-01-0402** was allocated for the text proposal. Eventually text proposal was further revised into **R1-01-0397**. This was reviewed on Day4 and approved.

(See No.143)

(\*9) Panasonic presented this document.

This paper is the continuous work of paper presented in RAN WG1#18 (**R1-01-0004**). This paper presented more elaborate simulation results

The following assumptions are added in order to respond to the comments made in the previous meeting.

- UE velocity of 40km/h and 120km/h are considered.
- TPC error ratio is set to 4%.
- CIR measurement error in UE is introduced as a statistical variable with 1dB sigma.
- CIR reporting erasure is set to 1%.

After having some discussion, chairman suggested to make a small text proposal on this. We do not need these simulations result from the feasibility point of view.

Mr. Amitava Ghosh (Motorola, editor of the TR) pointed out that this is already included in the TR in section 6.2.

Chairman proposed to have offline discussion for the exact text including the discussion on whether the current text in the TR should be modified or not.

(\*10) Lucent presented this paper.

This paper proposed code space division of the physical HS-DSCH into several equal multi-coded parallel physical HS-DSCHs as an alternative physical channel structure in conjunction with minimum TTI of one slot. Some kind of broadcast channel is needed to support this that carries information on the code space availability. Long discussion took place.

After the discussion chairman concluded as follows

Even if this would need only one additional issue that we need to have some kind of broadcast channel (physical layer), we cannot do it as physical layer independent issue. We need to have coordination with higher layers. If higher layer (RAN WG2 in this case) gives us permission to do it then maybe we can do it. Therefore the best way forward is to bring this issue to the upcoming Joint Ad Hoc with RAN WG1 and RAN WG2 in May. Because this would contain physical layer issue and higher layer issue at the same time it would be very difficult to determine how to proceed within only one group.

Chairman added comment on the text proposal attached to this paper that it is very short and if this kind of information cannot be derived from the current TR, it should be included in the TR. But we need to check whether and how the text should be accommodated in the TR from feasibility study point of view. This checking should be done offline. This text proposal was finally modified in **R1-01-0413**. It was reviewed and approved on Day3.

(See No. 145)

\*\*\* Day3 lunch break 13:14-14:42 \*\*\*

(\*11) Mr. Kojiro Hamabe (NEC) presented this paper.

This paper proposed an additional alternative of power control techniques for Fast Cell Selection(FCS). This paper also contained a text proposal for this additional alternative for the TR in section 6.4.3.

Mr. Erik Dahlman (Ericsson) agreed with this proposal and stated that indeed the alternative (2) should be replaced by this alternative (4). He added that the original intention of alternative (2) was actually that of alternative (4).

He added that although this is currently written as a part of FCS, this is primarily related to the situation when the UE is in soft handover.

Chairman suggested that proponent provide the small text with revision marks to the editor for inclusion.

(\*12) Mr. Tim Mouldsley (Philips) presented this paper.

This paper presented some simulation results on the potential benefits of FCS in HSDPA.

It was shown that the SIR gain derived from FCS appear to become worthwhile for SIR values below about 5 dB and paper suggested that this gain could be obtained in

1. Fair scheduler
2. Maximum coverage required
3. Poor propagation conditions

There took place some question and answer session but in general this paper was supported.

Regarding this FCS issue, we are asked by RAN WG2 to provide recommendation on intra-Node B FCS. RAN WG2 proposed not to include inter-Node B FCS in release 5 and we had to recommend how we consider about the inclusion of Intra-Node B FCS in terms of release. (See No.101)  
Chairman questioned people how we should recommend RAN WG2 on this Intra-Node B inclusion.  
Long discussion was made. There were no definitive comments. Concerning the postponement of this feature to further release (later than release 5), for and against seemed even.

Ms. Evelyne Le Strat (Nortel) remarked.

We are not sure that there is no cost for the Intra-Node B FCS compared to no FCS.

We are not sure either that the signalling is the same in the cases where we have Intra-Node B and Inter-Node B FCS because we identified in the TR that the inter-Node B FCS may require additions of some signalling in order to ensure consistency of the scheduling because MAC is in Node B.

Based on this, unless there are significant gains for Intra-Node B FCS, unless we can really show that it is extremely simple to consider Intra-Node B and that there is gain which justifies the introduction of Intra-Node B in one release ahead of Inter-Node B, we may try to treat Intra-Node B and Inter-Node B FCS together in the same release so that we can have fully consistent scheme.

Chairman fully agreed with this comment and concluded that we recommend RANWG2 that study of Intra-Node B and Inter-Node B FCS should be considered together and not separately. Both Intra and Inter Node B FCS should be studied further during release 5 HSDPA.

(\*13) Wiscom presented these 2 documents.

**R1-01-0248** showed the simulation results of using Long-Range Prediction(LRP) to improve the system performance of AMCS and HARQ with MCS feedback and selection delay. LRP method itself had been presented already in RAN WG1#18 meeting in **R1-01-0025**.

The simulation results showed that the performance improvement by using prediction is as much as 1.0 to 1.5 dB with  $E_c/I_{oc}$  between -5 to 5dB at intermediate vehicle speed.

Since **R1-01-0249** contains the text proposal of long-range prediction method, chairman suggested to review R1-01-0249 in succession.

Mr. Robert C. Qiu (Wiscom) presented this paper. This was the revision of **R1-01-0025**. It was proposed to include LRP based channel prediction in HSDPA for both FDD and TDD mode into the TR. Text proposal was attached to this paper.

After short discussion chairman proposed not to include this into TR for the time being with following reasons.

- There had not been discussed signalling issue on this.
- This does not seem essential from the feasibility study point of view.

He proposed to continue the discussion after the feasibility phase.

/\*\* Day3 coffee break 16:03-16:33 \*\*/

(\*14) This paper presented a comparison of 2 different type of techniques to double the data rate in FDD downlink when 2 Tx and 2 Rx antennas are available. One is the punctured scheme in which the rate 1/3 code is punctured to rate 2/3 in order to double the data rate and the loss of coding gain is compensated by applying dual-antenna RAKE. The other one is layered scheme which is similar to the MIMO technique that has been discussed so far. As a conclusion it says that the punctured scheme achieves a better performance with a significantly lower receiver complexity than the layered scheme.

Lucent made a comment which said that the layered technique discussed in this paper is different from the MIMO technique which had been proposed. Lucent explained the differences. They also pointed out that they basically agree with the conclusion. Because the situation this paper did comparison is relatively low data rate (order of kbps) and in the low data rate situation, combination of Tx and Rx diversity is actually superior to MIMO. Lucent had pointed out this fact already in RAN WG1#18 meeting. Lucent's MIMO proposal is for high data rate of 10.8Mbps and above.

Mr. Said Tatesh (Lucent) remarked in answering chairman's comment that there is no need to feedback this paper into TR because what we are looking in the TR is whether the concept is feasible or not. And it is feasible now. And later when we go through the standardization process we should look at all the alternatives.

Chairman remarked that for the baseline complexity part, the comparison of different technique might be needed. Chairman suggested offline discussion on the inclusion of the paper into TR between Nokia and Lucent.

**R1-01-0405** was allocated for this text proposal. It was presented on Day4 sourced by Lucent and Nokia and approved. (See No.141)

(\*15) Mr. Amitava Ghosh (Motorola) presented this paper.

In this paper, various alternatives to V-BLAST proposed by Lucent are outlined. It was stated that those alternatives should be evaluated in detail in RAN WG1.

Lucent remarked that they basically agree with the approach of this paper.

(\*16) Lucent stated that they would provide the text proposal which summarizes the conclusion of this paper.

Chairman remarked

- Is it possible to replace "homodyne" to more familiar term ?
- Absolute values put in this contribution should be got rid of unless detailed explanations are given because it is impossible for anybody to calculate if just absolute values are given.

Mr. Erik Dahlman (Ericsson) requested to postpone the decision whether we include this into TR or not.

There were some doubts raised about the complexity estimates in this paper.

Chairman stated that text proposal should be produced regardless we approve it or not.

**R1-01-0406** was allocated for this text proposal. It was reviewed on Day4 and approved. (See No. 139)

(\*17) Lucent presented this slide on the screen.

Lucent had already showed in the past meetings the gains of MIMO in spatially correlated channels compared to conventional single antenna schemes. In this presentation, link performance results on the following channel environments were shown.

1. A micro cell environment suggested by Siemens
2. Actual channels measured in a dense urban environment (midtown Manhattan)

The performance results similar to those in the previous paper (**R1-01-0131**) were shown. The (2,2) systems are minimally affected by channel correlations. The (4,4) systems are less robust, however significant performance improvements can be achieved by transmitting with two of the four antennas and using larger constellations. Lucent proposed that some text proposal should be included in the TR. After having short discussion on this proposal, chairman agreed to it. **R1-01-0407** was allocated for the text proposal. It was reviewed on Day4 and approved. (See No. 140)

- (\*18) Mr. Hiroyuki Seki (Fujitsu) presented this paper.

This paper presented link level simulation results using the multiple reception antennas diversity with STTD and closed-loop transmit diversity schemes to compare to the MIMO performance. The FER performance for the same total data rate of 10.8 Mbps was compared in a flat fading channel.

Although according to the simulation results significant performance gains could not be observed for MIMO compared to multiple antenna diversity, this paper concluded that it is due to the flat Rayleigh fading channel assumption and MIMO architecture will have possibly significant performance gains in the practical propagation environments with high data rate higher than 10.8Mbps.

Lucent appreciated this contribution. Although they agreed with the results presented in this paper, they added following 2 points.

- In fact STTD can achieve comparable performance to the MIMO system but its data rate is limited basically 10.8Mbps whereas the MIMO technique can achieve higher peak data rate. (2,2) system can achieve 14.4 Mbps.
- In closed loop transmitter diversity case, the amount of feedback is actually going to be more than that of the MIMO system.

There was another comment that code re-use feature of the MIMO system should also be emphasized against the transmit diversity.

Chairman remarked that we needed not to include this to the TR. But eventually related text proposal was presented in **R1-01-0410** by the proponent on Day4. (See No. 142)

Chairman asked people how we should make recommendation on MIMO to RANWG2 because we were requested a recommendation.

Mr. Amitava Ghosh (Motorola) remarked that we should use **R1-01-0333** as a baseline that says that MIMO is feasible but we need to study all these alternative techniques.

Chairman agreed to this comment.

- (\*19) Ms. Evelyne Le Strat (Nortel) presented **R1-01-0290**. Principles of Stand-alone DSCH were introduced in detail. **R1-01-0292** was also presented by Ms. Evelyne Le Strat and this paper discussed WCDMA based Stand-alone DSCH physical layer related aspects. Ms. Nathalie Goudard (Wavecom) presented **R1-01-0391** which introduced OFDM technology as a candidate for Stand-alone DSCH. Text proposal for Stand-alone DSCH had been prepared in **R1-01-0293** but it was not presented.

All these 3 papers discussed Stand-alone DSCH which is defined as a DSCH on a downlink carrier that is different from the WCDMA carrier. The benefits and defects were explained in detail.

There took place very long discussion. Quite a lot of comments were raised. Major opinion was rather negative to this proposal both for WCDMA based and OFDM based Stand-alone DSCH.

Finally chairman concluded as follows.

Text proposal should not include OFDM because it is too early to say something on this from the feasibility point of view. We have only received one piece of paper for OFDM. It would require lots of more work to be done before we can say something on this OFDM scheme from feasibility point of view. Moreover RAN WG2 TR does not mention anything about OFDM so it would not be inconsistent even if do not mention it in our TR. In fact it would need TSG level discussion before it should be discussed in WG level because it is completely new air interface. Chairman would report this in his report to RAN.

For WCDMA based Stand-alone DSCH, text could be included in the TR however the current proposal (R1-01-0293) is too detail. Chairman asked Ms. Evelyne Le Strat to prepare very brief text proposal by Day4.

- (\*20) Mr. Markku Tarkiainen (Nokia) presented this paper.

This paper discussed first system level simulation results for HSDPA. It was shown that the use of AMC is beneficial to increase the network throughput as well as user throughput.

Chairman remarked that this results confirms what has been stated in the TR on the benefit of AMC.

- (\*21) Siemens presented this paper.

This paper presented TDD link level simulation assumptions and performance results for different Adaptive Modulation and Coding Schemes (AMCS). It was designated to the TR. The results were compared with the performance results for FDD presented in R1-00-0727. This paper does not investigate the optimum number of AMC schemes.

It is shown that higher order modulation is applicable for the TDD mode. The presented link level performance results are comparable with that of FDD. Due to the performance similarities between TDD and FDD, the alignment with respect to AMC schemes for both mode seems to be possible.

There were a couple of questions for clarification on the simulation assumptions. Those were answered.



- Since Siemens had prepared a text proposal for this, it was reviewed in succession.
- (\*22) This is the text proposal for **R1-01-0240**.  
Proponent asked people to change "Real" to "Real/Ideal" for the channel estimation value in Table 1.  
There was a comment that simulation assumptions/parameters/algorithms(channel estimation) should be clarified so that other parties can repeat the simulation.  
There was another comments regarding the unit of x-axis saying that in FDD results, Ior/Ioc is used whereas in this simulation results Eb/No is used and it is difficult to compare both results.  
Chairman suggested that we should not modify the unit in the curves in the TR at this stage instead we should put some small statement that says both units need to be same unit for comparison.  
As a conclusion this text proposal was agreed in principle but needs to be revised to modify the value of channel estimation in Table 1. The revision was made in **R1-01-0423** and this was approved in the afternoon.  
(See No. 144)
- (\*23) This paper proposed to fix the frame structure for the easiness of comparison of simulation results. The link level simulation results were shown on different MCS schemes for HSDPA in TDD mode which used the proposed frame structure.  
There were several concerns raised against fixing the frame structure. Major opinion was that we are to optimise the frame structure and not to fix it. Until now no company has not yet got convincing result that shows which is the best frame structure. We should not lock the frame structure.  
Chairman remarked that we should now concentrate on AMC or HARQ techniques and frame structure itself is not that important when we do comparison of the simulation results and therefore frame structure should not be fixed.
- (\*24) This paper proposed the frame structure that was introduced and used in R1-01-0251. Wiscom remarked in response to the comments received in the discussion of R1-01-0251 that their intention was not to fix the frame structure but to define a frame structure just for the reference so that simulation results provided by several companies can easily be compared.  
This paper also proposed a table for information bit per frame and the information data rate for different MCS schemes.  
Siemens pointed out that similar table is already in TR.
- (\*25) This is the revision of **R1-01-0206** which was reviewed on Day3. (See No.103) Following the discussion on Day3 the text proposal was revised into very brief and small one in section 6.3
- (\*26) Mr. Erik Dahlman (Ericsson) presented this paper.  
The benefits of variable TTI were claimed in RAN WG1#18 in **R1-01-0079** based on the argument that fixed TTI would reduce turbo code performance due to very small code block size. This paper compared the performance of larger code block size and smaller code block size based on the simulation results and pointed out that although there is a gain with larger code block size for higher SIR (lower BLER) (but gain is much smaller than what was shown in **R1-01-0079**), there is no such gain for lower SIR (higher BLER). It is also pointed out that Hybrid ARQ will typically operate with a relatively high initial BLER (high as 50% or beyond).  
Based on this results, this paper concluded that there are no significant gains for larger code block size and hence from this point of view, there are no reason to introduce a variable TTI for HSDPA.  
Since there was another related paper (**R1-01-0310**), chairman proposed to review it in succession.
- (\*27) Lucent presented this paper. This paper presented modified results of **R1-01-0079** comparing the performance of Turbo code block sizes. New results did agree with that of **R1-01-0244** (Ericsson). This paper still pointed out that when very small code block sizes are used, there is noticeable throughput degradation as compared to large code block sizes. In addition it says that the percentage of overhead with smaller code block sizes is large as compared to large code block sizes. It is also mentioned that the variable TTI approach provides other benefits such as adapting MCS for retransmissions, low signalling overhead and selecting the code block size (for a given MCS level) based on backlog to reduce frame fill inefficiency. They added that if we do simulation with fading channel assumption, results would be different.  
There took place a bit long discussion. Finally Lucent remarked that if we exclude all the overhead due to CRC or signalling overhead the difference in the throughput would be very small. (In this sense, discussion agreed with the paper from Ericsson because the conclusion of Ericsson paper was derived in terms of the analysis of turbo code performance.)  
Chairman stated that we have to look carefully at the signalling aspect to in the future. But in order for us to be able to make discussion on this aspect we need to have some kind of example proposed to see how the signalling looks like and is impacted in both cases of Fixed TTI and Variable TTI.
- (\*28) This paper presented a new HARQ method using signal constellation rearrangement. It was shown that by changing the symbol mapping onto the constellation in the re-transmission, which corresponds to the averaging out the bit reliabilities, a significant performance gain can be achieved for 16QAM and 64QAM with compared to normal Chase Combining at the expense of slightly increased complexity. In the simulation, MCS level was kept. It was pointed out by Katsutoshi Itoh (Sony) that the gain was achieved only in the region where S/N is low and hence if AMCS operates properly then this kind of gain would not be achieved because lower MCS level would then be selected. He added that this scheme would need somewhat synchronization mechanism between Tx and Rx and this would increase the complexity compared to easy Chase combining.  
It was answered by Panasonic that the intention was to show if you have to retransmit packets and if you chose wrong MCS then you can gain from this method compared to normal Chase combining. This would increase the robustness of Chase combining. For the complexity issue, it is very close to that of Chase combining.  
Chairman stated that we need probably pretty soon to decide whether we will have Chase combining or

incremental redundancy and then after that if Chase combining is selected this kind of detail optimisations can be considered.

- (\*29) This paper discussed about methodology to integrate link-level model with system-level simulations for HARQ performance evaluation. Aggregate  $E_s/N_t$  metric was introduced.  
Chairman stated that we noted this paper. Due to lack of time, he suggested offline discussion if there were questions or comments.
- (\*30) This paper provided clarifications to comments and questions on Lucent's Downlink model proposal for HSDPA in RAN WG1#17, RAN WG1#18 and RAN WG2#18. This paper was already presented in RAN WG2#19.  
Lucent had been suggested by RAN WG2 that this paper should be reviewed in RAN WG1 as well.  
There was a comment that if Lucent proposes variable TTI, then it is very strange that the values are restricted to {1,2,4,8,16}, there should be 3, 5,... included.
- (\*31) Mr. Masafumi Usuda (NTT DoCoMo) presented this paper.  
This is the revision of **R1-01-0330** which was reviewed on Day3. (See No. 107)  
The revision was not condensed but was expanded.
- (\*32) Mr. Amitava Ghosh (Motorola) presented this paper.  
This is the revision of **R1-01-0332** which was reviewed on Day3. (See No. 105)  
Comment was reflected.
- (\*33) This is the text proposal based on **R1-01-0313** which was discussed on Day3. (See No.119)  
Chairman raised concern about the existence of reference. He stated that TR should be self-contained. (This had been already pointed out in RAN WG1#18.)  
Proponent remarked that they would provide the revision without reference to the editor of the TR.
- (\*34) This is the text proposal based on **R1-01-0308** which was reviewed on Day3. (See No. 120)  
Proponent remarked that they would provide the revision without reference to the editor of the TR.
- (\*35) This is the text proposal based on **R1-01-0258** which was reviewed on Day3. (See No. 115)
- (\*36) Mr. Hiroyuki Seki (Fujitsu) presented this contribution.  
This is the text proposal based on the **R1-01-0286** which was reviewed on Day 3. (See No. 121)  
Mr. Said Tatesh (Lucent) remarked that the conclusion of R1-01-0286 had been that there was no need to reflect the results to the TR. Mr. Hiroyuki Seki replied that MIMO is quite new technology for 3GPP and therefore the comparison with other technique should be mentioned in the TR.  
Finally chairman suggested as one possibility that this text might be included in the relevant part of **R1-01-0405** and suggested offline discussion with Lucent on this issue. He added that the results of different schemes would not be needed at this point of time in terms of feasibility study.
- (\*37) Mr. Katsutoshi Itoh (Sony) presented this paper.  
This text proposal is based on the **R1-01-0338** which was reviewed on Day3.(See No. 108) Originally **R1-01-0402** was allocated for this text proposal, it seems that it was further revised into R1-01-0338.  
Regarding the text proposal itself, the proponent explained that after having offline discussion only one line was added to section 6.6.2 because current TR already contains most of key items related to the use of TPC.
- /\*\*\*/ Day4 coffee break coffee break 15:52-16:04 \*\*\*\*/
- (\*38) This is the revision of **R1-01-0408** which was discussed in the morning (See No. 127)  
There was one missing error that needed to be corrected pointed out by the proponent. "Burstform No." in the table should be replaced by "Burst type". This had been already indicated to the editor.
- (\*39) Mr. Amitava Ghosh (Motorola) presented this paper.  
This is the text proposal which was the outcome of offline discussion concerning **R1-01-0309** which was discussed on Day3. (See No. 110) Following one sentence was to be added in the TR in section 6.6.2 "Associate Downlink Signalling"  
*The amount of signalling overhead depends on and increases with the flexibility in the code allocation to different UEs as set up by higher layers.*
- (\*40) Ms. Evelyne Le Strat (Nortel) this paper.  
This is the text proposal on stand alone DSCH. (See No. 122, 123, 124)
- (\*41) Mr. Amitava Ghosh (Motorola) presented this paper.  
This is the text proposal based on the **R1-01-0331** which was discussed on Day3. (See No. 104)
- (\*42) Mr. Amitava Ghosh (Motorola) presented this paper.  
This is the answer for RAN WG2. For the recommendations which have been requested by RAN WG2, the answers were prepared reflecting the RAN WG1 discussion on HSDPA.  
Mr. Erik Dahlman (Ericsson) remarked on AMC issue that we should put in the recommendation that RAN WG1 considers that AMC should be part of release 5.  
Mr. Amitava Ghosh (Motorola) opposed to state that MIMO should be part of release 5.  
After some discussion Chairman suggested as one alternative to put it like "RAN WG1 recommends that MIMO should be part of further HSDPA work" and not to mention about any RELEASE here.  
Finally chairman proposed to make this paper into LS form and send it to RAN WG2 and cc RAN.
- R1-01-0430** was allocated for the revised TR. Mr. Amitava Ghosh (Motorola) will distribute this revised TR on the e-mail reflector. This TR would be provided to next RAN.

### 8.7 Improved Common DL Channel for Cell FACH State (Ad Hoc 28)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
149	28	R2-010664	TS25.306CR009, Modified UE Capability for CPCH	GBT + 25 companies	Noted	(*1) <small>Day3 20:30-21:24</small>
150	28	R1-01-0288	RAN1 Views on UE Support for CPCH in Release 4	GBT	Noted	

(\*1) Mr. Joe Kwak (GBT) presented this CR(RAN WG2 CR in R2-010664).

This is embedded in RAN WG2 LS (R1-01-0314, R2-010740, See No.16). In the LS, RAN WG2 was requesting that RAN WG1 discuss the embedded CR and provide recommendations to RAN #11.

R1-01-0288 was reviewed in succession. This paper listed some points for consideration during the RAN WG1 discussion.

There were some concerns raised especially on the complexity aspects of CPCH. Major opinion was that the additional complexity does not justify the potential benefits at this point of time and we are not ready to consider the CPCH mandatory or as a reference configuration for release 4. There was another comment that stated that SF=512 is still open in RAN WG1 and therefore we cannot say it as mandatory.

Having these comments, chairman concluded that from RAN WG1 point of view we cannot say this as mandatory for the classes listed in RAN WG2 CR. He also pointed out that it is not quite obvious in RAN WG 1 why there should be separate parameters for CPCH in R2-010664 depending on the UE classes.

Chairman remarked that he would mention about this to RAN 11 in his report.

There was also one question asking the meaning of the reference tables in TS 25.306.

/\*\*\* Day3 closed at 09:26 \*\*\*

On Day4, Mr. Joe Kwak (GBT) tried to explain R2-010341 which is embedded inside of the incoming LS (R1-01-0322). Due to the lack of time, chairman encourage people to have a look at that document offline.

Mr. Joe Kwak questioned whether it is possible to start the e-mail discussion on the RAN WG1 e-mail reflector.

Chairman answered yes and supported e-mail discussion on this issue. Mr. Joe Kwak stated that GBT will kick off the e-mail discussion. Chairman remarked that he will report this in his report to RAN. (17:16-17:20)

Day 4, started at 08.42

### 8.8 TDD 1.28 Mcbps functionality (Ad Hoc 21) Work Item Code : LCRTDD-Phys

All following documents/CRs had been basically reviewed in Ad Hoc 21 session on Day1. (See section 7)

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
151	-	-	-	R1-01-0376	TR 25.928 v1.1.2 1.28Mbps functionality for UTRA TDD Physical Layer	-	Siemens	Approved	No Comments <small>Day4 09:39</small>
152	006	1	25.201	R1-01-0377	Inclusion of 1.28Mbps TDD in TS 25.201	B	CWTS/CATT Siemens	Approved	No Comments <small>Day4 09:41</small>
153	043	1	25.211	R1-01-0371	Inclusion of 1.28Mbps TDD in TS 25.221	B	Siemens CWTS/CATT	Approved	No Comments <small>Day4 09:43</small>
154	055	1	25.222	R1-01-0372	Inclusion of 1.28Mbps TDD in TS 25.222	B	Siemens CWTS/CATT	Approved	No Comments <small>Day4 09:45</small>
155	017	1	25.223	R1-01-0373	Inclusion of 1.28Mbps TDD in TS 25.223	B	Siemens CWTS/CATT	Approved	No Comments <small>Day4 09:47</small>
156	047	1	25.224	R1-01-0374	Inclusion of 1.28Mbps TDD in TS 25.224	B	Siemens CWTS/CATT	Approved	No Comments <small>Day4 09:49</small>
157	024	1	25.225	R1-01-0375	Inclusion of 1.28Mbps TDD in TS 25.225	B	Siemens CWTS/CATT	Approved	No Comments <small>Day4 09:51</small>
158	005	1	25.944	R1-01-0255	1.28 Mbps TDD related changes to 25.944	B	Siemens CATT	Approved	No Comments <small>Day4 09:53</small>

## 8.9 Tx-diversity (Ad Hoc 26)

### 8.9.1 Ad Hoc 26 meeting

The actual Ad Hoc meeting took place on Day 3 night. (Day3 21:45 - 22:30)

### 8.9.2 Report from Adhoc 26: Transmit diversity with more than 2 antennas (R1-01-0418)

**Source : Ad Hoc 26 chairman**

(Day4 12:30-12:33)

Two documents(R1-01-0287, R1-01-0335) had been presented at this AH26. They had been noted.

The remaining documents including text proposal to the TR could not be treated and were left for presentation in the plenary.

Remaining papers are as follows.

#### Text proposals:

- **R1-01-0203** Description of the eigenbeamformer concept (update) and performance evaluation,, Siemens
- **R1-01-0204** Text proposal for WG 1 report on Tx diversity for multiple antennas, Siemens
- **R1-01-0370** Proposed TR of Tx diversity for multiple antennas, Samsung
- **R1-01-0404** Text proposal for WG 1 report on Tx diversity for multiple antennas on general issues, Nokia, Siemens

#### Discussion papers:

- **R1-01-0394** Further comments on transmit diversity schemes, Lucent
- **R1-01-0276** Closed Loop Mode Transmit Diversity for DSCH in Soft Handover, NEC

Ad Hoc report was approved with no comments.

Chairman remarked that from TSG RAN point of view it would not be a issue whether we have these remaining paper covered in this meeting or not. The main thing is to schedule Ad Hoc meeting in May on this topic.

He stated that in case we would not have time in the afternoon to discuss these issues, e-mail discussion would be highly encouraged.

## 9. Approval of the liaison statements as output from WG1

No.	Discussed Tdoc	Source	To/Cc	Title	Approved Tdoc	Notes
159	R1-01-0388	Siemens	R2 C:R3	LS about IPDLs in UTRA-TDD	R1-01-0415	No (*1) Comments Day4 09:23
160	R1-01-0393	Vodafone	R2	Response to LS on Default configurations	R1-01-0421	(*2) Day4 11:10
161	R1-01-0339	Nortel	S4 Cc:R2	Response LS to "LS on TSG-SA4 request for information with regard to RAN handling of bit erroneous SDUs within packet switched domain radio bearers" (S4-000652)	R1-01-0426	No (*3) Comments Day4 16:48
162	R1-01-0425	Drafting Group	R2 Cc:RAN	Recommendations on HSDPA	R1-01-0427	(*4) Day4 17:12
163	R1-01-0412	Samsung	R2,R3,R4	LS on revision of TR 25.840 "Terminal Power Saving Features" to v2.3.0	R1-01-0429	(*5) Day4 17:29
164	R1-01-0356	Nokia	R3	LS on DL transmit power setting during UL out-of-synch	R1-01-0431	(*6) Day4 17:37

(\*1) Mr. Siegfried Bär (Siemens) presented this LS. (See No. 86)

(\*2) Mr. Yannick Le Pezennec (Vodafone) presented this LS. (See No. 26)

Mr. Dirk Gerstenberger (Ericsson) suggested that somewhere in the LS it should be mentioned that in general RAN WG1 feels that the parameters should be aligned to TS 34.108.

Chairman agreed to this comment and asked proponent to add this statement.

Chairman also asked the proponent to post this LS on the RAN WG2 e-mail reflector as soon as possible.

(\*3) Ms. Evelyne Le Strat (Nortel) presented this CR. (See No. 13)

(\*4) See No. 148

(\*5) Mr. Ju Ho Lee (Samsung) presented this LS.

Chairman suggested to remove the CRs attached.

Mr. Dirk Gerstenberger (Ericsson) remarked that the following first phrase in the 2<sup>nd</sup> paragraph should be removed. He stated that it is clear that we have not concluded on SSDT solution.

*Although gating is now going to be stable through revision to version 2.2.0,*

(\*6) Mr. Markku Tarkiainen (Nokia) presented this LS. (See No. 43)

Mr. Dirk Gerstenberger (Ericsson) remarked that the first bullet point (see below) should be removed.

*a radio link is initially setup on a frequency i.e. the radio link set it belong to is in initial state*

## 10. Closing

Chairman introduced Joint Ad Hoc meeting in May and stated as follows.

I think inputs on those topics that really span between the working groups are encouraged. Especially we should confirm the view of RAN WG2 on the signalling aspects for example. I think signalling is something which is pretty much between RAN WG1 and RAN WG2. Those signalling aspects are recommended to be raised in this Ad Hoc in May so that after this Ad Hoc we could have clear vision what RAN WG1 should do on this issue and what to expect to RAN WG2 to do. I believe anyway from what I have seen on their report that RAN WG2 has pretty much acknowledged that there is a need of very fast signalling for the various features like AMC or HARQ. They do understand the need for physical layer signalling that is different from release 99. I guess this is something probably that needs to go into some more details. Probably on individual topics like MIMO for instance it is a topic that does not have great interaction with RAN WG2 directly. So at least on this MIMO issues probably we do not need to discuss in RAN WG2. Probably we need to have RAN WG2 issue sorted out on that first. So I think it will be on this HSDPA with AMC and HARQ that we that we should address. Those issues are spanning between RAN WG1 and RAN WG2.

Finally Chairman thanked hosting company (Motorola) for providing good environment and its hospitality.

Meeting closed at 17:38 on March 2, 2001.

## 11. WG1 meeting schedule in year 2000 -2002(Tentative)

Meeting	Year	Month	Date	Location	Hosts
RAN WG1 #10	2000	January	18-21	China	Nokia
RAN WG1 #11	2000	February	29 – March 3	USA	TIP1
RAN #7	2000	March	13-15	Madrid, Spain	
RAN WG1 #12	2000	April	10-13	Korea	TTA
RAN WG1 #13	2000	May	22-25	Tokyo, Japan	NTT DoCoMo
RAN #8	2000	June	21-23	Dusseldorf, Germany	
RAN WG1 #14	2000	July	4-7	Finland	Nokia
RAN WG1 #15	2000	August	22-25	Germany	Siemens
RAN #9	2000	September	20-22	Hawaii	
RAN WG1 #16	2000	October	10-13	Pusan, Korea	Samsung, LGIC
RAN WG1 #17	2000	November	21-24	Stockholm, Sweden	Ericsson
RAN #10	2000	December	6-8	Bangkok, Thailand	Unisys
RAN WG1 #18	2001	January	15-18	U.S.A. Boston	North American Friends of 3GPP
RAN WG1 #19	2001	February	27 – March 2	U.S.A. Lasvegas	Motorola
RAN #11	2001	March	13-16	Palm Springs, CA U.S.A.	North American Friends of 3GPP
HSDPA Ad Hoc	2001	April	5-6	Sophia Antipolis with R2	
RAN WG1 #20	2001	May	21-25 (5days)	Pusan, Korea with R2,3	Samsung
RAN #12	2001	June	12-15	Stockholm, Sweden	Ericsson
Rel-5 Ad Hoc	2001	June	26-28	Helsinki, Finland	
RAN WG #21	2001	August	27-31(5days)	Turin, Italy	Host needed
RAN #13	2001	September	18-21	Beijing, China	Lucent, CWTS
RAN WG #22	2001	October	8-12	T.B.D.	Host needed
RAN WG #23	2001	November	19-23	T.B.D.	Host needed
RAN #14	2001	December	11-14	Kyoto, Japan	ARIB, TTC
RAN #15	2002	March	5-8	(Korea)	TTA
RAN #16	2002	June	4-7	(Europe)	Motorola
RAN #17	2002	September	3-6	(France)	Alcatel
RAN #18	2002	December	3-6	(U.S.A.)	North American Friends of 3GPP

**Annex A : List of approved CRs (Approved in RAN WG1 #18 and #19 meetings)**

**1. CRs to Release 99 specifications / Technical Reports.**

**1.1. TS 25.211**

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.211	091	-	R1-01-0034	DSCH reading indication	F	Ericsson	18-11	RP-010058	3.5.0	3.6.0
2	25.211	092	1	R1-01-0368	Clarification of the S-CCPCH frame carrying paging information	F	Panasonic	19-60	RP-010058	3.5.0	3.6.0
3	25.211	095	1	R1-01-0346	Phase Reference for Secondary CCPCH carrying FACH	F	Nokia	19-63	RP-010058	3.5.0	3.6.0
4	25.211	096	-	R1-01-0359	Uplink power control preamble	F	Ericsson	19-53	RP-010058	3.5.0	3.6.0

**1.2. TS 25.213**

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.213	038	-	R1-01-0247	Clarification of channelization codes when SF=512	F	Siemens, Panasonic	19-36	RP-010059	3.4.0	3.5.0
2	25.213	039	1	R1-01-0348	Clarification of the scrambling code of a power control preamble	F	Panasonic	19-56	RP-010059	3.4.0	3.5.0

### 1. 3. TS 25.214

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.214	142	1	R1-01-0112	Uplink power control in compressed mode	F	Philips	18-27	RP-010060	3.5.0	3.6.0
2	25.214	144	-	R1-01-0052	Removal of the power balancing algorithm from TS 25.214	F	NEC	18-13	RP-010060	3.5.0	3.6.0
3	25.214	145	-	R1-01-0053	Clarification of Nid parameter – when SSdT and uplink compressed mode are in operation	F	NEC, Telecom Modus	18-14	RP-010060	3.5.0	3.6.0
4	25.214	146	-	R1-01-0085	Clarification of closed loop transmit diversity mode 1 and mode 2 operation during compressed mode	F	Motorola	18-15	RP-010060	3.5.0	3.6.0
5	25.214	148	1	R1-01-0352	Clarification of UE SIR estimation	F	Ericsson, Philips	19-57	RP-010060	3.5.0	3.6.0
6	25.214	150	1	R1-01-0357	Clarification of the order of SSdT signalling in 2 bit FBI	F	Panasonic	19-58	RP-010060	3.5.0	3.6.0
7	25.214	154	1	R1-01-0359	Uplink power control preamble	F	Ericsson	19-70	RP-010060	3.5.0	3.6.0
8	25.214	155	-	R1-01-0279	Correction of limited power raise	F	Ericsson	19-39	RP-010060	3.5.0	3.6.0
9	25.214	156	-	R1-01-0282	Clarification of initialisation procedure	F	Philips	19-37	RP-010060	3.5.0	3.6.0
10	25.214	158	-	R1-01-0285	Definition of power control step size for algorithm 2	F	Nokia	19-42	RP-010060	3.5.0	3.6.0
11	25.214	161	1	R1-01-0353	Correction of the UE behaviour in SSdT mode	F	Vodafone, Nokia	19-62	RP-010060	3.5.0	3.6.0
12	25.214	163	-	R1-01-0419	Correction on downlink synchronisation primitives	F	NTT DoCoMo	19-72	RP-010060	3.5.0	3.6.0

### 1. 4. TS 25.215

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.215	079	2	R1-01-0107	Correction of the observed time difference to GSM measurement	F	Nokia	18-28	RP-010061	3.5.0	3.6.0
2	25.215	081	-	R1-01-0071	Removal of UE SIR measurement	F	Ericsson	18-17	RP-010061	3.5.0	3.6.0
3	25.215	082	1	R1-01-0340	Correction of GSM reference	F	Panasonic	19-59	RP-010061	3.5.0	3.6.0
4	25.215	083	-	R1-01-0294	Correction of GPS Timing measurement	F	Ericsson	19-45	RP-010061	3.5.0	3.6.0
5	25.215	086	-	R1-01-0419	Correction on transport channel BLER	F	NTT DoCoMo	19-73	RP-010061	3.5.0	3.6.0



### 1. 5. TS 25.221

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-	V_old	V_new
1	25.221	033	2	R1-01-0350	Correction to SCH section	F	InterDigital	19-65	RP-010062	3.5.0	3.6.0
2	25.221	037	1	R1-01-0019	Bit Scrambling for TDD	F	Siemens	18-20	RP-010062	3.5.0	3.6.0
3	25.221	039	1	R1-01-0111	Corrections of PUSCH and PDSCH	F	Siemens	18-30	RP-010062	3.5.0	3.6.0
4	25.221	040	-	R1-01-0021	Alteration of SCH offsets to avoid overlapping Midamble	F	Siemens	18-31	RP-010062	3.5.0	3.6.0
5	25.221	041	-	R1-01-0022	Clarifications & Corrections for TS25.221	F	Siemens	18-32	RP-010062	3.5.0	3.6.0
6	25.221	045	1	R1-01-0379	Corrections on the PRACH and clarifications on the midamble generation and the behaviour in case of an invalid TFI combination on the DCHs	F	Siemens	19-67	RP-010062	3.5.0	3.6.0
7	25.221	046	-	R1-01-0265	Clarification of TFCI transmission	F	Siemens	19-46	RP-010062	3.5.0	3.6.0
8	25.221	048	-	R1-01-0341	Corrections to Table 5.b "Timeslot formats for the Uplink"	F	InterDigital,	19-66	RP-010062	3.5.0	3.6.0

### 1. 6. TS 25.222

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.222	051	1	R1-01-0019	Bit Scrambling for TDD	F	Siemens	18-21	RP-010063	3.5.0	3.6.0
2	25.222	054	1	R1-01-0242	Corrections & Clarifications for TS25.222	F	Siemens	19-48	RP-010063	3.5.0	3.6.0

### 1. 7. TS 25.223

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.223	015	1	R1-01-0020	Code specific phase offsets for TDD	F	Siemens	19-31	RP-010064	3.5.0	3.6.0

**1. 8. TS 25.224**

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.224	036	-	R1-01-0153	DTX and Special Burst Scheduling	F	InterDigital	18-35	RP-010065	3.5.0	3.6.0
2	25.224	037	1	R1-01-0351	RACH random access procedure	F	InterDigital	19-69	RP-010065	3.5.0	3.6.0
3	25.224	045	-	R1-01-0016	Introduction of closed-loop Tx diversity for the PDSCH and DTX for the PUSCH/PDSCH	F	Siemens	18-19	RP-010065	3.5.0	3.6.0
4	25.224	046	2	R1-01-0358	Corrections of TDD power control sections	F	Siemens	19-68	RP-010065	3.5.0	3.6.0
5	25.224	050	-	R1-01-0209	Use of a special burst in reconfiguration	F	InterDigital	19-51	RP-010065	3.5.0	3.6.0
6	25.224	053	-	R1-01-0252	Known TFCI for the TDD special burst	F	InterDigital	19-50	RP-010065	3.5.0	3.6.0

**1. 9. TS 25.225**

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.225	023	-	R1-01-0107	Correction of the observed time difference to GSM measurement	F	Nokia	18-29	RP-010066	3.5.0	3.6.0

**1. 10. TR 25.944**

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.944	006	-	R1-01-0256	Corrections for TDD sections	F	Siemens	19-52	RP-010067	3.3.0	3.4.0

In total 42 CRs were approved in RAN WG1 #18 and #19 meetings for release 99.

## 2. CRs to Release 4 specifications / Technical Reports.

### 2.1. Low chip rate TDD option (Physical Layer) – Work Item Code : *LCRTDD-Phys*

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.201	006	1	R1-01-0377	Inclusion of 1.28Mcps TDD in TS 25.201	B	CWTS/CATT Siemens	19-152	RP-010071	3.1.0	4.0.0
2	25.221	043	1	R1-01-0371	Inclusion of 1.28Mcps TDD in TS 25.221	B	Siemens, CWTS, CATT	19-153	RP-010071	3.5.0	4.0.0
3	25.222	055	1	R1-01-0372	Inclusion of 1.28Mcps TDD in TS 25.222	B	Siemens, CWTS, CATT	19-154	RP-010071	3.5.0	4.0.0
4	25.223	017	1	R1-01-0373	Inclusion of 1.28Mcps TDD in TS 25.223	B	Siemens, CWTS, CATT	19-155	RP-010071	3.4.0	4.0.0
5	25.224	047	1	R1-01-0374	Inclusion of 1.28Mcps TDD in TS 25.224	B	Siemens, CWTS, CATT	19-156	RP-010071	3.5.0	4.0.0
6	25.225	024	1	R1-01-0375	Inclusion of 1.28Mcps TDD in TS 25.225	B	Siemens, CWTS, CATT	19-157	RP-010071	3.5.0	4.0.0
7	25.944	005	1	R1-01-0255	1.28 Mcps TDD related changes to 25.944	B	Siemens, CATT	19-158	RP-010071	3.3.0	4.0.0

### 2.2. UE positioning enhancement – Work Item Code : *LCSI-UEpos-enh*

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.215	085	-	R1-01-0411	RTD measurement in UTRAN for FDD	B	Nokia	19-91	RP-010072	3.5.0	4.0.0
2	25.221	044	-	R1-01-0226	Correction of beacon characteristics due to IPDLs	C	Siemens	19-87	RP-010072	3.5.0	4.0.0
3	25.224	048	1	R1-01-0389	Idle periods for IPDL location method	B	Siemens	19-90	RP-010072	3.5.0	4.0.0
4	25.225	025	-	R1-01-0229	RTD measurement in UTRAN for UP-TDD	B	Siemens	19-89	RP-010072	3.5.0	4.0.0

### 2. 3. Node B synchronisation for TDD – Work Item Code : *RANimp-NBsync*

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.221	042	2	R1-01-0381	Introduction of the Physical Node B Synchronization Channel	B	Siemens	19-79	RP-010073	3.5.0	4.0.0
2	25.223	016	-	R1-01-0202	Cell synchronisation codes for R4 Node B sync over air interface in UTRA TDD	B	Mitsubishi	19-77	RP-010073	3.4.0	4.0.0
3	25.224	044	2	R1-01-0383	Layer 1 procedure for Node B synchronisation	B	Siemens	19-81	RP-010073	3.5.0	4.0.0
4	25.225	022	-	R1-01-0013	Measurements for Node B synchronisation	B	Siemens	19-78	RP-010073	3.5.0	4.0.0
5	25.836	001	1	R1-01-0382	Additions to the node B synchronisation procedure	C	Siemens	19-80	RP-010073	4.0.0	4.1.0

### 2. 4. DSCH power control improvement in soft handover – Work Item Code : *RInImp-DSCHsho*

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.214	149	1	R1-01-0414	DSCH Power Control Improvement in soft handover	B	Nokia	19-85	RP-010074	3.5.0	4.0.0
2	25.841	001	1	R1-01-0380	TFCI power control for DSCH in split mode	B	LGE	19-84	RP-010074	4.0.0	4.1.0

### 2. 5. Correction type CR

No	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref. No.	RAN T-doc	V_old	V_new
1	25.211	093	1	R1-01-0347	Application of beamforming and combination of beamforming with TX-diversity on UTRA FDD downlink	F	Nokia	19-64	RP-010075	3.5.0	4.0.0

In total, 19 CRs were approved in RAN WG1#19 meeting for release 4.

## Annex B. The Participants List

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Mirko	AKSENTIJEVIC	Nokia
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Henry	Horng	Mitsubishi Electric Co.
Jinling	HU	CWTS/CATT
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Katsutoshi	ITOH	Sony Corporation
Bruno	JECHOUX	Mitubishi Electric
Farooq	KHAN	Lucent Technologies
Hunkee	KIM	Samsung Electronics Co.
Jaeheuns	KIM	Samsung Electronics Co.
Duk Kyung	KIM	SK Telecom
Young-Ju	KIM	LG Electronics Inc.
Bonghoe	KIM	LG Electronics Inc.
Shigenori	KINJO	Texas Instruments Japan Ltd
Dirk	KISTOWSKI	Deutsch Telekom Mobilnet
Janne	KOLU	Elektrobit Ltd
Frank	KOWALEWSKI	Siemens AG
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Guiliang	YANG	CWTS/CATT
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# Appendix E



(TSG-RAN WG2 meeting #58bis  
25-29 June 2007, USA)

R2-072901xxxx

**Title:** Draft~~20~~ minutes of the 58th TSG-RAN WG2 meeting  
(Kobe, Japan, 07-11 May 2007)

**Document for:** ApprovalComments

**Source:** 3GPP support team



*(courtesy of Masato Kitazoe)*

**Please send your last comments by the 15<sup>th</sup> June 2007**

**15<sup>th</sup> May 2007**

*Last updated 22nd June 2007.*

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## 1 Opening of the meeting

### 1.1 Call for IPR

Sugiyama-san from Fujitsu welcomed the participants to Kobe in the name of the Japanese friends of 3GPP.  
Mr. Denis Fauconnier (Chairman) opened the meeting at 09.00 am.

The Chairman made the following IPR call:

The attention of the delegates of this Working Group was drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective Organizational Partners of Essential IPRs they become aware of.**

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

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

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN WG2 Chairman.

## 2 Approval of the agenda

R2-071610 Agenda RAN2-58

RAN2 Chairman

Denis Fauconnier (Chairman) proposed the agenda for the meeting.

**Decision:** The agenda was approved.

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## 3 Minutes from the previous meetings

R2-072131 (Draft1) Minutes of RAN2-57bis, Malta, 26-30 March 2007

ETSI MCC

The minutes were approved.

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## 4 UTRA/UTRAN Long Term Evolution

### 4.1 Incoming LSs on LTE

R2-072101 (GP-070138, Cc RAN2). LS on the continuity of voice calls between LTE and GERAN/UTRAN

GERAN

R2-072128 (S2-072264, Cc RAN2). Reply LS to GERAN – LTE interworking

SA WG2

These document was presented by Masato Kitazoe from Qualcomm.

**Discussion:**

**Decision:** The LSs were noted.

R2-072102 (R1-071806, Cc RAN2). LS on Agreement on UL Inter-cell Power Control

RAN WG1

The document was presented by Magnus from Ericsson.

**Discussion:**

**Decision:** The LS was noted.

R2-072103 (R1-071838, to RAN2). LS on random access procedure parameters

RAN WG1

The document was presented by Benoist Sebire from Nokia Siemens Networks.

**Discussion:**

**Draft1 minutes of the 58<sup>th</sup> TSG-RAN WG2 meeting**

This has an impact on MAC/RRC.

**Decision:** The LS was noted.

R2-072104 (R1-071839, to RAN2). LS on target quality on L1/L2 control channel RAN WG1  
The document was presented by Gert-jan van Lieshout from Samsung.

**Discussion:**

Is not 1% of the throughput lost, as a consequence ? It was clarified that this is the cell edge performance, cell center can be much better.

**Decision:** The LS was noted. This will be captured in the stage 2.

R2-072105 (R1-071940, to RAN2). LS on Layer-1-related system information RAN WG1  
The document was presented by Antonella from Alcatel-Lucent.

**Discussion:**

**Decision:** The document was noted.

R2-072112 (R3-070720, to RAN2). LS on IP multi-cast for S1-AP messages RAN WG3  
The document was presented by Anders from Ericsson.

**Discussion:**

**Decision:** The document was noted.

R2-072113 (R3-070729, to RAN2). LS on data forwarding for IRAT Handover RAN WG3  
R2-072119 (S2-072279, to RAN2). Reply LS (to S2-072093) on data forwarding for IRAT Handover SA WG2  
The documents were presented by Kim from Samsung.

**Discussion:**

**Decision:** The document was noted.

R2-072116 (S2-072230, Cc RAN2). Reply LS (to R3-070509) on EPC update at inter eNodeB mobility SA WG2  
The document was presented by Richard Burbidge from Motorola.

**Discussion:**

**Decision:** The document was noted.

R2-072117 (S2-072275, to RAN2). LS on the need of in sequence data delivery SA WG2  
The document was presented by (...) from Motorola.

**Discussion:**

Ciphering in PDCP, transfer of PDCP sequence numbers: Are SA2/SA3 aware of the assumptions/decisions ?

Question 3 is internal to the RAN.

**Decision:** The document was noted.

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R2-072120 (S4-070314, to RAN2). Reply LS (to R2-071104) on Rate-Adaptive Real-time Media SA WG4  
The document was presented by Gert-jan van Lieshout from Samsung.

**Discussion:**

There would be performance benefits in a tighter control of the application. Will SA4 specify this (e.g. for the integrity phone case), or should RAN2 specify an in-band functionality, instead ?

**Decision:** The document was noted. LS to SA4 in RP-072133 (T-Mobile). To SA4, SA2, SA1.

R2-072121 (S3-070280, to RAN2). Reply LS (to R2-071105) on Verification of security principles SA WG3  
The document was presented by Benoist Sebire from Nokia Siemens Networks.

**Discussion:**

AKA can be run in the background (because transparent to RAN2). However, the key needs to be changed in the Node-B when K-ASME is changed. What was the motivation for the change of the security architecture ?

The security procedures (e.g. key change) need to be addressed in RAN2.

**Decision:** The document was noted. Reply LS in R2-072134 (Qualcomm).

R2-072123 (R3-070732, to RAN2). LS on LTE MBMS and PDCP RAN WG3  
The document was presented by (...) from Ericsson.

**Discussion:**

PDCP header compression was agreed last time. Hence, location in the gateway. Multicast for SFN operation.

Full header compression carried on the S1.

**Decision:** The document was noted. Reply LS in R2-072135 (Ericsson).

R2-072125 (S2-072265, to RAN2). LS on E-UTRAN Idle mode downlink packet buffering and initiation of network triggered service request SA WG2  
The document was presented by Ravi Kuchibhotla from Motorola.

**Discussion:**

The terminology "gateway" was updated in SA2.

**Decision:** The document was noted.

R2-072110 (R3-070700, Cc RAN2). LS on NAS Handling during intra-LTE handover RAN WG3  
The document was presented by Sudeep Palat from Alcatel-Lucent.

**Discussion:**

**Decision:** The document was noted.

R2-072126 (R1-071837, to RAN2). LS on Physical Layer Depadding RAN WG1



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**Discussion:**

This deserves a joint session (at six o' clock in the morning).

**Decision:** The document was (amusingly) noted.

R2-072143 (R1-072549, to RAN2). Reply LS on uplink VoIP scheduling

RAN WG1

The document was presented by Mikio (...) from DoCoMo.

**Discussion:**

**Decision:** The document was noted.

R2-072172 (R4-070778, Cc RAN2). Reply LS (to R1-071250) on LTE measurements supporting mobility

RAN WG4

The LS was postponed for the next meeting.

R2-072303 (R3-071174, to RAN2). LS on RAN WG3 updates to 36.300

RAN WG3

The document was presented by Benoist Sebire from Nokia Siemens Networks.

**Discussion:**

**Decision:** The CR was agreed in R2-072333, CR 0001. An update of the CR was endorsed over the RAN3 reflector and then agreed over the RAN2 reflector following the meeting. The CR was revised into:

R2-072344	<u>Changes to management-, handover-, paging- and NAS functions, node-synchronization, X2 UP protocol stack, X2 inter cell load management, IP fragmentation, intra-LTE HO, and TA relation to cells in eNB</u>	CR	0001	1	36.300 Rel-8	RAN WG3
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That was agreed over the reflector.

## 4.2 Items treated in e-mail discussion (rapporteur report only)

R2-072132 Report of email discussion point 2: LTE System performance

Ericsson

The document was presented by Vera (...) from Ericsson.

**Discussion:**

**Decision:** The document was noted.

R2-071808 Summary of email discussion on cell reselection parameters in LTE

Ericsson

The document was presented by Magnus (...) from Ericsson.

**Discussion:**

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0.5% of probability of collision was assumed.  
One typical scenario may be one slot per 10ms.

**Decision:** The document was noted.

R2-072072 Report of email discussion on Home eNodeB Requirements (Point 8)  
The document was presented by Dave Fox from Vodafone.

Vodafone Group

**Discussion:**

Point 9, second sequence: It was clarified that the intention was for the UE to indicate to the network that it is in the coverage of a Home eNodeB.  
What if the same band is used ? Common gaps may be necessary.

The macro layer refers to a layer above the Home eNodeB. The difference is Closed User Group. So, the terminology could be based on the words User Group (e.g. Closed User Group Cells, or Private Cells). Anyhow, the terminology "Home" is misleading here.

There could be coordinated or not coordinated deployments.

One solution would be to use a SIM-based mechanism (Closed User cells to be indicated in the broadcast. The UE may try to access the cell only if the UE belongs to the corresponding user Group, in the SOLSA way).

There are two scenarios:

- Closed User Group refers to a (network operator-) coordinated deployment.
- Home eNodeB refers to an uncoordinated deployment of eNode B at Home.

What are the requirements on registration/rejection/access ? Depending on this, Home NodeB and Private Cells may be based on a similar Closed User Group solution.

**Decision:** The document was noted. The document was revised in R2-072139 (Vodafone):

R2-072073 Report of Email Discussion on MBMS definitions (Point 3)

Vodafone Group

The document was revised before presentation in R2-072137, but R2-072073 was presented.

The document was presented by Dave Fox from Vodafone Group.

**Discussion:**

The definitions encompass UTRAN, however there is still one "eNodeB" in the first paragraph.

Difference between R2-072073 and R2-072137 is on the MBSFN definition.

The reserved cell is not related to the MBMS transmission.

Could not the reserved cells have an impact on the mobility procedures due to cell coverage shrinking ?

The diagram is incorrect: MBMS reserved cells can be or not be part of the MBSFN area.

Cells are simply either transmitting or not in the MBSFN area. Is this worth creating new definitions ?

On the network interface:

- Any cell in the cluster will receive U-Plane and C-Plane.
- Reserved cells will receive C-Plane only.

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It was clarified that the sentence "Cells within the MBSFN area may or may not..." is meant to say that cells may transmit the user plane but not advertise the service.

**Decision:** The document was noted. No specific name for cells not in the MBSFN area. Revised in R2-072142:

R2-072142 Home eNodeB definitions

Vodafone Group

The document was presented by Dave Fox from Vodafone Group.

**Discussion:**

The wording "transmitting the service" seems unclear.

- "MBMS area Transmitting and advertising" will be used instead.

- "MBMS area transmitting only - ffs".

**Decision:** The document was noted. The update will be incorporated later-on in the Stage 2. Update of this document in R2-072148 (Vodafone).

R2-072074 Report of email discussion on UE State during MBMS Reception (Point 1)

Vodafone Group

The document was presented by Dave Fox from Vodafone Group.

**Discussion:**

Differences in performance between proposal 2 using x mobiles and proposal 2 using 1 mobile (point-to-point) should be understood.

**Decision:** The document was noted.

**Note: Parallel sessions. Minutes onwards regarding clause 4 taken by the RAN2 Chairman.**

R2-072001 [Point #5] System Information Delivery - E-mail Report

Rapporteur

The document was presented by Ravi Kuchibhotla from Motorola.

**Discussion:**

**Decision:** The document was noted.

R2-072148 Report of email discussion on MBMS definitions (Point 3)

Vodafone Group

**Discussion:**

**Decision:** agreed.

R2-072139 Report of email discussion on Home eNodeB Requirements (Point 8)

Vodafone Group

The document was presented by Dave Fox from Vodafone.

**Discussion:**

**Decision:** agreed.

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R2-072184 Proposed way forward for E-MBMS based on Proposal 2  
The document was presented by Dave Fox from Vodafone Group.

Vodafone Group

**Discussion:**

**Decision:**

PTM-MC: uses MCH, scheduled by the MCE, PDCP in the Gw  
PTM-SC: uses DL-SCH, scheduled by the eNB

**Proposal:**

- PTM-SC and DL-SCH: allocate to multiple UEs a dedicated feedback channel (ACK-NACK & CQI) identical to Unicast case; allowing HARQ; these multiple UEs receiving/ACK-NACKing the Multi-cast transmissions. eNB can schedule re-transmissions on DL-SCH, also sent Multicast and recombined by the UE.
- PTP is not supported
- Feed-back for PTM-MC is FFS.

UEs who are allocated a feedback channel but no S1 for Unicast have a RRC connection which has the following characteristics:

- UE has a RNTI
- UE measurement reports
- No Handover prep, just cell change order
- RRC connection is not maintained at cell change i.e. a new one will need to be established if needed
- Indication to target cell of new UE in order to speed up MBMS availability? FFS

UEs who are allocated a feedback channel and S1 connected for Unicast have a RRC connection which has the following characteristics:

- Normal mobility. Transfer of MBMS context on X2 TBD

**End of decision**

## 4.3 Endorsement of latest version of the stage 2

R2-071712 Stage 2 Update  
The document was presented by Benoist Sebire from Nokia.

Nokia Siemens Networks  
(Rapporteur)

**Discussion:**

Should all the UE capability contributions be included in the annex, or not ? Clause 12 will be double-checked.

**Decision:** The proposed changes were endorsed except clause 12. Contribution for clause 12 is in R2-072147.

R2-072147 Update of Stage 2 Clause 12  
The document was withdrawn (not available). The changes will be done by the rapporteur in the update of the Stage 2 that will be sent on the reflector.

## 4.4 Performance verification

R2-071810 LTE Performance verification – U-plane and C-plane latencies  
The document was presented by Magnus from Ericsson.

Ericsson, Motorola, Nokia, Nokia  
Siemens Networks, Samsung, NEC

**Discussion:**

**Decision:** The document was noted. The TR will be updated with this proposal. A CR will be presented to the plenary (source: RAN2). See R2-072146.

R2-071869 LTE C-plane + U-plane latency analysis for TDD frame structure type 2  
The document was presented by Haiyang Quan from Datang.

CATT

**Discussion:**

All in 1ms frame durations would make the solution simpler.

**Decision:** The document was noted. All (FDD and all TDDs) will be in 1ms frame duration. Re-doing of calculations and merge is necessary.

R2-071920 LTE Performance verification for TDD – U-plane and C-plane latencies  
The document was presented by (...) from IPWireless.

IPWireless

**Discussion:**

**Decision:** The document was noted. R2-071810, R2-071869, R2-071920 will be merged in a LS to RAN Plenary. In R2-072146. (Ericsson):

R2-072146 LTE U-plane and C-plane latencies  
The document was presented by Magnus (...) from Ericsson.

LS xxxx

Ericsson

**Discussion:**

**Decision:** The document was noted. R2-071810, R2-071869, R2-071920 will be merged in a LS to RAN Plenary. In R2-072146. (Ericsson):

R2-071811 LTE Performance verification – Handover latency  
The document was presented by Magnus (...) from Ericsson.

Ericsson, Nokia, Nokia  
Siemens Networks, Samsung,  
NEC

Mr. Janne Peisa

**Discussion:**

SFN neighbour cell knowledge is needed for the neighbour cell detection.

This is based on FDD only so far.

**Decision:** The document was noted. A CR on 25.912 will be produced (Ericsson).

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## 4.5 System Information content & delivery

R2-071968 P-BCH Transmission Interval in LTE

NTT DoCoMo, Inc., NEC

The document was presented by Mikio Iwamura (...) from DoCoMo.

### Discussion:

SFN usage

- DRx reference
- RACH, especially in the case of 1.25MHz (tbd)
- BCCH cycle reference
- paging
- Reference for frequency hopping (tbd)
- Timing for L1/L2 control channels
- CQI & sounding reference allocation

Is it needed to read P-BCH for inter-frequency measurement report? This is FFS.

**Decision:** The P-BCH is sent every 40ms (working assumption). If later studies show that this is too long, this will be revisited towards 20ms. The PLMN list is sent on D-BCH every 80ms. This will be captured in the stage 2

R2-071815 Transmission of BCH

Ericsson

Mr. Janne Peisa

R2-071814 The content and timing of BCH

Ericsson

Mr. Janne Peisa

Noted without presentation

R2-071768 System information contents and the periodicity for No NCL

Panasonic

Noted without presentation

R2-071763 Structure of BCH

QUALCOMM Europe

Dr. Nathan Tenny

Noted without presentation

R2-071702 SFN Synchronization without BCH bits for LTE – Latency Reduction Options

SHARP corporation

The document was presented by Prem Sood (...) from Sharp.

### Discussion:

**Decision:** The SFN is sent on the P-BCH, the proposal is not agreed. RAN1 should be informed of the decision.

R2-072010 Operator's view on neighbour cell information

NTT DoCoMo, Vodafone, Telecom Italia, T-Mobile, Orange

The document was presented by Mikio Iwamura (...) from DoCoMo.

### Discussion:

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**Decision:** Principle of alternative 1 from the conclusion is the agreed solution i.e. agreement follows: Active mode mobility relies on detected cells for intra-frequency case. A specific offset is defined for each neighbour cell, and it is common for Idle and Connected mode mobility. It is sent on P-BCH and decoded by UEs for both idle & active mode. Explicit NCL are still FFS. A LS will be sent to RAN4 informing them of our status and asking whether there is a benefit to assist the cell detection for e.g. tunnel; by e.g. providing explicitly certain cells (can be intra, inter, inter-RAT...).

R2-071785 Neighbour cell reduction using LCV Huawei  
The document was presented by Michael Roberts (...) from Huawei.

**Discussion:** The scheme is optionally used for cases where there are many “black listed” cells, but the LCV on the P-BCH would be reserved even if the scheme is not used.

**Decision:** noted, Huawei needs to convince delegates offline since people try to understand the scheme and its benefits.

R2-071762 Scheduling of D-BCH QUALCOMM Europe Dr. Nathan Tenny  
The document was presented by Nathan (...) from Qualcomm.

**Discussion:** is there really an issue for low cycle broadcast? It remains predictive

**Decision:** noted

R2-071813 Scheduling of System Information Ericsson Mr. Janne Peisa  
The document was presented by Vera (...) from Ericsson.

**Discussion:**

**Decision:** noted

R2-071911 System information structure (with TP) Samsung Mr. Himke van der Velde  
The document was presented by Himke (...) from Samsung.

**Discussion:**

**Decisions:**

- SU1 is sent on the D-BCH
- No need for secondary BCH
- Periodicity of SU-1 is 80ms; it contains the PLMN list.
- SU1 contains a scheduling block providing the periodicity for all the SU-n>1.
- SU1 contains the mapping of SIBs into SUs, dynamic, or mapping of SIBs into SUs is fixed in the standard. This is FFS.
- SU1 contains a value tag for each individual SU or (MIB or SU1) contains a value tag for all the SUs (FFS which of the solutions is selected).
- SU-1 is in the following sub-frame of P-BCH.
- Unicast DL-SCH transmissions can take place in parallel to SUs transmission, using L1/L2 control channel.
- Maximum D-BCH rate = minimum UE capability; Maximum D-BCH rate has to be studied. => RAN1

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- SUs can be segmented, in which case each segment is sent in the next sub-frame as the previous one i.e. continuous time transmission (RB can vary using L1/L2 control channel)
- Whether SUs are contiguous (in a row) is FFS (benefit of continuous transmission is UE battery saving)
- Can eNB send different SUs in the same sub-frame? We need to ask RAN1
- LS to RAN1 will be written by Samsung
- Information on P-BCH is called MIB
- Samsung will capture the agreement in a text proposal

**End of decisions**

R2-071739 System Information Change Indication Nokia, Nokia Siemens Networks Mr. Benoist Sébire  
noted without presentation

R2-071759 Neighbour Cell List Considerations Nokia, Nokia Siemens Networks  
noted without presentation

R2-071738 Procedure for Reading Scheduling Units Nokia, Nokia Siemens Networks Mr. Benoist Sébire  
R2-071769 System information reception for Inter-frequency mobility Panasonic  
R2-071770 Cell reselection before call setup procedure Panasonic  
R2-071870 Notification scheme for system information Change CATT Mrs. Haiyang Quan  
R2-071912 System information scheduling and change notification Samsung Mr. Himke van der Velde  
All noted without presentation

R2-072183 LS to RAN1 on System Information Samsung  
The document was presented by GJ (...) from Samsung.  
**Discussion:-**  
**Decision:-** The LS was approved

## 4.6 Random access procedure

R2-071906 Access Service Classes in LTE Samsung Mr. Gert-Jan van Lieshout  
The document was presented by GJ (...) from Samsung.



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**Discussion:**

**Decision:** The current understanding in RAN2 is that ASC concept is not needed. It will be removed from the Stage 2. If one company wants to have it for LTE, a document will have to show that it is necessary.

R2-071732 Differential RACH Access based on Access Classes  
The document was noted without presentation

Nokia, Nokia Siemens Networks Mr. Benoist Sébire

R2-071681 Urgent Non-urgent split of RACH signatures in E-UTRA  
The document was presented by XX (...) from TI.

Texas Instruments Inc

**Discussion:**

**Decision:** 3 companies support the proposal, 6 companies believe that there is no gain from the proposal. The proposal is noted, TI has to convince companies of the benefits of the proposed scheme.

R2-071817 Solution for sending NAS together with RRC connection request  
The document was presented by Magnus (...) from Ericsson.

Ericsson

Mr. Janne Peisa

**Discussion:**

**Decision:**

R2-071664 Discussion on contents of message 3  
The document was presented by Sudeep (...) from Alcatel-Lucent.

Alcatel-Lucent, Samsung

**Discussion:**

**Decision:** RAN2 will work on a model whereby Msg3 will have the TMSI + associated (NAS) information allowing to authenticate the UE. The TMSI will also be part of the RRC message so that it can be used for contention resolution, and is used to route the establishment towards the appropriate MME. A LS will be sent to SA2, SA3 CC CT1 (written by Alcatel-Lucent)

R2-071626 RACH retransmission number  
The document was presented by Jin-Sock (...) from NEC.

NEC

Mr. David Lecompte

**Discussion:**

**Decision:** noted

R2-071771 Remaining issues on Random Access procedure usage  
The document was presented by XX (...) from Panasonic.

Panasonic

**Discussion:**

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**Decision:** noted.

R2-072033	Message 2 transmission when a dedicated preamble used	Samsung	
R2-071726	Non-contention based Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071674	Use of short C-RNTIs in message 2	LG Electronics Inc.	Mr. Patrick Fischer
R2-071939	Optimization for message 2 transmission	LG Electronics Inc.	
R2-071923	Discussion on Message 4 in Random Access	LG Electronics Inc.	
R2-071673	Transport format and power headroom in preamble Retransmission	LG Electronics Inc.	Mr. Patrick Fischer
R2-071938	Clarification on RA procedure	LG Electronics Inc.	
R2-071970	Contention Resolution and Initial Random Access	TD Tech Ltd.	
R2-071991	Content of Message 2	QUALCOMM Europe	
R2-072035	Optimization of contention resolution in aRACH	Samsung	
R2-072048	Issues related to RACH access preamble	ASUSTeK	
R2-072050	Consideration related to Random Access Response	ASUSTeK	
R2-072084	Management of Dedicated Signatures	LG Electronics Inc., Samsung	
R2-072088	UE Identity Validity in RA Procedure	ASUSTeK	
R2-072089	Issues on Random Access Procedure	ASUSTeK	
R2-072090	Random and dedicated preamble based RACH access in E-UTRAN	IPWireless	
R2-072096	Consideration related to Contention Resolution	ASUSTeK	

All were noted without presentation and will be studied in future meetings when discussing the stage 3 of RACH procedure

#### 4.7 UL scheduling optimisations for VoIP (RAN1 reply LS needed)

R2-071840 ROHC Compliant Scheduling LG Electronics Inc.

The document was presented by [Mr. SeungJune YiSunjung \(...\)](#) from LGE.

**Discussion:**

**Decision:** The proposal is not agreed, the same ROHC principles as UTRA is assumed i.e. no control of ROHC internal parameters by RRC

R2-071994 Impact of HARQ Termination Statistics on UL VoIP Capacity QUALCOMM Europe

The document was presented by Alex (...) from Qualcomm.

**Discussion:** Adaptivity for retransmissions is to maintain contiguous free resources in UL. UL HARQ operating point is higher than DL.

**Decision:** optimisations should allow for a high number of retransmissions

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R2-072062 The need for uplink enhancement  
The document was presented by xx (...) from Samsung. samsung  
**Discussion:**  
**Decision:** noted

R2-072143 Reply LS on uplink VoIP scheduling  
The document was presented by Jinsock ~~Lee from NECx (...) from LGE.~~ RAN WG1  
**Discussion:**  
**Decision:** noted

R2-071818 DRX control for LTE\_ACTIVE and VoIP  
The document was presented by Magnus (...) from Ericsson. Ericsson Mr. Janne Peisa  
**Discussion:**  
**Decision:**

R2-071961 Uplink VoIP Scheduling with Fast Indication  
The document was presented by XX (...) from RIM. RIM Mr. Gordon Young  
**Discussion:** What is the benefit vs a Nw detection? We should not have the lower layers of the UE knowing the application layer.  
**Decision:** Detection of silences can be done in the eNB, eNB may have some knowledge of the application by use of the Label, and there is no agreement to define anything in the UE. Buffer Status reports could be optimised to support VoIP, e.g. for transitions from silence to speech, this will be studied in the stage 3, but no ad-hoc mechanism is defined, it will have to remain a generic mechanism.

R2-071995 On Uplink Scheduling for VoIP  
The document was presented by Alex (...) from Qualcomm. QUALCOMM Europe  
**Discussion:**  
**Decision:** noted

Discussion summary: RAN1 requested RAN2 to reduce the signaling overhead vs dynamic non adaptive by a factor 4 to reach maximum capacity. This can be achieved by semi-persistent dynamic only if the HARQ operating point is below 1.25 i.e. 25% retransmissions. So if it is above this value, semi-persistent dynamic may not provide the expected gains and only the group mechanism.

R2-072002 UL VoIP Scheduling Motorola  
R2-071742 UL VoIP Capacity for Semi-persistent Scheduling and Group Scheduling Nokia, Nokia Siemens Networks Mr. Benoist Sébire  
R2-071744 Synchronous adaptive HARQ for E-UTRAN UL Nokia, Nokia Siemens Networks Mr. Benoist Sébire

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Noted without presentation

Final discussion & decision: 14 Companies voted in favour of Semi-persistent scheme, 7 in favour of a group mechanism, one expressed the view that we should wait. As a result, the Semi-persistent scheme was selected, and the group reviewed R2-071745 to capture the agreement

R2-071745 Text Proposal for UL Scheduling  
The document was presented by Benoit Sebire (...) from Nokia.  
**Discussion:**  
**Decision:** agreed text will be in R2-071745

CATT, Elektrobit, Ericsson, Fujitsu, ITRI, LGE, Mitsubishi, Nokia, Nokia Siemens Networks, NTT DoCoMo, Samsung Mr. Benoist-Sébire

R2-071745 Text Proposal for UL Scheduling  
The document was presented by Benoit Sebire (...) from Nokia.  
**Discussion:**  
**Decision:** agreed

CATT, Elektrobit, Ericsson, Fujitsu, ITRI, LGE, Mitsubishi, Nokia, Nokia Siemens Networks, NTT DoCoMo, Samsung Mr. Benoist-Sébire

R2-071745 Text Proposal for UL Scheduling  
The document was presented by Benoist Sebire from Nokia.  
**Discussion:**  
Text on retransmission to be rephrased.  
Some 'ffs' will be removed.  
**Decision:** The proposal was agreed in R2-072324.

CATT, Elektrobit, Ericsson, Fujitsu, ITRI, LGE, Mitsubishi, Nokia, Nokia Siemens Networks, NTT DoCoMo, Samsung Mr. Benoist Sébire

## 4.8 Time alignment principles

R2-072014 Uplink synchronisation maintenance  
The document was presented by Umesh Anil (...) from NTTDoCoMo.  
**Discussion:**  
**Decision:** noted

NTT DoCoMo, Inc.

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R2-071903 Maintenance of UL sync  
The document was presented by GJ (...) from Samsung.  
**Discussion:**  
**Decision:** noted

Samsung

Mr. Gert-Jan van  
Lieshout

R2-071630 Principles of uplink timing maintenance  
The document was presented by Jinsock (...) from NEC.  
**Discussion:**  
**Decision:** Nw can send a specific Timer to each UE. It may be set to an infinite value.

NEC

Mr. David Lecompte

R2-071996 Uplink Synchronization Maintenance  
The document was presented by XX (...) from Motorola.  
**Discussion:**  
**Decision:** noted

Motorola

R2-071940 Uplink timing alignment  
The document was presented by [Mr. SungJun Park](#)XX (...) from [LG Electronics Inc.](#)  
**Discussion:**  
**Decision:** noted

LG Electronics Inc.

R2-071741 UL synchronization recovery  
The document was presented by XX (...) from Nokia.  
**Discussion:** using 6 RBs for one UE is not resource efficient

Nokia, Nokia Siemens Networks

Mr. Benoist Sébire

**Decision:** a dedicated signature on PRACH can be allocated to re-sync a UE on data arrival. Usage of contention based PRACH as a fall back in case of lack of dedicated signatures is also possible.

R2-071754 consideration on scenarios for TA update  
The document was presented by XX (...) from ZTE.

ZTE

Mr. Zhongda Du

**Discussion:**  
**Decision:** noted. The possibility to disable the Timer has been agreed when treating R2-071630

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R2-071786 maintenance of UL synchronization huawei  
The document was presented by Johan (...) from Huawei.  
**Discussion:**  
**Decision:** noted.

When does the UE reset the timer? It will be decided after the response from RAN WG1 is received.

Decision: TA updates are sent in MAC PDUs using C-RNTI, inbedded with data or standalone. Possibility in some cases to use L1/L2 is FFS. Specific case of PRACH sent on arrival of DL data has to be studied.

## 4.9 MIMO principles

No input.

## 4.9 UE Capabilities

R2-071806 UE capability handling in LTE QUALCOMM Europe  
The document was presented by Masato Kitazoe from Qualcomm~~Johan (...) from Huawei~~.  
**Discussion:**  
**Decision:** an e-mail discussion will be held on the independance or coupling of UL and DL bit rate capability. In R2-072337.

R2-071819 Signaling Method for Uploading UE Capability Information Ericsson Mr. Janne Peisa  
The document was presented by XX (...) from Ericsson.  
**Discussion:**  
**Decision:** a proposal will be drafted based on the proposal and a LS will be sent to SA2 & CT1.  
However, offline discussion could neither achieve an agreed proposal nor an agreement that NAS signalling should be used to convey all UE capabilities. Operators wanted to assess how well the mobility drivers are fulfilled and how the S1 signalling load could be minimized. Email discussion was encouraged by several companies.

R2-072080 UE capabilities Motorola  
The document was presented by Ravi (...) from Motorola.  
**Discussion:**  
**Decision:** noted, Motorola will continue to work on the subject for the next meeting, and interested companies can contact Motorola.

## 4.10 LTE\_ACTIVE mobility procedures

### 4.11.1 Intra LTE

#### Data forwarding at handover

R2-071704 Data handling at handover samsung  
The document was presented by XX (...) from Samsung.

**Discussion:**

**Decision:** The following is agreed and is in fact captured in the decision on 1719

- to keep the previous working assumption of selective forwarding/retransmission with UE PDCP reordering
- to FWD PDCP SDUs
- to define a mechanism between the UE and the Nw allowing to only retransmit the PDCP SDUs which have not yet been delivered correctly on the radio mechanism
- Uplink re-ordering is done in the target eNB in PDCP layer.

**End of decision**

R2-071719 User Plane Data Handling at Handover Nokia, Nokia Siemens Networks  
The document was presented by Benoit Sebire (...) from Nokia. Mr. Benoist Sébire

**Discussion:**

**Decision:** agreed with one change in 10.1.2.3 add “with their sequence number” and another change

R2-071659 Consideration on the forwarding strategy in the inter-RAT HO scenario Alcatel-Lucent  
R2-072061 Consideration on the forwarding strategy in the inter-RAT HO scenario Alcatel-Lucent, LG Electronics  
The document was briefly summarised by Sudeep Palat (...) from Alcatel-Lucent.

R2-072309 User Plane Data Handling at Handover Nokia, Nokia Siemens Networks  
The document was presented by Benoit Sebire (...) from Nokia. Mr. Benoist Sébire

**Discussion:**

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**Decision:** agreed. A LS will be written in R2-072316 by NEC to SA2 & RAN3 informing them of our decision with the document attached.

R2-071655	Discussion on Data forwarding options for intra-LTE Handover		Alcatel-Lucent
The document was revised before presentation in R2-072060:			
R2-072060	Discussion on Data forwarding options for intra-LTE Handover		Alcatel-Lucent, LG Electronics
R2-071774	Packet data handling at mobility	Panasonic	
R2-071822	User plane handling at mobility	Ericsson	Mr. Janne Peisa
R2-071973	User Plane handling during inter-eNB HO	NEC	Mr. Jagdeep Singh
R2-072063	Proposals on data handling at inter-eNB handover	NTT DoCoMo, Inc.	

Noted without presentation

**ROHC at handover**

R2-071977	ROHC reset during inter-eNB handover	Nortel	
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The document was presented by Mathieu Boué-Lahorgue (...) from Nortel.

**Discussion:**

**Decision:** noted

R2-072045	Support of ROHC and context relocation	NEC	Mr. David Lecompte
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The document was presented by XX (...) from NEC.

**Discussion:** Several companies raised the fact that ROHC is a “black box” and therefore a context cannot be defined.

**Decision:** Noted. No agreement to support the ROHC context transfer or not. Contributions are invited at the next meeting.

**Other**

R2-071908	NAS message handling during mobility		Mr. Gert-Jan van Lieshout
R2-071728	Measurement Gap Creation		Mr. Benoist Sébire
R2-071766	Text proposal on measurement gap scheduling		Dr. Nathan Tenny
R2-071992	High Level Comparison of Handover in GSM, UMTS and LTE	Samsung	
R2-071993	LTE Intra/Inter-RAT handover algorithms for LTE_ACTIVE state	Nokia, Nokia Siemens Networks	
R2-072008	Load balancing solutions for LTE	QUALCOMM Europe	
R2-072009	Measurement gap control principles	QUALCOMM Europe	
		QUALCOMM Europe	
		NTT DoCoMo, T-Mobile, Orange, LG Electronics	
		NTT DoCoMo	



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R2-072012	E-UTRAN Measurement Gap Control for Inter-Frequency and Inter-RAT Handover	Motorola	
R2-071727	E-UTRA Measurement and Cell Reselection considerations	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071759	Neighbour Cell List Considerations	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071622	Minimizing the timing advance procedure requirement during LTE handover	InterDigital	Mr. Stephen Terry
R2-071629	Connection re-establishment	NEC	Mr. David Lecompte
R2-071631	Need for Maintained DRX at intra LTE handover	NEC	Mr. David Lecompte
R2-071633	Reliability Considerations for the Handover Command	Alcatel-Lucent	Mr. Osman Aydin
R2-071635	RLC status reporting during handover	Alcatel-Lucent	Mr. Osman Aydin
R2-071637	Relevant Information for Handover	Alcatel-Lucent	Mr. Osman Aydin
R2-071656	Discussion on target cell synchronisation during intra-LTE HO	Alcatel-Lucent	
R2-071657	Discussion on Handover Confirm message	Alcatel-Lucent	
R2-071684	A Pre-synchronization method for E-UTRA Handovers	Texas Instruments Inc	
R2-071687	Latency and overhead comparison for pre-synchronization in E-UTRA Handovers	Texas Instruments Inc	
R2-071715	Minimising Radio Resource Wastage on Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071716	Radio Link Failure and Context Recovery	Ericsson, NEC, Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071717	Handover Failure Recovery	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071718	Relevant Information for Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071720	Forwarding Instant	Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire
R2-071721	Sequence Number Handling at Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071722	Handover Command Transmission	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071751	non-synchronized handover procedure	ZTE	Mr. Zhongda Du
R2-071752	consideration on handover interruption time	ZTE	Mr. Zhongda Du
R2-071773	Measurement Functionality split for Broadcast and Dedicated	Panasonic	
R2-071800	Protocol termination for HO signalling	QUALCOMM Europe	
R2-071801	Considerations on RRC re-establishment	QUALCOMM Europe	
R2-071820	On the details of the dedicated preamble at intra-LTE handover	Ericsson	Mr. Janne Peisa
R2-071821	Mobility during attach	Ericsson	Mr. Janne Peisa
R2-071823	E-UTRA Measurement Configuration and Control	Ericsson	Mr. Janne Peisa
R2-071824	Radio link failure at handover	Ericsson	Mr. Janne Peisa
R2-071864	Synchronised Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071917	Recap of handover procedure, control plane aspects (with TP)		Mr. Himke van der Velde
R2-071918	Evaluation of backward handover schemes	Samsung	Mr. Himke van der
		Samsung	

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R2-071931	Contention-free Intra-LTE handover in synchronous network	IPWireless	Velde
R2-071941	Periodic measurement reporting with semi-persistent scheduling	LG Electronics Inc.	
R2-071946	Early UL Synchronization Scheme for inter-eNodeB Handover	ITRI	
R2-071956	DRX Operation During Handover	RIM	Mr. Gordon Young
R2-071974	Resource allocations in target cell after Handover	NEC	Mr. Jagdeep Singh
R2-071975	Text Proposal for Intra-LTE Handover	NEC	Mr. Jagdeep Singh
R2-071978	Inter eNB handover in a synchronous network	Nortel	
R2-071979	Forward Hand-Off Need, Simulations results	Nortel	
R2-071980	Forward Hand-Off options	Nortel	
R2-071982	Admission Control at Target eNB	Nortel	
R2-072003	Handover Interruption Times and Duration	Motorola	
R2-072004	RACH Preamble Reservation for Handover	Motorola	
R2-072036	UL time synchronized handover	Samsung	
R2-072037	Gap control in E-UTRAN	Samsung Electronics	
R2-072038	Measurement Gap and DRX interaction	Samsung Electronics	
R2-072081	Radio Link Failure	Motorola	
R2-072085	Handover procedure for a low activity UE	LG Electronics Inc.	
R2-072136	On the need of fast and robust handover failure recovery		Verizon Wireless, Nortel Networks
Not treated			

#### 4.11.2 LTE to/from UTRAN

#### 4.12 LTE MBMS

R2-071733	MBMS Agreements	Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire
The document was revised in R2-072274			
R2-072274	MBMS Agreements	Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire
The document was presented by XX (...) Nokia.			
<b>Discussion:</b>			
<b>Decision:</b> revised in R2-072314			
R2-072314	MBMS Agreements	Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire
The document was presented by XX (...) Nokia.			

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**Discussion:**

**Decision:** revised after discussion in R2-072317

R2-072317	MBMS Agreements	Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire
<b>Discussion:</b>			
<b>Decision:</b> agreed			
R2-071734	MCCH Control	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071776	MCCH Transmission in LTE	Panasonic	
R2-071981	Hierarchical MCCH	Nortel	
R2-071963	MCCH Design	RIM	Mr. Gordon Young
R2-071829	Transmission of MCCH	Ericsson	Mr. Janne Peisa
R2-071825	Mapping of MBMS logical channels to DL-SCH	Ericsson	Mr. Janne Peisa
R2-071649	Multiple packet loss recovery and RLC PDU format in eMBMS	Alcatel-Lucent	
R2-071650	E-MBMS transmission mode selection and switching	Alcatel-Lucent	
R2-071651	Service scheduling for E-MBMS combining	Alcatel-Lucent	
R2-071652	Support of scalable codec for E-MBMS	Alcatel-Lucent	
R2-071653	Transmission of E-MBMS control information	Alcatel-Lucent	
R2-071700	LTE MBMS User Detection Scheme	Freescale Semiconductor Inc	
R2-071735	Inter-layer notification	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071736	Open issues in requirements from multi-cell content synchronization solutions	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071765	E-MBMS scheduling	QUALCOMM Europe	Dr. Nathan Tenny
R2-071777	Uplink feedback for eMBMS SFN operations	Panasonic	
R2-071788	MBMS Network Optimization	huawei	
R2-071826	Multiplexing of MBMS services	Ericsson, Samsung	Mr. Janne Peisa
R2-071827	LTE MBMS functionality	Ericsson	Mr. Janne Peisa
R2-071828	DL-SCH supporting single cell PTM with HARQ/CQI	Ericsson	Mr. Janne Peisa
R2-071872	MBMS notification in E-UTRAN	CATT	Mrs. Haiyang Quan
R2-071873	MBMS control signalling in E-UTRAN	CATT	Mrs. Haiyang Quan
R2-071880	Active Recovery of MBMS Data	LG Electronics Inc.	
R2-071889	MBMS User authentication	LG Electronics Inc.	
R2-071910	Counting in E-MBMS	IPWireless	
R2-071919	LTE MBMS Notifications	LG Electronics Inc.	
R2-071922	LTE MBMS Transmission	LG Electronics Inc.	
R2-071962	Polling Performance for LTE MBMS	RIM	Mr. Gordon Young
R2-071964	Multi-Stage Setup for LTE MBMS Transmissions	RIM	Mr. Gordon Young
R2-071966	The further discussion on eMBMS scenarios of deployment	China Mobile	

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R2-071967	Use of eMBMS uplink feedback	China Mobile	
R2-071983	Discussion of eMBMS Uplink Feedback Schemes	NEC	Mr. Jagdeep Singh
R2-071988	CQI reporting in E-MBMS single cell transmission	Alcatel-Lucent	Mr. Stanislas Bourdeaut
R2-071998	Considerations on MBMS Resource Allocation	Motorola	
R2-071999	Multicell EMBMS CQI Feedback	Motorola	
R2-072000	Further Results on EMBMS Transmission Configurations	Motorola	
R2-072005	Considerations on uplink feedback channel for E-MBMS	ETRI	
R2-072007	Additional results on over-provisioning required to accommodate overlapping SFN areas	Motorola	
R2-072025	Uplink Feedback for E-MBMS	Motorola	
R2-072082	Random Access for LTE MBMS	LG Electronics Inc.	
R2-072083	Random Access for LTE MBMS	LG Electronics Inc.	
R2-072141	ROHC for E-MBMS		Motorola
Not presented due to lack of time			

**4.13 Other LTE Stage 2 subjects**

R2-072011	Rationale for standardising eNB measurements	NTT DoCoMo, Orange, Telecom Italia, Telefonica, T-Mobile, Vodafone	
R2-072078	RRM framework in the LTE architecture	Vodafone Group, Telecom Italia, Orange, KPN	
The document were for information only			

R2-071947	UE Support for self-configuration and self-optimisation - Proposal for Stage2 (only RAN2 relevant part)	T-Mobile, NTT DoCoMo, KPN, China Mobile, Orange, Vodafone, Sprint, Telecom Italia, Telefónica, Huawei, Infineon, Nokia, Nokia-Siemens Networks, Samsung	Mr. Axel Klatt
The document was presented by Axel Klatt (...) from T-Mobile.			

**Discussion:**

**Decision:** agreed except the bullet mentioning periodic and event triggers.

R2-071948	Generic 'subscriber type' indication via S1 interface	T-Mobile, Vodafone, Orange, Telecom Italia, Telefónica	Mr. Axel Klatt
The document was presented by Axel (...) from T-Mobile.			

**Discussion:** The meaning/scope of the subscriber type should be specified more precisely, although the handling in the eNB is RRM and operator specific. Some operator specific values may also be defined. Important analogy to what is done for QoS Label.

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**Decision:** noted.

R2-071617	On setting the C-RNTI in RACH message two	Nokia Siemens Networks	
R2-071624	Byte alignment for RLC and MAC headers?	InterDigital	Mr. Stephen Terry
R2-071625	MAC and RLC delivery notification	InterDigital	Mr. Stephen Terry
R2-071627	Automatic paging power control	NEC	Mr. David Lecompte
R2-071628	VoIP Optimized DRX control	NEC	Mr. David Lecompte
R2-071658	Discussion on RAN implications of Equivalent Tracking areas	Alcatel-Lucent	
R2-071660	RLC PDU header structure in case of re-use of PDPC SN for RLC SN	Alcatel-Lucent	
R2-071661	Interaction of DRX and downlink HARQ in LTE	Alcatel-Lucent	
R2-071662	Consideration on the polling request for the isolated or last data transmission in LTE	Alcatel-Lucent	
R2-071675	UE assisted tracking area update	LG Electronics Inc.	Mr. Patrick Fischer
R2-071677	Optimization of RB establishment	LG Electronics Inc.	Mr. Patrick Fischer
R2-071723	Requirements for Redirection	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071724	High Level Mobility Principles in a Heterogeneous Network	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071725	Access Pipes Use Cases	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071729	HARQ-ARQ interactions	NEC, Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071730	MAC Header Structure	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071731	RLC Header Structure	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071740	Control of UE measurements for Network Configuration	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071743	Further considerations on DL semi-persistent scheduling	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071753	DRX mode transit model	ZTE	Mr. Zhongda Du
R2-071778	PDPC SN reuse in RLC PDU for LTE	Panasonic	
R2-071779	UL HARQ Protocol issues	Panasonic	
R2-071780	RLC TM mode for U-Plane	Panasonic	
R2-071781	MAC PDU format for LTE	Panasonic	
R2-071782	Security Context Information and Security Functionality for LTE	Panasonic	
R2-071783	DRX handling issues in LTE	Panasonic	
R2-071789	LTE RLC functions and services	huawei	
R2-071796	On the issue of HARQ/ARQ interaction	LG Electronics Inc.	

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R2-071803	Considerations on SRB establishment	QUALCOMM Europe	
R2-071804	Camping load balancing in LTE	QUALCOMM Europe	
R2-071805	Optimization for Tracking Area Update signalling	QUALCOMM Europe	
R2-071830	A Semi-Autonomous DRX Control Scheme for LTE_ACTIVE	Ericsson	Mr. Janne Peisa
R2-071831	On Intra-LTE Cell Reselection Methods	Ericsson	Mr. Janne Peisa
R2-071832	Radio Resource Management Aspects of Inter-RAT Handovers	Ericsson	Mr. Janne Peisa
R2-071833	On Inter-RAT Cell Reselection Principles	Ericsson	Mr. Janne Peisa
R2-071834	PDCP PDU header formats in LTE	Ericsson	Mr. Janne Peisa
R2-071835	Support for ROHC in SAE/LTE	Ericsson	Mr. Janne Peisa
R2-071836	Configuration of PDCP in SAE/LTE	Ericsson	Mr. Janne Peisa
R2-071837	L2 Sequence Number in LTE	Ericsson	Mr. Janne Peisa
R2-071838	HARQ Configuration for LTE	Ericsson	Mr. Janne Peisa
R2-071839	Byte alignment for user plane protocols in LTE	Ericsson	Mr. Janne Peisa
R2-071841	Resource fragmentation in LTE uplink	Ericsson	Mr. Janne Peisa
R2-071842	Clean up of Stage 2 FFS	Ericsson	Mr. Janne Peisa
R2-071843	NDI-less HARQ operation	Ericsson	Mr. Janne Peisa
R2-071844	HARQ-ARQ Interactions for NACK to ACK error	Ericsson	Mr. Janne Peisa
R2-071846	Number of logical channels in RB	LG Electronics Inc.	
R2-071847	CQI Reporting with regards to DRX operation	Ericsson	Mr. Janne Peisa
R2-071848	Discussion on Uplink Traffic Shaping	LG Electronics Inc.	
R2-071849	PDCP Sequence Number and ROHCv2	LG Electronics Inc.	
R2-071871	Downlink HARQ Error Detection in LTE	CATT	Mrs. Haiyang Quan
R2-071878	Discussion on short transaction time	LG Electronics Inc.	
R2-071886	Discussion on MAC PDU structure	LG Electronics Inc.	
R2-071887	Scheduling consideration on L2 Headers	LG Electronics Inc.	
R2-071901	CQI handling during DRX	Samsung	Mr. Gert-Jan van Lieshout
R2-071904	Idle mode paging	Samsung	Mr. Gert-Jan van Lieshout
R2-071905	Optimization of downlink persistent scheduling	ETRI	
R2-071909	UL control transmissions during DRX	Samsung, NTT DoCoMo	Mr. Gert-Jan van Lieshout
R2-071913	RLC PDU format for LTE	Panasonic	
R2-071914	Radio connection establishment	Samsung	Mr. Himke van der Velde
R2-071915	Use of tracking area- and cell identity for private networks/home cells	Samsung	Mr. Himke van der Velde
R2-071916	Neighbouring cell information	Samsung	Mr. Himke van der Velde
R2-071925	Label characteristics and PBR for non-GBR	IPWireless	
R2-071926	Transmission of LTE Paging	LG Electronics Inc.	

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R2-071927	Paging group indication	IPWireless Samsung, LG Eletronics Inc.	Mr. Himke van der Velde
R2-071932	Registration on home & private eNBs	LG Electronics Inc.	
R2-071942	ACK to NACK error detecting mechanism	LG Electronics Inc.	
R2-071943	Discussion on need-based adaptive HARQ in E-UTRAN UL	LG Electronics Inc.	
R2-071944	Transition indicator for VoIP in UL	LG Electronics Inc.	
R2-071952	The Urgency of HARQ-ARQ Interactions	ITRI	
R2-071953	A New Measurement to Support UL Scheduler Operation	Mitsubishi Electric Corp.	
R2-071959	Adaptive Modulation and Coding for LTE VoIP	RIM	Mr. Gordon Young
R2-071969	Paging Procedure in LTE	NTT DoCoMo, Inc., NEC	
R2-071976	Clarification on use of Prioritized Bit Rate (PBR)	NEC	Mr. Jagdeep Singh
R2-071984	HARQ/ARQ Interactions	Philips	Mr. Paul Bucknell
R2-071989	Idle Gaps for Handover Measurements in E-UTRAN	Ericsson	Mr. Janne Peisa
R2-071990	DRX procedure for VoIP	QUALCOMM Europe	
R2-072006	RLC header design	Motorola	
R2-072013	MAC header for control message in LTE	ASUSTeK	
R2-072015	MAC PDU structure for LTE	NTT DoCoMo, Inc.	
R2-072019	Cryptosync in LTE	Qualcomm Europe	Mr. Etienne Chaponnière
R2-072024	PDCP reordering	Qualcomm Europe	Mr. Etienne Chaponnière
R2-072034	First quantification of UL control	Samsung	
R2-072040	PDCP SN and RLC SN	NTT DoCoMo, Inc.	
R2-072043	Location of DL PDCP Reordering in LTE during Handover	Fujitsu	
R2-072044	Use of Global Cell ID	Ericsson	Mr. Janne Peisa
R2-072046	UE specific Intra-LTE (interfrequency) and inter-RAT cell reselection	NEC	
R2-072055	RLC header format	Fujitsu	
R2-072064	RLC PDUs for LTE	NTT DoCoMo, Inc.	
R2-072075	SAE Bearer and SAE Radio Bearer Independence	Vodafone Group	
R2-072076	Network Specific Mandatory Default	Vodafone Group	
R2-072077	Initial Standardisation Requirements from Self-Organizing Networks	Vodafone Group, T-Mobile	
R2-072087	Considerations on ROHC feedback for L2 design	LG Electronics Inc.	
R2-072070	Discussion of Access Control Requirements for Home-eNodeB	Vodafone Group	
R2-072071	Discussion of Mobility Requirements for Home-eNodeB	Vodafone Group	
R2-071665	Discussion on Security mode control for LTE	Alcatel-Lucent	
R2-072023	Number of HARQ processes	Qualcomm Europe	Mr. Etienne Chaponnière
R2-071971	Discussion on Uplink Scheduling Request	TD Tech Ltd.	

Not treated

## 4.14 Stage 3: rapporteur inputs (based on the stage 2 status)

R2-071972	36.306 E-UTRA UE Radio Access Capabilities	Motorola (Rapporteur)	Mr. Richard Burbidge
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### 4.14.1 MAC

R2-071705	Byte alignment for L2 headers	LG Electronics Inc., Nokia, NOKIA SIEMENS NETWORKS, Samsung, Texas Instruments Inc
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Not handled.

R2-071707	PDCP/RLC/MAC header format	Samsung
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Not treated

R2-071997	MAC specification - Editors	Ericsson, QUALCOMM Europe	Mr. Janne Peisa
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#### Clarification

Access service classes is to be removed

Sub clause 5.5 is new capturing the Stage 2 but with new text.

Random Access procedure is defined to be only one generic procedure. Contention or non contention is seen in the procedure itself.

Sub Clause 4.4 Should we differentiate the uplink and downlink. Nokia: Separate into UL and DL functions. LG: section should show UE and eNB as well.

Decision: Only UE side functions will be specified and we differentiate UL and DL functions plus which channels are affected by different functions a table would be nice. The editors will try to comply with this.

Definition of common channel are those mobiles with and RRC connection.

Panasonic, Samsung: Definition is needed for a channel not using a dedicated RNTI.

Motorola: How does this definition help us?

Decision the columns are removed.

NTT DoCoMo: We should state which RNTIs we use for each channel.

Decisions In Sub clause 4.5.3.2 MCCH is to be mapped on DL-SCH

LG: Remove Traffic volume measurement; SS terminology is confusing.

Decision: Renamed to Buffer state reporting.

Decision: Section 4.3.1 Services Measurement reporting is to be FFS.

Decision: Section 5.1 RACH is to be controlled in MAC RRC Stage 3 is to reflect this. Note: For other procedures (other than RACH) the modelling between RRC and MAC shall be clearer

Decision: The RACH procedure shall be specified FDD/TTD independent.



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The difference between Stage 2 and Stage 3 is because it is modelled differently.

Discussion on the use of numbering or bulleting should be FFS.

Decision section 5 onwards are empty sections and the rapporteurs give editor notes describing the content of the section.

Moto: suggests to have a structure on how to configure MAC , reconfigure MAC and MAC procedures. Also would like that the sections to be grouped so that the flow makes sense.

Sub clause 5.3.3. RB prioritization = TFC selection

NTT DoCoMo: Where is the section on DRX periods? Rapporteurs DRX is to be described in the procedures.

See general summary and way forward

**R2-072272** TP for LC Prioritisation Qualcomm, Ericsson

**R2-072273** Outline of MAC specification Qualcomm, Ericsson

## 4.14.2 RRC

R2-071921 RRC skeleton Rapporteur (Samsung) Mr. Himke van der Velde

Proposal:

Agree on 1921. Comments to be given offline to Himke

Agree on way forward on the next meeting

TMO: Is it decided not to have cell change order, Decision: Subclause 4.2 Cell change order is add and made FFS

Rapporteur: Sub clause 4.4 Random access is to be done in the MAC so we can remove FFS.

See general summary and way forward

R2-071924 Text proposal for RRC chapter: General Samsung Mr. Himke van der Velde

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R2-072066 Text proposal for RRC chapters: Procedures and Protocol data units Samsung Mr. Himke van der Velde  
Not presented see 2207

R2-072207 Text proposal for RRC chapters: Procedures and Protocol data units Samsung Mr. Himke van der Velde  
2207 update of 2066

Two Teleconference to review the text in the proposal. How to organise the messages and the procedures;  
See general summary and wayforward

R2-072222 Initial version of LTE RRC specification Samsung

### 4.14.3 PDCP

R2-071678 Open issues for PDCP specifications LG Electronics (rapporteur) Mr. Patrick Fischer  
R2-071679 Updated PDCP skeleton specification LG Electronics (rapporteur) Mr. Patrick Fischer

SS: It hasn't been decided where the SN is in PDCP PDU or SDU, SN is FFS for PDCP PDU/SDU to be added to text and diagram.

Decision: Sub clause 4.5: Channel structure is removed.

Decision: Sub clauses 5.1.2 & 5.1.3 are combined

Decision sub clause 5.1.1. motivation needs to be explained

Ericsson: wanted to start stage 3: Rapporteur: (Patrick) felt that there were too many open points and would prefer to close open points before initiating detailed stage 3 work.

See general summary and wayforward

### 4.14.4 RLC

R2-071708 Variable size RLC SN samsung  
R2-071709 Lite RLC versus normal RLC samsung  
R2-072039 E-UTRA RLC specification work outline Rapporteur

Moto: Interaction with HARQ, how is it going to be done? General text of service provided by lower layers.

VF: Avoid hanging paragraphs because it can't be referenced.(taken off line)

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Nokia: Can we use the term Radio Bearer. Yes it is to be defined offline.

Nokia: there is a duplication of PDU structures in the document. Decision: remove PDU structures from these section to be included in other sections.

LG: MAC should be replaced by lower layer Decision: Agreed

Decision: General section will describe how number of RLC PDU is decided needs to be added.

See general summary and wayforward

**General summary of the way forward for stage 3 MAC/RLC/PDCP/RRC**

Rapporteurs are to provide Base line stage 3 docs with general sections agreed by the end of the week agreed off line people are to discuss with the rapporteurs. These sections should be in line with the LTE Stage 2.

The outline sub clauses beyond the general sections are to have text explaining as to what detail is to be included in that section.

These will form the base line of the Stage 3.

After this meeting, each stage three specification will be progressed by teleconference and email. Rapporteurs are to provide either text proposals for discussion (MAC/RRC) or an Open issue list (RLC/PDCP) as input to these teleconference and email discussions.

**Specific way forward**

**MAC way forward:** Text sections from 1997 are to be extracted by the rapporteurs and used as input to 2 Teleconference and email discussions to be held before the Orlando meeting.

**RRC way forward:** RRC Stage 3 outline (1921) and general section (2206) are merged and to be taken as the agreed base line for RRC. Tdoc 2207 (update of 2066) is the input to be discussed on the Teleconference and email discussions. 2 Teleconferences are to be held before the next meeting in Orlando.

**RLC way forward:** RRC Stage 3 outline (in 2039) is to be modified with the minor comments and is to be agreed as a base line for RLC people to discuss with the rapporteur offline. 2039discussion document is to be used as input to the 2 teleconference and email discussions to be held between now and the Orlando meeting..

**PDCP way forward:** 1679 is to be updated in line with comments and to be agreed off line, Delegates to discuss with the rapporteur Stage 3 baseline to be agreed by the end of this week. The Open issue document (1678) is to form the discussion for the teleconference and email discussion. The result of this will be reported to the Orlando meeting.

R2-072312 EUTRA RLC Specification

NTT DoCoMo, Inc.

#### 4.14.5 Cell selection & re-selection

R2-071713 Skeleton of UE IDLE mode procedures

Nokia (Rapporteur)

Mr. Benoist Sébire

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Chapter 5 process and procedures? Keep as in 25.304

E//: States and state transitions are not procedures.

TMO: We will have the same states so keep structure as it is and update 25.304. Reuse UMTS spec

QC: What is covered in Tracking area registration? Interaction between AS and NAS as in UTRAN. Wait until discussion of 1951

R2-071714	UE IDLE mode procedures	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
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Not treated.

R2-071949	Support of procedures/features related to intra-frequency mobility	T-Mobile, NTT DoCoMo, Vodafone, Orange, Telecom Italia	Mr. Axel Klatt
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Use the table in this document as the basis of Stage 3.

SS: Is cell barring with intra freq indic used ? Yes. Which case is this used? TMO: Indoor out door

SS: We later on we discovered the UE should be on the best cell. So this is in contradiction.

TI: Principle the mobile should not be allowed to camp on the same frer. In some case the cell doesn't have problems in UL for example operator testing so UL interference is acceptable. NTT Confirm this UE should select second best cell on same freq used for, normal barring or operator use.

Decision: Way forward create Annex and add the Features and procedures table part this is used to guide the Stage 3 input. Text proposals and discussions are invited.

R2-071950	Support of procedures/features related to inter-frequency/inter-RAT mobility	T-Mobile, NTT DoCoMo, Vodafone, Orange, Telecom Italia	Mr. Axel Klatt
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Requirements are similar to 1949.

Decision: Put in to skeleton an Annex the Features and procedures table part..

R2-071951	Stage3 text proposal on idle mode procedures in E-UTRAN	T-Mobile, Telecom Italia, Vodafone, China Mobile	Mr. Axel Klatt
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Green marked text indicates the areas commented on reflector.

Ericsson: Defintions need to be change and picture 4.1 needs to be changed. Nok: These comments are naming and editorial corrections.

TMO: There shouldn't be too much change in the existing text. The changes to the text reflect the agreed changes in the Stage 2.

Nokia Rapporteur: One agreement in Stage 2 is missing Transition from to ACTIVE to IDLE camp on the cell indicated by the network. Document is to be updated.

1951 is accepted with the addition of an annex with tables of requirements as decided from 1949 & 1950.

Email discussion is to be held between now and Orlando meeting. Text proposals and discussion documents are invited.

R2-072311 UE procedures in idle mode for LTE: Text proposal

Nokia, Nokia Siemens Networks

#### 4.14.6 Model of the physical layer

No inputs.

<end>

#### 4.4 Performance verification

R2-071810 LTE Performance verification—U-plane and C-plane latencies  
The document was presented by Magnus from Ericsson.

Ericsson, Motorola, Nokia, Nokia  
Siemens Networks, Samsung, NEC

**Discussion:**

**Decision:** The document was noted. The TR will be updated with this proposal. A CR will be presented to the plenary (source: RAN2). See R2-072146.

R2-071869 LTE C-plane + U-plane latency analysis for TDD frame structure type 2  
The document was presented by Haiyang Quan from Datang.

CATT

**Discussion:**

All in 1ms frame durations would make the solution simpler.

**Decision:** The document was noted. All (FDD and all TDDs) will be in 1ms frame duration. Re-doing of calculations and merge is necessary.

R2-071920 LTE Performance verification for TDD—U-plane and C-plane latencies  
The document was presented by (...) from IPWireless.

IPWireless

**Discussion:**

**Decision:** The document was noted. R2-071810, R2-071869, R2-071920 will be merged in on CR on 25.912. In R2-072146. CR number 0003 (Ericsson):

R2-072146 LTE U-plane and C-plane latencies

CR 0003

Ericsson

R2-071814 LTE Performance verification—Handover latency  
The document was presented by Magnus (...) from Ericsson.

Ericsson, Nokia, Nokia  
Siemens Networks, Samsung,  
NEC

Mr. Janne Peisa

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**Discussion:**

SFN neighbour cell knowledge is needed for the neighbour cell detection.  
This is based on FDD only so far.

**Decision:** The document was noted. A CR on 25.912 will be produced (Ericsson).

## 4.5 System Information content & delivery

R2-071702	SFN Synchronization without BCH bits for LTE – Latency Reduction Options	SHARP corporation	
R2-071738	Procedure for Reading Scheduling Units	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071739	System Information Change Indication	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071762	Scheduling of D-BCH	QUALCOMM Europe	Dr. Nathan Tenny
R2-071763	Structure of BCH	QUALCOMM Europe	Dr. Nathan Tenny
R2-071768	System information contents and the periodicity for No-NCL	Panasonic	
R2-071769	System information reception for Inter-frequency mobility	Panasonic	
R2-071770	Cell reselection before call setup procedure	Panasonic	
R2-071785	Neighbour cell reduction using LCV	huawei	
R2-071813	Scheduling of System Information	Ericsson	Mr. Janne Peisa
R2-071814	The content and timing of BCH	Ericsson	Mr. Janne Peisa
R2-071815	Transmission of BCH	Ericsson	Mr. Janne Peisa
R2-071870	Notification scheme for system information Change	CATT	Mrs. Haiyang Quan
R2-071911	System information structure (with TP)	Samsung	Mr. Himke van der Velde
R2-071912	System information scheduling and change notification	Samsung	Mr. Himke van der Velde
R2-071968	P-BCH Transmission Interval in LTE	NTT DoCoMo, Inc., NEC	
R2-072010	Operator's view on neighbour cell information	NTT DoCoMo, Vodafone, Telecom Italia, T-Mobile, Orange	
R2-071759	Neighbour Cell List Considerations (Agenda item 4.11 also).	Nokia, Nokia Siemens Networks	
R2-071911	System information structure (with TP) The document was revised before presentation in R2-072205:	Samsung	Mr. Himke van der Velde
R2-072205	System information structure (with TP) The document was presented by Himke van der Velde from Samsung.	Samsung	Samsung

**Discussion:**

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Scheduling info was removed from the BCH.

One sentence will be deleted.

Last picture contains one specific scheduling scheme.

**Decision:** The text proposal was agreed in R2-072325.

## 4.6 Random access procedure

R2-071626	RACH retransmission number	NEC	Mr. David Lecompte
R2-071664	Discussion on contents of message 3	Alcatel-Lucent, Samsung	
R2-071673	Transport format and power headroom in preamble Retransmission	LG Electronics Inc.	Mr. Patrick Fischer
R2-071674	Use of short C-RNTIs in message 2	LG Electronics Inc.	Mr. Patrick Fischer
R2-071681	Urgent Non-urgent split of RACH signatures in E-UTRA	Texas Instruments Inc	
R2-071726	Non-contention based Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071732	Differential RACH Access based on Access Classes	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071771	Remaining issues on Random Access procedure usage	Panasonic	
R2-071817	Solution for sending NAS together with RRC connection request	Ericsson	Mr. Janne Peisa Mr. Gert-Jan van Lieshout
R2-071906	Access Service Classes in LTE	Samsung	
R2-071923	Discussion on Message 4 in Random Access	LG Electronics Inc.	
R2-071938	Clarification on RA procedure	LG Electronics Inc.	
R2-071939	Optimization for message 2 transmission	LG Electronics Inc.	
R2-071970	Contention Resolution and Initial Random Access	TD Tech Ltd.	
R2-071991	Content of Message 2	QUALCOMM Europe	
R2-072033	Message 2 transmission when a dedicated preamble used	Samsung	
R2-072035	Optimization of contention resolution in aRACH	Samsung	
R2-072050	Consideration related to Random Access Response	ASUSTeK	
R2-072084	Management of Dedicated Signatures	LG Electronics Inc., Samsung	
R2-072088	UE Identity Validity in RA Procedure	ASUSTeK	
R2-072089	Issues on Random Access Procedure	ASUSTeK	
R2-072090	Random and dedicated preamble based RACH access in E-UTRAN	IPWireless	
R2-072096	Consideration related to Contention Resolution	ASUSTeK	
R2-072048	Issues related to RACH access preamble	ASUSTeK	
The document was revised before presentation in R2-072153:			
R2-072153	Issues related to RACH access preamble		ASUSTeK

#### 4.7 UL scheduling optimisations for VoIP (RAN1 reply LS needed)

R2-071742	UL VoIP Capacity for Semi-persistent Scheduling and Group Scheduling	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071744	Synchronous adaptive HARQ for E-UTRAN UL	Nokia, Nokia Siemens Networks CATT, Elektrobit, Ericsson, Fujitsu, ITRI, LGE, Mitsubishi, Nokia, Nokia Siemens Networks, NTT DoCoMo, Samsung	Mr. Benoist Sébire
R2-071745	Text Proposal for UL Scheduling	Ericsson	Mr. Benoist Sébire
R2-071818	DRX control for LTE_ACTIVE and VoIP	LG Electronics Inc.	Mr. Janne Peisa
R2-071840	ROHC Compliant Scheduling	RIM	Mr. Gordon Young
R2-071961	Uplink VoIP Scheduling with Fast Indication	TD Tech Ltd.	
R2-071971	Discussion on Uplink Scheduling Request	QUALCOMM Europe	
R2-071994	Impact of HARQ Termination Statistics on UL VoIP Capacity	QUALCOMM Europe	
R2-071995	On Uplink Scheduling for VoIP	samsung	
R2-072062	The need for uplink enhancement		
R2-072002	UL VoIP Scheduling	Motorola	

#### 4.8 Time alignment principles

R2-071630	Principles of uplink timing maintenance	NEG	Mr. David Lecompte
R2-071741	UL synchronization recovery	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071754	consideration on scenarios for TA update	ZTE	Mr. Zhongda Du
R2-071786	maintenance of UL synchronization	huawei	
R2-071903	Maintenance of UL sync	Samsung	Mr. Gert-Jan van Lieshout
R2-071940	Uplink timing alignment	LG Electronics Inc.	
R2-071996	Uplink Synchronization Maintenance	Motorola	
R2-072014	Uplink synchronisation maintenance	NTT DoCoMo, Inc.	

#### 4.9 MIMO principles

No input.



## 4.10 UE Capabilities

R2-071806	UE capability handling in LTE	QUALCOMM Europe	
R2-071819	Signaling Method for Uploading UE Capability Information	Ericsson	Mr. Janne Peisa
R2-072080	UE capabilities	Motorola	

## 4.11 LTE\_ACTIVE mobility procedures

R2-071704	Data handling at handover	samsung	
R2-071728	Measurement Gap Creation	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071766	Text proposal on measurement gap scheduling	QUALCOMM Europe	Dr. Nathan Tenny
R2-071992	High Level Comparison of Handover in GSM, UMTS and LTE	QUALCOMM Europe	
R2-071993	LTE Intra/Inter-RAT handover algorithms for LTE_ACTIVE state	QUALCOMM Europe	
R2-072008	Load balancing solutions for LTE	NTT DoCoMo, T-Mobile, Orange, LG Electronics	
R2-072009	Measurement gap control principles	NTT DoCoMo	
R2-072012	E-UTRAN Measurement Gap Control for Inter-Frequency and Inter-RAT Handover	Motorola	
R2-071727	E-UTRAN Measurement and Cell Reselection considerations	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071759	Neighbour Cell List Considerations	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire

### 4.11.1 Intra LTE

R2-071622	Minimizing the timing advance procedure requirement during LTE handover	InterDigital	Mr. Stephen Terry
R2-071629	Connection re-establishment	NEC	Mr. David Lecompte
R2-071631	Need for Maintained DRX at intra-LTE handover	NEC	Mr. David Lecompte
R2-071633	Reliability Considerations for the Handover Command	Alcatel-Lucent	Mr. Osman Aydin
R2-071635	RLC status reporting during handover	Alcatel-Lucent	Mr. Osman Aydin
R2-071637	Relevant Information for Handover	Alcatel-Lucent	Mr. Osman Aydin
R2-071655	Discussion on Data forwarding options for intra-LTE Handover	Alcatel-Lucent	
R2-071656	Discussion on target cell synchronisation during intra-LTE HO	Alcatel-Lucent	
R2-071657	Discussion on Handover Confirm message	Alcatel-Lucent	
R2-071684	A Pre-synchronization method for E-UTRA Handovers	Texas Instruments Inc	
R2-071687	Latency and overhead comparison for pre-synchronization in E-UTRA Handovers	Texas Instruments Inc	
R2-071715	Minimising Radio Resource Wastage on Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071716	Radio Link Failure and Context Recovery	Ericsson, NEC, Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071717	Handover Failure Recovery	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire

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R2-071718	Relevant Information for Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071719	User Plane Data Handling at Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071720	Forwarding Instant	Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire
R2-071721	Sequence Number Handling at Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071722	Handover Command Transmission	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071751	non-synchronized handover procedure	ZTE	Mr. Zhongda Du
R2-071773	Measurement Functionality split for Broadcast and Dedicated	Panasonic	
R2-071774	Packet data handling at mobility	Panasonic	
R2-071800	Protocol termination for HO signalling	QUALCOMM Europe	
R2-071801	Considerations on RRC re-establishment	QUALCOMM Europe	
R2-071820	On the details of the dedicated preamble at intra-LTE handover	Ericsson	Mr. Janne Peisa
R2-071821	Mobility during attach	Ericsson	Mr. Janne Peisa
R2-071822	User plane handling at mobility	Ericsson	Mr. Janne Peisa
R2-071823	E-UTRA Measurement Configuration and Control	Ericsson	Mr. Janne Peisa
R2-071824	Radio link failure at handover	Ericsson	Mr. Janne Peisa
R2-071864	Synchronised Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071908	NAS message handling during mobility	Samsung	Mr. Gert-Jan van Lieshout
R2-071917	Recap of handover procedure, control plane aspects (with TP)	Samsung	Mr. Himke van der Velde
R2-071918	Evaluation of backward handover schemes	Samsung	Mr. Himke van der Velde
R2-071931	Contention-free Intra-LTE handover in synchronous network	IPWireless	
R2-071941	Periodic measurement reporting with semi-persistent scheduling	LG Electronics Inc.	
R2-071946	Early UL Synchronization Scheme for inter-eNodeB Handover	ITRI	
R2-071956	DRX Operation During Handover	RIM	Mr. Gordon Young
R2-071973	User Plane handling during inter-eNB HO	NEC	Mr. Jagdeep Singh
R2-071974	Resource allocations in target cell after Handover	NEC	Mr. Jagdeep Singh
R2-071975	Text Proposal for Intra-LTE Handover	NEC	Mr. Jagdeep Singh
R2-071977	ROHC reset during inter-eNB handover	Nortel	
R2-071978	Inter-eNB handover in a synchronous network	Nortel	
R2-071979	Forward Hand-Off Need, Simulations results	Nortel	
R2-071980	Forward Hand-Off options	Nortel	
R2-071982	Admission Control at Target eNB	Nortel	
R2-072003	Handover Interruption Times and Duration	Motorola	

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R2-072004	RACH Preamble Reservation for Handover	Motorola	
R2-072036	UL time-synchronized handover	Samsung	
R2-072037	Gap control in E-UTRAN	Samsung Electronics	
R2-072038	Measurement Gap and DRX interaction	Samsung Electronics	
R2-072045	Support of ROHC and context relocation	NEC	Mr. David Lecompte
R2-072063	Proposals on data handling at inter-eNB handover	NTT DoCoMo, Inc.	
R2-072084	Radio Link Failure	Motorola	
R2-072085	Handover procedure for a low activity UE	LG Electronics Inc.	
R2-072136	On the need of fast and robust handover failure recovery		Verizon Wireless, Nortel Networks
R2-071719	User Plane Data Handling at Handover	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
Revised after presentation in R2-072309:			
R2-072309	User Plane Data Handling at Handover		Nokia, Nokia Siemens Networks
R2-071655	Discussion on Data forwarding options for intra-LTE Handover		Alcatel-Lucent
The document was revised before presentation in R2-072060:			
R2-072060	Discussion on Data forwarding options for intra-LTE Handover		Alcatel-Lucent, LG Electronics
R2-071752	consideration on handover interruption time	ZTE	Mr. Zhongda Du
The document was revised before presentation in R2-072178:			
R2-072178	consideration on handover interruption time	ZTE	Mr. Zhongda Du

#### 4.11.2 LTE to/from UTRAN

R2-071659	Consideration on the forwarding strategy in the inter-RAT HO scenario	Alcatel-Lucent	
R2-072064	Consideration on the forwarding strategy in the inter-RAT HO scenario	Alcatel-Lucent, LG Electronics	

#### 4.12 LTE MBMS

R2-071649	Multiple packet loss recovery and RLC-PDU format in eMBMS	Alcatel-Lucent	
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R2-071650	E-MBMS transmission mode selection and switching	Alcatel-Lucent	
R2-071651	Service scheduling for E-MBMS combining	Alcatel-Lucent	
R2-071652	Support of scalable codec for E-MBMS	Alcatel-Lucent	
R2-071653	Transmission of E-MBMS control information	Alcatel-Lucent	
R2-071700	LTE MBMS User Detection Scheme	Freescale Semiconductor Inc Nokia, Nokia Siemens	
R2-071733	MBMS Agreements	Networks, Samsung	Mr. Benoist Sébire
R2-071734	MCCH Control	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071735	Inter-layer notification	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071736	Open issues in requirements from multi-cell content synchronization solutions	Nokia, Nokia Siemens Networks	Mr. Benoist Sébire
R2-071765	E-MBMS scheduling	QUALCOMM Europe	Dr. Nathan Tenny
R2-071776	MCCH Transmission in LTE	Panasonic	
R2-071777	Uplink feedback for eMBMS-SFN operations	Panasonic	
R2-071788	MBMS Network Optimization	huawei	
R2-071825	Mapping of MBMS logical channels to DL-SCH	Ericsson	Mr. Janne Peisa
R2-071826	Multiplexing of MBMS services	Ericsson, Samsung	Mr. Janne Peisa
R2-071827	LTE MBMS functionality	Ericsson	Mr. Janne Peisa
R2-071828	DL-SCH supporting single cell PTM with HARQ/CQI	Ericsson	Mr. Janne Peisa
R2-071829	Transmission of MCCH	Ericsson	Mr. Janne Peisa
R2-071872	MBMS notification in E-UTRAN	CATT	Mrs. Haiyang Quan
R2-071873	MBMS control signalling in E-UTRAN	CATT	Mrs. Haiyang Quan
R2-071880	Active Recovery of MBMS Data	LG Electronics Inc.	
R2-071889	MBMS User authentication	LG Electronics Inc.	
R2-071910	Counting in E-MBMS	IPWireless	
R2-071919	LTE MBMS Notifications	LG Electronics Inc.	
R2-071922	LTE MBMS Transmission	LG Electronics Inc.	
R2-071962	Polling Performance for LTE MBMS	RIM	Mr. Gordon Young
R2-071963	MCCH Design	RIM	Mr. Gordon Young
R2-071964	Multi-Stage Setup for LTE MBMS Transmissions	RIM	Mr. Gordon Young
R2-071966	The further discussion on eMBMS scenarios of deployment	China Mobile	
R2-071967	Use of eMBMS uplink feedback	China Mobile	
R2-071981	Hierarchical MCCH	Nortel	
R2-071983	Discussion of eMBMS Uplink Feedback Schemes	NEC	Mr. Jagdeep Singh Mr. Stanislas Bourdeaut
R2-071988	CQI reporting in E-MBMS single cell transmission	Alcatel-Lucent	
R2-071998	Considerations on MBMS Resource Allocation	Motorola	
R2-071999	Multicell EMBMS CQI Feedback	Motorola	
R2-072000	Further Results on EMBMS Transmission Configurations	Motorola	
R2-072005	Considerations on uplink feedback channel for E-MBMS	ETRI	
R2-072007	Additional results on over-provisioning required to accommodate overlapping	Motorola	

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	SFN areas		
R2-072025	Uplink Feedback for E-MBMS	Motorola	
R2-072082	Random Access for LTE-MBMS	LG Electronics Inc.	
R2-072083	Random Access for LTE-MBMS	LG Electronics Inc.	
R2-072141	ROHC for E-MBMS		Motorola
R2-071733	MBMS Agreements		Nokia, Nokia-Siemens Networks, Samsung
Revised after presentation in 2274:			
R2-072274	MBMS Agreements		Nokia, Nokia-Siemens Networks, Samsung
Revised after presentation in R2-072314:			
R2-072314	MBMS Agreements		Nokia, Nokia-Siemens Networks, Samsung
The document was presented by Jarko from Nokia.			
<b>Discussion:</b>			
"All dynamically configured" may be changed by "ffs".			
This needs to be checked further.			
<b>Decision:</b> The proposal was agreed in R2-072317.			

#### 4.13 Other LTE Stage 2 subjects

R2-071617	On setting the C-RNTI in RACH message two	Nokia-Siemens Networks	
R2-071624	Byte alignment for RLC and MAC headers?	InterDigital	Mr. Stephen Terry
R2-071625	MAC and RLC delivery notification	InterDigital	Mr. Stephen Terry
R2-071627	Automatic paging power control	NEC	Mr. David Lecompte
R2-071628	VoIP Optimized DRX control	NEC	Mr. David Lecompte
R2-071658	Discussion on RAN implications of Equivalent Tracking areas	Alcatel-Lucent	
R2-071660	RLC PDU header structure in case of re-use of PDPC SN for RLC SN	Alcatel-Lucent	
R2-071661	Interaction of DRX and downlink HARQ in LTE	Alcatel-Lucent	
R2-071662	Consideration on the polling request for the isolated or last data transmission in LTE	Alcatel-Lucent	
R2-071675	UE assisted tracking area update	LG Electronics Inc.	Mr. Patrick Fischer
R2-071677	Optimization of RB establishment	LG Electronics Inc.	Mr. Patrick Fischer

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R2-071723	Requirements for Redirection	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071724	High Level Mobility Principles in a Heterogeneous Network	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071725	Access Pipes Use Cases	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071729	HARQ-ARQ interactions	NEC, Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071730	MAC Header Structure	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071731	RLC Header Structure	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071740	Control of UE measurements for Network Configuration	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071743	Further considerations on DL semi-persistent scheduling	Nokia, Nokia Siemens Networks	Mr. Benoist-Sébire
R2-071753	DRX mode transit model	ZTE	Mr. Zhongda Du
R2-071778	PDPC SN reuse in RLC PDU for LTE	Panasonic	
R2-071779	UL HARQ Protocol issues	Panasonic	
R2-071780	RLC-TM mode for U-Plane	Panasonic	
R2-071781	MAC PDU format for LTE	Panasonic	
R2-071782	Security Context Information and Security Functionality for LTE	Panasonic	
R2-071783	DRX handling issues in LTE	Panasonic	
R2-071789	LTE RLC functions and services	huawei	
R2-071796	On the issue of HARQ/ARQ interaction	LG Electronics Inc.	
R2-071803	Considerations on SRB establishment	QUALCOMM Europe	
R2-071804	Camping load balancing in LTE	QUALCOMM Europe	
R2-071805	Optimization for Tracking Area Update signalling	QUALCOMM Europe	
R2-071830	A Semi-Autonomous DRX Control Scheme for LTE_ACTIVE	Ericsson	Mr. Janne Peisa
R2-071831	On Intra-LTE Cell Reselection Methods	Ericsson	Mr. Janne Peisa
R2-071832	Radio Resource Management Aspects of Inter-RAT Handovers	Ericsson	Mr. Janne Peisa
R2-071833	On Inter-RAT Cell Reselection Principles	Ericsson	Mr. Janne Peisa
R2-071834	PDPC PDU header formats in LTE	Ericsson	Mr. Janne Peisa
R2-071835	Support for ROHC in SAE/LTE	Ericsson	Mr. Janne Peisa
R2-071836	Configuration of PDPC in SAE/LTE	Ericsson	Mr. Janne Peisa
R2-071837	L2 Sequence Number in LTE	Ericsson	Mr. Janne Peisa
R2-071838	HARQ Configuration for LTE	Ericsson	Mr. Janne Peisa
R2-071839	Byte alignment for user plane protocols in LTE	Ericsson	Mr. Janne Peisa
R2-071841	Resource fragmentation in LTE uplink	Ericsson	Mr. Janne Peisa
R2-071842	Clean up of Stage 2 FFS	Ericsson	Mr. Janne Peisa
R2-071843	NDI-less HARQ operation	Ericsson	Mr. Janne Peisa

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R2-071844	HARQ-ARQ Interactions for NACK to ACK error	Ericsson	Mr. Janne Peisa
R2-071846	Number of logical channels in RB	LG Electronics Inc.	
R2-071847	CQI Reporting with regards to DRX operation	Ericsson	Mr. Janne Peisa
R2-071848	Discussion on Uplink Traffic Shaping	LG Electronics Inc.	
R2-071849	PDCP Sequence Number and ROHCv2	LG Electronics Inc.	
R2-071871	Downlink HARQ Error Detection in LTE	GATT	Mrs. Haiyang Quan
R2-071878	Discussion on short transaction time	LG Electronics Inc.	
R2-071886	Discussion on MAC PDU structure	LG Electronics Inc.	
R2-071887	Scheduling consideration on L2 Headers	LG Electronics Inc.	
R2-071901	CQI handling during DRX	Samsung	Mr. Gert-Jan van Lieshout
R2-071904	Idle mode paging	Samsung	Mr. Gert-Jan van Lieshout
R2-071905	Optimization of downlink persistent scheduling	ETRI	
R2-071909	UL control transmissions during DRX	Samsung, NTT DoCoMo	Mr. Gert-Jan van Lieshout
R2-071913	RLC PDU format for LTE	Panasonic	
R2-071914	Radio connection establishment	Samsung	Mr. Himke van der Velde
R2-071915	Use of tracking area and cell identity for private networks/home cells	Samsung	Mr. Himke van der Velde
R2-071916	Neighbouring cell information	Samsung	Mr. Himke van der Velde
R2-071925	Label characteristics and PBR for non-GBR	IPWireless	
R2-071926	Transmission of LTE Paging	LG Electronics Inc.	
R2-071927	Paging group indication	IPWireless	
R2-071932	Registration on home & private eNBs	Samsung, LG Electronics Inc.	Mr. Himke van der Velde
R2-071942	ACK to NACK error detecting mechanism	LG Electronics Inc.	
R2-071943	Discussion on need-based adaptive HARQ in E-UTRAN UL	LG Electronics Inc.	
R2-071944	Transition indicator for VoIP in UL	LG Electronics Inc.	
R2-071947	UE Support for self-configuration and self-optimisation – Proposal for Stage2 (only RAN2 relevant part)	T-Mobile, NTT DoCoMo, KPN, China Mobile, Orange, Vodafone, Sprint, Telecom Italia, Telefónica, Huawei, Infineon, Nokia, Nokia-Siemens Networks, Samsung	Mr. Axel Klatt
R2-071948	Generic 'subscriber type' indication via S1 interface	T-Mobile, Vodafone, Orange, Telecom Italia, Telefónica	Mr. Axel Klatt
R2-071952	The Urgency of HARQ-ARQ Interactions	ETRI	

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R2-071953	A New Measurement to Support UL Scheduler Operation	Mitsubishi Electric Corp.	
R2-071959	Adaptive Modulation and Coding for LTE VoIP	RIM	Mr. Gordon Young
R2-071969	Paging Procedure in LTE	NTT DoCoMo, Inc., NEC	
R2-071976	Clarification on use of Prioritized Bit Rate (PBR)	NEC	Mr. Jagdeep Singh
R2-071984	HARQ/ARQ Interactions	Philips	Mr. Paul Bucknell
R2-071989	Idle Gaps for Handover Measurements in E-UTRAN	Ericsson	Mr. Janne Peisa
R2-071990	DRX procedure for VoIP	QUALCOMM Europe	
R2-072006	RLC header design	Motorola	
R2-072011	Rationale for standardising eNB measurements	NTT DoCoMo, Orange, Telecom Italia, Telefonica, T-Mobile, Vodafone	
R2-072013	MAC header for control message in LTE	ASUSTeK	
R2-072015	MAC PDU structure for LTE	NTT DoCoMo, Inc.	
R2-072019	Cryptosync in LTE	Qualcomm Europe	Mr. Etienne Chaponnière
R2-072024	PDCP reordering	Qualcomm Europe	Mr. Etienne Chaponnière
R2-072034	First quantification of UL control	Samsung	
R2-072040	PDCP SN and RLC SN	NTT DoCoMo, Inc.	
R2-072043	Location of DL PDCP Reordering in LTE during Handover	Fujitsu	
R2-072044	Use of Global Cell ID	Ericsson	Mr. Janne Peisa
R2-072046	UE specific Intra-LTE (interfrequency) and inter-RAT cell reselection	NEC	
R2-072055	RLC header format	Fujitsu	
R2-072064	RLC PDUs for LTE	NTT DoCoMo, Inc.	
R2-072075	SAE Bearer and SAE Radio Bearer Independence	Vodafone Group	
R2-072076	Network Specific Mandatory Default	Vodafone Group	
R2-072077	Initial Standardisation Requirements from Self-Organizing Networks	Vodafone Group, T-Mobile	
R2-072078	RRM framework in the LTE architecture	Vodafone Group, Telecom Italia, Orange, KPN	
R2-072087	Considerations on ROHC feedback for L2 design	LG Electronics Inc.	
R2-072070	Discussion of Access Control Requirements for Home eNodeB	Vodafone Group	
R2-072071	Discussion of Mobility Requirements for Home eNodeB	Vodafone Group	
R2-071665	Discussion on Security mode control for LTE	Alcatel-Lucent	
R2-072023	Number of HARQ processes	Qualcomm Europe	Mr. Etienne Chaponnière



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Choice needed between Semi-persistent, persistent, or group (e.g. see required power at cell edge):  
Current default would be dynamic non-adaptive.

Question asked:

Semi-persistent: 14.

Group (multiple UEs in one message): 7.

Wait for the next meeting: 1.

*Decision: Semi-persistent.*

Dynamic can overwrite the semi-persistent.

R2-071745.

CATT, Elektrobit, Ericsson, Fujitsu, ITRI,  
LGE, Mitsubishi, Nokia, Nokia Siemens  
Networks, NTT DoCoMo, Samsung

Mr. Benoist-Sébire

R2-071745 Text Proposal for UL Scheduling

The document was presented by Benoist-Sébire from Nokia.

**Discussion:**

Text on retransmission to be rephrased.

Some 'ffs' will be removed.

**Decision:** The proposal was agreed in R2-072324.

*All Stage 3 specs. to be agreed by email before a conference call.*

**4.14 Stage 3: rapporteur inputs (based on the stage 2 status)**

R2-071972 36.306-E-UTRA-UE-Radio-Access-Capabilities

Motorola (Rapporteur)

Mr. Richard  
Burbidge

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#### 4.14.1 MAC

R2-071705	Byte alignment for L2 headers	LG Electronics Inc., Nokia, NOKIA-SIEMENS NETWORKS, Samsung, Texas Instruments Inc
R2-071707	PDPC/RLC/MAC header format	Samsung
R2-071997	MAC specification – Editors	Ericsson, QUALCOMM Europe      Mr. Janne Poisa

#### 4.14.2 RRC

R2-071921	RRC skeleton	Rapporteur (Samsung)	Mr. Himke van der Velde
R2-072066	Text proposal for RRC chapters: Procedures and Protocol data units	Samsung	Mr. Himke van der Velde
R2-072196	Status of "Service provided by physical layer" specification		Alcatel-Lucent
R2-071924	Text proposal for RRC chapter: General	Samsung	Mr. Himke van der Velde
The document was revised before presentation in R2-072206:			
R2-072206	Text proposal for RRC chapter: General		Samsung
R2-072207	Text proposal for RRC chapter: Procedures and Protocol data units		Samsung      Mr. Himke van der Velde

#### 4.14.3 PDPC

R2-071678	Open issues for PDPC specifications	LG Electronics (rapporteur)	Mr. Patrick Fischer
R2-071679	Updated PDPC skeleton specification	LG Electronics (rapporteur)	Mr. Patrick Fischer
The document was revised before presentation in R2-072256:			
R2-072256	Updated PDPC skeleton specification	LG Electronics (rapporteur)	

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#### 4.14.4 RLC

R2-071708	Variable-size RLC SN	samsung
R2-071709	Lite RLC versus normal RLC	samsung
R2-072039	E-UTRA RLC specification work outline	Rapporteur

#### 4.14.5 Cell selection & re-selection

R2-071713	Skeleton of UE IDLE mode procedures	Nokia (Rapporteur)	Mr. Benoist-Sébire
R2-071714	UE IDLE mode procedures	Nokia, Nokia Siemens Networks T-Mobile, NTT-DeCoMo, Vodafone, Orange, Telecom Italia	Mr. Benoist-Sébire
R2-071949	Support of procedures/features related to intra-frequency mobility	T-Mobile, NTT-DeCoMo, Vodafone, Orange, Telecom Italia	Mr. Axel Klatt
R2-071950	Support of procedures/features related to inter-frequency/inter-RAT mobility	T-Mobile, Telecom Italia, Vodafone, China-Mobile	Mr. Axel Klatt
R2-071951	Stage3 text proposal on idle mode procedures in E-UTRAN		Mr. Axel Klatt

#### 4.14.6 Model of the physical layer

No inputs.

## 5 UTRA/UTRAN

CRs agreed in principle at RAN2-57bis:

The table below summaries the CRs agreed in principle at RAN2-57, together with their outcome at RAN2-58:

RAN2-58 agenda item	RAN2-57bis tdoc, for information	RAN2-58 tdoc	Title	Spec	CR#	rev	Rel	Source	Outcome at RAN2-58	
5.3.1	R2-071189	R2-071623	"Maximum_Serving_Grant" setting at TTI change	CR	25.321	0317		Rel-7	Panasonic	Agreed
5.4	R2-071152	R2-072216	Enhanced CELL_FACH state in FDD in 25.301	CR	25.301	0084		Rel-7	Nokia	Agreed
5.4	R2-071153	R2-072162	Enhanced CELL_FACH state in FDD in 25.302	CR	25.302	0179	1	Rel-7	Nokia	Agreed
5.4	R2-071162	R2-071691	Enhanced CELL_FACH state in FDD in 25.304	CR	25.304	0156		Rel-7	Nokia	Agreed
5.4	R2-071555	R2-072167 so far	Introduction of Improved L2 support for high data rates and Enhanced CELL_FACH state (was: Enhanced CELL_FACH state in FDD in 25.321)	CR	25.321	0318	2	Rel-7	Nokia	Agreed in principle - come back
5.4	R2-071216	R2-071641	Configuration of RACH measurements in HS-FACH	CR	25.308	0020		Rel-7	Alcatel-Lucent	Withdrawn
5.16	R2-071131	R2-072069	Use of Integrity protection algorithm UIA/2: removal of a 'shall' in a note	CR	25.331	2992		Rel-7	ETSI MCC	Agreed
5.16	R2-071141	R2-072275	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	25.322	0306		Rel-7	Samsung, Ericsson	
5.16	R2-071212	R2-071639 (source changed)	PDCP variables handling at SRNS relocation	CR	25.323	0302		Rel-7	Samsung, Ericsson	agreed
5.16	R2-071218	R2-071632	Cell identifier encoding alignment	CR	25.331	2993		Rel-7	Alcatel-Lucent	agreed
5.16	R2-071311	R2-071680	Correction to signalling connection release at T314/315 expiry	CR	25.331	2994		Rel-7	Motorola	agreed
5.16	R2-071312	R2-071682	Cell Update Confirm with RLC re-establish indicator	CR	25.331	2995		Rel-7	Motorola	agreed
5.16	R2-071321	R2-071898	Correction of STTD Indicator for F-DPCH Tx Diversity	CR	25.331	2996		Rel-7	Ericsson	agreed
5.16	R2-071323	R2-071899	Introduction of GAN PS handover	CR	25.306	0156		Rel-7	Ericsson	agreed
5.16	R2-071324	R2-071900	Introduction of GAN PS handover	CR	25.331	2997		Rel-7	Ericsson	agreed
5.16	R2-071341, no CR presented.	R2-072279	Extension of RNC-ID	CR	25.331	3028		Rel-7	Nokia	
5.16	R2-071288	R2-071868 (source changed)	Feature Clean Up: Removal of DRAC leftover	CR	25.331	2998		Rel-7	Ericsson	agreed
5.16	R2-071352	R2-071862 (source changed)	S-CCPCH and PCH channel selection for Band IV or Band IX or Band X	CR	25.304	0157		Rel-7	Ericsson	agreed
5.16	R2-071353	R2-071866 (source	Initialisation of CFN calculation for CELL_FACH	CR	25.331	2999		Rel-7	Ericsson	agreed

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		changed)								
5.16	R2-071410	R2-071933	Ping-pong control	CR	25.331	3000		Rel-7	Ericsson	agreed
5.16	R2-071410	R2-071934	Ping-pong control	CR	25.304	0158		Rel-7	Ericsson	agreed
5.16		R2-072042	Optimization of switching between MBMS broadcast TV channels transmitted on ptp bearers (MBMS for Mobile TV)	CR	25.331	3001		Rel-7	NEC, Ericsson	agreed
	R2-071424									
5.16	R2-071425	R2-071638	Alignment of tabular to ASN.1 for SIB11/SIB12 and event 1J	CR	25.331	3002		Rel-7	NEC, Ericsson	agreed
5.16	R2-071426	R2-071640	Correction of Out of Sequence Reception function	CR	25.322	0307		Rel-7	NEC, Ericsson	agreed
5.16	R2-071437	R2-071760	DAR over CCCH	CR	25.322	0308		Rel-7	NEC, Ericsson	agreed

R2-071902 Release-7 dependencies  
The document was presented by (...) from Samsung.

**Discussion:**

Figure: Fractional DPCH requires to support EDCH.

The feature is also supported by TDD.

Enhanced L2 needs to be known at the RRC Connection request.

This is a proposal of what could be optional, not of what is optional: Title for table 1 is misleading.

**Decision:** The document was revised in R2-072291, LS to TSG RAN.

This will be reported to the plenary as the RAN2 understanding.

Samsung, Ericsson, Motorola,  
Nokia, NSN

## 5.1 Incoming LSs on UTRA Rel-5

R2-072108 (R1-071249, to RAN2). Reply LS (to R2-070953) on High Bit Rate SRB

RAN WG1

Alcatel-Lucent

The document was presented by Cyrille Royer from Alcatel-Lucent.

**Discussion:**

To be checked.

**Decision:** The document was noted.

Note: It was reported later-on that the related CR, 25.993 CR 0093, has already been approved at RAN-35 (and incorporated in the specification), as the LS R1-071249 was approved by email by RAN1 and received after RAN2-57 but before RAN-35 (25.993 CR 0093, R2-070952 was technically endorsed by RAN2-57, and the earlier LS from RAN2 to RAN1 on the subject was R2-070953).

## 5.2 UTRA Items treated in e-mail discussion (rapporteur report only)

No input.

## 5.3 Release 6 corrections

### 5.3.1 FDD Enhanced Uplink

R2-072097 (C1-070886, to RAN2). Reply LS (to R2-071107) on Maximum SDU size CT WG1 Ericsson  
R2-072115 (S2-072217, to RAN2). Reply LS (to R2-071107) on Maximum SDU size SA WG2 Ericsson

The LSs were presented by Hakan Palm from Ericsson.

**Discussion:**

**Decision:** The documents were noted.

R2-071623 "Maximum\_Serving\_Grant" setting at TTI change CR 0317 25.321 Rel-7 Panasonic  
Was already agreed in principle at RAN2-57bis.

The document was presented by Joachim Lohr from Panasonic.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071645 Correction on E-TFC selection and Serving Grant CR 25.321 Rel-6 Alcatel-Lucent  
The document was presented by Cyrille Royer from Alcatel-Lucent.

**Discussion:**

3 solutions: No further clarification (and the network would need to cater for the worse case), or define a largest E-TFC permitted to select based on serving grant payload (accepting that some UEs may select smaller E-TFC values), or specify one and only one behaviour in the spec (option C). In this latest case, either 1 bit quantization or use of E-TFC table (option C-2).

Prediction of the overall resource in the uplink is very useful for the network, hence the first choice was ruled out.

**Decision:** The document was noted.

R2-071850 Clarification on E-DCH Scheduled Grant Payload Calculation CR 25.321 Rel-6 Ericsson Mr. Janne Peisa  
The document was presented by Enrik Enbuske from Ericsson.

**Discussion:**

Bit Id would need to be calculated for the payload.

This would add the requirement on the reference E-TFC that the Bit Id would need to be monotonously increasing for each payload, with a one bit granularity.

This would not be enough to be used in conjunction with the "largest permitted E-TFC" solution.

**Decision:** The document was noted. This will be discussed again on the Thursday afternoon. Some issues are still to be resolved before that this approach is considered acceptable. Otherwise, option C-2 from discussions of R2-071645 would be a fallback solution. But any option C would need to be introduced from the Rel-6. Later-on, a revision was proposed in R2-072227:

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R2-072227 Clarification on E-DCH Scheduled Grant Payload Calculation CR 25.321 Rel-6 Ericsson  
The document was presented by Henrik Enbuske from Ericsson.

**Discussion:**

**Decision:** The CR will be *agreed by email* until Thursday 17<sup>th</sup> May 2007. In R2-072327, R2-072328, CRs 0325, 0326 (Rel-6, Rel-7). Rapporteur: Enrik Enbuske, Ericsson.

R2-071701 HSUPA configurations for VoIP and multimedia telephony NEC Mr. David Lecompte  
The document was presented by David Lecompte from NEC.

**Discussion:**

End of subclause 9.2.2.9: RLC SDU concatenation may solve the issue for the payload.

One solution would be to describe in 25.993 and 34.108 the usage of the described configuration.

This is up to the UE implementation for 25.321/25.322.

For 25.993/34.108, intended use of the configuration (scheduled/non-scheduled) will be clarified. Non-scheduled grant

A note will be added stating that the UE should choose RLC PDU sizes to maximise the amount of data within a TTI.

For the TBS: the amount of RLC header to be included in the TEBF value can only be an approximation.

**Decision:** The document was noted.

A note will be added in 25.321 (or 25.322), stating that the UE should choose RLC PDU sizes to maximise the amount of data within a TTI. For the Rel-6. In R2-072154.

*It is understood that the RLC header contribution to the TEBF value is an approximation.*

R2-072154 RLC PDU Size for maximisation of data CR 25.321/25.322 NEC  
The document was presented by David Lecompte from NEC.

**Discussion:**

Are the consequences if not approved correct ? They will be revised.

RAN box needs to be ticked.

This is putting an RLC requirement in the MAC.

This is intended to be a recommendation.

**Decision:** The CR was agreed in R2-072288, CR 0320. The Rel-7 CR is in R2-072329, CR 0327.

R2-071747 Correction of Serving Grant Update Procedure in E-DCH CR 25.321 Rel-6 ZTE  
R2-071748 Correction of Serving Grant Update Procedure in E-DCH CR 25.321 Rel-7 ZTE

The document was presented by Miss Hui Chen from ZTE

**Discussion:**

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**Decision:** The document was noted. This may be discussed for the Rel-7 (not the Rel-6). A potential Rel-7 solution will be discussed off-line or for the next meeting.

R2-071749 Consideration of RG-STEP Size in E-DCH CR ZTE Mr. Zhongda Du  
The document was presented by Miss Hui Chen from ZTE

**Discussion:**

This is not an essential correction for the Rel-6. Further releases may be discussed later.

**Decision:** The document was noted. This is not an essential correction for the Rel-6. Further releases may be discussed later.

R2-071935 E-TFC selection clarifications CR 25.321 Rel-6 Nokia Mr. Simone Proveddi  
The document was revised before presentation in R2-072150:

R2-072150 E-TFC selection clarifications CR 25.321 Rel-6 Nokia  
The document was presented by Simone Proveddi from Nokia.

**Discussion:**

Open points:

1- conflicting requirements in 25.331. Priority versus type of data.

The majority of companies would prefer the respect of priorities, whether scheduled or non-scheduled (i.e. irrespective of data type).

One case mentioned is VoIP on non-scheduled grant, with SRB using scheduled grant.

*Point 1 Open.*

*2- Decision: Agreed. What needs to be quantised is the full MACe PDU.*

3- Addressed by Ericsson/Alcatel-Lucent contributions.

4- quantisation on scheduled/non-scheduled: conflict.

Point 4 Open.

5- quantised versus quantised down. Non-scheduled data: quantised up only.

*Decision: Agreed. Quantised down.*

6- priority versus padding.

Dependent on issue 1.

Case of an SRB as scheduled transmission was mentioned.

**Decision:** The document was noted. This would be discussed again on the Thursday.

A revision was later-on proposed in R2-072214:

R2-072214 E-TFC selection clarifications CR 25.321 Rel-6 Nokia  
The document was presented by Simone Proveddi from Nokia.

**Discussion:**

This new version did not change the behaviour.

The real issue is point A2.



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There is a conflict in the requirements in the current text.

**Decision:**

Some companies favour the support of absolute priorities.

There is some support for the CR, but more time would be needed. The CR was not agreed.

R2-072152 Measurement Reporting criteria IE in ASN.1 Rel-6

Nokia Siemens Networks

The document was presented by Juho Pirskanen from Nokia Siemens Networks.

**Discussion:**

What would be the consequence of not having the reporting criteria as optional ?

This deals with intra frequency report criteria.

**Decision:** This will be studied off-line and would be seen again on the Thursday.

Later-on, it was reported that an optional bit would change the syntax, so another solution will be preferred (e.g. explain the Rel-6 branch limitation with notes).

R2-072053 Multiplexing option selection in case of E\_DCH\_TRANSMISSION equal FALSE

CR 25.331 Rel-6

Infineon

Mr. Roland Gruber

R2-072054 Multiplexing option selection in case of E\_DCH\_TRANSMISSION equal FALSE

CR 25.331 Rel-7

Infineon

Mr. Roland Gruber

The document was presented by Roland Gruber from Infineon.

**Discussion:**

The transmission variables do not influence the radio bearer mapping, they are independent.

**Decision:** The document was noted.

## 5.3.2 MBMS

R2-072098 (C1-070887, to RAN2). Reply LS (to R2-071097) on RRC connected mode during MBMS enhanced broadcast

CT WG1

Samsung

(S2-072224, to RAN2). Reply LS (to R2-071097) on RRC connected mode during

R2-072124 MBMS enhanced broadcast

SA WG2

Samsung

The document was presented by (...) from Samsung.

**Discussion:**

SA2 has chosen the UE based solution. There is a CR on the subject (R2-071851, Ericsson)

**Decision:** The document was noted.

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R2-072109 (R3-070499, to RAN2). LS on Clarification on two scenarios "Enhanced from Broadcast over lur"

RAN WG3

Nokia Siemens Networks

The document was presented by Juho Pirskanen from Nokia Siemens Networks.

**Discussion:**

This does not appear as a critical Rel-6 correction.

**Decision:** The document was noted. RAN WG3 will be asked in an LS if they want to cover the case for the Rel-7 (Alcatel-Lucent), in R2-072242.

R2-072151 MBMS Services naming

CR

25.346 and 25.331 Rel-6

Nokia

Mr. Simone Provvedi

The document was presented by Simone Provvedi from Nokia.

**Discussion:**

**Decision:** The document was noted.

R2-071757 MBMS services information on DCCH

ZTE

Mr. Zhongda Du

The document was revised before presentation in R2-072159:

R2-072159 MBMS services information on DCCH

ZTE

Mr. Zhongda Du

The document was presented by (...) from ZTE.

**Discussion:**

**Decision:** The document was noted. Later-on, the document was withdrawn.

R2-071647 MBMS Notification

Nokia

The document was revised before presentation in R2-072149:

R2-072149 MBMS Notification

CR 25.331 Rel-6

Nokia

The document was presented by Simone Provvedi from Nokia.

**Discussion:**

This is a change in the Rel-6.

What if the UE implements this CR and the network not ? The UE would miss the change of the configuration if it changes in the meantime and look for a channel that no more exists.

**Decision:** A document will be presented, highlighting the cross-combination consequences of the implementation/non-implementation on the UE/Network side. In R2-072241 (Nokia):

R2-072241 Consequences of implementation/non-implementation of MBMS Notification CR

Nokia

The document was presented by Simone Provvedi from Nokia.

**Discussion:**

UE behaviour is changed for the Rel-6.

**Decision:** The CR will be *agreed by email*. Rapporteur (Ericsson, Hakan). In R2-072290, CR 3033. Rel-7 CR in R2-072330, CR 3040.

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- R2-071755 Minor correction on MBMS text CR 25.331 Rel6 ZTE Mr. Zhongda Du  
The document was revised before presentation in R2-072170:
- R2-072170 Minor correction on MBMS text CR 25.331 Rel-6 ZTE Mr. Zhongda Du  
The document was presented by Mr. (...) from ZTE.  
**Discussion:**  
First change in 8.7.1.1 should not be here.  
**Decision:** The CR was agreed in R2-072220, CR 3006. Rel-7 CR in R2-072331, CR 3041.
- R2-071634 MBMS UE linking for enhanced broadcast mode NEC Mr. David Lecompte  
The document was revised before presentation in R2-072174:
- R2-072174 MBMS UE linking for enhanced broadcast mode NEC  
The document was presented by David Lecompte from NEC.  
**Discussion:**  
**Decision:** The document was noted.
- R2-071636 MBMS counting completion CR 25.331 Rel-6 Alcatel-Lucent  
The document was presented by Stanislas Bourdeaut from Alcatel-Lucent.  
**Discussion:**  
**Decision:** The document was noted.
- R2-071676 Requirement of simultaneous reading of MCCH and MICH LG Electronics Inc.  
The document was presented by Patrick Fischer from LG Electronics.  
**Discussion:**  
**Decision:** No agreed change for the Rel-6, however a solution will be discussed for the Rel-7.
- R2-071683 MBMS Scheduling Information CR 25.331 Rel-6 Motorola  
The document was presented by Jean-Aicard Fabien from Motorola.  
**Discussion:**  
'0' means the current TTI. This should be clarified.  
**Decision:** The CR was revised in R2-072218. CR3005:

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R2-072218 MBMS Scheduling Information CR 3005 25.331 Rel-6 Motorola  
Richard Burbidge.  
The CR was agreed as it was. Rel-7 CR in R2-072323, CR 3039.

R2-071685 MSCH transmission - alignment to stage 3 CR 25.346 Rel-6 Motorola  
The document was presented by Jean-Aicard Fabien from Motorola.

**Discussion:**

**Decision:** The CR was agreed in R2-072219, CR 0028. Rel-7 CR in R2-072332, CR 0029.

R2-071686 MBMS UE Capability for mapping MTCH/MSCH to legacy S-CCPCH CR 25.306 Rel-6 Motorola  
The document was presented by Jean-Aicard Fabien from Motorola.

**Discussion:**

This has not been discussed within RAN WG1.

**Decision:** The CR was not agreed.

R2-071851 Maintenance of PMM connection for MBMS PTP reception CR 25.331 Rel-6 Ericsson  
The document was presented by Hakan Palm from Ericsson.

**Discussion:**

PDP context would be active in PMM connected, so the UE requirement may not be so clear. Explicitely mentioning the trigger of the Service Request procedure may be clearer.

Linked with a 24.008 CR.

**Decision:** The CR was agreed in R2-072221, R2-072223. CR 3007, 3008.

R2-071852 Content of MSI message when sent on DCCH CR 25.331 Rel-6 Ericsson  
The document was presented by Hakan Palm from Ericsson.

**Discussion:**

The UE behaviour as a reply to the 'None' in the "MBMS required UE action" IE is no action.

**Decision:** The CR was agreed in R2-072230, R2-072231. CRs 3009, 3010.

R2-071756 Consideration on MBMS Required UE action ZTE Mr. Zhongda Du  
The document was revised before presentation in R2-072158:

R2-072158 Consideration on MBMS Required UE action ZTE  
The document was presented by Zhongda Du from ZTE.

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**Discussion:**

The change is not needed.

**Decision:** The CR was not agreed.

R2-071853 Relative ordering of MBMS Selected Services when indicated to the network CR 25.331 Rel-6 Ericsson Mr. Janne Peisa  
The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

TV and several alternative audio channels may be possible.

Coversheet needs to be corrected to reflect the idea of the CR more accurately.

**Decision:** The CR was agreed, in R2-072232, R2-072233. CRs 3011, 3012.

R2-071854 Background scan during MBMS PTM reception CR 25.331 Rel-7 Ericsson  
The document was presented by Hakan Palm from Ericsson.

**Discussion:**

**Decision:** The CR was agreed, in R2-072234. CRs 3013.

R2-071936 Default MBMS activation time and 'MBMS all unmodified p-t-m services' CR 25.331 Rel-6 Nokia Mr. Simone Proveddi  
The document was presented by Simone Proveddi from Nokia.

**Discussion:**

One view was that the next modification period is specified in the procedure, triggered by the 'unless specified otherwise'. Hence, different views on the exact activation time (immediately or not).

The worse that could happen is a loss of data for less than one modification period.

**Decision:** The CR was agreed in R2-072235, R2-072236. CR 3014, 3015.

R2-072027 Corrections on modulus base in UM in RLC CR 25.322 Rel-6 ASUSTeK  
The document was presented by Sam Jiang from ASUSTek.

**Discussion:**

The wording should be made clearer (in several places).

Out of sequence delivery, reception, reordering.

First proposed change on VR(UM) needs to be removed.

The 'minus' are not necessary in two places. But then, the requirement is already clear.

**Decision:** This may be clarified off-line. The CR was not agreed. Later-on, a revision was presented:

Optimization of switching between MBMS broadcast TV channels transmitted on  
R2-072059 ptp bearers (MBMS for Mobile TV) CR 25.331 Rel-6 NEC Mr. David Lecompte  
The Rel-7 related CR (3001) was agreed in principle at RAN2-57bis.

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The document was presented by David Lecompte from NEC.

**Discussion:**

This is a category C CR.

What is the exact gained latency ?

**Decision:** The Rel-6 CR was not agreed.

R2-072068 Problem with the IE 'MBMS service identity' included in the IE 'RAB info'  
The document was presented by Sven Ekemark from Ericsson.

CR 25.331 Rel-6 Ericsson

Mr. Sven Ekemark

**Discussion:**

**Decision:** The CR was agreed, in R2-072238, R2-072239. CR 3016, 3017.

### 5.3.3 Other

R2-071642 Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"  
The document was presented by Cyrille Royer from Alcatel-Lucent.

CR 25.993 Rel-6 Alcatel-Lucent

**Discussion:**

What if there is no support of HSDPA at cell edge, and user data on hsdpa ? Answer that some user data packets would be dropped, but the SRB would not be lost, so the call would not be dropped.

**Decision:** Revised in R2-072244. CR0094:

R2-072244 Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"  
The document was presented by Cyrille Royer from Alcatel-Lucent.

CR 0094 25.993 Rel-6 Alcatel-Lucent

**Discussion:**

Release is Rel-7, but the WI does not need to be TEI7.

**Decision:** The CR was agreed in R2-072292 (CR0094rev1).

R2-071648 ROHC Compression status  
The document was presented by Juho Pirskanen from Nokia Siemens Networks.

Nokia, Nokia  
Siemens Networks Mr. Luis Barreto

**Discussion:**

First point (proposed re-wording in clause 2): was agreed.

Second point may be discussed off-line.

A 25.306 Rel-6 CR will be proposed in R2-072245, R2-072246. CR 0157, 0158:

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R2-072245	RoHC Compression Status	CR 0157	25.306 Rel-6	Nokia, Nokia Siemens Networks
R2-072246	RoHC Compression Status	CR 0158	25.306 Rel-7	Nokia, Nokia Siemens Networks

The document was presented by Simone Proveddi from Nokia.

**Discussion:**

**Decision:** The CRs were agreed as they were.

R2-071706	Correction of SRB delay	CR 25.331 Rel-6	NEC	Mr. David Lecompte
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The document was presented by David Lecompte from NEC.

**Discussion:**

These IEs may wrongly be used for EDCH by some networks so this should be clarified.  
Is there a test spec. implication ?

**Decision:** The CR was agreed in R2-072247, R2-072248. CR 3018, 3019.

R2-071855	Corrections to support for RFC3095 from Release-6	25.323	Rel-6	Ericsson
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The document was presented by (...) from Ericsson.

**Discussion:**

The proposal is for the Rel-6.

**Decision:** The document was noted. See R2-071856.

R2-071856	Update of normative references for Robust Header Compression (RFC3095)	CR 25.323 Rel-6	Ericsson
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The document was presented by (...) from Ericsson.

**Discussion:**

**Decision:** The CR was agreed in R2-072249, R2-072250. CRs 0303, 0304.

R2-071857	Incorrect reference to 25.993 for default configuration 17	CR 25.331 Rel-6	Ericsson
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The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

**Decision:** The CR was agreed in R2-072251, R2-072252. CR 3020, 3021.

R2-071859	Removal of redundant IE 'MBMS-PreferredFreqRequest-r6'	CR 25.331 Rel-6	Ericsson	Mr. Janne Peisa
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The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

**Decision:** The CR was agreed for the Rel-7 only. R2-072253. CR 3022.

R2-072047	Correction to CTFC for default configuration 12	CR 25.331 Rel-6	NEC	Mr. David Lecompte
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**Draft1 minutes of the 58<sup>th</sup> TSG-RAN WG2 meeting**

The document was presented by David Lecompte from NEC.

**Discussion:**

Default Configuration 12 was introduced in the Rel-6.

No impact on 34.108 ? No, as 34.108 has only a list of TFCs, not the details of CTFCs.

**Decision:** The CR was agreed in R2-072254, R2-072255. CR 3023, 3024.

R2-072051 START values in cell update before security is enabled

CR 25.331 Rel-6 Infineon

Mr. Roland Gruber

R2-072052 START values in cell update before security is enabled

CR 25.331 Rel-7 Infineon

Mr. Roland Gruber

The document was presented by Roland Grueber from Infineon.

**Discussion:**

This scenario cannot happen if the cell Update cannot be sent before that the security mode command is completed.

33.102 indicates that the cell update message cannot be sent without integrity protection. However, this is a grey area for RRC: RRC subclause 8.1.12.4a/b seem to make it possible.

Why restricting this to the CS domain ?

**Decision:** Off-line checking is needed (e.g. reason of the 33.102 requirement) for the next meeting. The CR was not agreed.

R2-072028 Clarification on update of state variable VR(UM)

CR 25.322 Rel-6 ASUSTeK

The document was presented by Sam Jiang from ASUSTeK.

**Discussion:**

Do not apply this if the PDU has been discarded is the only point that may be useful. Changing the indentation would not change the result.

**Decision:** The CR was not agreed.

## 5.4 Enhanced CELL\_FACH State in FDD

(R1-071834, to RAN2). Reply LS (to R2-071098) on physical layer aspects of enhanced CELL\_FACH in FDD

RAN WG1

Nokia Siemens Networks

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

RRC Connection release could be sent on CCCH in Cell\_FACH State.

**Decision:** The document was noted. Reply LS to RAN1 to ask for clarifications, in R2-072156 (Alcatel-Lucent).

*Rel-6 UEs support MTCH/SCCPCH reception in Cell\_FACH State (FACH/SCCPCH).*

*Hence, Expect MTCH/SCCPCH reception also for Rel-7 UEs in Enhanced Cell\_FACH State (HS-DSCH).*

*UE capabilities for MBMS and Enhanced Cell\_FACH capable UEs should reflect this.*

Point 2 from the LS is confirmed.



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R2-072160 (R1-072547, to RAN2). Reply LS (to R2-071596) on CELL\_PCH/URA\_PCH operation in Enhanced CELL\_FACH RAN WG1  
The document was presented by Etienne Chaponniere from Flarion Technologies.

**Discussion:**

**Decision:** The document was noted.

R2-071689 Measurement reporting, state transitions, and DRX in enhanced CELL\_FACH state CR 25.308 Nokia Siemens Networks, Nokia Mr. Juho Pirskanen

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

The mobile sends the measurements it has at the time, it does not wait to have all the measurements before sending the measurement report message. RACH measurements are made based on information received in the SIB12.

**Decision:** The CR was revised in R2-072157. CR0021.

No direct data transmission in URA\_PCH State. Feedback from RAN3 indicated that this could be supported from their perspective, but decision in RAN2 not to support it since RRC is impacted.

R2-072157 Measurement reporting, state transitions, and DRX in enhanced CELL\_FACH state CR 0021 25.308 Nokia Siemens Networks, Nokia  
The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

Clause 15, fifth paragraph, measurement report triggering on RRC: a condition should be introduced on the configuration of the measurement (as described in subclause 15.2).

**Decision:** The CR was agreed in R2-072261 (CR0021rev1).

R2-071690 Introduction of Enhanced CELL\_FACH state in FDD CR 0084 25.301 Nokia Siemens Networks, Nokia  
The document was presented by Juho Pirskanen from Nokia.  
Was already agreed in principle at RAN2-57bis.

**Discussion:**

**Decision:** The CR was agreed in R2-072216 (CR 0084rev1).

R2-071692 Introduction of Enhanced CELL\_FACH state in FDD CR 0179 25.302 Nokia Siemens Networks, Nokia  
The document was presented by Juho Pirskanen from Nokia.  
Was already agreed in principle at RAN2-57bis.

**Discussion:**

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One "each" is missing.

Sentence on "NAK nor channel quality indicator" should be clarified.

The MICH is missing.

**Decision:** The CR was agreed in R2-072162 (CR 0179rev1).

R2-071691 Introduction of HS-DSCH operation in CELL\_FACH state CR 0156 25.304 Rel-7 Nokia Siemens Networks, Nokia  
The document was presented by Juho Pirskanen from Nokia.  
Was already agreed in principle at RAN2-57bis.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071875 Introduction of Improved L2 support for high data rates and Enhanced CELL\_FACH state CR 0318 25.321 Rel-7 Ericsson, Nokia, Nokia Siemens Networks  
The document was revised before presentation in R2-072165:

R2-072165 Introduction of Improved L2 support for high data rates and Enhanced CELL\_FACH state CR 0318 1 25.321 Rel-7 Ericsson, Nokia, Nokia Siemens Networks  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

11.6.yy.2:

MACd or MACc should be clarified.

**Decision:** The content on the Cell\_FACH part was revised in R2-072167 (CR 0318rev2):

R2-072167 Introduction of Improved L2 support for high data rates and Enhanced CELL\_FACH state CR 0318 2 25.321 Rel-7 Ericsson, Nokia, Nokia Siemens Networks  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

Re-ordering text is included in R2-072197.

Re-assembly subclause: For the segments, the term "concatenation" may be misleading: "combining" may be better.

**Decision:** The CR was revised in R2-07258:

R2-072258 Introduction of Improved L2 support for high data rates and Enhanced CELL\_FACH state CR 0318 3 25.321 Rel-7 Ericsson, Nokia, NSN  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The CR was agreed as it was.

There will be an *email discussion* on the reordering topic. Rapporteur: Paul Marinier, InterDigital. See R2-072197 (proposed solution).

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R2-072197 Solution to reordering issue in Enhanced Cell\_FACH  
The document was presented by Paul Marinier from InterDigital.

InterDigital

**Discussion:**

**Decision:** The document was noted. Email discussion, deadline one week before the Orlando meeting.

R2-071693 Introduction of HS-DSCH reception in CELL\_FACH, URA\_PCH and  
CELL\_PCH  
The document was presented by Markus Wimmer from Nokia Siemens Networks.

CR 25.331

Nokia Siemens  
Networks, Nokia

Mr. Juho Pirskanen

**Discussion:**

Subclause 8.1.1.7.1 needs to be modified (e.g. to cover the Cell\_PCH State).

Subclause 8.1.11 needs to be modified: the procedure is also applicable to the Cell\_PCH case.

8.5.P3 needs to be modified to add a pointer to subclause 8.5.F1.

There are some incorrect "Rel-5" in the tabular.

A Sentence will be added in the MAC to state that reordering is not applicable to the BCCH.

Subclause 8.3.1.2: the case of cell reselection needs to be added.

Subclause 8.4.2.2: traffic volume measurement is sent in order to send the measurement results on the RACH.

**Decision:** The CR was revised in R2-072168. CR 3003:

R2-072168 Introduction of HS-DSCH reception in CELL\_FACH, URA\_PCH and CELL\_PCH  
The document was presented by Markus Wimmer from Nokia Siemens Networks.

CR 3003

25.331 Rel-7

Nokia Siemens Networks, Nokia

**Discussion:**

Subclause 8.1.1.7.1, bullet 4: UE in Cell\_FACH State with common RNTI is excluded here.

It should be checked whether this CR clashes with other CRs.

Extension of the cell update needs to be cleaned up.

**Decision:** The CR was revised in R2-072257 (CR 3003rev1):

R2-072257 Introduction of HS-DSCH reception in CELL\_FACH, URA\_PCH and CELL\_PCH  
The document was presented by Markus Wimmer from Nokia Siemens Networks.

CR 3003

1 25.331 Rel-7

Nokia Siemens  
Networks, Nokia

**Discussion:**

**Decision:** The CR was agreed in R2-072305 (CR3003rev2).

R2-071694 Introduction of two DRX schemes in CELL\_PCH and URA\_PCH  
The document was presented by Juho Pirskanen from Nokia Siemens Networks.

CR 25.331

Nokia Siemens  
Networks, Nokia

Mr. Juho Pirskanen

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**Discussion:**

CR part:

Inactivity timer is used in the stage 2, activity timer in the stage 3. In fact, the use of T3xy would be better.

The timer should be added in the timer table.

In the tabular, the tdd line should be labelled with Rel-7.

In the ASN.1, a new IE for the new specific UE info would be better.

The ASN.1 version seems obsolete.

**Decision:**

The two level DRX Scheme will be applied to Cell\_PCH and URA\_PCH with secondary CCPCH paging.

This will be applicable to TDD as well.

Mandatory for the Rel-7.

The CR was revised in R2-072169, CR 3004.

R2-072169 Introduction of two DRX schemes in CELL\_PCH and URA\_PCH  
The document was presented by Markus Wimmer from Nokia Siemens Networks.

CR 3004 25.331 Rel-7

Nokia Siemens Networks,  
Nokia

**Discussion:**

One 'FDD only' should be removed.

The TEI7 WI code should be added on the coversheet.

The Timer name should be modified.

**Decision:** The CR was agreed in R2-072262 (CR 3004rev1).

R2-071930 Multi-level DRX Operation in CELL\_PCH  
The document was presented by Young Dae Lee from LG Electronics.

LG Electronics Inc.

**Discussion:**

Proposal 1: Linked with the TEI7/Enhanced Cell\_FACH CR.

**Decision:** The document was noted.

R2-071928 Discussion on Data Transmission in CELL\_PCH  
The document was noted without presentation following the presentation of R2-071930.

LG Electronics Inc.

R2-071695 Details of Paging in enhanced CELL\_FACH state  
The document was presented by Juho Pirskanen from Nokia Siemens Networks.

Nokia Siemens  
Networks, Nokia

Mr. Juho Pirskanen

**Discussion:**

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What is the difference in performance between the schemes 1-3 ?

**Decision:** The document was noted.

*The Maximum time the UE needs to receive is 5 subframes.*

*Minimum retransmission time: 1 subframe. I.e. the retransmission may be in the TTE following the previous transmission.*

*HS-SCCH is used for the DCCH case.*

Other tbd:

Transmission: asynchronous, or synchronous to the first transmission ? Choice is tbd.

There are two potential solutions. PCCH, one for the DCCH/DTCH case.

DCCH uses the HS-SCCH.

~~We will come back on this on Thursday.~~

R2-071787 HS-SCCH less operation for Enhanced Paging reception CR Qualcomm Europe  
The document was withdrawn (not available) following the discussions of R2-071695.

R2-072067 Interaction between Quality Reporting on enhanced Cell\_FACH and enhanced receivers Alcatel-Lucent  
The document was revised before presentation in R2-072161:

R2-072161 Interaction between Quality Reporting on enhanced Cell\_FACH and enhanced receivers Alcatel-Lucent  
The document was presented by Stanislas Bourdeaut from Alcatel-Lucent.

**Discussion:**

There is motivation for the RNC/NodeB to be aware of the UE receive diversity capability.

However, is it possible for the network to make a reliable use of this information if it is reported ?

**Decision:** LS to RAN1/RAN4 to ask the question on the reliable use of the information. In R2-072173 (LG Electronics).

R2-071620 Solutions to reordering issue in enhanced Cell FACH InterDigital Mr. Stephen Terry  
The document was presented by Paul Marinier from InterDigital.

**Discussion:**

**Decision:** The document was noted. *Reordering for SRB0/SRB1 will be in the MAC-ehs.*

R2-072209 Text Proposal for Paging in Enhanced CELL\_FACH Nokia Siemens Networks, Nokia, Ericsson, Qualcomm

**Draft1 minutes of the 58<sup>th</sup> TSG-RAN WG2 meeting**

The document was presented by Juho Pirskanen from Nokia Siemens Networks.

**Discussion:**

**Decision:** The change for the URA\_PACH was agreed. The principles in the document was agreed. The text, after clarification, will be introduced in the 25.308 CR.

R2-072210 UE capabilities for Enhanced CELL\_FACH CR 25.306 Rel-7 Nokia Siemens Networks, Nokia  
The document was presented by Juho Pirskanene from Nokia Siemens Networks.

**Discussion:**

Category numbering does not cater with the data rate.  
What about category 12 ?

**Decision:** The CR was agreed in R2-072306, CR 0161.

## 5.5 Improved L2 support for high data rates

R2-071879 Finalizing MAC-ehs Ericsson Mr. Janne Peisa  
R2-072022 L2 improvements and UE processing Qualcomm Europe Mr. Etienne Chaponnière

R2-071874 Correction to the Introduction of Improved L2 support for high data rates CR 25.301 Rel-7 Ericsson Mr. Janne Peisa  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The CR was agreed in R2-072224, CR0085.

R2-071876 Introduction of Improved L2 support for high data rates CR 25.322 Rel-7 Ericsson Mr. Janne Peisa  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

Subclausw 9.2.2.9: This is a maximum size for PDU.  
Reference to subclause 11.2.2.2 from the setting section needs to be removed.

**Decision:** The CR was revised in R2-072211, CR0309:

R2-072211 Introduction of Improved L2 support for high data rates CR 0309 25.322 Rel-7 Ericsson  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

Text should be moved to the receiver subclause (from the sender subclause).  
Subclause 11.3.2, typo (AMD PDU).

**Decision:** The CR was ~~revised~~initially agreed in R2-072260;

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R2-072260 Introduction of Improved L2 support for high data rates  
~~(CR0309rev1), but then revised and agreed in R2-072308 (CR0309rev2).~~

CR 0309 1 25.322 Rel-7 Ericsson

The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The CR was revised and agreed in R2-072308 (CR0309rev2).

R2-071877 Introduction of Improved L2 support for high data rates

25.331 Rel-7 Ericsson Mr. Janne Peisa

The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The CR was revised in R2-072212:

R2-072212 Introduction of Improved L2 support for high data rates

CR 25.331 Rel-7 Ericsson

The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

RB mapping decision will be incorporated here, together with some wording improvement.

MACd flow CR is not needed anymore because of this.

**Decision:** The CR was revised in R2-072259, CR3025:

R2-072259 Introduction of Improved L2 support for high data rates

CR 3025 25.331 Rel-7 Ericsson

The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

UE behaviour not specified will be added for one case.

Subclause 8.6.6.27, indentation 1: one "else" may be missing.

**Decision:** The CR was agreed in R2-072307 (CR 3025rev1).

R2-072260 Introduction of Improved L2 support for high data rates

CR 0309 1 25.322 Rel-7 Ericsson Mr. Janne Peisa

The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071746 MAC-ehs header open issues

ZTE Mr. Zhongda Du

The document was presented by Mr. Zhongda Du from ZTE.

**Discussion:**

**Decision:** Agreement on how to indicate the end of the header. Other issues were not agreed.

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R2-071619 Reconfiguration of L2 protocols between enhanced and non-enhanced cells InterDigital Mr. Stephen Terry  
The document was presented by Paul Marinier from InterDigital.

**Discussion:**

**Decision:** The proposal 2 was agreed. Ericsson RRC CR will incorporate this.

R2-071646 L2 processing Nokia, Nokia Siemens Networks  
The document was presented by ~~Juho Pirskanen from Nokia Siemens Networks~~Paul Marinier from InterDigital.

**Discussion:**

Rel-5 solution was mentioned but backward compatibility would have to be extremely well assessed.

**Decision:**

*Agreement to limit the number of queues scheduled per TTI to three.*

~~We will come back on this.~~

R2-071618 Window based polling with flexible RLC PDU size InterDigital  
The document was presented by Paul Marinier from InterDigital.

**Discussion:**

**Decision:** The document was noted.

R2-072021 L2 Improvements and polling Qualcomm Europe Mr. Etienne Chaponniere  
The document was presented by Etienne Chaponniere from Flarion Technologies.

**Discussion:**

**Decision:** The document was noted. This mechanism of downlink flexible PDU size case will be added to the Ericsson CR on the subject.

R2-072111 Correction to the maximum number of Mac-d flows on HSDPA. CR 25.331 Rel-7 Alcatel-Lucent  
MACd flow seems not needed. The CR was noted without presentation. However, co-ordination with the Iub solution is needed.

## 5.6 CPC

R2-071644	Correction to CPC UL DTX for addition of a new cell in the active set.	CR 25.331 Rel-7	Alcatel-Lucent	
R2-071772	CPC parameter ranges		Qualcomm Europe	
R2-071881	L1 parameter name changes	CR 25.308 Rel-7	Ericsson	Mr. Janne Peisa
R2-071882	L1 parameter name changes	CR 25.321 Rel-7	Ericsson	Mr. Janne Peisa
R2-071985	Alignment of CPC UL DRX TTI due to Compressed Mode		INFINEON	
R2-072057	Avoid unnecessarily decreasing UE DRX possibility	CR 25.321 Rel-7	Nokia, Nokia Siemens Networks	Mr. Juho Pirskanen



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R2-072130	HS-SCCH Less and Rate Matching 1	CR	25.331 Rel-7	Qualcomm Europe	Mr. Etienne Chaponnière
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The documents were noted without presentation.

## 5.7 MIMO

R2-072107	(R1-071238, to RAN2). LS on 64QAM HSDPA and HSDPA MIMO UE categories	LS	RAN WG1	Qualcomm	
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The LS was postponed for the next meeting.

R2-071986	HSPA+ L2 Buffering Calculations			Nokia, NOKIA SIEMENS NETWORKS	Mr. Simone Proveddi
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R2-071884	Restriction on the number of MIMO processes	CR	25.331 Rel-7	Ericsson, Philips	Mr. Janne Peisa
R2-072017	Buffering requirement for joint HS-DSCH E-DCH categories	CR	25.306 Rel-7	Qualcomm Europe	Mr. Etienne Chaponnière
R2-072018	Correction of MIMO and 64QAM buffering requirement	CR	25.306 Rel-7	Qualcomm Europe	Mr. Etienne Chaponnière
R2-072026	Clarification on assigning HARQ process IDs for MIMO	CR	25.331 Rel-7	ASUSTeK	
R2-072079	Clarification on HARQ process allocation for MIMO	CR	25.331 Rel-7	ASUSTeK	
R2-071643	Correction on 64QAM and MIMO UE capability in RRC	CR	25.331 Rel-7	Alcatel-Lucent, Ericsson, Nokia	
R2-071784	Open items with release 7 UE categories			Qualcomm Europe	
R2-071885	Definition for higher bit rate bearers due to 64QAM and MIMO			Ericsson	Mr. Janne Peisa
R2-071888	Introduction of HS-DSCH category for combined MIMO and DL64QAM	CR	25.306 Rel-7	Ericsson, Alcatel-Lucent	Mr. Janne Peisa

R2-072056	Removing MIMO requirements from MAC-hs	CR	25.321 Rel-7		Nokia Siemens Networks, Nokia
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The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

Common understanding is that MIMO is not supported by MAC-hs.

**Decision:** *Common understanding is that MIMO is not supported by MAC-hs.*

## 5.8 16 QAM UL

R2-071621	Starting and stopping operation in 16QAM mode			InterDigital	Mr. Stephen Terry
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**R2-072145** Correction on 16QAM category

CR 25.331 Rel-7 Alcatel-Lucent

R2-071761 DRAFT CR to TS 25.331 [Rel-7] on Introducing 16QAM uplink support  
The document was revised before presentation in R2-072182:

CR QUALCOMM Europe Dr. Nathan Tenny

R2-072182 DRAFT CR to TS 25.331 [Rel-7] on Introducing 16QAM uplink support  
The document was presented by Etienne Chaponniere from Flarion Technologies.

CR 2982 4 QUALCOMM Europe

**Discussion:**

**Decision:** The CR was revised in R2-072284 (CR 2982rev5):

R2-072284 Introducing 16QAM uplink support  
The document was presented by Nathan Tenny from Qualcomm.

CR 2982 5 QUALCOMM Europe

**Discussion:**

Indentation in the tabular needs to be corrected.

**Decision:** The CR was agreed in R2-072304 (CR 2982rev6).

R2-072285 Introducing 16QAM uplink support  
The document was presented by Nathan Tenny from Qualcomm.

CR 0311 2 25.321 Rel-7 QUALCOMM Europe

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-072289 Introducing 16QAM uplink support  
The document was presented by Nathan Tenny from Qualcomm.

CR 0151 2 25.306 Rel-7 QUALCOMM Europe

**Discussion:**

**Decision:** The CR was agreed as it was.

## 5.9 64 QAM DL

**R2-071699** Transport block tables for 64QAM

CR 25.321 Nokia Siemens Networks, Nokia Mr. Juho Pirskanen

## 5.10 MBMS FDD Physical layer Enhancements

**R2-071688** MBMS in MBSFN mode for FDD

LG Electronics Inc.  
Ericsson

Mr. Patrick Fischer  
Mr. Janne Peisa

**R2-071890** Introduction of TDM scheme for MBSFN

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R2-071688 MBMS in MBSFN mode for FDD LG Electronics Inc. Mr. Patrick Fischer  
The document was presented by Derek Richards from IPWireless and Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The document was noted.

R2-071670 MBMS FDD and TDD Physical Layer Improvements CR 0027 3 25.346 Rel-7 , LG Electronics Inc., IP Wireless., IPMobile, UTStarcom Mr. Patrick Fischer  
The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The CR was revised in R2-072313 (CR 0027rev4):

R2-072313 MBMS FDD and TDD Physical Layer Improvements CR 0027 4 25.346 Rel-7 , LG Electronics Inc., IP Wireless., IPMobile, UTStarcom  
The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071672 MBMS FDD and TDD Physical Layer Improvements CR 25.304 Rel-7 LG Electronics Inc., IP Wireless., IPMobile, UTStarcom Mr. Patrick Fischer  
The document was presented by Derek Richards from IPWireless and Patrick Fischer from LG Electronics.

**Discussion:**

Is the Periodic search for MBMS cluster a necessary requirement ? (this could be power consuming). The sentence will be rephrased to remove the periodic requirement and add a condition on the configuration.

The UE needs to be aware that the particular service is provided via MBSFN mode.

Subclause 6.3.1.3: The "same technology" will be removed. The "periodic" will be removed.

Different phrasings were discussed. Another solution would be "The UE shall attempt to determine which services are available", or "The UE should determine which services are available".

Subclause 6.3.1.2: Mention to the MICH is missing. Reference to 25.331 will be used.

Subclause 4.3 and e.g. Subclause 5.3.1.1: Barred cells are not operating on MBSFN mode. Sentence on MBSFN indicated as barred may be removed.

A new subclause 5.3a with the new requirements will be used instead.

**Decision:** An LS will be sent to RAN1 to inform about the need of the service announcement, in R2-072179 (LG Electronics).

The CR was revised in R2-072180:

R2-072180 MBMS FDD and TDD Physical Layer Improvements CR 25.304 Rel-7 LG Electronics Inc., IP Wireless.,

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IPMobile, UTStarcom

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

Subclause 6.3.1.3, first paragraph: typo.

**Decision:** The CR will be merged with the LCR TDD CR on the subject. In in R2-072263, CR 0159.

R2-072263 MBMS FDD and TDD Physical Layer Improvements

CR 0159 25.304 Rel-7

LG Eletrronics Inc., IP Wireless.,  
IPMobile, UTStarcom

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071671 MBMS FDD and TDD Physical Layer Improvements

CR 25.306 Rel-7

LG Eletrronics Inc., IP  
Wireless., IPMobile, UTStarcom Mr. Patrick Fischer

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

Headlines for part C - MBMS/MBSFN inconsistency. MBSFN Capability part C and part D should be used instead.

Values from R2-071688 will be incorporated in the part C (FDD).

**Decision:** The CR was revised in R2-072181:

R2-072181 MBMS FDD and TDD Physical Layer Improvements

CR 25.306 Rel-7

LG Eletrronics Inc., IP Wireless.,  
IPMobile, UTStarcom

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The CR will be merged with the LCR TDD CR, in R2-072264. CR 0159:

R2-072264 MBMS FDD and TDD Physical Layer Improvements

CR 0159 25.306 Rel-7

LG Eletrronics Inc., IP Wireless.,  
IPMobile, UTStarcom

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

New RAN1 slot formats have been updated here.

**Decision:** The CR was agreed as it was.

R2-071669 MBMS FDD and TDD Physical Layer Improvements

CR 25.331 Rel-7

LG Eletrronics Inc., IP  
Wireless., IPMobile, UTStarcom Mr. Patrick Fischer

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

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Information structure in the tabular uses the SIB11 (MBSFN frequency list used in the unicast cells to indicate frequencies). However, the MBSFN cluster relies on the measurement control SI in the SIB11 for the interfrequency cells. This results in redundant information (see 10.3.7). An alternative would be to have the same IE in SIB11 (MBSFN frequency list for unicast service) and MBSFN cluster to list the alternative frequencies.

Answer that this would be an optimisation for the downlink only case.

For the TDD mixed carrier case, SIB11 interfrequency cell info list contains information for unicast interfrequency cell reselection.

Midamble shift IE was changed with regards to 10.3.6.41 Burst type. However, this IE is referenced by reconfiguration procedures. The tabular should make this clear (i.e. "conditional" on the message type).

Inter frequency neighbour list, subclause 10.3.7.x (new). Indexes point to the interfrequency cell list in SIB11. The index range is restricted to four, whereas higher indexes of frequencies may be expected.

ASN.1: downlink timeslot code R7 is not referenced anywhere else.

Subclause 8.6.9.11, procedure description: second bullet needs to be aligned with the proposal.

Subclause 13.4.11c: The Note is misleading. There is one instance of the variable in the UE. If there are two set of information with the same name, at least this should be stated clearly (or use two different names).

**Decision:** The document was noted. The CR was revised in R2-072195:

R2-072195	MBMS FDD and TDD Physical Layer Improvements	CR	25.331, Rel-7	LG Eletronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer
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The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The CR will be merged in the related CR on LCR TDD, in R2-072265, CR 3026:

R2-072265	MBMS FDD and TDD Physical Layer Improvements	CR 3026	25.331 Rel-7	LG Eletronics Inc., IP Wireless., IPMobile, UTStarcom
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The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The CR was agreed as it was.

There is an LS to SA4 on this topic, in R2-072179.

## 5.11 MBMS TDD Physical layer Enhancements

R2-071663	Support for Burst Type 5 in 3.84/7.68 Mcps TDD MBSFN only cells			IPWireless
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The document was withdrawn before presentation.

R2-071891	Support for DL only SFN operation for MBMS FDD			Ericsson	Mr. Janne Peisa
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The document was presented by (...) and Sven Ekemark from Ericsson.

**Discussion:**

What is the WI (/mode) associated with this document ?

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**Decision:** The document was noted.

R2-071892 Support for DL only SFN operation for MBMS FDD CR 25.346 Rel-7 Ericsson Mr. Janne Peisa  
(The document was revised before presentation in R2-072175, but R2-071892 was presented).  
The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

The solutions chosen were challenged. The proposed text is not required.  
It was commented that this could be introduced in a much cleaner way by assigning a new band for FDD.  
No other technical comments were received.

**Decision:** The document was noted.

A revision was made available later in R2-072319.

**R2-072319** Support for DL only SFN operation for MBMS FDD CR 25.346 Rel-7 Ericsson

R2-071893 Support for DL only SFN operation for MBMS FDD CR 25.331 Rel-7 Ericsson Mr. Janne Peisa  
The document was revised before presentation in R2-072176:

R2-072176 Support for DL only SFN operation for MBMS FDD CR 25.331 Rel-7 Ericsson  
The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

As for the previous document, it was commented that this could be introduced in a much cleaner way by assigning a new band for FDD.  
No other technical comments were received.

**Decision:** The document was noted.

A revision was made available later in R2-072320.

**R2-072320** Support for DL only SFN operation for MBMS FDD CR 25.331 Rel-7 Ericsson

R2-072177 Support for DL only SFN operation for MBMS FDD CR 25.306 Rel-7 Ericsson  
The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

It was commented that this is a new document that was not available prior to the meeting.

**Decision:** The document was noted.

A revision was made available later in R2-072321:

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**R2-072321** Support for DL only SFN operation for MBMS FDD

CR 25.306 Rel-7 Ericsson

R2-071890 Introduction of TDM scheme for MBSFN

Ericsson Mr. Janne Peisa

The document was presented by Hakan Palm from Ericsson.

**Discussion:**

MHCH should be MCCH.

One line in the calculation of the formula should be deleted.

This could be extended to the TDD mode.

This is not connected to a physical layer improvement.

One range could be extended.

Should the list be extended at the end of the current list, or create a separate list ?

MSCH is aimed at low data rate services intermittent in the sending of data, whereas this is aimed at high data rate services with amount of data to send at each repetition.

Part of the general MBMS improvement for the Rel-7, or not ? Open.

**Decision:** The document was noted. This will be introduced in the main 25.331 CR.

## 5.12 MBMS LCR TDD Physical layer Enhancements

R2-071797 Overview of MBMS LCR TDD Physical Layer Enhancements

RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications

Mrs. Haiyang Quan

The document was presented by Mr.Xuelong Wang from CATT.

**Discussion:**

SIB3, 5 and 11 are enhanced.

**Decision:** The document was noted.

R2-071750 MBMS LCR TDD Physical Layer Enhancements

CR 25.436 Rel-7

RITT, CMCC, CATT, TD Tech, Spreadtrum Communications

The document was revised before presentation in R2-071802:

R2-071802 Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.346

CR 25.346 Rel-7

RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications

Mrs. Haiyang Quan

The document was presented by Mr.Xuelong Wang from CATT.

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**Discussion:**

Subclause 7.1a, now applicable to LCR TDD ? Also, there is a typo: "different frequencies by".

**Decision:** The CR was revised in R2-072198:

R2-072198	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.346 The document was presented by Patrick Fischer from LG Electronics. Changes were merged into R2-072313 before presentation.	CR	25.346 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	
R2-071812	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.304 The document was presented by Mr.Xuelong Wang from CATT. <b>Discussion:</b> MBMS/MBSFN inconsistency. Text needs to be modified as in R2-072198. <b>Decision:</b> The CR was revised in R2-072199:	CR	25.304 Rel-7	RITT, CMCC, CATT, TD- Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan
R2-072199	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.304 Changes were merged into R2-072263 before presentation.	CR	25.304 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	
R2-071807	UE Capabilities for LCR TDD MBSFN The document was presented by Mr.Xuelong Wang from CATT. <b>Discussion:</b> <b>Decision:</b> The document was noted.			RITT, CMCC, CATT, TD- Tech, ZTE, Spreadtrum Communications	
R2-071809	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.306 The document was presented by Mr.Xuelong Wang from CATT. <b>Discussion:</b> <b>Decision:</b> The content was agreed. Will be merged with the revised FDD / HCR TDD 25.306 CR.	CR	25.306 Rel-7	RITT, CMCC, CATT, TD- Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan
R2-071816	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.331	CR	25.331 Rel-7	RITT, CMCC, CATT, TD-	Mrs. Haiyang Quan



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Tech, ZTE, Spreadtrum  
Communications

The document was presented by Mr.Xuelong Wang from CATT.

**Discussion:**

Neighbour Cell info. modification needed.  
Alignment of the MBMS/MBSFN needed.  
There is no ASN.1 yet.

**Decision:** The CR was revised in R2-072200:

R2-072200 Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.331 CR 25.331 Rel-7 RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications  
Changes were merged into R2-072265 before presentation.

R2-072032 1.28Mcps TDD MBMS physical layer improvements: Addition of DL SF2 and draft CR to 25.331 v7.4.0 CR 25.331 Rel-7 TD Tech Ltd.  
The document was revised before presentation in R2-072166:

R2-072166 1.28Mcps TDD MBMS physical layer improvements: Addition of DL SF2 and draft CR to 25.331 v7.4.0 CR 25.331 Rel-7 TD Tech Ltd.  
The document was presented by Mr.Xuelong Wang from CATT.

**Discussion:**

**Decision:** The content was agreed. Will be merged with the revised FDD / HCR TDD 25.331 CR.

R2-071798 Introduction of scenarios of 1.28Mcps TDD for TR25.905 RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications  
The document was presented by Mr.Xuelong Wang from CATT.  
**Discussion:**  
**Decision:** The content was agreed. Will be merged in the TR.

R2-071799 Introduce MBMS LCR TDD Physical Layer Enhancement to TR 25.905 CR 25.905 Rel-7 RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications  
The document was presented by Mr.Xuelong Wang from CATT.  
**Discussion:**  
The content was agreed by RAN WG1.  
The CRs are independent (i.e. do not overlap).  
**Decision:** The CR was revised in R2-072201, CR0002:

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R2-072201 Introduce MBMS LCR TDD Physical Layer Enhancement to TR 25.905 CR 0002 25.905 Rel-7 RITT, CMCC, CATT, TD-Tech,  
The CR was agreed following off-line discussions (no changes compared to the previous version). ZTE, Spreadtrum Communications

R2-072031 CR to 25.905 V7.0.0 for supporting LCR TDD MBSFN operation CR 0001 25.905 Rel-7 TD Tech Ltd.  
Was already seen at RAN2-57bis.

The document was presented by Mr.Xuelong Wang from CATT.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-072213 Chip Combining CR 25.331 Rel-7 RITT, CMCC, CATT, TD-Tech,  
The document was presented by (...) from ZTE. ZTE, Spreadtrum Communications

**Discussion:**

**Decision:**

The content was agreed and will be merged in the CR from LG Electronics.

## 5.13 GNSS in UTRAN

R2-071612 A-GNSS in UTRAN (RRC) CR 25.331 Rel-7 Orange, Alcatel-Lucent, Nokia  
The document was revised before presentation in R2-072138:

R2-072138 A-GNSS in UTRAN (RRC) CR 25.331 Rel-7 Orange, Alcatel-Lucent, Nokia  
The document was revised before presentation in R2-072225:

R2-072225 A-GNSS in UTRAN (RRC) CR 25.331 Rel-7 Orange, Alcatel-Lucent, Nokia  
The document was presented by Alain Abinakhoul from Orange.

**Discussion:**

**Decision:** The CR will be *agreed by email*, until Friday 18<sup>th</sup> May 2007. In R2-072286, CR 3032.

R2-071614 GNSS support to UE capabilities CR 25.306 Rel-7 Orange, Alcatel-Lucent, Nokia  
The document was revised before presentation in R2-072155:

R2-072155 GNSS support to UE capabilities CR 25.306 Rel-7 Orange, Alcatel-Lucent, Nokia

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The document was presented by Alain Abinakhoul from Orange.

**Discussion:**

**Decision:** The CR was agreed in R2-072287, CR 0160.

## 5.14 1.28 Mcps TDD Enhanced Uplink

R2-071791 Clarification for control of E-RUCCH transmission in LCR TDD CR 25.321 Rel-7 ZTE, CATT, TD TECH  
The document was presented by Mr. Zhongda Du from ZTE.

**Discussion:**

**Decision:** The CR was agreed in R2-072293, CR 0321.

R2-071845 Addition of E-DCH Scheduling Information Power Offset in TDD mode CR 25.331 Rel-7 ZTE, CATT  
The document was presented by (...) from ZTE.

**Discussion:**

What is the exact applicability to HCR TDD ? With this CR, it is applicable to it.

Why was the new Rel-7 info list not created ?

E-PUCH info is a Rel-7 IE.

**Decision:** The CR was agreed in R2-072294, CR 3034.

R2-071858 Corrections to tabular for non-scheduled transmission for LCR TDD CR 25.331 Rel-7 CATT, TD-Tech, ZTE Mrs. Haiyang Quan

**Decision:** The CR was agreed in R2-072295, CR 3035. Then revised again in R2-072343 (CR3035rev1) after the meeting to avoid mismatch of documents.

Same content. Agreed.

R2-071860 Some Small Editorial Corrections to TS 25.321 CR 25.321 Rel-7 CATT Mrs. Haiyang Quan

**Decision:** The CR was agreed in R2-072296, CR 0322.

R2-071861 Introduction of PRACH configuration in protocol messages triggering E-DCH serving cell change in LCR TDD system CR 25.331 Rel-7 ZTE, CATT

**Decision:** The CR was agreed in R2-072297, CR 3036.

R2-071863 Some clarifications related to E-DCH Scheduling Information in TDD mode CR 25.321 Rel-7 ZTE, CATT

**Decision:** The CR was agreed in R2-072298, CR 0324.

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R2-071865 Some corrections for LCR TDD EUL to TR 30.302  
The CR was agreed in R2-072299, CR0001.

CR 30.302 Rel-7 CATT, TD-Tech, ZTE Mrs. Haiyang Quan

R2-071867 Correction to definition of maxNumE-AGCH for TDD  
This is only affecting the Rel-7 syntax.  
The CR was agreed in R2-072300, CR3037.

CR 25.331 Rel-7 CATT, IPWireless Mrs. Haiyang Quan

R2-071794 Introduction of E-TFC Selection for 1.28Mcps TDD  
The document was revised before presentation in R2-072226:

CR 25.321 Rel-7 ZTE, CATT, TD TECH

R2-072226 Introduction of E-TFC Selection for 1.28Mcps TDD  
The CR was agreed in R2-072301, CR0323.

CR 25.321 Rel-7 ZTE, CATT, TD TECH

## 5.15 Study Item on Scope of future FDD HSPA Evolution

R2-071698 SRNS relocation for carrier sharing between PS only RNS and PS and CS RNS  
R2-072099 Evolved HSPA: UE Involved Relocation

Nokia Siemens Networks Mr. Juho Pirskanen  
Vodafone Group

## 5.16 TEI7

R2-072100 (G2-070094, to RAN2). LS on Removal of limitation of SRNC identity  
(S2-072266, Cc RAN2). Reply LS (to RP-071677) on the Removal of limitation of  
R2-072129 SRNC identity

LS GERAN2 Alcatel-Lucent  
LS SA WG2 Alcatel-Lucent

The LSs were presented by Stanislas Bourdeaut from Alcatel-Lucent.

**Discussion:**

**Decision:** The LSs were noted.

R2-071641 Configuration of RACH measurements results in SIB12  
(Earlier CR was agreed in principle at RAN2-57bis).  
The document was presented by Stanisal Bourdeaut from Alcatel-Lucent.

CR 0020 25.308 Rel-7 Alcatel-Lucent

**Discussion:**

**Decision:** This CR is already taken in account in another CR, hence the CR was withdrawn.

R2-072069 Use of Integrity protection algorithm UIA/2: removal of a 'shall' in a note

CR 2992 25.331 Rel-7 ETSI MCC

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(CR was agreed in principle at RAN2-57bis).  
The CR was agreed as it was.

R2-071639 PDCP reinitialisation at SRNS relocation CR 0302 25.323 Rel-7 Alcatel-Lucent  
(CR was agreed in principle at RAN2-57bis).  
The document was presented by Stanisal Bourdeaut from Alcatel-Lucent.  
The CR was agreed as it was.

R2-071632 RRC Cellid encoding alignment on RANAP CR 2993 25.331 Rel-7 Alcatel-Lucent  
(CR was agreed in principle at RAN2-57bis).  
The document was presented by Stanisal Bourdeaut from Alcatel-Lucent.  
This CR ensures the consistency.  
The CR was agreed as it was.

R2-071680 Signalling connection release at T314/315 expiry CR 2994 25.331 Rel-7 Motorola  
(CR was agreed in principle at RAN2-57bis).  
The document was presented by Jean Aicard Fabian from Motorola.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071682 Cell Update Confirm with RLC re-establish indicator CR 2995 25.331 Rel-7 Motorola  
(CR was agreed in principle at RAN2-57bis).  
The document was presented by Jean Aicard Fabian from Motorola.

**Discussion:**

The UE is not affected.

**Decision:** The CR was agreed as it was.

R2-071898 Correction of STTD Indicator for F-DPCH Tx Diversity CR 2996 25.331 Rel-7 Ericsson  
(CR was agreed in principle at RAN2-57bis).  
The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

**Decision:** The CR was agreed as it was.

**Draft1 minutes of the 58<sup>th</sup> TSG-RAN WG2 meeting**

R2-071899 Introduction of GAN PS handover CR 0256 25.306 Rel-7 Ericsson Mr. Janne Peisa  
R2-071900 Introduction of GAN PS handover CR 2997 25.331 Rel-7 Ericsson Mr. Janne Peisa  
(CRs were agreed in principle at RAN2-57bis).

The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071868 Feature Clean Up leftover: Removal of DRAC leftover CR 2998 25.331 Rel-7 Nokia Siemens Networks  
(CR was agreed in principle at RAN2-57bis).

The document was presented by Markus Wimmer from Nokia Siemens Networks.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071862 S-CCPCH and PCH channel selection for Band IV or Band IX or Band X CR 0157 25.304 Rel-7 Nokia Siemens Networks  
(CR was agreed in principle at RAN2-57bis).

The document was presented by Markus Wimmer from Nokia Siemens Networks.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071866 Initialisation of CFN calculation for CELL\_FACH CR 2999 25.331 Rel-7 Nokia Siemens Networks  
(CR was agreed in principle at RAN2-57bis).

The document was presented by Markus Wimmer from Nokia Siemens Networks.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071933 PLMN selection ping-pong control CR 3000 25.331 Rel-7 Nokia, 3, Ericsson, Motorola, NOKIA SIEMENS NETWORKS Mr. Simone Proveddi  
(CR was agreed in principle at RAN2-57bis).

The document was presented by Simone Proveddi from Nokia Siemens Networks.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071934 PLMN selection ping-pong control CR 0158 25.304 Rel-7 Nokia, 3, Ericsson, Motorola, NOKIA SIEMENS NETWORKS Mr. Simone Proveddi  
(CR was agreed in principle at RAN2-57bis).

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The document was presented by Simone Proveddi from Nokia Siemens Networks.

**Discussion:**

**Decision:** The CR was agreed as it was.

Optimization of switching between MBMS broadcast TV channels  
R2-072042 transmitted on ptp bearers (MBMS for Mobile TV) CR 3001 25.331 Rel-7 NEC, Ericsson Mr. David Lecompte  
(CR was agreed in principle at RAN2-57bis).

The document was presented by David Lecompte from NEC.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071638 Alignment of tabular to ASN.1 for SIB11/SIB12 and event 1J CR 3002 25.331 Rel-7 NEC Mr. David Lecompte  
(CR was agreed in principle at RAN2-57bis).

The document was presented by David Lecompte from NEC.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071640 Correction of Out of Sequence Reception function CR 0307 25.322 Rel-7 NEC Mr. David Lecompte  
(CR was agreed in principle at RAN2-57bis).

The document was presented by David Lecompte from NEC.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-071760 CR0308 to 25.322 DAR over CCCH CR CR0308 to 25.322 LG Electronics Inc., SAMSUNG  
(CR was agreed in principle at RAN2-57bis).

The document was presented by [Mr. SungDuck Chun](#) from LG Electronics.

**Discussion:**

**Decision:** The CR was agreed as it was.

R2-072202 Removing an incomplete optimization for RLC operations during HSDPA cell change CR 0306 25.322 Rel-7 Ericsson, LG Electronics, Samsung

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R2-072203	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR			25.321 Rel-7	Ericsson, LG Electronics, Samsung Ericsson, LG Electronics, Samsung
R2-072204	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR			25.308 Rel-7	
(The 25.306 CR was already agreed in principle at RAN2-57bis). The documents were presented by from ASUSTek.						
<b>Discussion:</b>						
<b>Decision:</b>						
R2-072202 was revised in R2-072275 (CR 0306rev1) to correct the coversheet and add the sentence on earlier implementability.						
R2-072203 was agreed in R2-072276. CR 0319.						
R2-072204 was agreed in R2-072277. CR 0022.						
R2-072275	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	306	1	25.322 Rel-7	ASUSTek
The CR was considered agreed.						
R2-072029	Initiation of state variable VR(UDH) and VR(UDR)				CR 25.322 Rel-6	ASUSTeK
The document was presented by Sam Jiang from ASUSTek.						
<b>Discussion:</b>						
<b>Decision:</b> Rel-6 CR not needed/not agreed. A potential Rel-7 solution may be discussed later.						
R2-072266	Corrections on modulus base in UM in RLC	CR	0310		25.322 Rel-6	ASUSTeK
R2-072267	Corrections on modulus base in UM in RLC	CR	0311		25.322 Rel-7	ASUSTeK
The CR was agreed as it was.						
R2-071611	Additional DCH RAB Combinations				CR 25.993 Rel-7	Nokia Siemens Networks, T-Mobile
The document was presented by Thomas Stadler from Nokia Siemens Networks.						
<b>Discussion:</b>						
The double combination is a typical RAB combination.						
<b>Decision:</b> The CR was technically endorsed in R2-072269, CR 0095.						
R2-071616 is the draft LS.						
R2-071613	HSPA RAB Combinations				CR 25.993 Rel-7	Nokia Siemens Networks, T-Mobile
The CR was agreed in R2-072270, CR 0096.						



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R2-071615	Additional HSPA RAB Combinations	CR	25.993 Rel-7	Nokia Siemens Networks
The CR was agreed in R2-072271, CR 0097.				
R2-071790	T305 timer in RRC container at SRNS relocation	CR	25.331 Rel-7	huawei
The CR will be <i>agreed by email</i> in R2-072282, CR 3030.				
R2-072086	MRW Procedure for Special HE Value Configuration	CR	25.322 Rel-7	ASUSTeK
Withdrawn as merged into R2-072163.				
R2-071697	Introduction of Wait time to Cell Update Confirm	CR	25.331	Nokia Siemens Networks, Nokia
The document was presented by Juho Pirskanen from Nokia Siemens Networks.				
<b>Discussion:</b>				
<b>Decision:</b> The CR was agreed in R2-072278, CR 3027.				
R2-071696	Removing the limitation of SRNC identity size	CR	25.331	Nokia Siemens Networks
The document was revised before presentation in R2-072240:				
R2-072240	Removing the limitation of SRNC identity size	CR	25.331 Rel-7	Nokia Siemens Networks
The document was presented by Juho Pirskanen from Nokia Siemens Networks.				
<b>Discussion:</b>				
The UE does not need to know the RNC ID but considers the U-RNTI.				
<b>Decision:</b> The CR was agreed in R2-072279, CR 3028.				
R2-072020	Introduction of enhanced F-DPCH	CR	25.331 Rel-7	Qualcomm Europe
The IE will be optional.				
The CR was agreed in R2-072283, CR 3031.				
R2-071767	HSPA VoIP Service Continuity in Rel-7		QUALCOMM Europe	Dr. Nathan Tenny
The document was revised before presentation in R2-072229:				
R2-072229	HSPA VoIP Service Continuity in Rel-7			QUALCOMM Europe
The document was presented by Dino Flore from Qualcomm.				
<b>Discussion:</b>				
This may be discussed at the plenary.				
<b>Decision:</b> The document was noted.				

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R2-071654	SAS-Centric A-GPS - UE requesting additional assistance data The document was withdrawn before presentation.	CR	25.305 Rel-7	Andrew Corporation, T-Mobile USA
R2-071764	Proposed CR to TS 25.331 [Rel-7] on Change of UE capability The document was revised before presentation in R2-072217:	CR		QUALCOMM Europe, Nokia Dr. Nathan Tenny
R2-072217	Proposed CR to TS 25.331 [Rel-7] on Change of UE capability The document was noted without presentation. Not agreed.	CR	25.331 Rel-7	QUALCOMM Europe, Nokia Dr. Nathan Tenny
R2-071896	Using special value of HE field to indicate end of an SDU for RLC AM The document was revised before presentation on R2-072163:	CR	25.322 Rel-7	Ericsson, Nokia, NOKIA SIEMENS NETWORKS, Samsung Mr. Janne Peisa
R2-072163	Using special value of HE field to indicate end of an SDU for RLC AM The document was presented by Janne Peisa from Ericsson.	CR	25.322 Rel-7	Ericsson, Nokia, NSN, Samsung Mr. Janne Peisa
<b>Discussion:</b> Document R2-072086 (ASUSTek) was merged into this document. UM PDU, subclause 11.2.3: Use of the special length indicator/paging. Is it clear ? <b>Decision:</b> The CR was agreed in R2-072280, CR 0312.				
R2-071897	Using special value of HE field to indicate end of an SDU for RLC AM The document was revised before presentation on R2-072164:	CR	25.331 Rel-7	Ericsson, Nokia, NOKIA SIEMENS NETWORKS, Samsung Mr. Janne Peisa
R2-072164	Using special value of HE field to indicate end of an SDU for RLC AM The CR will be <i>agreed by email</i> , in R2-072281, CR 3029. Deadline Wednesday 16 <sup>th</sup> May 2007.	CR	25.331 Rel-7	Ericsson, Nokia, NSN, Samsung Mr. Janne Peisa
R2-072065	UE capabilities for Rel-7 The document was revised before presentation in R2-072144:			Nokia, NOKIA SIEMENS NETWORKS, Motorola
R2-072144	UE capabilities for Rel-7			Nokia, NOKIA SIEMENS

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NETWORKS, Motorola

R2-072171	Correction on handling MRW procedure failure case	CR	25.322 Rel-7	ASUSTeK	
R2-071955	UE behaviour unspecified in receiving Transport Format Set	CR	25.331 Rel-6	Sunplus mMobile	Mr. Louis Lu
R2-071957	Incomplete exception description in UE-based OTDOA	CR	25.331 Rel-6	Sunplus mMobile	Mr. Louis Lu
R2-071958	Contradictive behaviour in measurement rules for cell re-selection in CELL_FACH	CR	25.304 Rel-6	Sunplus mMobile	Mr. Louis Lu
R2-071960	Conflict statements on response to paging when UE has no IMSI	CR	25.304 Rel-6	Sunplus mMobile	Mr. Louis Lu
R2-071954	Ambiguous description about the reconfiguration scenarios and ciphering of TM RBs The document was withdrawn before presentation.	CR	25.331 Rel-6	Sunplus mMobile	
R2-071668	Correction to definition of Power Resource Related Information (TDD only) The CR was agreed in R2-072302, CR 3038.	CR	25.331 Rel-7	IPWireless, CATT	
R2-071666	Correction to ASN.1 (7.68 Mcps TDD only)	CR	25.331 Rel-7	IPWireless	
R2-071667	Correction to Tabular (alignment with ASN.1) Principally agreed CR on removing an imperfect optimization on RLC operation during HO	CR	25.331 Rel-7	IPWireless	
R2-071710	The need for VoIP rate control			Ericsson, Samsung samsung	
R2-071711	Proposed CR to TS 25.331 [Rel-7] on Change of UE capability	CR		QUALCOMM Europe, Nokia	Dr. Nathan Tenny
R2-071764	T305 timer in RRC container at SRNS relocation	CR	25.331 Rel-7	huawei	
R2-071792	Discussion on RLC Control Information Delivery Proposed CR to 25.322 Correction to Control Information transmission with two logical channels			LG Electronics Inc., SAMSUNG	
R2-071793		CR	25.322 in relation to R2-071792 25.322 in relation to R2-071792	LG Electronics Inc., SAMSUNG	
R2-071795	Proposed CR to 25.322 Removal of two channel configurations in RLC	CR	to R2-071792	SAMSUNG	
R2-071894	CR implementation issues 25.331 v7.4.0 (2007-03)	CR	25.331 Rel-7	Ericsson	Mr. Janne Peisa
R2-071895	Correction of inconsistency in 25.331 related to UE-sending of capabilities.	CR	25.331 Rel-7	Ericsson	Mr. Janne Peisa
R2-071965	Pathloss measurements for cells in the detected set	CR	25.331 Rel-7	RIM	Mr. Gordon Young
R2-071987	Modification of Annex B	CR		ZTE	
R2-072049	Duplication avoidance of acknowledgement information	CR	25.322 Rel-7	Infineon Technologies	Mr. Roland Gruber
R2-072058	General update of the 25.308	CR	25.308 Rel-7	Nokia Siemens Network	Mr. Juho Pirskanen

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## 5.17 Other Rel-7 Study Items

## 5.18 TEI8 and other Rel-8 WIs

**R2-072106** (GP-070517, to RAN2). Reply LS (S1-070300) on Registration in Densely populated area LS GERAN Ericsson  
The LS was postponed for the next meeting.

R2-072114 (R3-070730, Cc RAN2). Reply LS (to GP-070497) on feasibility of GAN enhancements LS RAN WG3  
R2-072127 (S2-072263, Cc RAN2). Reply LS (to GP-070497) on feasibility of GAN enhancements LS SA WG2  
The document was presented by Di Viesti Pasquale from Vodafone.

**Discussion:**

**Decision:** The documents were noted. Reply LS to GERAN, Cc SA2 in R2-072215 (T-Mobile).

**R2-071883** A way forward for registration in densely-populated area(RED) NTT DoCoMo

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## 6 Study Item on 3G Home NodeB (LTE & UTRA)

No inputs.

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## 7 Liaisons and outputs to other groups

LTE:

(Denis' minutes):

R2-072134 Reply LS to SA3 on on Verification of security principles Qualcomm  
Revised in R2-072190:

R2-072190 Reply LS to SA3 on on Verification of security principles Ericsson  
The document was presented by Magnus (...) from Ericsson.

**Discussion:**

**Decision:** approved with editorial modifications in R2-072191.

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R2-072191 Reply LS to SA3 on Verification of security principles RAN WG2  
**Decision:** approved.

R2-072135 Reply LS to RAN3 on LS on LTE MBMS and PDCP Ericsson  
The document was presented by XX (...) from Ericsson.  
**Discussion:**  
**Decision:** approved with addition that for PTM-SC case there is PDCP in the eNB.

R2-072194 Reply LS to RAN3 on LS on LTE MBMS and PDCP Ericsson  
The document was presented by XX (...) from Ericsson.  
**Discussion:**  
**Decision:** approved with addition that for PTM-SC case there is PDCP in the eNB is the current WA, to be confirmed at the next meeting.

R2-072228 LS to RAN1/RAN4 on neighbour cell lists and reading neighbour cell P-BCH DoCoMo  
The document was presented by Mikio (...) from DoCoMo.  
**Discussion:**  
**Decision:**The LS was approved with revisions: asking if the NCL is “necessary”.

R2-072188 LS to RAN1/RAN4 on neighbour cell lists and reading neighbour cell P-BCH RAN WG2  
**Decision:**approved.  
ase there is PDCP in the eNB is the current WA, to be confirmed at the next meeting.

R2-072133 Reply LS to SA4 on Rate-Adaptive Real-time Media T-Mobile  
The document was presented by Axel (...) from T-Mobile.  
**Discussion:**  
**Decision:**The LS was approved with modifications

R2-072189 Draft LS on further questions on Rate-Adaptive Real-time Media RAN WG2  
**Decision:**approved.

R2-072187 **DRAFT** LS to RAN on latency analysis Ericsson  
The document was presented by Magnus (...) from Ericsson.  
**Discussion:**  
**Decision:** approved with minor modification

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R2-072193 LS to RAN on latency analysis  
**Decision:** approved.

RAN WG2

R2-072183 LS on System Information Broadcast  
The LS was revised after presentation in R2-072186.

Samsung

R2-072186 LS to RAN1 on System Information Broadcast  
The LS was approved.

Samsung

R2-072243 Proposed LS to SA2, SA3 on Service Request for LTE/SAE  
The document was revised after presentation in R2-072310:

Alcatel-Lucent

R2-072310 Proposed LS to SA2, SA3 on Service Request for LTE/SAE  
The document was presented by Sudeep from Alcatel-Lucent.  
The LS was approved as it was.

Alcatel-Lucent

R2-072316 LS on user plane handling for LTE  
(R2-072309 should be included).  
The LS was presented by (...) from NEC.

NEC

**Discussion:**

**Decision:** The LS was approved in R2-072326 (NEC).

Other:

R2-071616 [DRAFT] LS on Introduction of Additional DCH RAB Combinations into 25.993  
The document was presented by Thomas Stadler from Nokia Siemens Networks.

Nokia Siemens Networks

**Discussion:**

**Decision:** The LS was approved in R2-072268 (including CR).

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R2-072173 LS to RAN1 on Quality reporting  
The LS was presented by Patrick Fischer from LG Electronics. LG Electronics

**Discussion:**

As a candidate only.

Cc RAN1, to RAN4.

**Decision:** The LS was approved in R2-072318 (LG Electronics). R2-072334 was then allocated following the meeting in order to update the source to 'RAN2' (approved version).

R2-072156 Reply LS to RAN1 on physical layer aspects of enhanced CELL\_FACH in FDD  
The LS was presented by Stanislas Bourdeaut from Alcatel-Lucent. Alcatel-Lucent

**Discussion:**

**Decision:** The LS was approved as it was. R2-072335 was allocated following the meeting in order to change the source to 'RAN2' (and remove the 'draft'). Approved version.

R2-072179 LS to RAN1 on MBMS FDD and TDD Physical Layer Improvements  
The LS was presented by Patrick Fischer from LG Electronics. LG Electronics

**Discussion:**

This is 'to' SA4.

**Decision:** The LS was approved in R2-072315 (LG Electronics). R2-072336 was allocated following the meeting in order to update the source to 'RAN2'. Approved version.

R2-072215 Reply LS to SA2 on feasibility of GAN enhancements  
The document was presented by Harald [Schmitt\(---\)](#) from T-Mobile. T-Mobile

**Discussion:**

**Decision:** The LS was approved as it was.

R2-072242 Reply LS to RAN3 on Clarification on two scenarios "Enhanced fromBroadcast over  
lur"  
The LS was presented by Stanislas Bourdeaut from Alcatel-Lucent. Alcatel-Lucent

**Discussion:**

LS is to RAN1.

**Decision:** The LS was approved in R2-072322.

R2-072291 LS to RAN on Release-7 dependencies  
Samsung, Ericsson, Motorola,  
Nokia, NSN

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The LS was presented by (...) from Samsung.

**Discussion:**

**Decision:** The LS was approved as it was.

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## 8 Email agreement/approvals

**Subject**

**Rapporteur**

**LTE:**

**Points 1: LTE Stage 3 Specifications.**

Point 1a - MAC. Text Proposal. Rapporteur.

[R2-072273](#) [Outline of MAC specification](#)

[Qualcomm, Ericsson](#)

Revised in:

[R2-072345](#) [Outline of MAC specification](#)

[Qualcomm, Ericsson](#)

See RAN2-58bis.

Point 1b - RRC. Text Proposal. Rapporteur.

Point 1c - RLC. Open issue list. Rapporteur.

Point 1d - PDCP. Open issue list. Rapporteur.

[R2-072256](#) [Updated PDCP skeleton specification](#)

[LG Electronics \(rapporteur\)](#)

*Before teleconferences (to be announced).*

Point 1e - TS 36.304. Text proposals and discussion documents invited.

[R2-072311](#) [UE procedures in idle mode for LTE: Text proposal](#)

[Nokia, Nokia Siemens Networks](#)

**Point 2:**

[R2-072337](#) Independence versus coupling of UL/DL bit rate capability in LTE

[HuaweiQualcomm](#)

Rapporteur: [Masato Kitazoe](#), [Qualcomm](#)~~Huawei~~.

By 19<sup>th</sup> June 2007.

See RAN2-58bis.



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**Point 3:**

**R2-072338** Update on Mobility, Security, **MBMS**, Random Access Procedure, etc... CR 0002 36.300 Rel-8 Nokia Siemens Networks  
 Rapporteur: Benoist Sebire, Nokia Siemens Networks.  
 By 22<sup>nd</sup> May 2007.  
The CR was agreed over the reflector following the meeting.

This led to another CR:

<b>R2-072339</b>	Update on MBMS	CR	3	36.300 Rel-8		Nokia Siemens Networks
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That was agreed.

**Non-LTE:**

**Point 4:**

**R2-072327** Clarification on E-DCH Scheduled Grant Payload Calculation CR 0325 25.321 Rel-6 Ericsson  
**R2-072328** Clarification on E-DCH Scheduled Grant Payload Calculation CR 0326 25.321 Rel-7 Ericsson  
 Rapporteur: Rapporteur: Enrik Enbuske, Ericsson.  
 By Thursday 17<sup>th</sup> May 2007. The CRs were agreed over the reflector following the meeting.

**Point 5:**

**R2-072340** MBMS Notification CR 3033 1 25.331 Rel-6  
**2290** MBMS Notification CR 3040 25.331 Rel-7  
 Rapporteur: Hakan Palm, Ericsson.  
 By Thursday 17<sup>th</sup> May 2007. R2-072290 was revised over the reflector in R2-072340 (CR 3033rev1).  
The CRs were agreed over the reflector following the review.

Nokia, Nokia  
 Siemens Networks,  
 Ericsson, Motorola,  
 Qualcomm,  
 Vodafone, Infineon  
 Technologies, Ericsson,  
 Ericsson, Infineon

**Point 6:**

**R2-072197** Solution to reordering issue in Enhanced Cell\_FACH InterDigital

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Rapporteur: Interdigital.  
By 19<sup>th</sup> June 2007.

**Point 7:**

**R2-072341**  
**2286** A-GNSS in UTRAN (RRC) CR 3032 1 25.331 Rel-7 Orange, Alcatel-Lucent, Nokia  
Rapporteur: Alain Abinakhoul from Orange.  
By the 18<sup>th</sup> May 2007. The CR was revised over the reflector the following week (R2-072341) and agreed.

**Point 8:**

**R2-072342**  
**282** T305 timer in RRC container at SRNS relocation CR 3030 1 25.331 Rel-7 Huawei  
Rapporteur: Huawei.  
By the 18<sup>th</sup> May 2007. The CR was agreed over the reflector following the review.

**Point 9:**

**R2-072281** Using special value of HE field to indicate end of an SDU for RLC AM CR 3029 25.331 Rel-7 Ericsson, Nokia, NSN, Samsung  
Rapporteur: Ericsson.  
By the 16<sup>th</sup> May 2007. The CR was agreed over the reflector the following week.

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## 9 Closing of the meeting

LTE wil start on the Monday with RRC Stage 3 // MAC Stage 3.  
The UTRA part will start on the Tuesday in Orlando and finish no later than Thursday evening.  
ETFC selection for EDCH will be hte only Rel-6 topic.  
Rel-7 will be the priority for UTRA, Rel-8 may be treated with priority on items linked to other groups.  
The meeting will finish no later than 16.00 on the Friday.

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## Annex A: List of delegates (attendees)

Please see the excel filewait for the next version of those minutes.

## Annex B: List of documents

Doc. Name	Title	CR	Spec/Release	Source	(Reserved by)	Allocations
R2-071610	Agenda RAN2-58			RAN2 Chairman Nokia Siemens Networks,		02: Approval of the agenda
R2-071611	Additional DCH RAB Combinations	CR	25.993 Rel-7	T-Mobile Orange, Alcatel-Lucent,	Mr. Alain Abinakhoul	05.16: TEI7
R2-071612	A-GNSS in UTRAN (RRC)	CR	25.331 Rel-7	Nokia Nokia Siemens Networks,		05.13: GNSS in UTRAN
R2-071613	HSPA RAB Combinations	CR	25.993 Rel-7	T-Mobile Orange, Alcatel-Lucent,	Mr. Alain Abinakhoul	05.16: TEI7
R2-071614	GNSS support to UE capabilities	CR	25.306 Rel-7	Nokia		05.13: GNSS in UTRAN
R2-071615	Additional HSPA RAB Combinations	CR	25.993 Rel-7	Nokia Siemens Networks		05.16: TEI7
R2-071616	[DRAFT] LS on Introduction of Additional DCH RAB Combinations into 25.993			Nokia Siemens Networks		07: Liaison and output to other groups
R2-071617	On setting the C-RNTI in RACH message two			Nokia Siemens Networks		04.13: Other LTE stage 2 subjects
R2-071618	Window based polling with flexible RLC PDU size			InterDigital	Mr. Stephen Terry	05.05: Improved L2 support for high data rates
R2-071619	Reconfiguration of L2 protocols between enhanced and non-enhanced cells			InterDigital	Mr. Stephen Terry	05.05: Improved L2 support for high data rates
R2-071620	Solutions to reordering issue in enhanced Cell FACH			InterDigital	Mr. Stephen Terry	05.04: Enhanced CELL_FACH state in FDD
R2-071621	Starting and stopping operation in 16QAM mode			InterDigital	Mr. Stephen Terry	05.08: 16 QAM UL
R2-071622	Minimizing the timing advance procedure requirement during LTE handover			InterDigital	Mr. Stephen Terry	04.11.1: Intra LTE
agreed	R2-071623	CR	317	25.321 Rel-7	Panasonic	05.03.1: FDD Enhanced Uplink
	R2-071624				InterDigital	04.13: Other LTE stage 2 subjects
	R2-071625				InterDigital	04.13: Other LTE stage 2 subjects
	R2-071626				Mr. David Lecompte	04.06: Random access procedure
	R2-071627				Mr. David Lecompte	04.13: Other LTE stage 2 subjects
	R2-071628				Mr. David Lecompte	04.13: Other LTE stage 2 subjects
	R2-071629				Mr. David Lecompte	04.11.1: Intra LTE
	R2-071630				Mr. David Lecompte	04.08: Time alignment principles
	R2-071631				Mr. David Lecompte	04.11.1: Intra LTE
agreed	R2-071632	CR	2993	25.331 Rel-7	Alcatel-Lucent	05.16: TEI7
	R2-071633				Alcatel-Lucent	04.11.1: Intra LTE
	R2-071634				Mr. David Lecompte	05.03.2: MBMS

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	R2-071635	RLC status reporting during handover				Alcatel-Lucent	Lecompte	
	R2-071636	MBMS counting completion	CR		25.331 Rel-6	Alcatel-Lucent	Mr. Osman Aydin	04.11.1: Intra LTE 05.03.2: MBMS
	R2-071637	Relevant Information for Handover				Alcatel-Lucent	Mr. Osman Aydin	04.11.1: Intra LTE
agreed	R2-071638	Alignment of tabular to ASN.1 for SIB11/SIB12 and event 1J	CR	3002	25.331 Rel-7	NEC	Mr. David Lecompte	05.16: TEI7
agreed	R2-071639	PDPC reinitialisation at SRNS relocation	CR	302	25.323 Rel-7	Alcatel-Lucent		05.16: TEI7
agreed	R2-071640	Correction of Out of Sequence Reception function	CR	307	25.322 Rel-7	NEC	Mr. David Lecompte	05.16: TEI7
	R2-071641	Configuration of RACH measurements results in SIB12	CR	20	25.308 Rel-7	Alcatel-Lucent		05.16: TEI7
	R2-071642	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	CR		25.993 Rel-6	Alcatel-Lucent		05.03: Release 6 corrections
	R2-071643	Correction on 64QAM and MIMO UE capability in RRC	CR		25.331 Rel-7	Alcatel-Lucent, Ericsson, Nokia		05.07: MIMO, 05.09: 64 QAM DL
	R2-071644	Correction to CPC UL DTX for addition of a new cell in the active set.	CR		25.331 Rel-7	Alcatel-Lucent		05.06: CPC
	R2-071645	Correction on E-TFC selection and Serving Grant	CR		25.321 Rel-6	Alcatel-Lucent		05.03.1: FDD Enhanced Uplink
	R2-071646	L2 processing				Nokia, <a href="#">Nokia Siemens Networks</a>	Mr. Luis Barreto	05.05: Improved L2 support for high data rates
	R2-071647	MBMS Notification				Nokia	Mr. Luis Barreto	05.03.2: MBMS
	R2-071648	ROHC Compression status				Nokia	Mr. Luis Barreto	05.03: Release 6 corrections
	R2-071649	Multiple packet loss recovery and RLC PDU format in eMBMS				Alcatel-Lucent		04.12: LTE MBMS
	R2-071650	E-MBMS transmission mode selection and switching				Alcatel-Lucent		04.12: LTE MBMS
	R2-071651	Service scheduling for E-MBMS combining				Alcatel-Lucent		04.12: LTE MBMS
	R2-071652	Support of scalable codec for E-MBMS				Alcatel-Lucent		04.12: LTE MBMS
	R2-071653	Transmission of E-MBMS control information				Alcatel-Lucent		04.12: LTE MBMS
	R2-071654	SAS-Centric A-GPS - UE requesting additional assistance data	CR		25.305 Rel-7	Andrew Corporation, T-Mobile USA		05.16: TEI7
	R2-071655	Discussion on Data forwarding options for intra-LTE Handover				Alcatel-Lucent		04.11.1: Intra LTE
	R2-071656	Discussion on target cell synchronisation during intra-LTE HO				Alcatel-Lucent		04.11.1: Intra LTE
	R2-071657	Discussion on Handover Confirm message				Alcatel-Lucent		04.11.1: Intra LTE
	R2-071658	Discussion on RAN implications of Equivalent Tracking areas				Alcatel-Lucent		04.13: Other LTE stage 2 subjects
	R2-071659	Consideration on the forwarding strategy in the inter-RAT HO scenario				Alcatel-Lucent		04.11.2: LTE to/from UTRAN
	R2-071660	RLC PDU header structure in case of re-use of PDPC SN for RLC SN				Alcatel-Lucent		04.13: Other LTE stage 2 subjects
	R2-071661	Interaction of DRX and downlink HARQ in LTE				Alcatel-Lucent		04.13: Other LTE stage 2 subjects
	R2-071662	Consideration on the polling request for the isolated or last data transmission in LTE				Alcatel-Lucent		04.13: Other LTE stage 2 subjects
	R2-071663	Support for Burst Type 5 in 3.84/7.68 Mcps TDD MBSFN only cells				IPWireless		05.11: MBMS TDD Physical layer Enhancements
	R2-071664	Discussion on contents of message 3				Alcatel-Lucent, Samsung		04.06: Random access procedure
	R2-071665	Discussion on Security mode control for LTE				Alcatel-Lucent		04.04: Performance verification

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	R2-071666	Correction to ASN.1 (7.68 Mcps TDD only)	CR		25.331 Rel-7	IPWireless			05.16: TEI7
	R2-071667	Correction to Tabular (alignment with ASN.1)	CR		25.331 Rel-7	IPWireless			05.16: TEI7
	R2-071668	Correction to definition of Power Resource Related Information (TDD only)	CR		25.331 Rel-7	IPWireless, CATT			05.16: TEI7
	R2-071669	MBMS FDD and TDD Physical Layer Improvements	CR		25.331, Rel-7	LG Eletronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer		05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements
	R2-071670	MBMS FDD and TDD Physical Layer Improvements	CR	27 3	25.346 Rel-7	, LG Eletronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer		05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements
	R2-071671	MBMS FDD and TDD Physical Layer Improvements	CR		25.306 Rel-7	LG Eletronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer		05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements, 2: Approval of the agenda
	R2-071672	MBMS FDD and TDD Physical Layer Improvements	CR		25.304 Rel-7	LG Eletronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer		05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements, 4.4: Performance verification
	R2-071673	Transport format and power headroom in preamble Retransmission				LG Eletronics Inc.	Mr. Patrick Fischer		04.06: Random access procedure
	R2-071674	Use of short C-RNTIs in message 2				LG Electronics Inc.	Mr. Patrick Fischer		04.06: Random access procedure
	R2-071675	UE assisted tracking area update				LG Electronics Inc.	Mr. Patrick Fischer		04.13: Other LTE stage 2 subjects
	R2-071676	Requirement of simultaneous reading of MCCH and MICH				LG Electronics Inc.	Mr. Patrick Fischer		05.03.2: MBMS
	R2-071677	Optimization of RB establishment				LG Electronics Inc.	Mr. Patrick Fischer		04.13: Other LTE stage 2 subjects
	R2-071678	Open issues for PDCP specifications				LG Electronics (rapporteur)	Mr. Patrick Fischer		04.14.3: PDCP
	R2-071679	Updated PDCP skeleton specification				LG Electronics (rapporteur)	Mr. Patrick Fischer		04.14.3: PDCP
agreed	R2-071680	Signalling connection release at T314/315 expiry	CR	2994	25.331 Rel-7	Motorola	Mr. Richard Burbidge		05.16: TEI7
	R2-071681	Urgent Non-urgent split of RACH signatures in E-UTRA				Texas Instruments Inc			04.06: Random access procedure
agreed	R2-071682	Cell Update Confirm with RLC re-establish indicator	CR	2995	25.331 Rel-7	Motorola	Mr. Richard Burbidge		05.16: TEI7
	R2-071683	MBMS Scheduling Information	CR		25.331 Rel-6	Motorola	Mr. Richard Burbidge		05.03.2: MBMS
	R2-071684	A Pre-synchronization method for E-UTRA Handovers				Texas Instruments Inc			04.11.1: Intra LTE
	R2-071685	MSCH transmission - alignment to stage 3	CR		25.346 Rel-6	Motorola	Mr. Richard Burbidge		05.03.2: MBMS
	R2-071686	MBMS UE Capability for mapping MTCH/MSCH to legacy S-CCPCH	CR		25.306 Rel-6	Motorola	Mr. Richard Burbidge		05.03.2: MBMS
	R2-071687	Latency and overhead comparison for pre-synchronization in E-UTRA Handovers				Motorola			04.11.1: Intra LTE
	R2-071688	MBMS in MBSFN mode for FDD				Texas Instruments Inc			05.10: MBMS FDD Physical layer Enhancements
	R2-071688	MBMS in MBSFN mode for FDD				LG Electronics Inc.	Mr. Patrick Fischer		05.10: MBMS FDD Physical layer Enhancements

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	R2-071689	Measurement reporting, state transitions, and DRX in enhanced CELL_FACH state	CR		25.308	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-071690	Introduction of Enhanced CELL_FACH state in FDD	CR	84	25.301	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
agreed	R2-071691	Introduction of HS-DSCH operation in CELL_FACH state	CR	156	25.304	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-071692	Introduction of Enhanced CELL_FACH state in FDD	CR		25.302	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-071693	Introduction of HS-DSCH reception in CELL_FACH, URA_PCH and CELL_PCH	CR		25.331	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-071694	Introduction of two DRX schemes in CELL_PCH and URA_PCH	CR		25.331	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-071695	Details of Paging in enhanced CELL_FACH state				Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-071696	Removing the limitation of SRNC identity size	CR		25.331	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.16: TEI7
	R2-071697	Introduction of Wait time to Cell Update Confirm	CR		25.331	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.16: TEI7
	R2-071698	SRNS relocation for carrier sharing between PS only RNS and PS and CS RNS				Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.15: Study Item on scope of future FDD HSPA Evolution
	R2-071699	Transport block tables for 64QAM	CR		25.321	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.09: 64 QAM DL
	R2-071700	LTE MBMS User Detection Scheme				Freescall Semiconductor Inc		04.12: LTE MBMS
	R2-071701	HSUPA configurations for VoIP and multimedia telephony				NEC	Mr. David Lecompte	05.03.1: FDD Enhanced Uplink
	R2-071702	SFN Synchronization without BCH bits for LTE – Latency Reduction Options				SHARP corporation		04.05: System Information content & delivery
	R2-071704	Data handling at handover				samsung		04.11: LTE_ACTIVE mobility procedures
	R2-071705	Byte alignment for L2 headers				LG Electronics Inc., Nokia, NSN, Samsung, Texas Instruments Inc		04.14.1: MAC
	R2-071706	Correction of SRB delay	CR		25.331 Rel-6	NEC	Mr. David Lecompte	05.03.3: Other
	R2-071707	PDCP/RLC/MAC header format				samsung		04.14.1: MAC
	R2-071708	Variable size RLC SN				samsung		04.14.4: RLC
	R2-071709	Lite RLC versus normal RLC				samsung		04.14.4: RLC
	R2-071710	Principally agreed CR on removing an imperfect optimization on RLC operation during HO				Ericsson, Samsung		05.16: TEI7
	R2-071711	The need for VoIP rate control				samsung		05.16: TEI7
	R2-071712	Stage 2 Update				Nokia Siemens Networks (Rapporteur)	Mr. Benoist Sébire	04.03: Endorsement of latest version of the Stage 2
	R2-071713	Skeleton of UE IDLE mode procedures				Nokia (Rapporteur)	Mr. Benoist Sébire	04.14.5: Cell selection & reselection
	R2-071714	UE IDLE mode procedures				Nokia, Nokia Siemens Networks	Mr. Benoist Sébire	04.14.5: Cell selection & reselection
	R2-071715	Minimising Radio Resource Wastage on Handover				Nokia, Nokia Siemens Networks	Mr. Benoist Sébire	04.11.1: Intra LTE
	R2-071716	Radio Link Failure and Context Recovery				Ericsson, NEC, Nokia, Nokia Siemens Networks	Mr. Benoist Sébire	04.11.1: Intra LTE
	R2-071717	Handover Failure Recovery				Nokia, Nokia Siemens Networks	Mr. Benoist Sébire	04.11.1: Intra LTE
	R2-071718	Relevant Information for Handover				Nokia, Nokia Siemens	Mr. Benoist Sébire	04.11.1: Intra LTE

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R2-071719	User Plane Data Handling at Handover	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	
R2-071720	Forwarding Instant	Networks, Samsung	Sébire Mr. Benoist	04.11.1: Intra LTE
R2-071721	Sequence Number Handling at Handover	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.11.1: Intra LTE
R2-071722	Handover Command Transmission	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.11.1: Intra LTE
R2-071723	Requirements for Redirection	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071724	High Level Mobility Principles in a Heterogeneous Network	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071725	Access Pipes Use Cases	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071726	Non-contention based Handover	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.06: Random access procedure
R2-071727	E-UTRA Measurement and Cell Reselection considerations	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.11: LTE_ACTIVE mobility procedures
R2-071728	Measurement Gap Creation	Networks NEC, Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071729	HARQ-ARQ interactions	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071730	MAC Header Structure	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071731	RLC Header Structure	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.06: Random access procedure
R2-071732	Differential RACH Access based on Access Classes	Networks Nokia, Nokia Siemens Networks, Samsung	Sébire Mr. Benoist	04.12: LTE MBMS
R2-071733	MBMS Agreements	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.12: LTE MBMS
R2-071734	MCCH Control	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.12: LTE MBMS
R2-071735	Inter-layer notification	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.12: LTE MBMS
R2-071736	Open issues in requirements from multi-cell content synchronization solutions	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.12: LTE MBMS
R2-071738	Procedure for Reading Scheduling Units	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.05: System Information content & delivery
R2-071739	System Information Change Indication	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.05: System Information content & delivery
R2-071740	Control of UE measurements for Network Configuration	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071741	UL synchronization recovery	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.08: Time alignment principles
R2-071742	UL VoIP Capacity for Semi-persistent Scheduling and Group Scheduling	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	04.13: Other LTE stage 2 subjects
R2-071743	Further considerations on DL semi-persistent scheduling	Networks Nokia, Nokia Siemens Networks	Sébire Mr. Benoist	
R2-071744	Synchronous adaptive HARQ for E-UTRAN UL	Networks CATT, Elektrobit, Ericsson, Fujitsu, ITRI, LGE, Mitsubishi, Nokia, Nokia Siemens Networks,	Sébire Mr. Benoist	
R2-071745	Text Proposal for UL Scheduling		Sébire	

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						NTT DoCoMo, Samsung		
	R2-071746	MAC-ehs header open issues				ZTE	Mr. Zhongda Du	05.05: Improved L2 support for high data rates
	R2-071747	Correction of Serving Grant Update Procedure in E-DCH	CR	25.321	Rel6	ZTE	Mr. Zhongda Du	05.03.1: FDD Enhanced Uplink
	R2-071748	Correction of Serving Grant Update Procedure in E-DCH	CR	25.321	Rel7	ZTE	Mr. Zhongda Du	05.03.1: FDD Enhanced Uplink
	R2-071749	Consideration of RG-STEP Size in E-DCH	CR			ZTE	Mr. Zhongda Du	05.03.1: FDD Enhanced Uplink
	R2-071750	MBMS LCR TDD Physical Layer Enhancements	CR	25.436	Rel7	RITT, CMCC, CATT, TD Tech, Spreadtrum Communications	Mr. Zhongda Du	05.12: MBMS LCR TDD Physical layer Enhancements
	R2-071751	non-synchronized handover procedure				ZTE	Mr. Zhongda Du	04.11.1: Intra LTE
	R2-071752	consideration on handover interruption time				ZTE	Mr. Zhongda Du	04.11.1: Intra LTE
	R2-071753	DRX mode transit model				ZTE	Mr. Zhongda Du	04.13: Other LTE stage 2 subjects
	R2-071754	consideration on scenarios for TA update				ZTE	Mr. Zhongda Du	04.08: Time alignment principles
	R2-071755	Minor correction on MBMS text	CR	25.331	Rel6	ZTE	Mr. Zhongda Du	05.03.2: MBMS
	R2-071756	Consideration on MBMS Required UE action				ZTE	Mr. Zhongda Du	05.03.2: MBMS
	R2-071757	MBMS services information on DCCH				ZTE	Mr. Zhongda Du	05.03.2: MBMS
	R2-071759	Neighbour Cell List Considerations				Nokia, Nokia Siemens Networks LG Electronics Inc., SAMSUNG	Mr. Benoist Sébire	05.16: TEI7
agreed	R2-071760	CR0308 to 25.322 DAR over CCCH DRAFT CR to TS 25.331 [Rel-7] on Introducing 16QAM uplink support	CR	308	25.322 Rel-7		Dr. Nathan Tenny	05.08: 16 QAM UL
	R2-071761	Scheduling of D-BCH	CR			QUALCOMM Europe	Dr. Nathan Tenny	04.05: System Information content & delivery
	R2-071762	Structure of BCH				QUALCOMM Europe	Dr. Nathan Tenny	04.05: System Information content & delivery
	R2-071763	Proposed CR to TS 25.331 [Rel-7] on Change of UE capability	CR			QUALCOMM Europe, Nokia	Dr. Nathan Tenny	05.16: TEI7
	R2-071764	E-MBMS scheduling				QUALCOMM Europe	Dr. Nathan Tenny	04.12: LTE MBMS
	R2-071765	Text proposal on measurement gap scheduling				QUALCOMM Europe	Dr. Nathan Tenny	04.11: LTE_ACTIVE mobility procedures
	R2-071766	HSPA VoIP Service Continuity in Rel-7				QUALCOMM Europe	Dr. Nathan Tenny	05.16: TEI7
	R2-071767	System information contents and the periodicity for No NCL				Panasonic	Dr. Nathan Tenny	04.05: System Information content & delivery
	R2-071768	System information reception for Inter-frequency mobility				Panasonic	Dr. Nathan Tenny	04.05: System Information content & delivery
	R2-071769	Cell reselection before call setup procedure				Panasonic	Dr. Nathan Tenny	04.05: System Information content & delivery
	R2-071770	Remaining issues on Random Access procedure usage				Panasonic	Dr. Nathan Tenny	04.06: Random access procedure
	R2-071771	CPC parameter ranges				Qualcomm Europe	Dr. Nathan Tenny	05.06: CPC
	R2-071772	Measurement Functionality split for Broadcast and Dedicated				Panasonic	Dr. Nathan Tenny	04.11.1: Intra LTE



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R2-071774	Packet data handling at mobility			Panasonic		04.11.1: Intra LTE
R2-071776	MCCH Transmission in LTE			Panasonic		04.12: LTE MBMS
R2-071777	Uplink feedback for eMBMS SFN operations			Panasonic		04.12: LTE MBMS
R2-071778	PDCP SN reuse in RLC PDU for LTE			Panasonic		04.13: Other LTE stage 2 subjects
R2-071779	UL HARQ Protocol issues			Panasonic		04.13: Other LTE stage 2 subjects
R2-071780	RLC TM mode for U-Plane			Panasonic		04.13: Other LTE stage 2 subjects
R2-071781	MAC PDU format for LTE			Panasonic		04.13: Other LTE stage 2 subjects
R2-071782	Security Context Information and Security Functionality for LTE			Panasonic		04.13: Other LTE stage 2 subjects
R2-071783	DRX handling issues in LTE			Panasonic		04.13: Other LTE stage 2 subjects
R2-071784	Open items with release 7 UE categories			Qualcomm Europe		05.07: MIMO, 05.09: 64 QAM DL
R2-071785	Neighbour cell reduction using LCV			huawei		04.05: System Information content & delivery
R2-071786	maintenance of UL synchronization			huawei		04.08: Time alignment principles
R2-071787	HS-SCCH less operation for Enhanced Paging reception	CR		Qualcomm Europe		05.04: Enhanced CELL_FACH state in FDD
R2-071788	MBMS Network Optimization			huawei		04.12: LTE MBMS
R2-071789	LTE RLC functions and services			huawei		04.13: Other LTE stage 2 subjects
R2-071790	T305 timer in RRC container at SRNS relocation	CR	25.331 Rel-7	huawei		05.16: TEI7
R2-071791	Clarification for control of E-RUCCH transmission in LCR TDD	CR	25.321 Rel-7	ZTE, CATT, TD TECH		05.14: 1.28 Mcps TDD Enhanced Uplink
R2-071792	Discussion on RLC Control Information Delivery			LG Electronics Inc., SAMSUNG		05.16: TEI7
R2-071793	Proposed CR to 25.322 Correction to Control Information transmission with two logical channels	CR	25.322 in relation to R2-071792	LG Electronics Inc., SAMSUNG		05.16: TEI7
R2-071794	Introduction of E-TFC Selection for 1.28Mcps TDD	CR	25.321 Rel-7	ZTE, CATT, TD TECH		05.14: 1.28 Mcps TDD Enhanced Uplink
R2-071795	Proposed CR to 25.322 Removal of two channel configurations in RLC	CR	25.322 in relation to R2-071792	LG Electronics Inc., SAMSUNG		05.16: TEI7
R2-071796	On the issue of HARQ/ARQ interaction			LG Electronics Inc. RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	04.13: Other LTE stage 2 subjects
R2-071797	Overview of MBMS LCR TDD Physical Layer Enhancements			RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
R2-071798	Introduction of scenarios of 1.28Mcps TDD for TR25.905			RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
R2-071799	Introduce MBMS LCR TDD Physical Layer Enhancement to TR 25.905	CR	25.905 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
R2-071800	Protocol termination for HO signalling			QUALCOMM Europe		04.11.1: Intra LTE
R2-071801	Considerations on RRC re-establishment			QUALCOMM Europe		04.11.1: Intra LTE

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R2-071802	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.346	CR	25.346 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements 04.13: Other LTE stage 2 subjects
R2-071803	Considerations on SRB establishment			QUALCOMM Europe		04.13: Other LTE stage 2 subjects
R2-071804	Camping load balancing in LTE			QUALCOMM Europe		04.13: Other LTE stage 2 subjects
R2-071805	Optimization for Tracking Area Update signalling			QUALCOMM Europe		04.13: Other LTE stage 2 subjects
R2-071806	UE capability handling in LTE			QUALCOMM Europe		04.10: UE capabilities
R2-071807	UE Capabilities for LCR TDD MBSFN			RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements 04.02: Items treated in e-mail discussion (rapporteur report only)
R2-071808	Summary of email discussion on cell reselection parameters in LTE			Ericsson	Mr. Janne Peisa	
R2-071809	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.306	CR	25.306 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
R2-071810	LTE Performance verification – U-plane and C-plane latencies			Ericsson, Motorola, Nokia, Nokia Siemens Networks, Samsung, NEC	Mr. Janne Peisa	04.04: Performance verification
R2-071811	LTE Performance verification – Handover latency			Ericsson, Nokia, Nokia Siemens Networks, Samsung, NEC	Mr. Janne Peisa	04.04: Performance verification
R2-071812	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.304	CR	25.304 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
R2-071813	Scheduling of System Information			Ericsson	Mr. Janne Peisa	04.05: System Information content & delivery
R2-071814	The content and timing of BCH			Ericsson	Mr. Janne Peisa	04.05: System Information content & delivery
R2-071815	Transmission of BCH			Ericsson	Mr. Janne Peisa	04.05: System Information content & delivery
R2-071816	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.331	CR	25.331 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
R2-071817	Solution for sending NAS together with RRC connection request			Ericsson	Mr. Janne Peisa	04.06: Random access procedure
R2-071818	DRX control for LTE_ACTIVE and VoIP			Ericsson	Mr. Janne Peisa	
R2-071819	Signaling Method for Uploading UE Capability Information			Ericsson	Mr. Janne Peisa	04.10: UE capabilities
R2-071820	On the details of the dedicated preamble at intra-LTE handover			Ericsson	Mr. Janne Peisa	04.11.1: Intra LTE
R2-071821	Mobility during attach			Ericsson	Mr. Janne Peisa	04.11.1: Intra LTE
R2-071822	User plane handling at mobility			Ericsson	Mr. Janne Peisa	04.11.1: Intra LTE
R2-071823	E-UTRA Measurement Configuration and Control			Ericsson	Mr. Janne Peisa	04.11.1: Intra LTE
R2-071824	Radio link failure at handover			Ericsson	Mr. Janne Peisa	04.11.1: Intra LTE
R2-071825	Mapping of MBMS logical channels to DL-SCH			Ericsson	Mr. Janne Peisa	04.12: LTE MBMS

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R2-071826	Multiplexing of MBMS services			Ericsson, Samsung	Mr. Janne Peisa	04.12: LTE MBMS
R2-071827	LTE MBMS functionality			Ericsson	Mr. Janne Peisa	04.12: LTE MBMS
R2-071828	DL-SCH supporting single cell PTM with HARQ/CQI			Ericsson	Mr. Janne Peisa	04.12: LTE MBMS
R2-071829	Transmission of MCCH			Ericsson	Mr. Janne Peisa	04.12: LTE MBMS
R2-071830	A Semi-Autonomous DRX Control Scheme for LTE_ACTIVE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071831	On Intra-LTE Cell Reselection Methods			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071832	Radio Resource Management Aspects of Inter-RAT Handovers			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071833	On Inter-RAT Cell Reselection Principles			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071834	PDCP PDU header formats in LTE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071835	Support for ROHC in SAE/LTE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071836	Configuration of PDCP in SAE/LTE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071837	L2 Sequence Number in LTE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071838	HARQ Configuration for LTE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071839	Byte alignment for user plane protocols in LTE			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071840	ROHC Compliant Scheduling			LG Electronics Inc.		
R2-071841	Resource fragmentation in LTE uplink			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071842	Clean up of Stage 2 FFS			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071843	NDI-less HARQ operation			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071844	HARQ-ARQ Interactions for NACK to ACK error			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071845	Addition of E-DCH Scheduling Information Power Offset in TDD mode	CR	25.331 Rel-7	ZTE, CATT		05.14: 1.28 Mcps TDD Enhanced Uplink
R2-071846	Number of logical channels in RB			LG Electronics Inc.		04.13: Other LTE stage 2 subjects
R2-071847	CQI Reporting with regards to DRX operation			Ericsson	Mr. Janne Peisa	04.13: Other LTE stage 2 subjects
R2-071848	Discussion on Uplink Traffic Shaping			LG Electronics Inc.		04.13: Other LTE stage 2 subjects
R2-071849	PDCP Sequence Number and ROHCv2			LG Electronics Inc.		04.13: Other LTE stage 2 subjects
R2-071850	Clarification on E-DCH Scheduled Grant Payload Calculation	CR	25.321 Rel-6	Ericsson	Mr. Janne Peisa	05.03.1: FDD Enhanced Uplink
R2-071851	Maintenance of PMM connection for MBMS PTP reception	CR	25.331 Rel-6	Ericsson	Mr. Janne Peisa	05.03.2: MBMS
R2-071852	Content of MSI message when sent on DCCH	CR	25.331 Rel-6	Ericsson	Mr. Janne Peisa	05.03.2: MBMS
R2-071853	Relative ordering of MBMS Selected Services when indicated to the network	CR	25.331 Rel-6	Ericsson	Mr. Janne Peisa	05.03.2: MBMS

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	R2-071854	Background scan during MBMS PTM reception	CR		25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.03.2: MBMS
	R2-071855	Corrections to support for RFC3095 from Release-6	CR		25.323 Rel-6	Ericsson	Mr. Janne Peisa	05.03.3: Other
	R2-071856	Update of normative references for Robust Header Compression (RFC3095)	CR		25.323 Rel-6	Ericsson	Mr. Janne Peisa	05.03.3: Other
	R2-071857	Incorrect reference to 25.993 for default configuration 17	CR		25.331 Rel-6	Ericsson	Mr. Janne Peisa	05.03.3: Other
	R2-071858	Corrections to tabular for non-scheduled transmission for LCR TDD	CR		25.331 Rel-7	CATT, TD-Tech, ZTE	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
	R2-071859	Removal of redundant IE 'MBMS-PreferredFreqRequest-r6'	CR		25.331 Rel-6	Ericsson	Mr. Janne Peisa	05.03.3: Other
	R2-071860	Some Small Editorial Corrections to TS 25.321	CR		25.321 Rel-7	CATT	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
	R2-071861	Introduction of PRACH configuration in protocol messages triggering E-DCH serving cell change in LCR TDD system	CR		25.331 Rel-7	ZTE, CATT		05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-071862	S-CCPCH and PCH channel selection for Band IV or Band IX or Band X	CR	0157	25.304 Rel-7	Nokia Siemens Networks		05.16: TEI7
	R2-071863	Some clarifications related to E-DCH Scheduling Information in TDD mode	CR		25.321 Rel-7	ZTE, CATT		05.14: 1.28 Mcps TDD Enhanced Uplink
	R2-071864	Synchronised Handover				Nokia, Nokia Siemens Networks	Mr. Benoist Sébire	04.11.1: Intra LTE
	R2-071865	Some corrections for LCR TDD EUL to TR 30.302	CR	0001	30.302 Rel-7	CATT, TD-Tech, ZTE	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-071866	Initialisation of CFN calculation for CELL_FACH	CR	2999	25.331 Rel-7	Nokia Siemens Networks		05.16: TEI7
	R2-071867	Correction to definition of maxNumE-AGCH for TDD	CR		25.331 Rel-7	CATT, IPWireless	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-071868	Feature Clean Up leftover: Removal of DRAC leftover	CR	2998	25.331 Rel7	Nokia Siemens Networks		05.16: TEI7
	R2-071869	LTE C-plane + U-plane latency analysis for TDD frame structure type 2				CATT	Mrs. Haiyang Quan	04.04: Performance verification
	R2-071870	Notification scheme for system information Change				CATT	Mrs. Haiyang Quan	04.05: System Information content & delivery
	R2-071871	Downlink HARQ Error Detection in LTE				CATT	Mrs. Haiyang Quan	04.13: Other LTE stage 2 subjects
	R2-071872	MBMS notification in E-UTRAN				CATT	Mrs. Haiyang Quan	04.12: LTE MBMS
	R2-071873	MBMS control signalling in E-UTRAN				CATT	Mrs. Haiyang Quan	04.12: LTE MBMS
	R2-071874	Correction to the Introduction of Improved L2 support for high data rates	CR		25.301 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-071875	Introduction of Improved L2 support for high data rates and Enhanced CELL_FACH state	CR		25.321 Rel-7	Ericsson, Nokia, NSN	Mr. Janne Peisa	05.04: Enhanced CELL_FACH state in FDD
	R2-071876	Introduction of Improved L2 support for high data rates	CR		25.322 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-071877	Introduction of Improved L2 support for high data rates			25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-071878	Discussion on short transaction time				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
	R2-071879	Finalizing MAC-ehs				Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-071880	Active Recovery of MBMS Data				LG Electronics Inc.		04.12: LTE MBMS
	R2-071881	L1 parameter name changes	CR		25.308 Rel-7	Ericsson	Mr. Janne Peisa	05.06: CPC

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	R2-071882	L1 parameter name changes	CR		25.321 Rel-7	Ericsson	Mr. Janne Peisa	05.06: CPC
	R2-071883	A way forward for registration in densely-populated area(RED)				NTT DoCoMo		05.18: TEI8
	R2-071884	Restriction on the number of MIMO processes	CR		25.331 Rel-7	Ericsson, Philips	Mr. Janne Peisa	05.07: MIMO
	R2-071885	Definition for higher bit rate bearers due to 64QAM and MIMO				Ericsson	Mr. Janne Peisa	05.07: MIMO, 05.09: 64 QAM DL
	R2-071886	Discussion on MAC PDU structure				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
	R2-071887	Scheduling consideration on L2 Headers				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
	R2-071888	Introduction of HS-DSCH category for combined MIMO and DL64QAM	CR		25.306 Rel-7	Ericsson, Alcatel-Lucent	Mr. Janne Peisa	05.07: MIMO, 05.09: 64 QAM DL
	R2-071889	MBMS User authentication				LG Electronics Inc.		04.12: LTE MBMS
	R2-071890	Introduction of TDM scheme for MBSFN				Ericsson	Mr. Janne Peisa	05.10: MBMS FDD Physical layer Enhancements
	R2-071891	Support for DL only SFN operation for MBMS FDD				Ericsson	Mr. Janne Peisa	05.11: MBMS TDD Physical layer Enhancements
	R2-071892	Support for DL only SFN operation for MBMS FDD	CR		25.346 Rel-7	Ericsson	Mr. Janne Peisa	05.11: MBMS TDD Physical layer Enhancements
	R2-071893	Support for DL only SFN operation for MBMS FDD	CR		25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.11: MBMS TDD Physical layer Enhancements
	R2-071894	CR implementation issues 25.331 v7.4.0 (2007-03)	CR		25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.16: TEI7
	R2-071895	Correction of inconsistency in 25.331 related to UE-sending of capabilities.	CR		25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.16: TEI7
	R2-071896	Using special value of HE field to indicate end of an SDU for RLC AM	CR		25.322 Rel-7	Ericsson, Nokia, NSN, Samsung	Mr. Janne Peisa	05.16: TEI7
	R2-071897	Using special value of HE field to indicate end of an SDU for RLC AM	CR		25.331 Rel-7	Ericsson, Nokia, NSN, Samsung	Mr. Janne Peisa	05.16: TEI7
agreed	R2-071898	Correction of STTD Indicator for F-DPCH Tx Diversity	CR	2996	25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.16: TEI7
agreed	R2-071899	Introduction of GAN PS handover	CR	156	25.306 Rel-7	Ericsson	Mr. Janne Peisa	05.16: TEI7
agreed	R2-071900	Introduction of GAN PS handover	CR	2997	25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.16: TEI7
	R2-071901	CQI handling during DRX				Samsung	Mr. Gert-Jan van Lieshout	04.13: Other LTE stage 2 subjects
	R2-071902	Release-7 dependencies				Samsung, Ericsson, Motorola, Nokia, NSN	Mr. Gert-Jan van Lieshout	05: UTRA/UTRAN
	R2-071903	Maintenance of UL sync				Samsung	Mr. Gert-Jan van Lieshout	04.08: Time alignment principles
	R2-071904	Idle mode paging				Samsung	Mr. Gert-Jan van Lieshout	04.13: Other LTE stage 2 subjects
	R2-071905	Optimization of downlink persistent scheduling				ETRI		04.13: Other LTE stage 2 subjects
	R2-071906	Access Service Classes in LTE				Samsung	Mr. Gert-Jan van Lieshout	04.06: Random access procedure
	R2-071908	NAS message handling during mobility				Samsung	Mr. Gert-Jan van Lieshout	04.11.1: Intra LTE
	R2-071909	UL control transmissions during DRX				Samsung, NTT DoCoMo	Mr. Gert-Jan van Lieshout	04.13: Other LTE stage 2 subjects
	R2-071910	Counting in E-MBMS				IPWireless		04.12: LTE MBMS

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	R2-071911	System information structure (with TP)				Samsung	Mr. Himke van der Velde	04.05: System Information content & delivery
	R2-071912	System information scheduling and change notification				Samsung	Mr. Himke van der Velde	04.05: System Information content & delivery
	R2-071913	RLC PDU format for LTE				Panasonic		04.13: Other LTE stage 2 subjects
	R2-071914	Radio connection establishment				Samsung	Mr. Himke van der Velde	04.13: Other LTE stage 2 subjects
	R2-071915	Use of tracking area- and cell identity for private networks/home cells				Samsung	Mr. Himke van der Velde	04.13: Other LTE stage 2 subjects
	R2-071916	Neighbouring cell information				Samsung	Mr. Himke van der Velde	04.13: Other LTE stage 2 subjects
	R2-071917	Recap of handover procedure, control plane aspects (with TP)				Samsung	Mr. Himke van der Velde	04.11.1: Intra LTE
	R2-071918	Evaluation of backward handover schemes				Samsung	Mr. Himke van der Velde	04.11.1: Intra LTE
	R2-071919	LTE MBMS Notifications				LG Electronics Inc.		04.12: LTE MBMS
	R2-071920	LTE Performance verification for TDD – U-plane and C-plane latencies				IPWireless		04.04: Performance verification
	R2-071921	RRC skeleton				Rapporteur (Samsung)	Mr. Himke van der Velde	04.14.2: RRC
	R2-071922	LTE MBMS Transmission				LG Electronics Inc.		04.12: LTE MBMS
	R2-071923	Discussion on Message 4 in Random Access				LG Electronics Inc.		04.06: Random access procedure
	R2-071924	Text proposal for RRC chapter: General				Samsung	Mr. Himke van der Velde	04.14.2: RRC
	R2-071925	Label characteristics and PBR for non-GBR				IPWireless		04.13: Other LTE stage 2 subjects
	R2-071926	Transmission of LTE Paging				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
	R2-071927	Paging group indication				IPWireless		04.13: Other LTE stage 2 subjects
	R2-071928	Discussion on Data Transmission in CELL_PCH				LG Electronics Inc.		05.04: Enhanced CELL_FACH state in FDD
	R2-071930	Multi-level DRX Operation in CELL_PCH				LG Electronics Inc.		05.04: Enhanced CELL_FACH state in FDD
	R2-071931	Contention-free Intra-LTE handover in synchronous network				IPWireless		04.11.1: Intra LTE
	R2-071932	Registration on home & private eNBs				Samsung, LG Electronics Inc.	Mr. Himke van der Velde	04.13: Other LTE stage 2 subjects
agreed	R2-071933	PLMN selection ping-pong control	CR	3000	25.331 Rel-7	Nokia, 3, Ericsson, Motorola, NSN	Mr. Simone Proveddi	05.16: TEI7
agreed	R2-071934	PLMN selection ping-pong control	CR	158	25.304 Rel-7	Nokia, 3, Ericsson, Motorola, NSN	Mr. Simone Proveddi	05.16: TEI7
	R2-071935	E-TFC selection clarifications	CR		25.321 Rel-6	Nokia	Mr. Simone Proveddi	05.03.1: FDD Enhanced Uplink
	R2-071936	Default MBMS activation time and 'MBMS all unmodified p-t-m services'	CR		25.331 Rel-6	Nokia	Mr. Simone Proveddi	05.03.2: MBMS
	R2-071938	Clarification on RA procedure				LG Electronics Inc.		04.06: Random access procedure
	R2-071939	Optimization for message 2 transmission				LG Electronics Inc.		04.06: Random access procedure
	R2-071940	Uplink timing alignment				LG Electronics Inc.		04.08: Time alignment principles

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R2-071941	Periodic measurement reporting with semi-persistent scheduling				LG Electronics Inc.		04.11.1: Intra LTE
R2-071942	ACK to NACK error detecting mechanism				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
R2-071943	Discussion on need-based adaptive HARQ in E-UTRAN UL				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
R2-071944	Transition indicator for VoIP in UL				LG Electronics Inc.		04.13: Other LTE stage 2 subjects
R2-071946	Early UL Synchronization Scheme for inter-eNodeB Handover				ITRI T-Mobile, NTT DoCoMo, KPN, China Mobile, Orange, Vodafone, Sprint, Telecom Italia, Telefónica, Huawei, Infineon, Nokia, Nokia-Siemens Networks, Samsung		04.11.1: Intra LTE
R2-071947	UE Support for self-configuration and self-optimisation - Proposal for Stage2 (only RAN2 relevant part)				T-Mobile, Vodafone, Orange, Telecom Italia, Telefónica	Mr. Axel Klatt	04.13: Other LTE stage 2 subjects
R2-071948	Generic 'subscriber type' indication via S1 interface				T-Mobile, NTT DoCoMo, Vodafone, Orange, Telecom Italia, Telefónica	Mr. Axel Klatt	04.13: Other LTE stage 2 subjects
R2-071949	Support of procedures/features related to intra-frequency mobility				T-Mobile, NTT DoCoMo, Vodafone, Orange, Telecom Italia	Mr. Axel Klatt	04.14.5: Cell selection & reselection
R2-071950	Support of procedures/features related to inter-frequency/inter-RAT mobility				T-Mobile, NTT DoCoMo, Vodafone, Orange, Telecom Italia	Mr. Axel Klatt	04.14.5: Cell selection & reselection
R2-071951	Stage3 text proposal on idle mode procedures in E-UTRAN				T-Mobile, Telecom Italia, Vodafone, China Mobile	Mr. Axel Klatt	04.14.5: Cell selection & reselection
R2-071952	The Urgency of HARQ-ARQ Interactions				ITRI		04.13: Other LTE stage 2 subjects
R2-071953	A New Measurement to Support UL Scheduler Operation				Mitsubishi Electric Corp.		04.13: Other LTE stage 2 subjects
R2-071954	Ambiguous description about the reconfiguration scenarios and ciphering of TM RBs	CR	25.331 Rel-6		Sunplus mMobile	Mr. Louis Lu	05.03.3: Other
R2-071955	UE behaviour unspecified in receiving Transport Format Set	CR	25.331 Rel-6		Sunplus mMobile	Mr. Louis Lu Mr. Gordon Young	05.03.3: Other
R2-071956	DRX Operation During Handover				RIM		04.11.1: Intra LTE
R2-071957	Incomplete exception description in UE-based OTDOA	CR	25.331 Rel-6		Sunplus mMobile	Mr. Louis Lu	05.03.3: Other
R2-071958	Contradictive behaviour in measurement rules for cell reselection in CELL_FACH	CR	25.304 Rel-6		Sunplus mMobile	Mr. Louis Lu Mr. Gordon Young	05.03.3: Other
R2-071959	Adaptive Modulation and Coding for LTE VoIP				RIM		04.13: Other LTE stage 2 subjects
R2-071960	Conflict statements on response to paging when UE has no IMSI	CR	25.304 Rel-6		Sunplus mMobile	Mr. Louis Lu Mr. Gordon Young	05.03.3: Other
R2-071961	Uplink VoIP Scheduling with Fast Indication				RIM		
R2-071962	Polling Performance for LTE MBMS				RIM	Mr. Gordon Young	04.12: LTE MBMS
R2-071963	MCCH Design				RIM	Mr. Gordon Young	04.12: LTE MBMS
R2-071964	Multi-Stage Setup for LTE MBMS Transmissions				RIM	Mr. Gordon Young	04.12: LTE MBMS
R2-071965	Pathloss measurements for cells in the detected set	CR	25.331 Rel-7		RIM	Mr. Gordon Young	05.16: TEI7
R2-071966	The further discussion on eMBMS scenarios of deployment				China Mobile		04.12: LTE MBMS

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R2-071967	Use of eMBMS uplink feedback		China Mobile	04.12: LTE MBMS
R2-071968	P-BCH Transmission Interval in LTE		NTT DoCoMo, Inc., NEC	04.05: System Information content & delivery
R2-071969	Paging Procedure in LTE		NTT DoCoMo, Inc., NEC	04.13: Other LTE stage 2 subjects
R2-071970	Contention Resolution and Initial Random Access		TD Tech Ltd.	04.06: Random access procedure
R2-071971	Discussion on Uplink Scheduling Request		TD Tech Ltd.	
R2-071972	36.306 E-UTRA UE Radio Access Capabilities		Motorola (Rapporteur)	04.14: Stage 3: rapporteur inputs (based on the Stage 2 status)
R2-071973	User Plane handling during inter-eNB HO		NEC	04.11.1: Intra LTE
R2-071974	Resource allocations in target cell after Handover		NEC	04.11.1: Intra LTE
R2-071975	Text Proposal for Intra-LTE Handover		NEC	04.11.1: Intra LTE
R2-071976	Clarification on use of Prioritized Bit Rate (PBR)		NEC	04.13: Other LTE stage 2 subjects
R2-071977	ROHC reset during inter-eNB handover		Nortel	04.11.1: Intra LTE
R2-071978	Inter eNB handover in a synchronous network		Nortel	04.11.1: Intra LTE
R2-071979	Forward Hand-Off Need, Simulations results		Nortel	04.11.1: Intra LTE
R2-071980	Forward Hand-Off options		Nortel	04.11.1: Intra LTE
R2-071981	Hierarchical MCCH		Nortel	04.12: LTE MBMS
R2-071982	Admission Control at Target eNB		Nortel	04.11.1: Intra LTE
R2-071983	Discussion of eMBMS Uplink Feedback Schemes		NEC	04.12: LTE MBMS
R2-071984	HARQ/ARQ Interactions		Philips	04.13: Other LTE stage 2 subjects
R2-071985	Alignment of CPC UL DRX TTI due to Compressed Mode		INFINEON	05.06: CPC
R2-071986	HSPA+ L2 Buffering Calculations		Nokia, NSN	05.05: Improved L2 support for high data rates
R2-071987	Modification of Annex B	CR	ZTE	05.17: Other Rel-7 Study Items
R2-071988	CQI reporting in E-MBMS single cell transmission		Alcatel-Lucent	04.12: LTE MBMS
R2-071989	Idle Gaps for Handover Measurements in E-UTRAN		Ericsson	04.13: Other LTE stage 2 subjects
R2-071990	DRX procedure for VoIP		QUALCOMM Europe	04.13: Other LTE stage 2 subjects
R2-071991	Content of Message 2		QUALCOMM Europe	04.06: Random access procedure
R2-071992	High Level Comparison of Handover in GSM, UMTS and LTE		QUALCOMM Europe	04.11: LTE_ACTIVE mobility procedures
R2-071993	LTE Intra/Inter-RAT handover algorithms for LTE_ACTIVE state		QUALCOMM Europe	04.11: LTE_ACTIVE mobility procedures
R2-071994	Impact of HARQ Termination Statistics on UL VoIP Capacity		QUALCOMM Europe	
R2-071995	On Uplink Scheduling for VoIP		QUALCOMM Europe	
R2-071996	Uplink Synchronization Maintenance		Motorola	04.08: Time alignment principles



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R2-071997	MAC specification - Editors			Ericsson, QUALCOMM Europe	Mr. Janne Peisa	04.14.1: MAC
R2-071998	Considerations on MBMS Resource Allocation			Motorola		04.12: LTE MBMS
R2-071999	Multicell EMBMS CQI Feedback			Motorola		04.12: LTE MBMS
R2-072000	Further Results on EMBMS Transmission Configurations			Motorola		04.12: LTE MBMS
R2-072001	[Point #5] System Information Delivery - E-mail Report			Rapporteur		04.02: Items treated in e-mail discussion (rapporteur report only)
R2-072002	UL VoIP Scheduling			Motorola		04.02: Items treated in e-mail discussion (rapporteur report only)
R2-072003	Handover Interruption Times and Duration			Motorola		04.11.1: Intra LTE
R2-072004	RACH Preamble Reservation for Handover			Motorola		04.11.1: Intra LTE
R2-072005	Considerations on uplink feedback channel for E-MBMS			ETRI		04.12: LTE MBMS
R2-072006	RLC header design			Motorola		04.13: Other LTE stage 2 subjects
R2-072007	Additional results on over-provisioning required to accommodate overlapping SFN areas			Motorola		04.12: LTE MBMS
R2-072008	Load balancing solutions for LTE			NTT DoCoMo, T-Mobile, Orange, LG Electronics		04.11: LTE_ACTIVE mobility procedures
R2-072009	Measurement gap control principles			NTT DoCoMo		04.11: LTE_ACTIVE mobility procedures
R2-072010	Operator's view on neighbour cell information			NTT DoCoMo, Vodafone, Telecom Italia, T-Mobile, Orange		04.05: System Information content & delivery
R2-072011	Rationale for standardising eNB measurements			NTT DoCoMo, Orange, Telecom Italia, Telefonica, T-Mobile, Vodafone		04.13: Other LTE stage 2 subjects
R2-072012	E-UTRAN Measurement Gap Control for Inter-Frequency and Inter-RAT Handover			Motorola		04.11: LTE_ACTIVE mobility procedures
R2-072013	MAC header for control message in LTE			ASUSTeK		04.13: Other LTE stage 2 subjects
R2-072014	Uplink synchronisation maintenance			NTT DoCoMo, Inc.		04.08: Time alignment principles
R2-072015	MAC PDU structure for LTE			NTT DoCoMo, Inc.		04.13: Other LTE stage 2 subjects
R2-072017	Buffering requirement for joint HS-DSCH E-DCH categories	CR	25.306 Rel-7	Qualcomm Europe	Mr. Etienne Chaponniere	05.07: MIMO
R2-072018	Correction of MIMO and 64QAM buffering requirement	CR	25.306 Rel-7	Qualcomm Europe	Mr. Etienne Chaponniere	05.07: MIMO
R2-072019	Cryptosync in LTE			Qualcomm Europe	Mr. Etienne Chaponniere	04.13: Other LTE stage 2 subjects
R2-072020	Introduction of enhanced F-DPCH	CR	25.331 Rel-7	Qualcomm Europe	Mr. Etienne Chaponniere	05.16: TEI7
R2-072021	L2 Improvements and polling			Qualcomm Europe	Mr. Etienne Chaponniere	05.05: Improved L2 support for high data rates
R2-072022	L2 improvements and UE processing			Qualcomm Europe	Mr. Etienne Chaponniere	05.05: Improved L2 support for high data rates
R2-072023	Number of HARQ processes			Qualcomm Europe	Mr. Etienne Chaponniere	04.04: Performance verification
R2-072024	PDCP reordering			Qualcomm Europe	Mr. Etienne Chaponniere	04.13: Other LTE stage 2 subjects
R2-072025	Uplink Feedback for E-MBMS			Motorola		04.12: LTE MBMS
R2-072026	Clarification on assigning HARQ process IDs for MIMO	CR	25.331 Rel-7	ASUSTeK		05.07: MIMO

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	R2-072027	Corrections on modulus base in UM in RLC	CR		25.322 Rel-6	ASUSTeK			05.03.2: MBMS
	R2-072028	Clarification on update of state variable VR(UM)	CR		25.322 Rel-6	ASUSTeK			05.03.2: MBMS
	R2-072029	Initiation of state variable VR(UDH) and VR(UDR)	CR		25.322 Rel-6	ASUSTeK			05.03.2: MBMS
agreed	R2-072031	CR to 25.905 V7.0.0 for supporting LCR TDD MBSFN operation	CR	1	25.905 Rel-7	TD Tech Ltd.			05.12: MBMS LCR TDD
	R2-072032	1.28Mcps TDD MBMS physical layer improvements: Addition of DL SF2 and draft CR to 25.331 v7.4.0	CR		25.331 Rel-7	TD Tech Ltd.			Physical layer Enhancements
	R2-072033	Message 2 transmission when a dedicated preamble used				Samsung			05.12: MBMS LCR TDD
	R2-072034	First quantification of UL control				Samsung			Physical layer Enhancements
	R2-072035	Optimization of contention resolution in aRACH				Samsung			04.06: Random access procedure
	R2-072036	UL time synchronized handover				Samsung			04.13: Other LTE stage 2 subjects
	R2-072037	Gap control in E-UTRAN				Samsung Electronics			04.06: Random access procedure
	R2-072038	Measurement Gap and DRX interaction				Samsung Electronics			04.11.1: Intra LTE
	R2-072039	E-UTRA RLC specification work outline				Rapporteur			04.11.1: Intra LTE
	R2-072040	PDCP SN and RLC SN				NTT DoCoMo, Inc.			04.14.4: RLC
agreed	R2-072042	Optimization of switching between MBMS broadcast TV channels transmitted on ptp bearers (MBMS for Mobile TV)	CR	3001	25.331 Rel-7	NEC, Ericsson	Mr. David Lecompte		04.13: Other LTE stage 2 subjects
	R2-072043	Location of DL PDCP Reordering in LTE during Handover				Fujitsu			05.16: TEI7
	R2-072044	Use of Global Cell ID				Ericsson	Mr. Janne Peisa		04.13: Other LTE stage 2 subjects
	R2-072045	Support of ROHC and context relocation				NEC	Mr. David Lecompte		04.11.1: Intra LTE
	R2-072046	UE specific Intra-LTE (interfrequency) and inter-RAT cell reselection				NEC			04.13: Other LTE stage 2 subjects
	R2-072047	Correction to CTFC for default configuration 12	CR		25.331 Rel-6	NEC	Mr. David Lecompte		05.03.3: Other
	R2-072048	Issues related to RACH access preamble				ASUSTeK			04.06: Random access procedure
	R2-072049	Duplication avoidance of acknowledgement information	CR		25.322 Rel-7	Infineon Technologies	Mr. Roland Gruber		05.16: TEI7
	R2-072050	Consideration related to Random Access Response				ASUSTeK			04.06: Random access procedure
	R2-072051	START values in cell update before security is enabled	CR		25.331 Rel-6	Infineon	Mr. Roland Gruber		05.03.3: Other
	R2-072052	START values in cell update before security is enabled	CR		25.331 Rel-7 Cat A	Infineon	Mr. Roland Gruber		05.03.3: Other
	R2-072053	Multiplexing option selection in case of E_DCH_TRANSMISSION equal FALSE	CR		25.331 Rel-6 Cat F	Infineon	Mr. Roland Gruber		05.03.3: Other
	R2-072054	Multiplexing option selection in case of E_DCH_TRANSMISSION equal FALSE	CR		25.331 Rel-7 Cat A	Infineon	Mr. Roland Gruber		05.03.3: Other
	R2-072055	RLC header format				Fujitsu			04.13: Other LTE stage 2 subjects
	R2-072056	Removing MIMO requirements from MAC-hs	CR		25.321 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen		05.07: MIMO
	R2-072057	Avoid unnecessarily decreasing UE DRX possibility	CR		25.321 Rel-7	Nokia, Nokia Siemens Networks	Mr. Juho Pirskanen		05.06: CPC
	R2-072058	General update of the 25.308	CR		25.308 Rel-7	Nokia Siemens Network	Mr. Juho		05.16: TEI7

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	R2-072059	Optimization of switching between MBMS broadcast TV channels transmitted on ptp bearers (MBMS for Mobile TV)	CR		25.331 Rel-6	NEC Alcatel-Lucent, LG Electronics	Pirskanen Mr. David Lecompte	05.03.2: MBMS
	R2-072060	Discussion on Data forwarding options for intra-LTE Handover				Alcatel-Lucent, LG Electronics		04.11.1: Intra LTE
	R2-072061	Consideration on the forwarding strategy in the inter-RAT HO scenario				Alcatel-Lucent, LG Electronics		04.11.2: LTE to/from UTRAN
	R2-072062	The need for uplink enhancement				samsung		
	R2-072063	Proposals on data handling at inter-eNB handover				NTT DoCoMo, Inc.		04.11.1: Intra LTE
	R2-072064	RLC PDUs for LTE				NTT DoCoMo, Inc.		04.13: Other LTE stage 2 subjects
	R2-072065	UE capabilities for Rel-7				Nokia, NSN, Motorola	Mr. Luis Barreto	05.16: TEI7
	R2-072066	Text proposal for RRC chapters: Procedures and Protocol data units				Samsung	Mr. Himke van der Velde	04.14.2: RRC
	R2-072067	Interaction between Quality Reporting on enhanced Cell_FACH and enhanced receivers				Alcatel-Lucent		05.04: Enhanced CELL_FACH state in FDD
	R2-072068	Problem with the IE 'MBMS service identity' included in the IE 'RAB info'	CR		25.331 Rel-6	Ericsson	Mr. Sven Ekemark	05.03.2: MBMS
agreed	R2-072069	Use of Integrity protection algorithm UIA/2: removal of a 'shall' in a note	CR	2992	25.331 Rel-7	ETSI MCC		05.16: TEI7
	R2-072070	Discussion of Access Control Requirements for Home-eNodeB				Vodafone Group		
	R2-072071	Discussion of Mobility Requirements for Home-eNodeB				Vodafone Group		
	R2-072072	Report of email discussion on Home eNodeB Requirements (Point 8)				Vodafone Group		04.02: Items treated in e-mail discussion (rapporteur report only)
	R2-072073	Report of Email Discussion on MBMS definitions (Point 3)				Vodafone Group		04.02: Items treated in e-mail discussion (rapporteur report only)
	R2-072074	Report of email discussion on UE State during MBMS Reception (Point 1)				Vodafone Group		04.02: Items treated in e-mail discussion (rapporteur report only)
	R2-072075	SAE Bearer and SAE Radio Bearer Independence				Vodafone Group		04.13: Other LTE stage 2 subjects
	R2-072076	Network Specific Mandatory Default				Vodafone Group		04.13: Other LTE stage 2 subjects
	R2-072077	Initial Standardisation Requirements from Self-Organizing Networks				Vodafone Group, T-Mobile		04.13: Other LTE stage 2 subjects
	R2-072078	RRM framework in the LTE architecture				Vodafone Group, Telecom Italia, Orange, KPN		04.13: Other LTE stage 2 subjects
	R2-072079	Clarification on HARQ process allocation for MIMO	CR		25.331 Rel-7	ASUSTeK		05.07: MIMO
	R2-072080	UE capabilities				Motorola		04.10: UE capabilities
	R2-072081	Radio Link Failure				Motorola		04.11.1: Intra LTE
	R2-072082	Random Access for LTE MBMS				LG Electronics Inc.		04.12: LTE MBMS
	R2-072083	Random Access for LTE MBMS				LG Electronics Inc.		04.12: LTE MBMS
	R2-072084	Management of Dedicated Signatures				LG Electronics Inc., Samsung		04.06: Random access procedure
	R2-072085	Handover procedure for a low activity UE				LG Electronics Inc.		04.11.1: Intra LTE
	R2-072086	MRW Procedure for Special HE Value Configuration	CR		25.322 Rel-7	ASUSTeK	Mr. Sam Jiang	05.16: TEI7
	R2-072087	Considerations on ROHC feedback for L2 design				LG Electronics Inc.		04.13: Other LTE stage 2 subjects

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R2-072088	UE Identity Validity in RA Procedure			ASUSTeK		04.06: Random access procedure
R2-072089	Issues on Random Access Procedure			ASUSTeK		04.06: Random access procedure
R2-072090	Random and dedicated preamble based RACH access in E-UTRAN			IPWireless		04.06: Random access procedure
R2-072096	Consideration related to Contention Resolution (C1-070886, to RAN2). Reply LS (to R2-071107) on Maximum SDU size	LS		ASUSTeK		04.06: Random access procedure
R2-072097	(C1-070887, to RAN2). Reply LS (to R2-071097) on RRC connected mode during MBMS enhanced broadcast	LS		CT WG1	Ericsson	05.03.1: FDD Enhanced Uplink
R2-072098				CT WG1	Samsung	05.03.2: MBMS
R2-072099	Evolved HSPA: UE Involved Relocation (G2-070094, to RAN2). LS on Removal of limitation of SRNC identity	LS		Vodafone Group		05.15: Study Item on scope of future FDD HSPA Evolution
R2-072100	(GP-070138, Cc RAN2). LS on the continuity of voice calls between LTE and GERAN/UTRAN	LS		GERAN2	Alcatel-Lucent	05.16: TEI7
R2-072101	(R1-071806, Cc RAN2). LS on Agreement on UL Inter-cell Power Control	LS		GERAN	Qualcomm	04.01: Incoming LS on LTE
R2-072102	(R1-071838, to RAN2). LS on random access procedure parameters	LS		RAN WG1	Ericsson	04.01: Incoming LS on LTE
R2-072103	(R1-071839, to RAN2). LS on target quality on L1/L2 control channel	LS		RAN WG1	Nokia Siemens Networks	04.01: Incoming LS on LTE
R2-072104	(R1-071940, to RAN2). LS on Layer-1-related system information	LS		RAN WG1	Samsung	04.01: Incoming LS on LTE
R2-072105	(GP-070517, to RAN2). Reply LS (S1-070300) on Registration in Densely populated area	LS		RAN WG1	Alcatel-Lucent	04.01: Incoming LS on LTE
R2-072106	(R1-071238, to RAN2). LS on 64QAM HSDPA and HSDPA MIMO UE categories	LS		GERAN	Ericsson	05.18: TEI8
R2-072107	(R1-071249, to RAN2). Reply LS (to R2-070953) on High Bit Rate SRB	LS		RAN WG1	Qualcomm	05.07: MIMO
R2-072108	(R3-070499, to RAN2). LS on Clarification on two scenarios "Enhanced fromBroadcast over lur"	LS		RAN WG1	Alcatel-Lucent	05.01: Incoming LSs on UTRA Rel-5
R2-072109	(R3-070700, Cc RAN2). LS on NAS Handling during intra-LTE handover	LS		RAN WG3	Nokia Siemens Networks	05.03.2: MBMS
R2-072110				RAN WG3	Alcatel-Lucent	04.01: Incoming LSs on LTE
R2-072111	Correction to the maximum number of Mac-d flows on HSDPA.	CR	25.331 Rel-7	Alcatel-Lucent		05.05: Improved L2 support for high data rates
R2-072112	(R3-070720, to RAN2). LS on IP multi-cast for S1-AP messages (R3-070729, to RAN2). LS on data forwarding for IRAT Handover	LS		RAN WG3	Ericsson	04.01: Incoming LS on LTE
R2-072113	(R3-070730, Cc RAN2). Reply LS (to GP-070497) on feasibility of GAN enhancements	LS		RAN WG3	Samsung	04.01: Incoming LS on LTE
R2-072114	(S2-072217, to RAN2). Reply LS (to R2-071107) on Maximum SDU size	LS		RAN WG3	Vodafone	05.18: TEI8
R2-072115	(S2-072230, Cc RAN2). Reply LS (to R3-070509) on EPC update at inter eNodeB mobility	LS		SA WG2	Ericsson	05.03.1: FDD Enhanced Uplink
R2-072116	(S2-072275, to RAN2). LS on the need of in sequence data delivery	LS		SA WG2	Motorola	04.01: Incoming LS on LTE
R2-072117	(S2-072279, to RAN2). Reply LS (to S2-072093) on data forwarding for IRAT Handover	LS		SA WG2	Motorola	04.01: Incoming LS on LTE
R2-072119	(S4-070314, to RAN2). Reply LS (to R2-071104) on Rate-Adaptive Real-time Media	LS		SA WG2	Samsung	04.01: Incoming LS on LTE
R2-072120	(S3-070280, to RAN2). Reply LS (to R2-071105) on Verification of security principles	LS		SA WG4	Samsung	04.01: Incoming LS on LTE
R2-072121				SA WG3	Nokia Siemens Networks	04.01: Incoming LS on LTE

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R2-072122	(R1-071834, to RAN2). Reply LS (to R2-071098) on physical layer aspects of enhanced CELL_FACH in FDD	LS		RAN WG1	Nokia Siemens Networks	05.04: Enhanced CELL_FACH state in FDD
R2-072123	(R3-070732, to RAN2). LS on LTE MBMS and PDCP (S2-072224, to RAN2). Reply LS (to R2-071097) on RRC	LS		RAN WG3	Ericsson	04.01: Incoming LS on LTE
R2-072124	connected mode during MBMS enhanced broadcast (S2-072265, to RAN2). LS on E-UTRAN Idle mode downlink packet buffering and initiation of network triggered service request	LS		SA WG2	Samsung	05.03.2: MBMS
R2-072125	(R1-071837, to RAN2). LS on Physical Layer Depadding :-)	LS		SA WG2	Motorola	04.01: Incoming LS on LTE
R2-072126	(S2-072263, Cc RAN2). Reply LS (to GP-070497) on feasibility of GAN enhancements	LS		RAN WG1	Chairman :-)	04.01: Incoming LS on LTE
R2-072127	(S2-072264, Cc RAN2). Reply LS to GERAN – LTE interworking	LS		SA WG2	Vodafone	05.18: TEI8
R2-072128	(S2-072266, Cc RAN2). Reply LS (to RP-071677) on the Removal of limitation of SRNC identity	LS		SA WG2	Qualcomm	04.01: Incoming LS on LTE
R2-072129		LS		SA WG2	Alcatel-Lucent	05.16: TEI7
R2-072130	HS-SCCH Less and Rate Matching 1	CR	25.331 Rel-7	Qualcomm Europe	Mr. Etienne Chaponnière	05.06: CPC
R2-072131	(Draft1) Minutes of RAN2-57bis, Malta, 26-30 March 2007			ETSI MCC		03: Minutes of the previous meeting 04.02: Items treated in e-mail discussion (rapporteur report only)
R2-072132	Report of email discussion point 2: LTE System performance			Ericsson		07: Liaisons and outputs to other groups
R2-072133	Reply LS to SA4 on Rate-Adaptive Real-time Media			T-Mobile		07: Liaisons and outputs to other groups
R2-072134	Reply LS to SA3 on on Verification of security principles			Qualcomm		07: Liaisons and outputs to other groups
R2-072135	Reply LS to RAN3 on LS on LTE MBMS and PDCP			Ericsson Verizon Wireless, Nortel Networks		07: Liaisons and outputs to other groups
R2-072136	On the need of fast and robust handover failure recovery					04.11.1: Intra LTE 04.02: Items treated in e-mail discussion (rapporteur report only)
R2-072137	Report of Email Discussion on MBMS definitions (Point 3)			Vodafone Group Orange, Alcatel-Lucent, Nokia	Mr. Alain Abinakhoul	05.13: GNSS in UTRAN 04.02: Items treated in e-mail discussion (rapporteur report only)
R2-072138	A-GNSS in UTRAN (RRC)	CR	25.331 Rel-7			
R2-072139	Report of email discussion on Home eNodeB Requirements (Point 8)			Vodafone Group	Mr. David Lecompte	05.03.2: MBMS
R2-072140	MBMS UE linking for enhanced broadcast mode			NEC		04.12: LTE MBMS
R2-072141	ROHC for E-MBMS			Motorola		04.02: Items treated in e-mail discussion (rapporteur report only)
R2-072142	Home eNodeB definitions			Vodafone Group		04.01: Incoming LS on LTE
R2-072143	(R1-072549, to RAN2). Reply LS on uplink VoIP scheduling			RAN WG1		05.16: TEI7
R2-072144	UE capabilities for Rel-7			Nokia, NSN, Motorola	Mr. Luis Barreto	
R2-072145	Correction on 16QAM category	CR	25.331 Rel-7	Alcatel-Lucent		05.08: 16 QAM UL 04.04: Performance verification
R2-072146	LTE U-plane and C-plane latencies	CR		Ericsson		04.03: Endorsement of latest version of the Stage 2
R2-072147	Update of Stage 2 Clause 12			Motorola		04.02: Items treated in e-mail discussion (rapporteur report
R2-072148	Home eNodeB definitions			Vodafone Group		

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	R2-072149	MBMS Notification	CR		25.331 Rel-6	Nokia	Mr. Luis Barreto	only)
	R2-072150	E-TFC selection clarifications	CR		25.321 Rel-6	Nokia	Mr. Simone Proveddi	05.03.2: MBMS 05.03.1: FDD Enhanced Uplink
	R2-072151	MBMS Services naming	CR		25.346 and 25.331 Rel-6	Nokia	Mr. Simone Proveddi	05.03.2: MBMS 05.03.1: FDD Enhanced Uplink
	R2-072152	Measurement Reporting criteria IE in ASN.1 Rel-6				Nokia Siemens Networks		04.06: Random access procedure 05.03.1: FDD Enhanced Uplink
	R2-072153	Issues related to RACH access preamble				ASUSTeK		05.03.1: FDD Enhanced Uplink
	R2-072154	RLC PDU Size for maximisation of data	CR		25.321/25.322	NEC Orange, Alcatel-Lucent, Nokia	Mr. Alain Abinakhoul	05.13: GNSS in UTRAN 07: Liaisons and outputs to other groups
	R2-072155	GANSS support to UE capabilities	CR		25.306 Rel-7			05.04: Enhanced CELL_FACH state in FDD
	R2-072156	Reply LS to RAN1 on physical layer aspects of enhanced CELL_FACH in FDD				Alcatel-Lucent		05.04: Enhanced CELL_FACH state in FDD
	R2-072157	Measurement reporting, state transitions, and DRX in enhanced CELL_FACH state	CR	21	25.308	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen Mr. Zhongda Du	05.03.2: MBMS
	R2-072158	Consideration on MBMS Required UE action				ZTE	Mr. Zhongda Du	05.03.2: MBMS
	R2-072159	MBMS services information on DCCH (R1-072547, to RAN2). Reply LS (to R2-071596) on CELL_PCH/URA_PCH operation in Enhanced CELL_FACH				ZTE		05.03.2: MBMS 05.04: Enhanced CELL_FACH state in FDD
	R2-072160	Interaction between Quality Reporting on enhanced Cell_FACH and enhanced receivers				RAN WG1		05.04: Enhanced CELL_FACH state in FDD
agreed	R2-072161	Introduction of Enhanced CELL_FACH state in FDD	CR	179	1 25.302	Alcatel-Lucent	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-072162	Using special value of HE field to indicate end of an SDU for RLC AM	CR		25.322 Rel-7	Nokia Siemens Networks, Ericsson, Nokia, NSN, Samsung	Mr. Janne Peisa	05.04: Enhanced CELL_FACH state in FDD
	R2-072163	Using special value of HE field to indicate end of an SDU for RLC AM	CR		25.331 Rel-7	Ericsson, Nokia, NSN, Samsung	Mr. Janne Peisa	05.16: TEI7
	R2-072164	Introduction of Improved L2 support for high data rates and Enhanced CELL_FACH state	CR	318	1 25.321 Rel-7	Ericsson, Nokia, NSN	Mr. Janne Peisa	05.16: TEI7 05.04: Enhanced CELL_FACH state in FDD
	R2-072165	1.28Mcps TDD MBMS physical layer improvements: Addition of DL SF2 and draft CR to 25.331 v7.4.0	CR		25.331 Rel-7	TD Tech Ltd.		05.12: MBMS LCR TDD Physical layer Enhancements
	R2-072166	Introduction of Improved L2 support for high data rates and Enhanced CELL_FACH state	CR	318	2 25.321 Rel-7	Ericsson, Nokia, NSN	Mr. Janne Peisa	05.04: Enhanced CELL_FACH state in FDD
	R2-072167	Introduction of HS-DSCH reception in CELL_FACH, URA_PCH and CELL_PCH	CR	3003	25.331 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-072168	Introduction of HS-DSCH reception in CELL_FACH, URA_PCH and CELL_PCH	CR	3004	25.331 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-072169	Introduction of two DRX schemes in CELL_PCH and URA_PCH	CR	3004	25.331 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen Mr. Zhongda Du	05.04: Enhanced CELL_FACH state in FDD
	R2-072170	Minor correction on MBMS text	CR		25.331 Rel-6	ZTE	Mr. Zhongda Du	05.03.2: MBMS
	R2-072171	Correction on handling MRW procedure failure case (R4-070778, Cc RAN2). Reply LS (to R1-071250) on LTE measurements supporting mobility	CR		25.322 Rel-7	ASUSTeK		05.16: TEI7
	R2-072172	measurements supporting mobility				RAN WG4		04.01: Incoming LS on LTE 07: Liaison and output to other groups
	R2-072173	LS to RAN1 on Quality reporting				LG Electronics	Mr. David Lecompte	05.03.2: MBMS
	R2-072174	MBMS UE linking for enhanced broadcast mode				NEC		05.11: MBMS TDD Physical layer Enhancements
	R2-072175	Support for DL only SFN operation for MBMS FDD	CR		25.346 Rel-7	Ericsson		

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	R2-072176	Support for DL only SFN operation for MBMS FDD	CR	25.331 Rel-7	Ericsson		05.11: MBMS TDD Physical layer Enhancements
	R2-072177	Support for DL only SFN operation for MBMS FDD	CR	25.306 Rel-7	Ericsson		05.11: MBMS TDD Physical layer Enhancements
	R2-072178	consideration on handover interruption time			ZTE	Mr. Zhongda Du	04.11.1: Intra LTE
	R2-072179	LS to RAN1 on MBMS FDD and TDD Physical Layer Improvements			LG Electronics		07: Liaison and output to other groups
	R2-072180	MBMS FDD and TDD Physical Layer Improvements	CR	25.304 Rel-7	LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements, 4.4: Performance verification
	R2-072181	MBMS FDD and TDD Physical Layer Improvements	CR	25.306 Rel-7	LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements, 2: Approval of the agenda
	R2-072182	DRAFT CR to TS 25.331 [Rel-7] on Introducing 16QAM uplink support	CR	2982 4	QUALCOMM Europe	Dr. Nathan Tenny	05.08: 16 QAM UL
	R2-072183	LS on System Information Broadcast			Samsung		07: Liaison and output to other groups
	R2-072184	LTE					
	R2-072185	LTE					
	R2-072186	LS to RAN1 on System Information Broadcast			Samsung		07: Liaison and output to other groups
approved	R2-072187	LS to RAN on latency analysis			Ericsson		07: Liaison and output to other groups
LS	R2-072188	LS on neighbour cell lists and reading neighbour cell P-BCH			NTT DoCoMo, Inc.		07: Liaison and output to other groups
approved	R2-072189	Reply LS to SA4 on Rate-Adaptive Real-time Media			T-Mobile		07: Liaisons and outputs to other groups
LS	R2-072190	Reply LS to SA3 on on Verification of security principles			Qualcomm		07: Liaisons and outputs to other groups
approved	R2-072191	Reply LS to SA3 on on Verification of security principles			Qualcomm		07: Liaisons and outputs to other groups
LS	R2-072192	UE Capability principles			Ericsson		04.10: UE capabilities
approved	R2-072193	LS to RAN on latency analysis			Ericsson		07: Liaison and output to other groups
LS	R2-072194	Reply LS to RAN3 on LS on LTE MBMS and PDCP			Ericsson		07: Liaisons and outputs to other groups
approved	R2-072195	MBMS FDD and TDD Physical Layer Improvements	CR	25.331, Rel-7	LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements
LS	R2-072196	Status of "Service provided by physical layer" specification			Alcatel-Lucent		04.14.2: Stage 3 LTE
	R2-072197	Solution to reordering issue in Enhanced Cell_FACH			InterDigital		05.04: Enhanced CELL_FACH state in FDD
	R2-072198	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.346	CR	25.346 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
	R2-072199	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.304	CR	25.304 Rel-7	RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements

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										Communications		
	R2-072200	Introduce MBMS LCR TDD Physical Layer Enhancement to TS 25.331	CR			25.331 Rel-7				RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
agreed	R2-072201	Introduce MBMS LCR TDD Physical Layer Enhancement to TR 25.905	CR	2		25.905 Rel-7				RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications	Mrs. Haiyang Quan	05.12: MBMS LCR TDD Physical layer Enhancements
	R2-072202	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	306		25.322 Rel-7				Ericsson, LG Electronics, Samsung		05.16: TEI7
	R2-072203	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR			25.321 Rel-7				Ericsson, LG Electronics, Samsung		05.16: TEI7
	R2-072204	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR			25.308 Rel-7				Ericsson, LG Electronics, Samsung		05.16: TEI7
	R2-072205	System information structure (with TP)								Samsung	Mr. Himke van der Velde	04.05: System Information content & delivery
	R2-072206	Text proposal for RRC chapter: General								Samsung	Mr. Himke van der Velde	04.14.2: RRC
	R2-072207	Text proposal for RRC chapter: Procedures and Protocol data units								Samsung	Mr. Himke van der Velde	04.14.2: RRC
	R2-072208	Correction to the Introduction of Improved L2 support for high data rates	CR			25.301 Rel-7				Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-072209	Text Proposal for Paging in Enhanced CELL_FACH								Nokia Siemens Networks, Nokia, Ericsson, Qualcomm		05.04: Enhanced CELL_FACH state in FDD
	R2-072210	UE capabilities for Enhanced CELL_FACH	CR			25.306 Rel-7				Nokia		05.04: Enhanced CELL_FACH state in FDD
	R2-072211	Introduction of Improved L2 support for high data rates	CR	309		25.322 Rel-7				Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-072212	Introduction of Improved L2 support for high data rates	CR			25.331 Rel-7				Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-072213	Chip Combining	CR			25.331 Rel-7				RITT, CMCC, CATT, TD-Tech, ZTE, Spreadtrum Communications		05.12: MBMS LCR TDD Physical layer Enhancements
	R2-072214	E-TFC selection clarifications	CR			25.321 Rel-6				Nokia	Mr. Simone Provvedi	05.03.1: FDD Enhanced Uplink
approved LS	R2-072215	Reply LS to SA2 on feasibility of GAN enhancements				T-Mobile						07: Liaison and output to other groups
agreed	R2-072216	Introduction of Enhanced CELL_FACH state in FDD	CR	84	1	25.301				Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
	R2-072217	Proposed CR to TS 25.331 [Rel-7] on Change of UE capability	CR			25.331 Rel-7				QUALCOMM Europe, Nokia	Dr. Nathan Tenny	05.16: TEI7
agreed	R2-072218	MBMS Scheduling Information	CR	3005		25.331 Rel-6				Motorola	Mr. Richard Burbidge	05.03.2: MBMS
agreed	R2-072219	MSCH transmission - alignment to stage 3	CR	28		25.346 Rel-6				Motorola	Mr. Richard Burbidge	05.03.2: MBMS
agreed	R2-072220	Minor correction on MBMS text	CR	3006		25.331 Rel-6				ZTE	Mr. Zhongda Du	05.03.2: MBMS
agreed	R2-072221	Maintenance of PMM connection for MBMS PTP reception	CR	3007		25.331 Rel-6				Ericsson	Mr. Janne Peisa	05.03.2: MBMS
	R2-072222	Initial version of LTE RRC specification								Samsung		04.14.2: RRC
agreed	R2-072223	Maintenance of PMM connection for MBMS PTP reception	CR	3008		25.331 Rel-7				Ericsson	Mr. Janne Peisa	05.03.2: MBMS
agreed	R2-072224	Correction to the Introduction of Improved L2 support for high data rates	CR	85		25.301 Rel-7				Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-072225	A-GNSS in UTRAN (RRC)	CR			25.331 Rel-7				Orange, Alcatel-Lucent, Nokia	Mr. Alain Abinakhoul	05.13: GNSS in UTRAN



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	R2-072226	Introduction of E-TFC Selection for 1.28Mcps TDD	CR		25.321 Rel-7	ZTE, CATT, TD TECH			05.14: 1.28 Mcps TDD Enhanced Uplink
	R2-072227	Clarification on E-DCH Scheduled Grant Payload Calculation	CR		25.321 Rel-6	Ericsson	Mr. Janne Peisa		05.03.1: FDD Enhanced Uplink
	R2-072228	Proposed LS on neighbour cell lists and reading neighbour cell P-BCH				NTT DoCoMo, Inc.			07: Liaison and output to other groups
	R2-072229	HSPA VoIP Service Continuity in Rel-7				QUALCOMM Europe	Dr. Nathan Tenny		05.16: TEI7
agreed	R2-072230	Content of MSI message when sent on DCCH	CR	3009	25.331 Rel-6	Ericsson	Mr. Janne Peisa		05.03.2: MBMS
agreed	R2-072231	Content of MSI message when sent on DCCH	CR	3010	25.331 Rel-7	Ericsson	Mr. Janne Peisa		05.03.2: MBMS
agreed	R2-072232	Relative ordering of MBMS Selected Services when indicated to the network	CR	3011	25.331 Rel-6	Ericsson	Mr. Janne Peisa		05.03.2: MBMS
agreed	R2-072233	Relative ordering of MBMS Selected Services when indicated to the network	CR	3012	25.331 Rel-7	Ericsson	Mr. Janne Peisa		05.03.2: MBMS
agreed	R2-072234	Background scan during MBMS PTM reception	CR	3013	25.331 Rel-7	Ericsson	Mr. Janne Peisa		05.03.2: MBMS
agreed	R2-072235	Default MBMS activation time and 'MBMS all unmodified p-t-m services'	CR	3014	25.331 Rel-6	Nokia	Mr. Simone Provedi		05.03.2: MBMS
agreed	R2-072236	Default MBMS activation time and 'MBMS all unmodified p-t-m services'	CR	3015	25.331 Rel-7	Nokia	Mr. Simone Provedi		05.03.2: MBMS
	R2-072237	Optimization of switching between MBMS broadcast TV channels transmitted on ptp bearers (MBMS for Mobile TV)	CR		25.331 Rel-6	NEC	Mr. David Lecompte		05.03.2: MBMS
agreed	R2-072238	Problem with the IE 'MBMS service identity' included in the IE 'RAB info'	CR	3016	25.331 Rel-6	Ericsson	Mr. Sven Ekemark		05.03.2: MBMS
agreed	R2-072239	Problem with the IE 'MBMS service identity' included in the IE 'RAB info'	CR	3017	25.331 Rel-7	Ericsson	Mr. Sven Ekemark		05.03.2: MBMS
	R2-072240	Removing the limitation of SRNC identity size	CR		25.331	Nokia Siemens Networks	Mr. Juho Pirskanen		05.16: TEI7
	R2-072241	Consequences of implementation/non-implementation of MBMS Notification CR				Nokia			05.03.2: MBMS
	R2-072242	Reply LS to RAN3 on Clarification on two scenarios "Enhanced fromBroadcast over lur"				Alcatel-Lucent			07: Liaison and output to other groups
	R2-072243	Proposed LS to SA2, SA3 on Service Request for LTE/SAE				Alcatel-Lucent			07: Liaison and output to other groups
	R2-072244	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	CR	94	25.993 Rel-6	Alcatel-Lucent			05.03: Release 6 corrections
agreed	R2-072245	RoHC Compression Status	CR	157	25.306 Rel-6	Nokia, Nokia Siemens Networks			05.03: Release 6 corrections
agreed	R2-072246	RoHC Compression Status	CR	158	25.306 Rel-7	Nokia, Nokia Siemens Networks			05.03: Release 6 corrections
agreed	R2-072247	Correction of SRB delay	CR	3018	25.331 Rel-6	NEC	Mr. David Lecompte		05.03.3: Other
agreed	R2-072248	Correction of SRB delay	CR	3019	25.331 Rel-7	NEC	Mr. David Lecompte		05.03.3: Other
agreed	R2-072249	Update of normative references for Robust Header Compression (RFC3095)	CR	303	25.323 Rel-6	Ericsson	Mr. Janne Peisa		05.03.3: Other
agreed	R2-072250	Update of normative references for Robust Header Compression (RFC3095)	CR	304	25.323 Rel-7	Ericsson	Mr. Janne Peisa		05.03.3: Other
agreed	R2-072251	Incorrect reference to 25.993 for default configuration 17	CR	3020	25.331 Rel-6	Ericsson	Mr. Janne Peisa		05.03.3: Other
agreed	R2-072252	Incorrect reference to 25.993 for default configuration 17	CR	3021	25.331 Rel-7	Ericsson	Mr. Janne Peisa		05.03.3: Other
agreed	R2-072253	Removal of redundant IE 'MBMS-PreferredFreqRequest-r6'	CR	3022	25.331 Rel-7	Ericsson	Mr. Janne Peisa		05.03.3: Other

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agreed	R2-072254	Correction to CTFC for default configuration 12	CR	3023	25.331 Rel-6	NEC	Peisa Mr. David Lecompte	05.03.3: Other
agreed	R2-072255	Correction to CTFC for default configuration 12	CR	3024	25.331 Rel-7	NEC	Mr. David Lecompte	05.03.3: Other
	R2-072256	Updated PDCP skeleton specification				LG Electronics (rapporteur)	Mr. Patrick Fischer	04.14.3: PDCP
	R2-072257	Introduction of HS-DSCH reception in CELL_FACH, URA_PCH and CELL_PCH	CR	3003	1 25.331 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
agreed	R2-072258	Introduction of Improved L2 support for high data rates and Enhanced CELL_FACH state	CR	318	3 25.321 Rel-7	Ericsson, Nokia, NSN	Mr. Janne Peisa	05.04: Enhanced CELL_FACH state in FDD
	R2-072259	Introduction of Improved L2 support for high data rates	CR	3025	25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
	R2-072260	Introduction of Improved L2 support for high data rates	CR	309	1 25.322 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
agreed	R2-072261	Measurement reporting, state transitions, and DRX in enhanced CELL_FACH state	CR	21	1 25.308	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
agreed	R2-072262	Introduction of two DRX schemes in CELL_PCH and URA_PCH	CR	3004	1 25.331 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.04: Enhanced CELL_FACH state in FDD
agreed	R2-072263	MBMS FDD and TDD Physical Layer Improvements	CR	159	25.304 Rel-7	LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements, 4.4: Performance verification
agreed	R2-072264	MBMS FDD and TDD Physical Layer Improvements	CR	159	25.306 Rel-7	LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 2: Approval of the agenda
agreed	R2-072265	MBMS FDD and TDD Physical Layer Improvements	CR	3026	25.331 Rel-7	LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements
agreed	R2-072266	Corrections on modulus base in UM in RLC	CR	310	25.322 Rel-6	ASUSTeK		05.03.2: MBMS
agreed	R2-072267	Corrections on modulus base in UM in RLC	CR	311	25.322 Rel-7	ASUSTeK		05.03.2: MBMS
agreed approved LS	R2-072268	LS on Introduction of Additional DCH RAB Combinations into 25.993						07: Liaison and output to other groups
Technically endorsed	R2-072269	Additional DCH RAB Combinations	CR	95	25.993 Rel-7	Nokia Siemens Networks, Nokia Siemens Networks, T-Mobile		05.16: TEI7
agreed	R2-072270	HSPA RAB Combinations	CR	96	25.993 Rel-7	Nokia Siemens Networks, T-Mobile		05.16: TEI7
agreed	R2-072271	Additional HSPA RAB Combinations	CR	97	25.993 Rel-7	Nokia Siemens Networks		05.16: TEI7
	R2-072272	TP for LC Prioritisation				Qualcomm, Ericsson		04.14.1: MAC
	R2-072273	Outline of MAC specification				Qualcomm, Ericsson		04.14.1: MAC
	R2-072274	MBMS Agreements				Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire	04.12: LTE MBMS
agreed	R2-072275	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	306	1 25.322 Rel-7	Ericsson, LG Electronics, Samsung		05.16: TEI7
agreed	R2-072276	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	319	25.321 Rel-7	Ericsson, LG Electronics, Samsung		05.16: TEI7
agreed	R2-072277	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	22	25.308 Rel-7	Ericsson, LG Electronics, Samsung		05.16: TEI7

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agreed	R2-072278	Introduction of Wait time to Cell Update Confirm	CR	3027	25.331 Rel-7	Nokia Siemens Networks, Nokia	Mr. Juho Pirskanen	05.16: TEI7
agreed	R2-072279	Removing the limitation of SRNC identity size	CR	3028	25.331 Rel-7	Nokia Siemens Networks	Mr. Juho Pirskanen	05.16: TEI7
agreed	R2-072280	Using special value of HE field to indicate end of an SDU for RLC AM	CR	312	25.322 Rel-7	Ericsson, Nokia, NSN, Samsung	Mr. Janne Peisa	05.16: TEI7
agreed	R2-072281	Using special value of HE field to indicate end of an SDU for RLC AM	CR	3029	25.331 Rel-7	Ericsson, Nokia, NSN, Samsung	Mr. Janne Peisa	05.16: TEI7
agreed	R2-072282	T305 timer in RRC container at SRNS relocation	CR	3030	25.331 Rel-7	huawei		05.16: TEI7
agreed	R2-072283	Introduction of enhanced F-DPCH	CR	3031	25.331 Rel-7	Qualcomm Europe	Mr. Etienne Chaponnière	05.16: TEI7
agreed	R2-072284	Introducing 16QAM uplink support	CR	2982	5	QUALCOMM Europe	Dr. Nathan Tenny	05.08: 16 QAM UL
agreed	R2-072285	Introducing 16QAM uplink support	CR	311	2	25.321 Rel-7	QUALCOMM Europe	05.08: 16 QAM UL
agreed	R2-072286	A-GNSS in UTRAN (RRC)	CR	3032	25.331 Rel-7	Orange, Alcatel-Lucent, Nokia	Mr. Alain Abinakhoul	05.13: GNSS in UTRAN
agreed	R2-072287	GANSS support to UE capabilities	CR	160	25.306 Rel-7	Orange, Alcatel-Lucent, Nokia	Mr. Alain Abinakhoul	05.13: GNSS in UTRAN 05.03.1: FDD Enhanced Uplink
agreed	R2-072288	RLC PDU Size for maximisation of data	CR	320	25.321 Rel-6	NEC		
agreed	R2-072289	Introducing 16QAM uplink support	CR	151	2	25.306 Rel-7	QUALCOMM Europe	05.08: 16 QAM UL
agreed	R2-072290	MBMS Notification	CR	3033	25.331 Rel-6	Ericsson		05.03.2: MBMS
agreed	R2-072291	LS to RAN on Release-7 dependencies				Samsung, Ericsson, Motorola, Nokia, NSN	Mr. Gert-Jan van Lieshout	05: UTRA/UTRAN
agreed	R2-072292	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	CR	94	1	25.993 Rel-7	Alcatel-Lucent	05.03: Release 6 corrections
agreed	R2-072293	Clarification for control of E-RUCCH transmission in LCR TDD	CR	321	25.321 Rel-7	ZTE, CATT, TD TECH		05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072294	Addition of E-DCH Scheduling Information Power Offset in TDD mode	CR	3034	25.331 Rel-7	ZTE, CATT		05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072295	Corrections to tabular for non-scheduled transmission for LCR TDD	CR	3035	25.331 Rel-7	CATT, TD-Tech, ZTE	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072296	Some Small Editorial Corrections to TS 25.321	CR	322	25.321 Rel-7	CATT	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072297	Introduction of PRACH configuration in protocol messages triggering E-DCH serving cell change in LCR TDD system	CR	3036	25.331 Rel-7	ZTE, CATT		05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072298	Some clarifications related to E-DCH Scheduling Information in TDD mode	CR	324	25.321 Rel-7	ZTE, CATT		05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072299	Some corrections for LCR TDD EUL to TR 30.302	CR	1	30.302 Rel-7	CATT, TD-Tech, ZTE	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072300	Correction to definition of maxNumE-AGCH for TDD	CR	3037	25.331 Rel-7	CATT, IPWireless	Mrs. Haiyang Quan	05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072301	Introduction of E-TFC Selection for 1.28Mcps TDD	CR	323	25.321 Rel-7	ZTE, CATT, TD TECH		05.14: 1.28 Mcps TDD Enhanced Uplink
agreed	R2-072302	Correction to definition of Power Resource Related Information (TDD only)	CR	3038	25.331 Rel-7	IPWireless, CATT		05.16: TEI7
agreed	R2-072303	(R3-071174, to RAN2). LS on RAN WG3 updates to 36.300				RAN WG3		04.01: Incoming LS on LTE
agreed	R2-072304	Introducing 16QAM uplink support	CR	2982	6	QUALCOMM Europe	Dr. Nathan Tenny	05.08: 16 QAM UL
agreed	R2-072305	Introduction of HS-DSCH reception in CELL_FACH, URA_PCH and CELL_PCH	CR	3003	2	25.331 Rel-7	Nokia Siemens Networks, Nokia	05.04: Enhanced CELL_FACH state in FDD

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agreed	R2-072306	UE capabilities for Enhanced CELL_FACH	CR	161	25.306 Rel-7	Nokia Siemens Networks, Nokia		05.04: Enhanced CELL_FACH state in FDD
agreed	R2-072307	Introduction of Improved L2 support for high data rates	CR	3025	1 25.331 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
agreed	R2-072308	Introduction of Improved L2 support for high data rates	CR	309	2 25.322 Rel-7	Ericsson	Mr. Janne Peisa	05.05: Improved L2 support for high data rates
approved LS	R2-072309	User Plane Data Handling at Handover				Nokia Siemens Networks	Mr. Benoist Sébire	04.11.1: Intra LTE
	R2-072310	LS to SA2, SA3 on Service Request for LTE/SAE				Alcatel-Lucent		07: Liaison and output to other groups
	R2-072311	UE procedures in idle mode for LTE: Text proposal				Nokia Siemens Networks		04.14.5: Cell selection & reselection
	R2-072312	EUTRA RLC Specification				NTT DoCoMo, Inc.		04.14.4: RLC
agreed	R2-072313	MBMS FDD and TDD Physical Layer Improvements	CR	27	4 25.346 Rel-7	, LG Electronics Inc., IP Wireless., IPMobile, UTStarcom	Mr. Patrick Fischer	05.10: MBMS FDD Physical layer Enhancements, 05.11: MBMS TDD Physical layer Enhancements
	R2-072314	MBMS Agreements				Nokia, Nokia Siemens Networks, Samsung	Mr. Benoist Sébire	04.12: LTE MBMS
	R2-072315	LS to RAN1 on MBMS FDD and TDD Physical Layer Improvements				LG Electronics		07: Liaison and output to other groups
	R2-072316	LS on user plane handling for LTE				NEC	Mr. Benoist Sébire	07: Liaison and output to other groups
content agreed	R2-072317	MBMS Agreements				Nokia, Nokia Siemens Networks, Samsung		04.12: LTE MBMS
	R2-072318	LS to RAN1 on Quality reporting				LG Electronics		07: Liaison and output to other groups
	R2-072319	Support for DL only SFN operation for MBMS FDD	CR		25.346 Rel-7	Ericsson		05.11: MBMS TDD Physical layer Enhancements
	R2-072320	Support for DL only SFN operation for MBMS FDD	CR		25.331 Rel-7	Ericsson		05.11: MBMS TDD Physical layer Enhancements
	R2-072321	Support for DL only SFN operation for MBMS FDD	CR		25.306 Rel-7	Ericsson		05.11: MBMS TDD Physical layer Enhancements
approved LS	R2-072322	Reply LS to RAN3 on Clarification on two scenarios "Enhanced fromBroadcast over Iur"				Alcatel-Lucent		07: Liaison and output to other groups
agreed	R2-072323	MBMS Scheduling Information	CR	3039	25.331 Rel-7	Motorola	Mr. Richard Burbidge	05.03.2: MBMS
	R2-072324	Text Proposal for UL Scheduling				CATT, Elektrobit, Ericsson, Fujitsu, ITRI, LGE, Mitsubishi, Nokia, Nokia Siemens Networks, NTT DoCoMo, Samsung	Mr. Benoist Sébire	
	R2-072325	System information structure (with TP)				Samsung	Mr. Himke van der Velde	04.05: System Information content & delivery
approved LS	R2-072326	LS on user plane handling for LTE				NEC		07: Liaison and output to other groups
email agreement	R2-072327	Clarification on E-DCH Scheduled Grant Payload Calculation	CR	325	25.321 Rel-6	Ericsson	Mr. Janne Peisa	05.03.1: FDD Enhanced Uplink
email agreement	R2-072328	Clarification on E-DCH Scheduled Grant Payload Calculation	CR	326	25.321 Rel-7	Ericsson	Mr. Janne Peisa	05.03.1: FDD Enhanced Uplink
agreed	R2-072329	RLC PDU Size for maximisation of data	CR	327	25.321 Rel-7	NEC		05.03.1: FDD Enhanced Uplink
email agreement	R2-072330	MBMS Notification	CR	3040	25.331 Rel-7	Ericsson		05.03.2: MBMS

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agreed	R2-072331	Minor correction on MBMS text	CR 3041	25.331 Rel-7	ZTE	Mr. Zhongda Du	05.03.2: MBMS
agreed	R2-072332	MSCH transmission - alignment to stage 3 Changes to management-, handover-, paging- and NAS functions, node- and MBMS content synchronization, X2 UP protocol stack, and X2 inter cell load management	CR 0029	25.346 Rel-6	Motorola	Mr. Richard Burbidge	05.03.2: MBMS
agreed	R2-072333	LS to RAN1 on Quality reporting	CR 0001	36.300 Rel-8	RAN WG3		04: LTE
approved LS	R2-072334	Reply LS to RAN1 on physical layer aspects of enhanced CELL_FACH in FDD			RAN2		07: Liaison and output to other groups
approved LS	R2-072335	LS to SA4 on Physical layer enhancements for MBMS			RAN2		07: Liaisons and outputs to other groups
approved LS	R2-072336	Independence versus coupling of UL/DL bit rate capability in LTE			QualcommHuawei		07: Liaison and output to other groups
email agreement	R2-072337	Update on Mobility, Security, MBMS, Random Access Procedure, etc...	CR 0002	36.300 Rel-8	Nokia Siemens Networks		04.09: UE Capabilities
email agreement	R2-072338						04: LTE

Annex C: list of agreed CRs ~~(please check)~~

agreed	R2-072281	Using special value of HE field to indicate end of an SDU for RLC AM	CR 3029	25.331 Rel-7		Ericsson, Nokia, <u>Nokia Siemens Networks</u> , Samsung
email agreement	R2-072342	T305 timer in RRC container at SRNS relocation	CR 3030	1 25.331 Rel-7		huawei
agreed	R2-072341	A-GNSS in UTRAN (RRC)	CR 3032	1 25.331 Rel-7		Orange, Alcatel-Lucent, Nokia, <u>SiRF, Global Locate</u>
email agreement	R2-072340	MBMS Notification	CR 3033	1 25.331 Rel-6		Ericsson
email agreement	R2-072327	Clarification on <u>calculation of "Scheduled Grant Payload" E-DCH-Scheduled Grant Payload Calculation</u>	CR 325	25.321 Rel-6		Ericsson
email agreement	R2-072328	Clarification on <u>calculation of "Scheduled Grant Payload" E-DCH-Scheduled Grant Payload Calculation</u>	CR 326	25.321 Rel-7		Ericsson
email agreement	R2-072330	MBMS Notification	CR 3040	25.331 Rel-7		<u>Nokia, Nokia Siemens Networks, Ericsson, Motorola, Qualcomm, Vodafone, Infineon Technologies</u> Ericsson
agreed	R2-071623	Independence versus coupling of UL/DL bit rate capability in LTE				Huawei
agreed	R2-071632	"Maximum_Serving_Grant" setting at TTI change	CR 317	25.321 Rel-7		Panasonic
agreed	R2-071632	RRC Cellid encoding alignment on RANAP	CR 2993	25.331 Rel-7		Alcatel-Lucent
agreed	R2-071638	Alignment of tabular to ASN.1 for SIB11/SIB12 and event 1J	CR 3002	25.331 Rel-7		NEC

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agreed	R2-071639	PDCP reinitialisation at SRNS relocation	CR	302	25.323	Rel-7	Alcatel-Lucent
agreed	R2-071640	Correction <del>to</del> Out of Sequence Reception function	CR	307	25.322	Rel-7	NEC
agreed	R2-071680	Signalling connection release at T314/315 expiry	CR	2994	25.331	Rel-7	Motorola
agreed	R2-071682	Cell Update Confirm with RLC re-establish indicator	CR	2995	25.331	Rel-7	Motorola
agreed	R2-071691	Introduction of HS-DSCH operation in CELL_FACH state	CR	156	25.304		Nokia Siemens Networks, Nokia LG Electronics Inc., SAMSUNG
agreed	R2-071760	<del>CR0308 to 25.322</del> DAR over CCCH	CR	308	25.322	Rel-7	
agreed	R2-071862	S-CCPCH and PCH channel selection for Band IV or Band IX or Band X	CR	157	25.304	Rel-7	Nokia Siemens Networks
agreed	R2-071866	Initialisation of CFN calculation for CELL_FACH	CR	2999	25.331	Rel-7	Nokia Siemens Networks
agreed	R2-071868	Feature Clean Up leftover: Removal of DRAC leftover	CR	2998	25.331	Rel-7	Nokia Siemens Networks
agreed	R2-071898	Correction of STTD Indicator for F-DPCH Tx Diversity	CR	2996	25.331	Rel-7	Ericsson
agreed	R2-071899	Introduction of GAN PS handover	CR	156	25.306	Rel-7	Ericsson
agreed	R2-071900	Introduction of GAN PS handover	CR	2997	25.331	Rel-7	Ericsson
agreed	R2-071933	PLMN selection ping-pong control	CR	3000	25.331	Rel-7	Nokia, 3, Ericsson, Motorola, NSN
agreed	R2-071934	PLMN selection ping-pong control	CR	158	25.304	Rel-7	Nokia, 3, Ericsson, Motorola, <a href="#">Nokia Siemens Networks</a> <a href="#">RITT, CMCC, TD Tech,</a> <a href="#">CATT, ZTE corporation,</a> <a href="#">Spreadtrum</a> <a href="#">Communications</a> <a href="#">TD Tech</a> <a href="#">Ltd.</a>
agreed	R2-072031	<del>1.28Mcps TDD MBMS physical layer improvements related changes</del> <del>CR to 25.905 V7.0.0 for supporting LCR TDD MBSFN operation</del> Optimization of switching between MBMS broadcast TV channels transmitted on ptp bearers (MBMS for Mobile TV)	CR	1	25.905	Rel-7	
agreed	R2-072042	Use of Integrity protection algorithm UIA/2: removal of a 'shall' in a note	CR	3001	25.331	Rel-7	NEC, Ericsson
agreed	R2-072069		CR	2992	25.331	Rel-7	ETSI MCC
agreed	R2-072162	Introduction of Enhanced CELL_FACH state in FDD	CR	179	1	25.302	Nokia Siemens Networks, Nokia RITT, CMCC, CATT, TD- Tech, ZTE, Spreadtrum Communications
agreed	R2-072201	Introduce MBMS LCR TDD Physical Layer Enhancement <del>to TR-25.905</del>	CR	2	25.905	Rel-7	Nokia Siemens Networks, Nokia
agreed	R2-072216	Introduction of Enhanced CELL_FACH state in FDD	CR	84	1	25.301	
agreed	R2-072218	MBMS Scheduling Information	CR	3005	25.331	Rel-6	Motorola
agreed	R2-072219	MSCH transmission - alignment to stage 3	CR	28	25.346	Rel-6	Motorola
agreed	R2-072220	Minor correction on <del>MBMS</del> text	CR	3006	25.331	Rel-6	<a href="#">ZTE, Ericsson</a>
agreed	R2-072221	Maintenance of PMM connection for MBMS PTP reception	CR	3007	25.331	Rel-6	Ericsson
agreed	R2-072223	Maintenance of PMM connection for MBMS PTP reception	CR	3008	25.331	Rel-7	Ericsson
agreed	R2-072224	Correction to the Introduction of Improved L2 support for high data rates	CR	85	25.301	Rel-7	Ericsson
agreed	R2-072230	Content of MSI message when sent on DCCH	CR	3009	25.331	Rel-6	Ericsson
agreed	R2-072231	Content of MSI message when sent on DCCH	CR	3010	25.331	Rel-7	Ericsson
agreed	R2-072232	Relative ordering of MBMS Selected Services when indicated to the network	CR	3011	25.331	Rel-6	Ericsson

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agreed	R2-072233	Relative ordering of MBMS Selected Services when indicated to the network	CR	3012		25.331 Rel-7	Ericsson
agreed	R2-072234	Background scan during MBMS PTM reception	CR	3013		25.331 Rel-7	Ericsson
agreed	R2-072235	Default MBMS activation time and 'MBMS all unmodified p-t-m services'	CR	3014		25.331 Rel-6	Nokia
agreed	R2-072236	Default MBMS activation time and 'MBMS all unmodified p-t-m services'	CR	3015		25.331 Rel-7	Nokia
agreed	R2-072238	Problem with the IE 'MBMS service identity' included in the IE 'RAB info'	CR	3016		25.331 Rel-6	Ericsson
agreed	R2-072239	Problem with the IE 'MBMS service identity' included in the IE 'RAB info'	CR	3017		25.331 Rel-7	Ericsson
agreed	R2-072245	<a href="#">Support of RFC 3095 (ROHC) Compression</a> <del>ReHC-Compression-Status</del>	CR	157		25.306 Rel-6	Ericsson Nokia, Nokia Siemens Networks
agreed	R2-072246	<a href="#">Support of RFC 3095 (ROHC) Compression</a> <del>ReHC-Compression-Status</del>	CR	158		25.306 Rel-7	Nokia, Nokia Siemens Networks
agreed	R2-072247	Correction of SRB delay	CR	3018		25.331 Rel-6	NEC
agreed	R2-072248	Correction of SRB delay	CR	3019		25.331 Rel-7	NEC
agreed	R2-072249	Update of normative references for Robust Header Compression (RFC3095)	CR	303		25.323 Rel-6	Ericsson
agreed	R2-072250	Update of normative references for Robust Header Compression (RFC3095)	CR	304		25.323 Rel-7	Ericsson
agreed	R2-072251	Incorrect reference to 25.993 for default configuration 17	CR	3020		25.331 Rel-6	Ericsson
agreed	R2-072252	Incorrect reference to 25.993 for default configuration 17	CR	3021		25.331 Rel-7	Ericsson
agreed	R2-072253	Removal of redundant IE 'MBMS-PreferredFreqRequest-r6'	CR	3022		25.331 Rel-7	Ericsson
agreed	R2-072254	Correction to CTFC for default configuration 12	CR	3023		25.331 Rel-6	NEC
agreed	R2-072255	Correction to CTFC for default configuration 12	CR	3024		25.331 Rel-7	NEC
agreed	R2-072258	Introduction of Improved L2 support for high data rates and Enhanced CELL_FACH state	CR	318	3	25.321 Rel-7	Ericsson, Nokia, NSN
agreed	R2-072262	Introduction of two DRX schemes in <a href="#">URACELL_PCH</a> and <a href="#">CELLURA_PCH</a>	CR	3004	1	25.331 Rel-7	Nokia Siemens Networks, Nokia <a href="#">IPWireless</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a> , <a href="#">Orange</a> , <a href="#">RITT</a> , <a href="#">CMCC</a> , <a href="#">CATT</a> , <a href="#">TD Tech</a> , <a href="#">ZTE</a> , <a href="#">Spreadtrum Communications</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IP Wireless</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a>
agreed	R2-072263	MBMS FDD and TDD Physical Layer Improvements	CR	159		25.304 Rel-7	<a href="#">IPWireless</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a> , <a href="#">Orange</a> , <a href="#">RITT</a> , <a href="#">CMCC</a> , <a href="#">CATT</a> , <a href="#">TD Tech</a> , <a href="#">ZTE</a> , <a href="#">Spreadtrum Communications</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IP Wireless</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a>
agreed	R2-072264	MBMS FDD and TDD Physical Layer Improvements	CR	159		25.306 Rel-7	<a href="#">IPWireless</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a> , <a href="#">Orange</a> , <a href="#">RITT</a> , <a href="#">CMCC</a> , <a href="#">CATT</a> , <a href="#">TD Tech</a> , <a href="#">ZTE</a> , <a href="#">Spreadtrum Communications</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IP Wireless</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a>
agreed	R2-072265	MBMS <del>F</del> TDD and <del>F</del> TDD Physical Layer Improvements	CR	3026		25.331 Rel-7	<a href="#">IPWireless</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a> , <a href="#">Orange</a> , <a href="#">RITT</a> , <a href="#">CMCC</a> , <a href="#">CATT</a> , <a href="#">TD Tech</a> , <a href="#">ZTE</a> , <a href="#">Spreadtrum Communications</a> , <a href="#">LG Electronics Inc.</a> , <a href="#">IP Wireless</a> , <a href="#">IPMobile</a> , <a href="#">UTStarcom</a>

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agreed	R2-072266	Corrections on modulus base in UM in RLC	CR	310	25.322	Rel-6	Eletronics Inc., IP Wireless, IPMobile, UTStarcom
agreed	R2-072267	Corrections on modulus base in UM in RLC	CR	311	25.322	Rel-7	ASUSTeK
agreed	R2-072270	HSPA RAB Combinations	CR	96	25.993	Rel-7	Nokia Siemens Networks, T-Mobile
agreed	R2-072271	Additional HSPA RAB Combinations	CR	97	25.993	Rel-7	Nokia Siemens Networks
agreed	R2-072276	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	319	25.321	Rel-7	Ericsson, LG Electronics <u>Inc.</u> , Samsung
agreed	R2-072277	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	22	25.308	Rel-7	Ericsson, LG Electronics <u>Inc.</u> , Samsung
agreed	R2-072278	Introduction of Wait time to Cell Update Confirm	CR	3027	25.331	<u>Rel-7</u>	Nokia Siemens Networks, Nokia
agreed	R2-072279	Removing the limitation of SRNC identity size	CR	3028	25.331	<u>Rel-7</u>	Nokia Siemens Networks
agreed	R2-072280	Using special value of HE field to indicate end of an SDU for RLC AM	CR	312	25.322	Rel-7	Ericsson, Nokia, NSN, Samsung
agreed	R2-072283	<u>Support for signalling of F-DPCH slot formats</u> Introduction of enhanced F-DPCH	CR	3031	25.331	Rel-7	Qualcomm Europe
agreed	R2-072284	Introducing 16QAM uplink support	CR	2982	5		QUALCOMM Europe
agreed	R2-072285	Introducing 16QAM uplink support	CR	311	2	25.321 Rel-7	QUALCOMM Europe
agreed	R2-072287	GANSS support to UE capabilities	CR	160	25.306	Rel-7	Orange, Alcatel-Lucent, Nokia, <u>SIRF</u>
agreed	R2-072288	<u>Recommandation on RLC PDU size selection on E-DCH</u> RLC PDU Size for maximisation of data	CR	320	25.321	Rel-6	NEC
agreed	R2-072289	Introducing 16QAM uplink support	CR	151	2	25.306 Rel-7	QUALCOMM Europe
agreed	R2-072292	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	CR	94	1	25.993 Rel-7	Alcatel-Lucent
agreed	R2-072293	Clarification for control of E-RUCCH transmission in LCR TDD	CR	321	25.321	Rel-7	ZTE, CATT, TD TECH
agreed	R2-072294	Addition of E-DCH Scheduling Information Power Offset in TDD mode	CR	3034	25.331	Rel-7	ZTE, CATT
agreed	R2-072295	Corrections to tabular for non-scheduled transmission for LCR TDD	CR	3035	1	25.331 Rel-7	CATT, TD-Tech, ZTE
agreed	R2-072296	Some Small Editorial Corrections to TS 25.321	CR	322	25.321	Rel-7	CATT
agreed	R2-072297	Introduction of PRACH configuration in <u>protecol</u> messages triggering E-DCH serving cell change in LCR TDD <u>modesystem</u>	CR	3036	25.331	Rel-7	ZTE, CATT
agreed	R2-072298	Some clarifications related to E-DCH Scheduling Information in TDD mode	CR	324	25.321	Rel-7	ZTE, CATT
agreed	R2-072299	Some corrections for LCR TDD EUL <u>to TR-30-302</u>	CR	0001	30.302	Rel-7	CATT, TD-Tech, ZTE
agreed	R2-072300	Correction to definition of maxNumE-AGCH for TDD	CR	3037	25.331	Rel-7	CATT, IPWireless
agreed	R2-072301	Introduction of E-TFC Selection for 1.28Mcps TDD	CR	323	25.321	Rel-7	ZTE, CATT, TD TECH
agreed	R2-072302	Correction to definition of Power Resource Related Information (TDD only)	CR	3038	25.331	Rel-7	IPWireless, CATT
agreed	R2-072304	Introducing 16QAM uplink support	CR	2982	6	<u>25.331 Rel-7</u>	QUALCOMM Europe
agreed	R2-072305	Introduction of HS-DSCH reception in CELL_FACH, URA_PCH and CELL_PCH	CR	3003	2	25.331 Rel-7	Nokia Siemens Networks, Nokia
agreed	R2-072306	UE capabilities for <u>HS-DSCH reception in CELL_PCH, URA_PCH and</u>	CR	161	25.306	Rel-7	Nokia Siemens Networks,



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		<u>CELL_FACH states Enhanced-CELL_FACH</u>						Nokia
agreed	R2-072307	Introduction of Improved L2 support for high data rates	CR	3025	1	25.331	Rel-7	Ericsson
agreed	R2-072308	Introduction of Improved L2 support for high data rates	CR	309	2	25.322	Rel-7	Ericsson
								<u>IPWireless, LG Electronics Inc., IPMobile, UTStarcom, Orange, RITT, CMCC, CATT, TD Tech, ZTE, Spreadtrum Communications, LG Eletronics Inc., IP Wireless, IPMobile, UTStarcom</u>
agreed	R2-072313	MBMS <u>F</u> IDD and <u>T</u> IDD Physical Layer Improvements	CR	27	4	25.346	Rel-7	<u>Nokia, Nokia Siemens Networks, Samsung</u>
agreed	<u>R2-072317</u>	<u>MBMS Agreements</u>						
agreed	R2-072323	MBMS Scheduling Information	CR	3039		25.331	Rel-7	Motorola
		<u>Recommendation on RLC PDU size selection on E-DCH RLC PDU Size for maximisation of data</u>						
agreed	R2-072329	Minor correction on MBMS text	CR	0327		25.321	Rel-7	NEC
agreed	R2-072331	MSCH transmission - alignment to stage 3	CR	3041		25.331	Rel-7	ZTE, <u>Ericsson</u>
agreed	R2-072332	<u>Changes to management-, handover-, paging- and NAS functions, node-synchronization, X2 UP protocol stack, X2 inter cell load management, IP fragmentation, intra-LTE HO, and TA relation to cells in eNB</u>	CR	0029		25.346	Rel-6	Motorola
		<u>Changes to management-, handover-, paging- and NAS functions, node- and MBMS content synchronization, X2 UP protocol stack, and X2 inter-cell load management</u>						
agreed	<u>R2-072344</u> <u>2333</u>	Measurement reporting, state transitions, and DRX in enhanced CELL_FACH state	CR	0001	<u>1</u>	36.300	Rel-8	RAN WG3
agreed	R2-072261	Additional DCH RAB Combinations	CR	0021	1	25.308		Nokia Siemens Networks, Nokia
Technically endorsed	R2-072269	Update on Mobility, Security, <u>MBMS</u> , Random Access Procedure, etc...	CR	0095		25.993	Rel-7	Nokia Siemens Networks, T-Mobile
email	R2-072338	Removing an incomplete optimization for RLC operations during HSDPA cell change	CR	0002		36.300	Rel-8	Nokia Siemens Networks
agreement	<u>R2-072275</u>		CR	<u>306</u>	<u>1</u>	<u>25.322</u>	Rel-7	<u>Ericsson, LG Electronics Inc, Samsung</u>
agreed	<u>R2-072339</u>	<u>Update on MBMS</u>	CR	<u>0003</u>		<u>36.300</u>	Rel-8	<u>Nokia Siemens Networks</u>

Annex D: Table of Outgoing LSs to 3GPP groups

NUMBER	TITLE	RAN	R1	R3	R4	R5	SA	S1	S2	S3	S4	S5	CT	CT1	CT3	CT4	GERAN	GERAN1	GERAN2
R2-072186	LS on System Information		to																
R2-072268	LS on Introduction of Additional DCH RAB Combinations into 25.993		to																
R2-072188	LS on neighbour cell lists and reading neighbour cell P-BCH		to		to														
R2-072191	Reply LS on Verification of security principles			cc					cc	to	to								
R2-072194	Reply LS on LTE MBMS and PDCP			to					cc										
R2-072189	LS on further questions on Rate-Adaptive Real-time Media							to	cc		to								
R2-072193	LS on LTE latency analysis	to	cc	cc															
R2-072310	LS on Service Request for SAE/LTE								to	to				cc					
R2-072326	LS on U-Plane handling during inter eNB handovers			to					to										
R2-072334	Receiver performance and enhanced CELL_FACH state		cc		to														
R2-072335	LS on physical layer aspects of Enhanced CELL_FACH state in FDD		to																
R2-072336	LS on Physical layer enhancements for MBMS										to								
R2-072215	LS on feasibility of GAN enhancements			cc					cc					cc			to		
R2-072322	Reply LS LS on Clarification on two scenarios "Enhanced Broadcast over Iur"			to															
R2-072291	LS on Release-7 feature dependencies	to																	

The outgoing Liaison Statements are also be available at:  
[tsg\\_ran/WG2\\_RL2/Outgoing\\_Liaisons/TSGR2\\_58](http://tsg_ran/WG2_RL2/Outgoing_Liaisons/TSGR2_58)

Annex **ED**: Meeting schedule

## Future WG2 and RAN plenary meetings:

Year	Meeting	Dates	Location	Country	Host
2004	RAN#24	02-04 June	Seoul	Korea	TTA
	WG2#43	16-20 Aug	Prague	Czech Republic	European Friends of 3GPP
	RAN#25	08-10 Sep	Palm Springs	USA	NA Friends of 3GPP
	WG2#44	04-08 Oct	Sophia-Antipolis	France	ETSI
	WG2#45	15-19 Nov	Shin-Yokohama	Japan	Japanese Friends of 3GPP
	RAN#26	07-10 Dec	Athens	Greece	European Friends of 3GPP
2005	WG2#45bis	10-14 Jan	Sophia-Antipolis	France	ETSI
	WG2#46	14-18 Feb	Scottsdale	USA	
	RAN#27	09-11 Mar	Tokyo	Japan	
	WG2#46bis	04-08 April	Beijing	China	Huawei
	WG2#47	09-13 May	Athens	Greece	EF3
	RAN#28	01-03 June	Quebec	Canada	
	WG2#48	29 Aug – 02 Sep	London	UK	EF3
	RAN#29	21-23 Sep	Tallin	Estonia	EF3
	WG2#48bis	10-14 Oct	Cannes	France	EF3
	WG2#49	07-11 Nov	Seoul	Korea	Samsung
	RAN#30	30 Nov – 02 Dec	St Julian	Malta	EF3
	WG2#50	09-13 Jan	Sophia-Antipolis	France	ETSI
	2006	WG2#51	13 - 17 Feb	Denver, Colorado	US
(Joint session RAN2-RAN3-SA2)		20 - 21 Feb	Denver, Colorado	US	NA Friends of 3GPP
RAN#31		08 – 10 March		China	
WG2#52		27 - 31 March	Athens	Greece	EF3
WG2 Ad-hoc		01-02 May	Espoo	Finland	Nokia
WG2#53		08 - 12 May	Shanghai	China	Datang
RAN#32		31 May - 02 June	Warsaw	Poland	EF3
WG2 LTE Ad-hoc		27 - 30 June	Cannes	France	EF3
WG2#54		28 Aug - 01 Sept	Estonia	Tallin	EF3
RAN#33		19 - 22 Sep	US	Palm Springs	NA Friends of 3GPP
WG2#55		09-13 October 2006	Seoul	Korea	Samsung
WG2#56		06 - 10 Nov	Riga	Latvia	EF3
RAN#34		29 Nov - 01 Dec	Budapest		EF3
2007		Workshop with GERAN, SA and SA1 on GSM LTE handovers	10-11 Jan	Sophia-Antipolis	France

Draft1 minutes of the 58<sup>th</sup> TSG-RAN WG2 meeting

	WG2#56bis	15-19 Jan	Sorrento	Italy	EF3
	WG2#57	12-16 Feb	Saint Louis, Missouri	US	NA Friends of 3GPP
	RAN#35	06-09 March	Lemosos	Chypre	EF3
	WG2#57bis	27-30 March	St Julians	Malta	EF3
	WG2#58	07-11 May 2006	Kobe	Japan	Japanese friends of 3GPP
	RAN#36	29 May - 01 June	Busan	Korea	
	WG2#58bis	25-29 June	Orlando	US	NA Friends of 3GPP
	WG2#59	20-24 August 2006	Athens	Greece, Europe	
	RAN#37	11-14 September	Riga	Latvia	
	WG2#59bis	08-12 October		China	Huawei
	WG2#60	05-09 November		Korea	
	RAN#38	28-30 November	US		NA Friends of 3GPP

# Appendix F



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**Subject:** [Qualcomm documents for RAN2 #58](#)  
**From:** Francesco Grilli <francesco@QUALCOMM.COM>  
**Reply-To:** Francesco Grilli <francesco@QUALCOMM.COM>  
**Date:** Tue, 1 May 2007 21:19:54 -0700  
**Content-Type:** multipart/mixed

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**Parts/Attachments:** [text/plain](#) (54 lines) , [text/html](#) (98 lines) , [R2-071761.zip](#) (98 lines) , [R2-071762.zip](#) (98 lines) , [R2-071763.zip](#) (98 lines) , [R2-071764.zip](#) (98 lines) , [R2-071765.zip](#) (98 lines) , [R2-071766.zip](#) (98 lines) , [R2-071767.zip](#) (98 lines) , [R2-071784.zip](#) (98 lines) , [R2-071787.zip](#) (98 lines) , [R2-071800.zip](#) (98 lines) , [R2-071801.zip](#) (98 lines) , [R2-071803.zip](#) (98 lines) , [R2-071804.zip](#) (98 lines) , [R2-071805.zip](#) (98 lines) , [R2-071806.zip](#) (98 lines) , [R2-071990.zip](#) (98 lines) , [R2-071991.zip](#) (98 lines) , [R2-071992.zip](#) (98 lines) , [R2-071993.zip](#) (98 lines) , [R2-071994.zip](#) (98 lines) , [R2-072017.zip](#) (98 lines) , [R2-072018.zip](#) (98 lines) , [R2-072019.zip](#) (98 lines) , [R2-072020.zip](#) (98 lines) , [R2-072021.zip](#) (98 lines) , [R2-072022.zip](#) (98 lines) , [R2-072023.zip](#) (98 lines) , [R2-072024.zip](#) (98 lines)

Dear All,

Please find attached the following documents for RAN2 #58.

#### From Qualcomm Europe and Nokia

R2-071764 Proposed CR to TS 25.331 [Rel-7] on Change of UE capability

#### From Qualcomm Europe

- R2-071761 DRAFT CR to TS 25.331 [Rel-7] on Introducing 16QAM uplink support
- R2-071762 Scheduling of D-BCH
- R2-071763 Structure of BCH
- R2-071765 E-MBMS scheduling
- R2-071766 Text proposal on measurement gap scheduling
- R2-071767 HSPA VoIP Service Continuity in Rel-7
- R2-071772 CPC parameter ranges
- R2-071784 Open items with release 7 UE categories
- R2-071787 HS-SCCH less operation for Enhanced Paging reception
- R2-071800 Protocol termination for HO signalling
- R2-071801 Considerations on RRC re-establishment
- R2-071803 Considerations on SRB establishment
- R2-071804 Camping load balancing in LTE
- R2-071805 Optimization for Tracking Area Update signalling
- R2-071806 UE capability handling in LTE
- R2-071990 DRX procedure for VoIP
- R2-071991 Content of Message 2
- R2-071992 High Level Comparison of Handover in GSM, UMTS and LTE
- R2-071993 LTE Intra/Inter-RAT handover algorithms for LTE\_ACTIVE state

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# Appendix G



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**Subject:** [\[RAN2#58\] Another Samsung contribution](#) [Reply](#)  
**From:** Himke Vandervelde <himke.vandervelde@SAMSUNG.COM>  
**Reply-To:** Himke Vandervelde <himke.vandervelde@SAMSUNG.COM>  
**Date:** Thu, 3 May 2007 16:43:20 +0200  
**Content-Type:** multipart/mixed  
**Parts/Attachments:** [text/plain](#) (21 lines) , [text/html](#) (83 lines) , [R2-071911.zip](#) (83 lines)

Dear RAN2 colleagues,

Please find attached the following Samsung contribution for RAN2#58.

[R2-071911](#)                      System Information structure                      4.5                      Samsung

My apologies for the late distribution.

With kind regards, Himke

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# Appendix H

(TSG-RAN WG2 meeting #58  
07-11 May 2007)

R2-072131xxxx

**Title:** Draft(10) minutes of the 57bis TSG-RAN WG2 meeting  
(Malta, 26-30 March 2007).

**Document for:** ApprovalComments

**Source:** 3GPP support team

Please send your last comments by the 23<sup>rd</sup> April 2007

**02<sup>nd</sup> April 2007, Last modified 04 May 2007.**

Claude Arzelier  
ETSI Mobile Competence Centre  
F-06921 Sophia Antipolis Cedex  
Tel: +33 4 92 94 42 61  
Email: Claude.Arzelier@etsi.org

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## 1 Opening of the meeting

### 1.1 Call for IPR

Miss Agnes Revel from Motorola welcomed the participants to Malta on behalf of the EF3.  
Mr. Denis Fauconnier (Chairman) opened the meeting at 09.00 am.

The Chairman made the following IPR call:

The attention of the delegates of this Working Group was drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective Organizational Partners of Essential IPRs they become aware of.**

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

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

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN WG2 Chairman.

---

## 2 Approval of the agenda

R2-071130 RAN2-57bis Agenda

WG Chairman

Denis Fauconnier (Chairman) proposed the agenda for the meeting.

**Decision:** The agenda was approved.

---

## 3 Minutes from the previous meetings

R2-071151 Minutes of RAN2-57, 12-16 February 2007, Saint-Louis, USA

ETSI MCC

The document was revised before presentation in R2-071547:

R2-071547 Updated Minutes of RAN2-57, 12-16 February 2007, Saint-Louis, USA

ETSI MCC

The minutes were approved.

---

## 4 Reports from other groups

R2-071544 RAN Chairman report of RAN-35 to SA-35 (SP-070223)

TSG RAN Chairman

(Document provided for information).

R2-071548 (Draft2) Minutes of TSG RAN-35 meeting, Cyprus, 06-09 March 2007

ETSI MCC

(Document provided for information).

---

## 5 UTRA/UTRAN Long Term Evolution

R2-071498 Proposed work plan for LTE performance verification

Rapporteur

The document was presented by Guillaume Sebire from Nokia.

**Discussion:**

**Decision:** The way forward was approved.

Current minutes of the 57bis TSG-RAN WG2 meeting

R2-071389 LTE System Analysis of Control Plane and User Plane Latency and Handover Interruption Times  
The document was presented by Dave Fox from Vodafone.

China Mobile, KPN, NTT  
DoCoMo, Orange, Sprint,  
T-Mobile, Telecom Italia,  
Vodafone

**Discussion:**

It was clarified that the misalignment between bullet points 2 and 3 (in clause 3) was intentional: success probabilities (/requirements) may be different between the two, since retransmission schemes are different.

Subclause 4: Main requirements are in bold.

Those are minimum performance requirements.

**Decision:** The document was approved. An email discussion will be held.

## 5.1 Incoming LSs on LTE

R2-071505 (CP-070227, Cc RAN2). Reply LS (to CP-070083) on GERAN – LTE interworking  
R2-071507 (GP-070549, to RAN2). LS on GERAN – LTE interworking

TSG CT  
TSG GERAN

The documents were presented by Mr Ravi Kuchibhotla from Motorola.

**Discussion:**

R2-071507:

There are related ongoing discussions in SA2 this week.

There are related discussions on the GERAN2 reflector at the moment.

What about the UTRAN CS / LTE interworking ?

The two scenarios would fulfill the requirements, limiting the number of scenarios is always useful.

R2-071505:

Is this not more to SA to decide, than GERAN ?

Minimum UE and Network support for the functionality to work would be needed.

Drawbacks/Complexity for each scenario to work would make the picture clearer.

Scenarios 11-14 make no difference from the RAN2 viewpoint.

**Decision:** The document was noted.

R2-071508 (R1-071213, to RAN2). Reply LS (to R2-063557) on Radio efficiency for delivery of Broadcast/Multicast Services  
Himke van der Velde (Samsung) presented this document.

RAN WG1

**Discussion:**



**Current minutes of the 57bis TSG-RAN WG2 meeting**

Issue 5, neighbouring cells not providing information, was not answered. But the answer may be provided off-line as RAN WG1 is discussing this. It was reported that RAN WG1 has just decided to send an additional LS on the subject.

Indication on the number of neighbour cells required to achieve the combining would be needed.

**Decision:** The document was noted. RAN WG2 will wait for further information from RAN WG1.

R2-071510 (R1-071239, to RAN2). Reply LS (to R2-070411) on DRX interval and CQI reporting cycle in LTE RAN WG1  
Benoist Sebire (Nokia) presented this document.

**Discussion:**

Conclusion 1: reflected in the stage 2. CQI reporting cycle is equal or longer than the DRX Cycle.

R2-071511 (R1-071241, to RAN2). Reply LS (to R2-070421) on Intra-frequency vs. Inter-frequency RAN WG1  
R2-071518 (R4-070317, to RAN2). Reply LS (to R2-070421) on Intra-frequency vs. Inter-frequency RAN WG4  
Francesco Grilli (Qualcomm) presented those documents.

**Discussion:**

Gaps would be needed when bandwidths on the neighbour cells are bigger.

**Decision:** Is there significant benefits to create gaps for 'case c', in case neighbour cell bandwidth > Serving cell bandwidth ? The answer would affect whether this case would be considered as intra/inter frequency.

R2-071512 (R1-071248, to RAN2). Reply LS (to R2-070418) on non-initial cell search RAN WG1  
The document was presented by Vera Vukajlovic from Ericsson.

R2-071519 (R4-070320, to RAN2). Reply LS (to R2-070418) on Initial search RAN WG4  
The document was presented by Benoist Sebire from Nokia.

**Discussion:**

Only the case of the intra frequency was asked in the questions.

**Decision:** The document was noted. this would be technically feasible. Decision to perform these additional complexities will be taken, based on the associated benefits.

R2-071514 (R1-071250, Cc RAN2). LS on LTE measurement supporting Mobility RAN WG1  
The document was presented by Kyeong in Jeong from Samsung.

**Discussion:**

**Decision:** The document was noted.

(R3-070479, to RAN2). Reply LS (to C1-070401, R2-063683) on Radio Access Network RAN WG3  
R2-071516 Sharing in SAE/LTE  
The document was presented by Vera Vukajlovic from Ericsson.

**Current minutes of the 57bis TSG-RAN WG2 meeting**

**Discussion:**

**Decision:** The document was noted.

R2-071549 (R3-070478, Cc RAN2). Reply LS (to C1-070562) on Usage of Tracking Areas (TA) in LTE/SAE (Already stated in R2-061516).

RAN WG3

Samsung

R2-071520 (S3-070162, to RAN2). Reply LS (to R2-070420) on SIM and USIM usage in LTE/SAE

The document was presented by Magnus Lindström from Ericsson.

**Discussion:**

**Decision:** The document was noted.

SA WG3

R2-071523 (S2-071058, to RAN2). LS on MME separation Option B from SAE Gateway

The document was presented by Sudeep from Alcatel-Lucent.

**Discussion:**

**Decision:** The document was noted.

SA WG2

R2-071525 (S2-071046, Cc RAN2). LS on Location of PDCP in eNode B

The document was presented by Magnus Lindström from Ericsson.

**Discussion:**

**Decision:** The document was noted.

SA WG2

R2-071545 (R3-070509, Cc RAN2). LS on EPC update at inter eNodeB mobility

The document was presented by (...) from Alcatel-Lucent.

**Discussion:**

**Decision:** The document was noted.

RAN WG3

R2-071546 (R3-070517, Cc RAN2). Reply LS on MME / UPE Pool Areas and triggers for relocation

The document was presented by Magnus Lindström from Ericsson.

**Discussion:**

**Decision:** The document was noted.

RAN WG3

R2-071583 (R3-070700, Cc RAN2). LS on NAS Handling during intra-LTE handover

The LS was postponed for the next meeting.

RAN WG3

R2-071588 (S3-070283, to RAN2). LS on eNodeB Security

The document was presented by the Chairman.

SA WG3

Current minutes of the 57bis TSG-RAN WG2 meeting

**Discussion:**

**Decision:** The document was noted.

## 5.2 Items treated in email discussion (rapporteur report and inputs)

### 5.2.1 U-plane layer for ciphering

R2-071293 Email discussion on U-plane ciphering location for LTE  
The document was presented by Mikio Iwamura from NTT DoCoMo.

NTT DoCoMo (email rapporteur)

**Discussion:**

**Decision:** The document was noted.

R2-071241 Ciphering for the User Plane  
The document was presented by Bensoist Sebire from Nokia.

Nokia

**Discussion:**

**Decision:** The document was noted.

R2-071243 Sequence Number Handling at Handover  
The document was presented by Tsuyoshi Kashima from Nokia.

Nokia

**Discussion:**

(Sequence Number is needed only in the case of offset).

**Decision:** The document was noted.

R2-071356 Ciphering Location  
The document was presented by Magnus Lindström from Ericsson.

Ericsson

**Discussion:**

**Decision:** The document was noted.

R2-071475 Ciphering in RLC  
The document was presented by Etienne Chaponniere from Qualcomm.

Qualcomm Europe

**Discussion:**

**Decision:** The document was noted.

R2-071295 Termination of Security

Ericsson

**Current minutes of the 57bis TSG-RAN WG2 meeting**

The document was presented by Magnus Lindström from Ericsson.

**Discussion:**

**Decision:** The document was noted.

R2-071491 L2 architecture for LTE

LG Electronics Inc.

The document was presented by Young Dae Lee from LG Electronics.

**Discussion:**

It was clarified that the "double security avoidance" was stated (in the document) because the NAS could be integrity protected / ciphered by both RRC and NAS messages.

**Decision:** The four proposals (from clause 2) were agreed.

---

Summary on the subject:

Decisions needed on:

Data forwarding:

- (A) Based on PDCP sequence number; or
- (B) Assuming no PDCP sequence number, so solution without selective forwarding and repetition, but using some extra retransmissions on the radio.

Ciphering at:

- (A') PDCP. Preferred for Node-B and end-to-end security; or
- (B') RLC. Preferred for the mobile.

---

Ciphering in PDCP would lead to the use of sequence numbers.

**R2-071550** U-Plane ciphering at MAC/ciphering layer

LG Electronics

R2-071565 Draft LS on security requirements on the eNode B  
Revised and approved in R2-071566.

Ericsson

R2-071590 Way forward for ciphering location and user plane data handling  
The document was presented by Benoist Sebire from Nokia.

Nokia

**Discussion:**

One solution would be to use PDCP sequence numbers, with ciphering done at the RLC entity (i.e. the PDCP sequence number would be visible there).

**Current minutes of the 57bis TSG-RAN WG2 meeting**

**Decision:** The Chairman requested the preference of the companies. More companies expressed a preference for ciphering in the RLC. However, objections were expressed on ciphering in RLC. In the interest of progress, consensus was reached *on the decision for ciphering in PDCP: PDCP PDU, based on PDU Sequence Numbers.*

## 5.2.2 Data handling at relocation

R2-071294 Email discussion on data handling at handover

NTT DoCoMo (email rapporteur)

The document was presented by Mikio Iwamura from NTT DoCoMo.

**Discussion:**

One concern was expressed on solutions 1 and 2, since this would lead in retransmitting SDUs and wasting capacity (e.g. at cell edge, where the throughput already needs to be optimised). However, this was already discussed and there is no need to re-open those discussions: solutions 1 and 2 are direct consequences of moving the ciphering.

**Decision:** The document was noted.

R2-071236 Handover Requirements

Nokia

The document was presented by Mikio Iwamura from NTT DoCoMo.

**Discussion:**

**Decision:** The document was noted.

R2-071238 Data Forwarding at Handover

Nokia

The document was presented by Tsuyoshi Kashima from Nokia.

**Discussion:**

**Decision:** The document was noted.

R2-071289 DL User plane handling at mobility

Ericsson

The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The document was noted.

R2-071363 UL user plane handling at mobility

Ericsson

The document was presented by (...) from Ericsson.

**Discussion:**

**Decision:**  
The document was noted.

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R2-071412 On User Plane handling during inter-eNB HO NEC  
The document was presented by Jinsock Lee from NEC.  
**Discussion:**  
**Decision:** The document was noted. This is an optimisation that may be-rediscussed later, depending on future decisions.

R2-071469 Data forwarding of IP packets Qualcomm Europe  
The document was presented by Etienne Chaponniere from Flarion.  
**Discussion:**  
In-sequence delivery was decided to be required in the past, in order to maximise throughput.  
Re-ordering cannot be done below RoHC if there is not context forwarding.  
**Decision:** The document was noted. Decision on in-sequence delivery for IP applications needs to be taken.

### 5.2.3 Implicit versus explicit DRx value update, DRx mechanism

R2-071235 Summary of email discussion on implicit vs. explicit DRX control Email Rapporteur (NEC)  
The document was revised presentation in R2-071553:

R2-071553 Summary of email discussion on implicit vs. explicit DRX control Email Rapporteur (NEC)  
The document was presented by Jinsock Lee from NEC.

**Discussion:**  
Two level DRX can be seen as a signalling optimisation. Implicit transition from short to long DRX is different.  
DRX after the first packet would also be possible.  
Another solution would be to use two level DRX, using MAC signalling for transitions.  
**Decision:** See below:

---

*Chairman's summary of decisions on DRx (Monday evening):*

**Decisions in green; parts in red not agreed:**

Same DRx mechanism for both the UL or DL.

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RACH will be allowed base on some rules.

“On duration” is used in long DRx mode:

- duration where the UE “wakes up” during a long DRx opportunity. In case there is no L1/L2 control during “on duration”, UE goes back to sleep

NRT case, UE in long (or any) DRx case, what happens when UE receives DL data or UL grant:

XXXX XXXX

- Goes continuous

XX

- or
- eNB can configure UE so that it goes for short DRx and not full continuous

XXXX XXXX XXXX XXXX

NRT case, UE is continuous:

1. Stays continuous until MAC header/control message tells to goes back to any DRx value explicitly indicated in the MAC payload
2. Implicit, after non receipt for a given duration, goes to pre-defined long DRx
3. Stays continuous until MAC header/control message tells to goes back to a DRx value explicitly indicated in the MAC payload
  - a. then back to pre-defined long DRx after more inactivity
4. Implicit, after non receipt for a given duration goes for short DRx pre-configured by the eNB
  - a. then back to pre-defined long DRx after more inactivity, OR
    - For discussion in stage 3: Implicit, after non receipt for a given duration goes for longer DRx (factor pre-configured by the eNB)
      1. And so on, until a limit pre-configured

Implicit: Inactivity is detected and UE goes to longer DRx value or intermediate DRx value before long DRx (progressive DRx) (4, 5, to be looked at in stage 3). It should cope with errors e.g. DTX into ACK misdetection.

Explicit: MAC signalling tell the UE to go to DRx. It should cope with errors e.g. NACK into ACK misdetection. Details TBD  
Use of MAC signalling to bring UE in “intermediate” DRx e.g. short DRx, with implicit transition to pre-defined long DRx?

---

R2-071177	CQI handling during DRX	Samsung	Mr. Gert-Jan van Lieshout
R2-071179	DRX handling	Samsung	Mr. Gert-Jan van Lieshout

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R2-071210	DRX during continuous transmission	LG Electronics Inc.	Mr. Patrick Fischer
R2-071247	Flexible DRX Control in LTE	SHARP	
R2-071261	Hybrid DRX Control	RIM	
R2-071273	Downlink DRX and downlink HARQ interaction	NEC	
R2-071284	Evaluating DRX concepts for E-UTRAN	Nokia	Mr. Benoist Sébire
R2-071285	DRX parameters in E-UTRAN	Nokia	Mr. Benoist Sébire
R2-071286	On the need for flexible DRX	Nokia	Mr. Benoist Sébire
R2-071304	DRX management for LTE_ACTIVE	ETRI	
R2-071365	High Level Principles for DRX in LTE Active	Ericsson	Mr. Janne Peisa
R2-071382	DRX handling in LTE	Panasonic	
R2-071393	A Semi-Autonomous DRX Control Scheme for LTE_ACTIVE	Ericsson	Mr. Janne Peisa
R2-071394	CQI Reporting with regards to DRX operation	Ericsson	Mr. Janne Peisa
R2-071444	Discussion on Behaviour in DRX	LG Electronics Inc.	
R2-071445	DRX mechanism in LTE_ACTIVE UE	LG Electronics Inc.	
R2-071464	DRX principles	QUALCOMM Europe	
R2-071503	DRX control in LTE_Active	IPWireless	

Noted without presentation

Comment taken by the RAN WG2 Chairman for remaining of clause 5:

R2-071594	DRx and CQI reporting	NEC	
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## 5.2.4 BCH for LTE

R2-071270	On the issue of inter-RAT neighbouring info reduction	NEC	
R2-071213	Further details on LTE neighbouring list optimization	LG Electronics Inc.	Mr. Patrick Fischer
Noted without presentation			
R2-071296	Consideration on one-to-all Qoffset	NTT DoCoMo	
Presented noted			
R2-071401	Summary of BCH for LTE email discussion	Ericsson	Mr. Janne Peisa
Vera noted			



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##### Decisions on cell re-selection:

- LTE intra-frequency cell case: rely on detected cells (cell search)
  - Whether parameters or common or not is to be discussed; we need to look at the parameters. Need for reading neighbour cell BCH before doing the ranking is also TBD.
- LTE inter-frequency cell case: rely on sending center frequency and rely on detected cell
- Inter-RAT UTRA cell case: rely on sending center frequency and rely on detected cell
- GSM case: send the neighbour list or only the list of BCCH frequencies (range). Ask GERAN.
- In case of cell re-selection from other RAT to LTE, rely on sending center frequency and rely on detected cell
- For inter-freq & inter-RAT & to LTE case (all except intra-freq)
  - Re-selection parameters are common to all the cells on this inter-freq or inter-RAT "layer".
    - For GSM, there may be some cell specific info (TBD)
  - Need to consider the list of functions from Operators for control of cell-reselection across layers
- HCS is not necessary
- Do we need means to forbid some detected cells?
  - yes
- Do we allow to send explicit neighbour cell list for intra-frequency e.g. to speed up cell detection?
  - Yes (expected to be limited use)

##### Next steps:

- Look at the detailed intra-freq list of parameters/features => Ericsson Tdoc 1558 (thu)
- Send LS to GERAN => Vodafone Tdoc 1559
- Look at technique to forbid a detected cell => proposals already available
- Capture in the stage 2 the list of inter-layer mobility features from operators => DoCoMo Tdoc 1560 (thu)
  - Look at proposals (one by one) to fulfill these features => next meeting
- Capture agreements: provide text proposal with agreements => Samsung Tdoc 1561 (thu)

##### Decisions (Thu)

e-mail discussion on the cell re-selection parameters (Ericsson). In R2-071599.

the stage 3 will be started directly from now; Nokia will provide a draft skeleton as part of the e-mail discussion

Whether Q-offset or other information is read on the P-BCH of the neighbour cells, or read from the serving cell (white list), is still to be studied (too many companies unresolved).

R2-071561 **Draft TP on use of NCL for idle mode mobility**

Hinke

Revised in 1574

Samsung

R2-071574 **Draft TP on use of NCL for idle mode mobility**

Samsung

### 5.3 System Information content & delivery

R2-071298 BCH transmission interval in LTE  
Presented

NTT DoCoMo

R2-071481 System Information Scheduling  
Ravi

Motorola

E-mail discussion on:

1. What is the impact of extending the repetition period of the P-BCH, and as a consequence what is the appropriate repetition period of the P-BCH
2. Should the period be different for e.g. 1.25MHz
3. How should the PLMN Ids be send on BCCH
4. What are the contents of the P-BCH

In R2-071600 (Motorola).

R2-071234 Cell Access Control

Motorola

R2-071142 System information content

R2-071155 Blacklist Maintenance

R2-071156 Neighbour cell reduction using LCV

R2-071203 Structure of BCH

R2-071204 Scheduling of D-BCH

R2-071257 An operator configurable procedure for reading the scheduling units

R2-071259 System Information change indication

R2-071266 Enabling DL reception of system and control information from Intra –frequency neighbors without gaps in the serving cell

R2-071266

R2-071337 System information scheduling and change notification

R2-071339 The life cycle of the cell from UE view

R2-071342 Neighbouring cell information

R2-071343 Notification scheme of SI's Change

Panasonic

HUAWEI

HUAWEI

QUALCOMM Europe

QUALCOMM Europe

Nokia

Nokia

Texas Instruments

Inc

Samsung

Panasonic

Samsung

CATT

Mr. Francesco Grilli

Mr. Francesco Grilli

Mr. Benoist Sèbire

Mr. Benoist Sèbire

Mr. Himke van der Velde

Mr. Himke van der Velde

Mrs. Haiyang Quan

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- R2-071377 Time critical system information
- R2-071539 Scheduling of System Information

Samsung  
Ericsson

Mr. Himke van der  
Velde

## 5.4 Random access procedure

R2-071299 Contention-based and contention-free access procedures in LTE  
Presented

NTT DoCoMo

Discussion: why the RA-RNTI and not the C-RNTI

### Agreements:

Handover (when it has to start by a PRACH transmission (which may be true in all handover cases):

- Contention free (i.e. signature is allocated) and contention based are both supported. Contention based may be a fall-back in case contention free fails (TBD). If there is a timing linked to the allocation is TBD.

DL transfer during out of sync & DRX:

- Contention free (i.e. signature is allocated) and contention based are both supported. Contention based may be a fall-back in case contention free fails (TBD). If there is a timing linked to the allocation is TBD.

UL transfer during out of sync:

- Contention based.

Apart from the addressing (C-RNTI vs RA-RNTI) used in message 2, the complete proposal was agreed.

Text proposal capturing agreements will be in Tdoc 1562 => DoCoMo

R2-071174 Access Service Classes in LTE  
GJ

Samsung

Mr. Gert-Jan van  
Lieshout

Several questions

Access Barring. It was commented that we may introduce service specific barring in SA1. It was also commented that emergency calls would have access.

Similarly to UTRA, a mechanism is needed for ACTIVE mode UEs

The question is whether PRACH partitioning is needed like in UTRA?

Companies are requested to study this.

R2-071143 Random Access Preamble signatures usage  
Presented

Panasonic

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The separation of Figure 2 was discussed. The document was noted.

R2-071171 presented	Pathloss & Size in RACH signature	Samsung, NTT DoCoMo	Mr. Gert-Jan van Lieshout
R2-071264 R2-071265 Presented noted	Optimized provisioning of RACH in LTE Content of Message1 and the RACH procedure in LTE	Texas Instruments Inc Texas Instruments Inc	
R2-071322 presented	Transport format and power headroom in preamble	LG Electronics Inc.	Mr. Patrick Fischer
R2-071461 Noted without presentation	RACH signature content	QUALCOMM Europe	
The proposal is agreed, as well as the "ranges" as described in Tdoc I171. A text proposal will be provided in 1595.			
R2-071422 R2-071303 Noted without presentation	Random access with dedicated preambles at handover Non-contention based RA preamble	Ericsson ETRI	Mr. Janne Peisa
R2-071215 R2-071446 R2-071381 Noted without presentation (will be looked at in stage 3)	Allocation of a "short" C-RNTI in message 2 Clarification and optimization of message 2 On setting the C-RNTI in RACH message two	LG Electronics Inc. LG Electronics Inc. Siemens Networks	Mr. Patrick Fischer
R2-071316 Dave Noted	RACH backoff control	Siemens Networks	
R2-071184 Noted without presentation	RACH procedure(s) in E-UTRAN	IPWireless	
R2-071228 Noted without presentation	Dedicated Random Access Signatures	Motorola	

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R2-071230 Random Access Design and Procedure with Dedicated Signatures  
Noted without presentation

Motorola

R2-071237 RACH Resource Management  
Noted without presentation (will be looked at in stage 3)

Motorola

R2-071275 RACH Resource Control  
Noted without presentation

NEC

R2-071281 message 2 issue in random access procedure

R2-071308 RACH backoff control

R2-071384 Discussion on contents of message 3

R2-071386 Contention resolution in aRACH

R2-071455 Use of dedicated RACH signatures

R2-071456 Discussion on Message 4 in Random Access

R2-071492 Contention Resolution and Initial Random Access

R2-071537 Issues on Random Access Procedure

R2-071538 Optimization of RACH model

ZTE

Mr. Zhongda Du

Siemens Networks

Alcatel-Lucent, Samsung

Samsung

LG Electronics Inc.

LG Electronics Inc.

TD Tech

ASUSTeK

Mr. Sam Jiang

ASUSTeK

Mr. Sam Jiang

Tdoc 1563: Group management AI 5.5

Tdoc 1564 rev of 1390

## 5.5 Scheduling (UP and DL contributions)

### Optimisations for VoIP

R2-071535 Way Forward for DL Scheduling

Alcatel-Lucent, CATT, Elektrobit,  
ETRI, Fujitsu, ITRI, Mitsubishi, NEC,  
Nokia, NTT DoCoMo, Panasonic,  
Qualcomm, Samsung, Siemens  
Networks, Texas Instruments  
Alcatel-Lucent, CATT, Elektrobit,  
Ericsson, ETRI, Fujitsu, ITRI,  
Mitsubishi, NEC, Nokia, NTT  
DoCoMo, Panasonic, Qualcomm,  
Samsung, Siemens Networks,  
Texas Instruments

Mr. Benoist Sébire

R2-071551 Way Forward for DL Scheduling  
Benoist

Mr. Benoist Sébire

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Same text as St Louis

R2-071484 Ravi Same text as St Louis	Text proposal for DL scheduling	Freescal Semiconductor, Huawei, IP Wireless, Infineon, Interdigital, LG Electronics, Motorola, Nortel, SHARP, ZTE	
R2-071135 Presented	Concerns on the group scheduling	samsung	
R2-071225 Benoist	Performance of Grouping	Nokia	Mr. Benoist Sébire
R2-071533 Ravi	Response to R2-071225	Motorola	
R2-071462 Etienne	Comparison of persistent and group scheduling	QUALCOMM Europe	
R2-071242 Presented noted	Group Based Optimization for Signalling of Downlink Scheduling	SHARP	
R2-071368 Presented noted	Persistent DL Scheduling and VoIP	Alcatel-Lucent	Mr. Osman Aydin
R2-071460 Benoist	Uplink Scheduling for VoIP	Nokia	Mr. Benoist Sébire
R2-071536	Way Forward for UL Scheduling	CATT, Elektrobit, ETRI, Fujitsu, ITRI, LGE, Mitsubishi, NEC, Nokia, NTT DoCoMo, Qualcomm, Samsung, Siemens Networks	Mr. Benoist Sébire

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noted

R2-071483 VoIP Performance  
Ravi

Motorola

R2-071485 Text proposal for UL scheduling  
noted

Motorola,.....

R2-071292 Scheduling optimizations – way forward  
Magnus  
noted

Ericsson

Mr. Janne Peisa

R2-071534 Response to R2-071292  
Ravi  
noted

Motorola

R2-071486 Discussion on scheduling  
Ravi  
noted

Motorola,.....

R2-071227 Number of Control Symbols  
Benoist  
Noted

Nokia

Mr. Benoit Sébire

**Chairman summary on VoIP scheduling:**

**DL:**

Persistent scheduling:

- Async adaptive
  - Which UE capability?

Persistent scheduling:

- Sync non adaptive?
  - Which UE capability?

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Group scheduling synchronous (details of message encoding, need for blind TF detection, tbd)

(reduced L1/L2 message size)

Increase number of L1/L2 control channels

**UL:**

Persistent scheduling:

- Sync adaptive
  - + special mechanism?

Persistent scheduling:

- Sync non adaptive
  - + special mechanism?

Group scheduling synchronous (details of message encoding, need for blind TF detection, tbd)

Increase number of L1/L2 control channels

(reduced L1/L2 message size)

DL	1 <sup>st</sup> choice	2 <sup>e</sup> choice	
<b>Async adaptive</b>	Nokia, Siemens, DoCoMo, Ericsson, Panasonic, Samsung, TI, CATT, TD Tech, ETRI, ITRI, Fujitsu, NEC, Orange 14	Qualcomm, Alcatel-Lucent 16	
Sync non adaptive	Qualcomm, Alcatel-Lucent	Samsung, DoCoMo, TI, NEC	



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	2	6	
Group sync	Motorola, Huawei, IPW, Interdigital, ZTE, Freescale, Nortel, Marvell, Sharp, Infineon 10		
UL			
Persistent (first trans non-scheduled) sync adaptive	Nokia, Siemens, DoCoMo, Ericsson, Panasonic, Samsung, CATT, TDTech, ETRI, ITRI, Fujitsu, NEC, 12	LGE, Qualcomm 14	
<i>Persistent (first trans non-scheduled) sync non adaptive</i>	<i>TI, Qualcomm, LGE</i> 3		
Sync group	Motorola, Huawei, IPW, Interdigital, Freescale, Nortel, Marvell, Sharp, Infineon, Alcatel-Lucent 10		
Sync, L1/L2 common message allowing adaptiveness			

**Decisions on VoIP scheduling:**

DL:  
We decide on persistent (no L1/L2 control message for first transmission aka HS-SCCH less) Async adaptive

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UL:

We ask RAN1 to study if they can provide more L1/L2 control channels for VoIP UL dynamic (individual L1/L2, no group) scheduling (RAN2 should indicate how many bits are needed so that they can make the study)

We re-think whether we are control channel limited for VoIP if we apply the DL decision

- Use operator simulation assumptions

At next meeting, look at results; if we still want to optimise UL for VoIP, we follow simple majority between sync group and Persistent (first trans non-scheduled) sync adaptive

**Other topics**

<b>R2-071176</b> Handling of AMBR GJ agreed	Samsung, Ericsson, Nokia, NTT DoCoMo, Siemens Networks	Mr. Gert-Jan van Lieshout
Scheduling request		
<b>R2-071182</b> Contention-based scheduling request in LTE_ACTIVE Presented Agreed: a rule will be defined whereby the UE can use the async RACH to make a scheduling request e.g. low duty cycle UE		IPWireless
<b>R2-071180</b> Downlink Hybrid ARQ Signaling Noted, stage 3	Samsung	Mr. Gert-Jan van Lieshout
<b>R2-071390</b> Discussion on Uplink Scheduling Request Revised in	TD Tech Ltd.	
<b>R2-071564</b> Discussion on Uplink Scheduling Request	TD Tech Ltd.	
<b>R2-071345</b> Enhancement to Buffer Status Reporting	CATT, RITT	Mrs. Haiyang Quan

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R2-071165	A New Measurement to Support UL Scheduler Operation	Mitsubishi Electric Corp.	
R2-071283	Combination of Schedule and frequency hopping noted	ZTE	Mr. Zhongda Du

## 5.6 Time alignment principles

R2-071300	Uplink synchronization Presented noted	NTT DoCoMo	
R2-071272	On the issue of permanent maintenance of uplink synchronization Presented noted	NEC	
R2-071267	On Uplink Synchronization maintenance in LTE	Texas Instruments Inc	
R2-071419	Delivery of TA in LTE_ACTIVE	IPWireless	
R2-071447	How to transmit TA information Noted without presentation	LG Electronics Inc.	

Discussion:  
we need to understand the various UL solutions defined in RAN1 to measure TA in the eNB (pilots, UL-SCH...) and their performance/cost. Then we will look at the solution needed in RAN WG2. Solution such as measuring DL drift can also be asked to RAN1.

Conclusion:  
Stage 2 will capture that in some cases e.g. long DRx, UE can go out of sync; and that the basic assumption is that a timer in the UE will be used to detect out-of-sync, but more elaborate solutions will be studied.

Drat LS to RAN WG1 in 1567 (Samsung)

## 5.7 MIMO support

R2-071260 Efficient CQI feedback

HUAWEI

LS to RAN WG1 will be sent in Tdoc 1572

## 5.8 UE Capabilities

R2-071332 Guidelines on the definition of LTE UE classes

These are bit rates available at the application layer, for NRT traffic.

This will have to be translated into PHY & L2 requirements by RAN1 & RAN2; it was noted that requirements may be higher than these values so that system is optimised.

FDD & TDD classes should be harmonised (numbers had FDD in mind)

Conclusion:

The classes will be captured in the stage 2, numbers in square brackets.

R2-071211 Framework for UE capability handling in LTE

UE capability can be stored in the CN. Layer to send it (NAS or RRC) has to be studied.

Network should be able to request UE cap the UE

A part of the UE capability information may always be provided at RRC con est when needed for early RRC functions e.g. rerouting

R2-071328 Handling of UE capability information in SAE/LTE

Inter-RAT case has to be understood.

noted

R2-071175 UE Downlink reception capability

GJ

Noted, we need RAN WG1 to progress further.

R2-071414 Simultaneous Tx/Rx (Duplex) Capabilities of LTE

T-Mobile, NTT DoCoMo,  
Telecom Italia, Orange,  
ChinaMobile, Ericsson,  
Infineon Technologies, Nokia Mr. Axel Klatt

QUALCOMM Europe

Ericsson

Mr. Janne Peisa

Samsung

Mr. Gert-Jan van  
Lieshout

IPWireless

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Presented  
It will be captured in the Stage 2 that HD UEs are a specific UE category, band specific, and the eNB will have to respect UE category i.e. HD mandatory support in eNB if UE categories exist with this capability.

### 5.9 E-UTRAN identities

R2-071349 Use of tracking area- and cell identity for private networks/home cells  
Himke  
Noted

Samsung  
Mr. Himke van der Velde

### 5.10 LTE\_ACTIVE mobility procedures

R2-071134 Transmission of Scheduling Information for Handover in RRC Dedicated Message  
R2-071252 On the need for forward HO  
R2-071372 E-UTRA Measurement Configuration and Control  
R2-071398 Idle Gaps for Handover Measurements in E-UTRAN  
R2-071463 LTE Intra/Inter-RAT handover algorithms for LTE\_ACTIVE state  
R2-071255 High level mobility procedure in heterogeneous networks  
R2-071258 Mobility uses cases based on the access pipe concept  
R2-071301 Inter-frequency/RAT mobility control drivers and solutions

Panasonic  
Nokia  
Ericsson  
Ericsson  
QUALCOMM Europe  
Nokia  
Nokia  
NTT DoCoMo, Orange, Telecom Italia, T-Mobile, Vodafone  
Mr. Benoist Sébire  
Mr. Janne Peisa  
Mr. Janne Peisa  
Mr. Francesco Grilli  
Mr. Benoist Sébire  
Mr. Benoist Sébire

#### 5.10.1 Intra LTE

R2-071144 Measurement Functionality Split for Broadcast and Dedicated  
R2-071157 Admission Control at Target eNB  
R2-071160 Redirection scheme in LTE  
R2-071183 Contention-free Intra-LTE handover in synchronous network  
R2-071188 Minimizing the RACH Procedure Requirement During LTE Handover  
R2-071205 Protocol termination for HO signalling

Panasonic  
Nortel  
HUAWEI  
IPWireless  
InterDigital  
QUALCOMM Europe  
Mr. Stephen Terry

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R2-071206	Considerations on RRC re-establishment	QUALCOMM Europe	
R2-071229	Radio Link Failure and Context Recovery	Nokia	Mr. Benoist Sébire
R2-071231	Handover Failure Recovery	Nokia	Mr. Benoist Sébire
R2-071232	Relevant Information for HO	Nokia, Siemens	
R2-071239	Fast and Reliable Handover	Networks	Mr. Benoist Sébire
R2-071240	Forwarding Instant	Nokia	Mr. Benoist Sébire
R2-071253	Non-Contention Based HO vs. RACH	Nokia	Mr. Benoist Sébire
R2-071269	Optimized HO method for reducing latencies in UL synchronization and initial UL allocation in E-UTRA	Texas Instruments Inc	
R2-071271	Connection Re-establishment	NEC	
R2-071276	HO measurements	NEC	
R2-071282	optimization of handover procedure by using dedicated signature	ZTE	Mr. Zhongda Du
R2-071290	Intra-LTE handover optimization	Ericsson	Mr. Janne Peisa
R2-071318	Gap control in E-UTRAN	Samsung	
R2-071359	Radio link failure	Ericsson	Mr. Janne Peisa
R2-071360	Reliability considerations for the Handover Command	Alcatel-Lucent	Mr. Osman Aydin
R2-071361	RLC status reporting during handover	Alcatel-Lucent	Mr. Osman Aydin
R2-071362	Radio Link Failure and RRC Context Recovery	Alcatel-Lucent	Mr. Osman Aydin
R2-071364	Relevant Information for Handover	Alcatel-Lucent	Mr. Osman Aydin Mr. Himke van der Velde
R2-071373	Evaluation of backward handover schemes	Samsung	
R2-071379	Early RACH Access with Reserved Signatures for inter-eNB Handover	ITRI	
R2-071388	UL timing synchronized handover	Samsung	
R2-071402	Mobility during attach	Ericsson	Mr. Janne Peisa
R2-071416	Resource allocations in target cell after Handover	NEC	
R2-071417	Text Proposal for Intra-LTE Handover	NEC	
R2-071431	Support of ROHC and context relocation	NEC	Mr. David Lecompte
R2-071448	Issue on periodic measurement reporting	LG Electronics Inc.	
R2-071459	High Level Comparison of Handover in GSM, UMTS and LTE	QUALCOMM Europe	

5.10.2 LTE to/from UTRAN

R2-071201	Text proposal on measurement gap scheduling	QUALCOMM Europe	Mr. Francesco Grilli
R2-071307	Measurement gap control principles	NTT DoCoMo	
R2-071351	Drivers for Inter-RAT Radio Resource Management	Ericsson	Mr. Janne Peisa
R2-071355	Radio Resource Management Aspects of Inter-RAT Handovers	Ericsson	Mr. Janne Peisa
R2-071418	User plane handling in case of IRAT mobility	NEC	

Current minutes of the 57bis TSG-RAN WG2 meeting

R2-071254 Requirements for redirection in E-UTRAN

Nokia, Telecom Italia Mr. Benoist Sébire

## 5.11 LTE\_IDLE mobility procedures

R2-071207 Camping load balancing in LTE

R2-071214 Optimization for Tracking Area Update signalling

R2-071305 Load balancing solutions for LTE

QUALCOMM Europe  
QUALCOMM Europe  
NTT DoCoMo, T-Mobile, Orange, LG  
Electronics

### 5.11.1 Intra LTE

R2-071325 UE assisted tracking area update

R2-071493 Multiple tracking areas concept and influence on paging load

R2-071494 Intra-LTE and inter-RAT cell reselection

LG Electronics Inc. Mr. Patrick Fischer  
NEC  
NEC

### 5.11.2 LTE to/from other RATs

R2-071354 On Inter-RAT Cell Reselection Principles

R2-071383 Discussion on RAN implications of Equivalent Tracking areas

Ericsson Mr. Janne Peisa  
Alcatel-Lucent

## 5.12 LTE MBMS

R2-071527 Definitions relating to SFN in E-MBMS

The document was presented by Dave Fox from Vodafone.

**Discussion:**

Rel-7 definitions include SFN defined on a Timeframe basis (for TDD). This (and other Rel-7 definitions) need to be taken into account.

It will be useful to progress on terminology definitions (see e.g. previous LSs received on the subject of terminologies).

The document was also presented in RAN WG3.

The difference between guard cluster and reserve cell is that the reserve cell is within the MBMS transmission cluster.

Vodafone Group

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**Decision:** This will be subject to an *email discussion*.

R2-071413	Discussion of eMBMS Uplink Feedback Schemes	NEC
R2-071527	Definitions relating to SFN in E-MBMS	Vodafone Group
R2-071530	Scheduling of the MCCH	Vodafone Group
R2-071531	UE State during MBMS Reception	Vodafone Group

### 5.12.1 Requirements/Scenarios

R2-071248 Header Compression in MBMS for E-UTRAN Nokia, Siemens Networks  
The document was presented by Henri Koskinen from Nokia.

**Discussion:**  
There are two remaining possibilities, following a RAN3 decision that if PDCP is used in multicell case, it will be in the central node in the gateway. (See R3-070708).

It was clarified that audio broadcast was not considered here.

**Decision:** The document was noted. RAN WG2 confirm the decision of having PDCP in the gateway.

R2-071435 Over provisioning required to accommodate overlapping SFN areas Motorola  
The document was presented by Ivan Vukovic from Motorola.

**Discussion:**  
Are services distributed at random ?  
This highlights that MBMS Service areas are overlapping while it was reported that the MBMS co-ordination entity (defined in RAN3) addresses this overlapping issue. However, what is the RAN2 complexity in not performing the restriction ?  
Only one service for the MBSFN area may be too restrictive (Nokia).

**Decision:** The document was noted. There will be no specific restriction on the way how SFNs are configured.

R2-071591 UE State during MBMS Reception Vodafone Group  
The document was presented by Dave Fox from Vodafone.

**Discussion:**  
There is a typo: Dedicated/shared should be read insted.  
MBMS reception States and RRC States are missing.  
This defines UE autonomous reselections, with UE feedback still possible.  
The proposalis for ptm direct feedback + ptp network controlled cell reselections.  
3 possibilities:

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- 1- Simple polling. Counting only.
- 2- Counting + establish some sort of connection while the UE keeps its mobility.
- 3- Some sort of connection with network controlled mobility.

**Decision:** The document was noted.

*Email discussion* to capture the possibilities and identify benefits and drawbacks.

Information on true point to point or not is needed.

Realistic case in the uplink shared case is also needed.

Rapporteur: Dave Fox, Vodafone.

In R2-071592.

R2-071226	Uplink Feedback for E-MBMS	Motorola	
R2-071246	MCCH Control	Nokia, Siemens Networks	Mr. Benoist Sébire
R2-071278	PTP/PTM radio bearer switching in E-MBMS scenarios	ETRI	
R2-071279	Considerations on uplink feedback channel for E-MBMS	ETRI	
R2-071371	Mapping of MBMS logical channels to DL-SCH	Ericsson	Mr. Janne Peisa
R2-071400	DL-SCH supporting single cell PTM with HARQ/CQI	Ericsson	Mr. Janne Peisa
	Discussion on E-MBMS deployment scenarios		
R2-071467	Withdrawn before presentation.	Alcatel-Lucent	
R2-071501	Additional Results on EMBMS Transmission Configurations	Motorola	
R2-071528	MCCH Optimisation for MBMS Enhanced Broadcast	Vodafone Group	

### 5.12.2 Stage 2 inputs

R2-071145	MCCH Transmission in LTE	Panasonic	
R2-071146	Uplink feedback for eMBMS operations	Panasonic	
R2-071158	MBMS Network Optimization	HUAWEI	
R2-071159	Hierarchical MCCH	Nortel	
R2-071202	E-MBMS scheduling	QUALCOMM Europe	Mr. Francesco Grilli
R2-071217	CQI reporting for E-MBMS AMC	Alcatel-Lucent	Mr. Stanislas Bourdeaut
		Nokia, Samsung, Siemens Networks	
R2-071244	MBMS Agreements	Networks	Mr. Benoist Sébire
R2-071245	MBMS Definitions	Nokia, Siemens Networks	Mr. Benoist Sébire
R2-071319	Inter Layer Notification	Siemens Networks	
R2-071326	Layer 1 signalling based user detection for LTE MBMS	IPWireless	
R2-071330	LTE MBMS SFN: Super-frame Based Content Synchronisation	IPWireless	
R2-071347	Counting procedure for LTE MBMS	CATT	Mrs. Haiyang Quan
R2-071369	Multiplexing of MBMS services	Ericsson, Samsung	Mr. Janne Peisa

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R2-071395	LTE MBMS functionality	Ericsson	Mr. Janne Peisa
R2-071397	L2 MBMS content synchronization	Ericsson	Mr. Janne Peisa
R2-071411	MBMS multi cell SFN transmission over areas of varying inter site distance	Ericsson	Mr. Janne Peisa
R2-071415	Clarification on use of Prioritized Bit Rate (PBR)	NEC	Mr. Himke van der Velde Mr. Natarajan Ekambaram
R2-071429	E-MBMS architecture	Samsung	
R2-071430	LTE MBMS User detection Scheme	Freescall Semiconductor Inc	
R2-071432	Considerations on MBMS Resource Allocation	Motorola	
R2-071433	Multicell EMBMS CQI Feedback	Motorola	
R2-071451	LTE MBMS Transmission	LG Electronics Inc.	
R2-071452	LTE MBMS Notifications	LG Electronics Inc.	
R2-071465	Support of scalable codec for E-MBMS	Alcatel-Lucent	
R2-071466	Transmission of E-MBMS control information	Alcatel-Lucent	
R2-071468	Audience measurement for MBMS in LTE	Alcatel-Lucent	
R2-071477	LTE MBMS Rate Control	TD Tech	

5.13 Cell selection & re-selection, roaming restrictions

R2-071291	On Intra-LTE Cell Reselection Methods	Ericsson	Mr. Janne Peisa
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5.14 Other LTE Stage 2 subjects

R2-071136	Byte alignment of L2 header	Nokia, Samsung, Texas Instruments Inc	
R2-071137	PDCP/RLC/MAC header format	samsung	
R2-071138	Variable Size RLC Sequence Number	samsung	
R2-071139	Lite RLC vs. Normal RLC	samsung	
R2-071147	UL HARQ Protocol Issues	Panasonic	
R2-071148	RLC TM Mode for U-Plane	Panasonic	
R2-071149	RLC PDU format for LTE	Panasonic	
R2-071150	MAC PDU format for LTE	Panasonic	
R2-071172	eNB security handling LTE_IDLE -> LTE_ACTIVE	Samsung	Mr. Gert-Jan van Lieshout
R2-071173	Idle mode paging	Samsung	Mr. Gert-Jan van

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R2-071187	Byte Alignment for RLC and MAC Headers?	InterDigital NEC, Nokia, Siemens Networks	Lieshout Mr. Stephen Terry
R2-071249	HARQ-ARQ Interactions	Nokia	Mr. Benoist Sébire
R2-071256	Control of UE Measurements for Network Self-configuration and Optimization	RIM	Mr. Benoist Sébire
R2-071262	Robust MAC signalling	RIM	
R2-071263	Recovery from DRX De-synchronization	RIM	
R2-071287	Solution for sending NAS together with RRC connection request	Ericsson	Mr. Janne Peisa
R2-071297	Clean up of Stage 2 FFS	Ericsson	Mr. Janne Peisa
R2-071302	Support for ROHC in SAE/LTE	Ericsson	Mr. Janne Peisa
R2-071306	Configuration of PDCP in SAE/LTE	Ericsson	Mr. Janne Peisa
R2-071309	Paging procedure in LTE	NTT DoCoMo	
R2-071313	Paging procedure in LTE	NTT DoCoMo	
R2-071314	MAC PDU structure for LTE	NTT DoCoMo	
R2-071315	RLC PDUs for LTE	NTT DoCoMo	
R2-071317	RLC PDUs for LTE	NTT DoCoMo	
R2-071320	Considerations on L1/L2 control signaling	ETRI T-Mobile, KPN, China Mobile, Orange, NTT DoCoMo, Vodafone, Sprint, Telecom Italia	
R2-071329	UE support for self-configuration and self-optimisation - Proposal for Stage2 (only RAN2 relevant part)	Ericsson	Mr. Axel Klatt
R2-071333	Byte alignment for user plane protocols in LTE	Ericsson	Mr. Janne Peisa
R2-071344	NDI-less HARQ operation	Ericsson	Mr. Janne Peisa
R2-071346	HARQ-ARQ Interactions for NACK to ACK error	Ericsson	Mr. Janne Peisa
R2-071357	Resource fragmentation in LTE uplink	Ericsson, NTT DoCoMo, Inc	Mr. Janne Peisa
R2-071358	Text Proposal for LTE QoS Terminology and Working Assumptions	Ericsson, Nokia, Samsung, NTT DoCoMo, Inc	Mr. Janne Peisa
R2-071366	Further Requirements for the CQI Feedback	Alcatel-Lucent	Mr. Osman Aydin
R2-071367	RLC-MAC Header Formats	Ericsson	Mr. Janne Peisa
R2-071370	RLC header format	Fujitsu	
R2-071374	Radio connection establishment	Samsung	Mr. Himke van der Velde
R2-071375	RRC messages and procedures	Samsung	Mr. Himke van der Velde
R2-071376	RRC specification, way forward	Samsung	Mr. Himke van der Velde
R2-071378	The Urgency of HARQ-ARQ Interactions	ITRI	
R2-071380	Granularity Control on Buffer Reporting	ITRI	
R2-071385	Discussion on Security mode control for LTE	Alcatel-Lucent	

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R2-071387	First quantification of UL control
R2-071399	HARQ Configuration for LTE
R2-071408	Voice support in E-UTRAN
R2-071428	Use of home/ private cells
R2-071441	Discussion on MAC PDU structure
R2-071442	Discussion on Uplink Traffic Shaping
R2-071443	On the issue of HARQ/ARQ interaction
R2-071449	Transition indicator for VoIP in UL
R2-071450	ACK to NACK error detecting mechanism
R2-071457	Transmission of LTE Paging
R2-071479	RLC local gap detection
R2-071480	HARQ-ARQ interaction at the receiver
R2-071488	MAC header for control message in LTE
R2-071489	RLC header design
R2-071532	Initial Standardisation Requirements from Self-Organizing Networks
R2-071251	Synchronous adaptive HARQ for E-UTRAN UL
R2-071540	Synchronous adaptive HARQ for E-UTRAN UL
R2-071541	Standardised eNB measurements

Samsung	
Ericsson	Mr. Janne Peisa
Orange	
Samsung	
LG Electronics Inc.	
LG Electronics Inc.	Mr. Himke van der Velde
LG Electronics Inc.	
LG Electronics Inc.	
LG Electronics Inc.	
Qualcomm Europe	Mr. Etienne Chaponnière
Qualcomm Europe	Mr. Etienne Chaponnière
ASUSTeK	
Motorola	
Vodafone Group	
Nokia	Mr. Benoist Sébire
Nokia	Mr. Benoist Sébire
NTT DoCoMo, KPN, Orange, Telecom Italia, Telefonica, T-Mobile, Vodafone	
	Mikio Iwamura

R2-071598 EUTRAN Stage 2 Update  
Will be agreed by emai, following the meeting.

Nokia

**5.2.4 BCH for LTE**

R2-071213	Further details on LTE neighbouring list optimization
R2-071270	On the issue of inter-RAT neighbouring info reduction
R2-071296	Consideration on one-to-all Qoffset
R2-071401	Summary of BCH for LTE email discussion

LG Electronics Inc.	Mr. Patrick Fischer
NEC	
NTT DoCoMo	
Ericsson	Mr. Janne Peisa

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### 5.3 System Information content & delivery

R2-071142	System information content	Panasonic	
R2-071155	Blacklist Maintenance	HUAWEI	
R2-071156	Neighbour cell reduction using LCV	HUAWEI	
R2-071203	Structure of BCH	QUALCOMM-Europe	Mr. Francesco Grilli
R2-071204	Scheduling of D-BCH	QUALCOMM-Europe	Mr. Francesco Grilli
R2-071234	Cell Access Control	Motorola	
R2-071257	An operator configurable procedure for reading the scheduling units	Nokia	Mr. Benoit Sébire
R2-071259	System Information change indication	Nokia	Mr. Benoit Sébire
R2-071266	Enabling DL reception of system and control information from Intra-frequency neighbors without gaps in the serving cell	Texas Instruments Inc	
R2-071298	BCH transmission interval in LTE	NTT-DeCoMo	
R2-071337	System information scheduling and change notification	Samsung	Mr. Himke van der Velde
R2-071339	The life cycle of the cell from UE view	Panasonic	
R2-071342	Neighbouring cell information	Samsung	Mr. Himke van der Velde
R2-071343	Notification scheme of SI's Change	GATF	Mrs. Haiyang Quan
R2-071377	Time critical system information	Samsung	Mr. Himke van der Velde
R2-071481	System Information Scheduling	Motorola	
R2-071539	Scheduling of System Information		Ericsson
<del>The document was revised before presentation in R2-071570.</del>			
R2-071570	Scheduling of System Information	Ericsson	

### 5.4 Random access procedure

R2-071143	Random Access Preamble signatures usage	Panasonic	
R2-071171	Pathloss & Size in RACH signature	Samsung, NTT	Mr. Gert-Jan van Lieshout
R2-071174	Access Service Classes in LTE	DeCoMo	
		Samsung	Mr. Gert-Jan van

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R2-071182	Contention-based scheduling request in LTE_ACTIVE	IPWireless	Lieshout
R2-071184	RACH procedure(s) in E-UTRAN	IPWireless	
R2-071215	Allocation of a "short" C-RNTI in message 2	LG Electronics Inc.	Mr. Patrick Fischer
R2-071228	Dedicated Random Access Signatures	Motorola	
R2-071230	Random Access Design and Procedure with Dedicated Signatures	Motorola	
R2-071237	RACH Resource Management	Motorola	
R2-071264	Optimized provisioning of RACH in LTE	Texas Instruments Inc	
R2-071265	Content of Message 1 and the RACH procedure in LTE	Texas Instruments Inc	
R2-071275	RACH Resource Control	NEC	
R2-071281	message 2 issue in random access procedure	ZTE	Mr. Zhongda-Du
R2-071290	Contention-based and contention-free access procedures in LTE	NTT-DoCoMo	
R2-071303	Non-contention-based RA preamble	ETRI	
R2-071308	RACH backoff control	Siemens Networks	
R2-071316	RACH backoff control	Siemens Networks	
R2-071322	Transport format and power headroom in preamble	LG Electronics Inc.	Mr. Patrick Fischer
R2-071381	On setting the C-RNTI in RACH message two	Siemens Networks	
R2-071384	Discussion on contents of message 3	Alcatel-Lucent, Samsung	
R2-071386	Contention resolution in aRACH	Samsung	
R2-071422	Random access with dedicated preambles at handover	Ericsson	Mr. Janne Peisa
R2-071446	Clarification and optimization of message 2	LG Electronics Inc.	
R2-071455	Use of dedicated RACH signatures	LG Electronics Inc.	
R2-071456	Discussion on Message 4 in Random Access	LG Electronics Inc.	
R2-071461	RACH signature content	QUALCOMM Europe	
R2-071492	Contention Resolution and Initial Random Access	TD Tech	
R2-071537	Issues on Random Access Procedure	ASUSTeK	Mr. Sam Jiang
R2-071538	Optimization of RACH model	ASUSTeK	Mr. Sam Jiang

5.5 Scheduling (UP and DL contributions)

R2-071135	Concerns on the group scheduling	samsung	
R2-071165	A New Measurement to Support UL Scheduler Operation	Mitsubishi Electric Corp.	
R2-071176	Handling of AMBR	Samsung, Ericsson, Nokia, NTT DoCoMo, Siemens Networks	Mr. Gert-Jan van Lieshout Mr. Gert-Jan van Lieshout
R2-071180	Downlink Hybrid ARQ Signaling	Samsung	Lieshout
R2-071225	Performance of Grouping	Nokia	Mr. Benoist Sébire
R2-071227	Number of Control Symbols	Nokia	Mr. Benoist Sébire

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R2-071242	Group Based Optimization for Signalling of Downlink Scheduling	SHARP	
R2-071283	Combination of Schedule and frequency hopping	ZTE	Mr. Zhongda Du
R2-071292	Scheduling optimizations – way forward	Ericsson	Mr. Janne Peisa
R2-071345	Enhancement to Buffer Status Reporting	CATT, RITT	Mrs. Haiyang Quan
R2-071368	Persistent DL Scheduling and VoIP	Alcatel-Lucent	Mr. Osman Aydin
R2-071390	Discussion on Uplink Scheduling Request	TD Tech Ltd.	
R2-071460	Uplink Scheduling for VoIP	Nokia	Mr. Benoit Sébire
R2-071462	Comparison of persistent and group scheduling	QUALCOMM Europe	
R2-071483	VoIP Performance	Motorola	
R2-071484	Text proposal for DL scheduling	Motorola,.....	
R2-071485	Text proposal for UL scheduling	Motorola,.....	
R2-071486	Discussion on scheduling	Motorola,.....	
R2-071533	Response to R2-071225	Motorola	
R2-071534	Response to R2-071292	Motorola	
R2-071535	Way Forward for DL Scheduling	Alcatel-Lucent, CATT, Elektrobit, ETRI, Fujitsu, ITRI, Mitsubishi, NEC, Nokia, NTT DoCoMo, Panasonic, Qualcomm, Samsung, Siemens Networks, Texas Instruments	Mr. Benoit Sébire
R2-071536	Way Forward for UL Scheduling	CATT, Elektrobit, ETRI, Fujitsu, ITRI, LGE, Mitsubishi, NEC, Nokia, NTT DoCoMo, Qualcomm, Samsung, Siemens Networks	Mr. Benoit Sébire
R2-071535	Way Forward for DL Scheduling	Alcatel-Lucent, CATT, Elektrobit, ETRI, Fujitsu, ITRI, Mitsubishi, NEC, Nokia, NTT DoCoMo, Panasonic, Qualcomm, Samsung, Siemens Networks, Texas Instruments	
	<del>The document was revised before presentation in R2-071551.</del>		
R2-071561	Way Forward for DL Scheduling	Alcatel-Lucent, CATT, Elektrobit, ETRI, Fujitsu, ITRI, Mitsubishi, NEC, Nokia, NTT DoCoMo, Panasonic, Qualcomm, Samsung, Siemens Networks, Texas Instruments, Ericsson	
R2-071536	Way Forward for UL Scheduling	CATT, Elektrobit, ETRI, Fujitsu, ITRI, LGE, Mitsubishi, NEC, Nokia, NTT DoCoMo, Qualcomm, Samsung, Siemens Networks	

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The document was revised before presentation in R2-071552:

R2-071552 Way Forward for UL Scheduling

CATT, Elektrobit, ETRI, Fujitsu, ITRI,  
LGE, Mitsubishi, NEC, Nokia, NTT  
DoCoMo, Qualcomm, Samsung,  
Siemens Networks, Ericson

R2-071462 Comparison of persistent and group scheduling  
The document was revised before presentation in R2-071554:

QUALCOMM Europe

R2-071554 Comparison of persistent and group scheduling

QUALCOMM Europe

## 5.6 Time alignment principles

R2-071267 On Uplink Synchronization maintenance in LTE  
R2-071272 On the issue of permanent maintenance of uplink synchronization  
R2-071300 Uplink synchronization  
R2-071419 Delivery of TA in LTE\_ACTIVE  
R2-071447 How to transmit TA information

Texas Instruments  
Inc  
NEC  
NTT-DoCoMo  
IPWireless  
LG Electronics Inc.

## 5.7 MIMO support

R2-071260 Efficient CQI feedback

HUAWEI

## 5.8 UE Capabilities

R2-071175 UE Downlink reception capability  
R2-071211 Framework for UE capability handling in LTE  
R2-071328 Handling of UE capability information in SAE/LTE  
R2-071332 Guidelines on the definition of LTE-UE classes

Samsung  
QUALCOMM Europe  
Ericsson  
T-Mobile, NTT-DoCoMo,

Mr. Gert-Jan van  
Lieshout

Mr. Janne Peisa  
Mr. Axel Klatt



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R2-071414

Simultaneous Tx/Rx (Duplex) Capabilities of LTE

Telecom Italia, Orange,  
ChinaMobile, Ericsson,  
Infineon Technologies, Nokia  
IPWireless

## 5.9 E-UTRAN identities

R2-071349

Use of tracking area and cell identity for private networks/home cells

Samsung

Mr. Himke van der  
Velde

## 5.10 LTE\_ACTIVE mobility procedures

R2-071134

Transmission of Scheduling Information for Handover in RRC-Dedicated Message

Panasonic

R2-071262

On the need for forward HO

Nokia

Mr. Benoist Sébire

R2-071372

E-UTRA Measurement Configuration and Control

Ericsson

Mr. Janne Peisa

R2-071398

Idle Gaps for Handover Measurements in E-UTRAN

Ericsson

Mr. Janne Peisa

R2-071463

LTE Intra/Inter-RAT handover algorithms for LTE\_ACTIVE state

QUALCOMM Europe

Mr. Francesco Grilli

R2-071255

High-level mobility procedure in heterogeneous networks

Nokia

Mr. Benoist Sébire

R2-071258

Mobility uses cases based on the access pipe concept

Nokia

Mr. Benoist Sébire

R2-071301

Inter-frequency/RAT mobility control drivers and solutions

NTT-DoCoMo, Orange, Telecom Italia, T-Mobile,  
Vodafone

### 5.10.1 Intra-LTE

R2-071144

Measurement Functionality Split for Broadcast and Dedicated

Panasonic

R2-071157

Admission Control at Target eNB

Nortel

R2-071160

Redirection scheme in LTE

HUAWEI

R2-071183

Contention-free Intra-LTE handover in synchronous network

IPWireless

R2-071188

Minimizing the RACH Procedure Requirement During LTE Handover

InterDigital

Mr. Stephen Terry

R2-071205

Protocol termination for HO signalling

QUALCOMM Europe

R2-071206

Considerations on RRC re-establishment

QUALCOMM Europe

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R2-071229	Radio Link Failure and Context Recovery	Nokia	Mr. Benoist Sébire
R2-071231	Handover Failure Recovery	Nokia Nokia-Siemens	Mr. Benoist Sébire
R2-071232	Relevant Information for HO	Networks	Mr. Benoist Sébire
R2-071239	Fast and Reliable Handover	Nokia	Mr. Benoist Sébire
R2-071240	Forwarding Instant	Nokia	Mr. Benoist Sébire
R2-071253	Non-Contention-Based HO vs. RACH Optimized HO method for reducing latencies in UL synchronization and initial UL allocation in E-UTRA	Nokia	Mr. Benoist Sébire
R2-071269	Connection Re-establishment	Texas Instruments Inc	
R2-071271	HO measurements	NEG	
R2-071276	HO measurements	NEG	
R2-071282	optimization of handover procedure by using dedicated signature	ZTE	Mr. Zhongda Du
R2-071290	Intra-LTE handover optimization	Ericsson	Mr. Janne Peisa
R2-071318	Gap control in E-UTRAN	Samsung	
R2-071359	Radio link failure	Ericsson	Mr. Janne Peisa
R2-071360	Reliability considerations for the Handover Command	Alcatel-Lucent	Mr. Osman Aydin
R2-071361	RLC status reporting during handover	Alcatel-Lucent	Mr. Osman Aydin
R2-071362	Radio Link Failure and RRC Context Recovery	Alcatel-Lucent	Mr. Osman Aydin
R2-071364	Relevant Information for Handover	Alcatel-Lucent	Mr. Osman Aydin Mr. Himke van der Velde
R2-071373	Evaluation of backward handover schemes	Samsung	
R2-071379	Early RACH Access with Reserved Signatures for inter-eNB Handover	ITRI	
R2-071388	UL timing synchronized handover	Samsung	
R2-071402	Mobility during attach	Ericsson	Mr. Janne Peisa
R2-071416	Resource allocations in target cell after Handover	NEG	
R2-071417	Text Proposal for Intra-LTE Handover	NEG	
R2-071431	Support of ROHC and context relocation	NEG	Mr. David Lecompte
R2-071448	Issue on periodic measurement reporting	LG Electronics Inc.	
R2-071459	High Level Comparison of Handover in GSM, UMTS and LTE	QUALCOMM Europe	

5.10.2 LTE to/from UTRAN

R2-071201	Text proposal on measurement gap scheduling	QUALCOMM Europe	Mr. Francesco Grilli
R2-071307	Measurement gap control principles	NTT-DoCoMo	
R2-071351	Drivers for Inter-RAT Radio Resource Management	Ericsson	Mr. Janne Peisa
R2-071355	Radio Resource Management Aspects of Inter-RAT Handovers	Ericsson	Mr. Janne Peisa
R2-071418	User plane handling in case of IRAT mobility	NEC	
R2-071254	Requirements for redirection in E-UTRAN	Nokia, Telecom Italia	Mr. Benoist Sébire

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## 5.11 LTE\_IDLE mobility procedures

- R2-071207 Camping load balancing in LTE
- R2-071214 Optimization for Tracking Area Update signalling
- R2-071305 Load balancing solutions for LTE

QUALCOMM Europe  
QUALCOMM Europe  
NTT-DoCoMo, T-Mobile, Orange, LG  
Electronics

### 5.11.1 Intra LTE

- R2-071325 UE-assisted tracking area update
- R2-071493 Multiple tracking areas concept and influence on paging load
- R2-071494 Intra-LTE and inter-RAT cell reselection

LG Electronics Inc. Mr. Patrick Fischer  
NEC  
NEC

### 5.11.2 LTE to/from other RATs

- R2-071354 On Inter-RAT Cell Reselection Principles
- R2-071383 Discussion on RAN implications of Equivalent Tracking areas

Ericsson Mr. Janne Peisa  
Alcatel-Lucent

## 5.12 LTE MBMS

- R2-071413 Discussion of eMBMS Uplink Feedback Schemes
- R2-071527 Definitions relating to SFN in E-MBMS
- R2-071530 Scheduling of the MCCH
- R2-071531 UE State during MBMS Reception

NEC  
Vodafone Group  
Vodafone Group  
Vodafone Group

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## 5.12.1 Requirements/Scenarios

R2-071226	Uplink Feedback for E-MBMS	Motorola	
R2-071246	MCCH Control	Nokia, Siemens Networks	Mr. Benoist Sébire
R2-071248	Header Compression in MBMS for E-UTRAN	Nokia, Siemens Networks	Mr. Benoist Sébire
R2-071278	PTP/PTM radio bearer switching in E-MBMS scenarios	ETRI	
R2-071279	Considerations on uplink feedback channel for E-MBMS	ETRI	
R2-071371	Mapping of MBMS logical channels to DL-SCH	Ericsson	Mr. Janne Peisa
R2-071400	DL-SCH supporting single cell PTM with HARQ/CQI	Ericsson	Mr. Janne Peisa
R2-071435	Over-provisioning required to accommodate overlapping SFN areas	Motorola	
R2-071467	Discussion on E-MBMS deployment scenarios	Alcatel-Lucent	
R2-071501	Additional Results on EMBMS Transmission Configurations	Motorola	
R2-071528	MCCH Optimisation for MBMS Enhanced Broadcast	Vodafone Group	
R2-071529	Mobility and Access Control Requirements for LTE Home eNodeB	NTT DoCoMo, Orange, Telecom Italia, Vodafone Group,	

## 5.12.2 Stage 2 inputs

R2-071145	MCCH Transmission in LTE	Panasonic	
R2-071146	Uplink feedback for eMBMS operations	Panasonic	
R2-071158	MBMS Network Optimization	HUAWEI	
R2-071159	Hierarchical MCCH	Nortel	
R2-071202	E-MBMS scheduling	QUALCOMM Europe	Mr. Francesco Grilli
R2-071217	CQI reporting for E-MBMS AMC	Alcatel-Lucent	Mr. Stanislas Bourdeaut
R2-071244	MBMS Agreements	Nokia, Samsung, Siemens Networks	Mr. Benoist Sébire
R2-071245	MBMS Definitions	Nokia, Siemens Networks	Mr. Benoist Sébire
R2-071319	Inter-Layer Notification	Siemens Networks	
R2-071326	Layer 1 signalling based user detection for LTE MBMS	IPWireless	
R2-071330	LTE MBMS SFN: Super-frame Based Content Synchronisation	IPWireless	
R2-071347	Counting procedure for LTE MBMS	CATT	Mrs. Haiyang Quan
R2-071369	Multiplexing of MBMS services	Ericsson, Samsung	Mr. Janne Peisa
R2-071395	LTE MBMS functionality	Ericsson	Mr. Janne Peisa
R2-071397	L2 MBMS content synchronization	Ericsson	Mr. Janne Peisa
R2-071411	MBMS multi-cell SFN transmission over areas of varying inter-site distance	Ericsson	Mr. Janne Peisa

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R2-071445	Clarification on use of Prioritized Bit Rate (PBR)	NEC	
R2-071429	E-MBMS architecture	Samsung	Mr. Himke van der Velde Mr. Natarajan Ekambaram
R2-071430	LTE-MBMS User detection Scheme	Freescalo Semiconductor Inc	
R2-071432	Considerations on MBMS Resource Allocation	Motorola	
R2-071433	Multicell EMBMS CQI Feedback	Motorola	
R2-071454	LTE-MBMS Transmission	LG Electronics Inc.	
R2-071452	LTE-MBMS Notifications	LG Electronics Inc.	
R2-071465	Support of scalable codes for E-MBMS	Alcatel-Lucent	
R2-071466	Transmission of E-MBMS control information	Alcatel-Lucent	
R2-071468	Audience measurement for MBMS in LTE	Alcatel-Lucent	
R2-071477	LTE-MBMS Rate Control	TD Tech	

5.13 Cell selection & re-selection, roaming restrictions

R2-071294	On Intra-LTE Cell Reselection Methods	Eriessen	Mr. Janne Peisa
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5.14 Other LTE Stage 2 subjects

R2-071136	Byte alignment of L2 header	Nokia, Samsung, Texas Instruments Inc	
R2-071137	PDCP/RLC/MAC header format	samsung	
R2-071138	Variable Size RLC Sequence Number	samsung	
R2-071139	Lite RLC vs. Normal RLC	samsung	
R2-071147	UL HARQ Protocol Issues	Panasonic	
R2-071148	RLC-TM Mode for U-Plane	Panasonic	
R2-071149	RLC-PDU format for LTE	Panasonic	
R2-071150	MAC-PDU format for LTE	Panasonic	
R2-071172	eNB security handling LTE_IDLE -> LTE_ACTIVE	Samsung	Mr. Gert-Jan van Lieshout Mr. Gert-Jan van Lieshout
R2-071173	Idle mode paging	Samsung	Mr. Stephen Terry
R2-071187	Byte Alignment for RLC and MAC Headers?	InterDigital	Mr. Benoist Sébire
R2-071249	HARQ-ARQ Interactions	NEC, Nokia, Siemens	

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R2-071256	Control of UE Measurements for Network Self-configuration and Optimization
R2-071262	Robust MAC signalling
R2-071263	Recovery from DRX De-synchronization
R2-071287	Solution for sending NAS together with RRC connection request
R2-071297	Clean-up of Stage 2 FFS
R2-071302	Support for ROHC in SAE/LTE
R2-071306	Configuration of PDCP in SAE/LTE
R2-071309	Paging procedure in LTE
R2-071313	Paging procedure in LTE
R2-071314	MAC PDU structure for LTE
R2-071315	RLC PDUs for LTE
R2-071317	RLC PDUs for LTE
R2-071320	Considerations on L1/L2 control signaling
R2-071329	UE support for self-configuration and self-optimisation – Proposal for Stage2 (only RAN2 relevant part)
R2-071333	Byte alignment for user plane protocols in LTE
R2-071344	NDI-less HARQ operation
R2-071346	HARQ-ARQ Interactions for NACK to ACK error
R2-071357	Resource fragmentation in LTE uplink
R2-071358	Text Proposal for LTE QoS Terminology and Working Assumptions
R2-071366	Further Requirements for the CQI Feedback
R2-071367	RLC-MAC Header Formats
R2-071370	RLC header format
R2-071374	Radio connection establishment
R2-071375	RRC messages and procedures
R2-071376	RRC specification, way forward
R2-071378	The Urgency of HARQ-ARQ Interactions
R2-071380	Granularity Control on Buffer Reporting
R2-071385	Discussion on Security mode control for LTE
R2-071387	First quantification of UL control
R2-071399	HARQ Configuration for LTE
R2-071408	Voice support in E-UTRAN

Networks

Nokia	Mr. Benoit Sébire
RIM	
RIM	
Ericsson	Mr. Janne Peisa
Ericsson	Mr. Janne Peisa
Ericsson	Mr. Janne Peisa
Ericsson	Mr. Janne Peisa
NTT-DoCoMo	
NTT-DoCoMo	
NTT-DoCoMo	
NTT-DoCoMo	
NTT-DoCoMo	
ETRI	
T-Mobile, KPN, China Mobile, Orange, NTT DoCoMo, Vodafone, Sprint, Telecom Italia	Mr. Axel Klatt
Ericsson	Mr. Janne Peisa
Ericsson	Mr. Janne Peisa
Ericsson	Mr. Janne Peisa
Ericsson, NTT DoCoMo, Ine	Mr. Janne Peisa
Ericsson, Nokia, Samsung, NTT DoCoMo, Ine	Mr. Janne Peisa
Alcatel-Lucent	Mr. Osman Aydin
Ericsson	Mr. Janne Peisa
Fujitsu	
Samsung	Mr. Himke van der Velde
Samsung	Mr. Himke van der Velde
Samsung	Mr. Himke van der Velde
ITRI	
ITRI	
Alcatel-Lucent	
Samsung	
Ericsson	Mr. Janne Peisa
Orange	

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R2-071428	Use of home/private cells	Samsung	Mr. Himke van der Velde
R2-071441	Discussion on MAC PDU structure	LG Electronics Inc.	
R2-071442	Discussion on Uplink Traffic Shaping	LG Electronics Inc.	
R2-071443	On the issue of HARQ/ARQ interaction	LG Electronics Inc.	
R2-071449	Transition indicator for VoIP in UL	LG Electronics Inc.	
R2-071450	ACK to NACK error detecting mechanism	LG Electronics Inc.	
R2-071457	Transmission of LTE Paging	LG Electronics Inc.	
R2-071479	RLC local gap detection	Qualcomm Europe	Mr. Etienne Chaponnière
R2-071480	HARQ-ARQ interaction at the receiver	Qualcomm Europe	Mr. Etienne Chaponnière
R2-071488	MAC header for control message in LTE	ASUSTeK	
R2-071489	RLC header design	Motorola	
R2-071532	Initial Standardisation Requirements from Self-Organizing Networks	Vodafone Group	
R2-071251	Synchronous adaptive HARQ for E-UTRAN UL	Nokia	Mr. Benoist-Sébire
R2-071540	Synchronous adaptive HARQ for E-UTRAN UL	Nokia	Mr. Benoist-Sébire
		NTT DoCoMo, KPN, Orange, Telecom Italia, Telefonica, T-Mobile, Vodafone	
R2-071541	Standardised eNB measurements		Mikio Iwamura

## 6 FDD Enhanced Uplink: inputs on the two "open issues" discussed in Saint Louis

R2-071277 Email discussion summary on two open issues on EDCH serving grant update Email rapporteur (NEC)  
 The document was presented by Jinsock Lee from NEC.

**Discussion:**  
**Decision:** The document was noted. No action are needed for those two issues.

R2-071189 "Maximum\_Serving\_Grant" setting at TTI change CR 25.321 Rel-6 Panasonic  
 The document was presented

**Discussion:**  
 There are two table with the introduction of the 64qam, so two references.  
 What are the consequences if not approved ?  
 Rel-6 implementation will be allowed.

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**Decision:** There will be a Rel-7 CR. Agreed in principle. 25.321 CR number 0317.

R2-071222 Correction on E-TFC selection and Serving Grant CR 25.321 Rel-6 Alcatel-Lucent  
The document was presented by Cyrille Royer from Alcatel-Lucent.

**Discussion:**

How-many bits to use for the serving grant ?

How to calculate the power ratio in RAN WG1?

**Decision:** The document was noted.

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## 7 Enhanced Cell\_FACH State in FDD

### 7.1 Incoming LSs

R2-071515 (R1-071254, to RAN2). Reply LS (to R2-070419) on HS-SCCH enhancements in CELL\_FACH RAN WG1 Nokia  
The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

Question 4: two questions were asked. Only the first one was answered. The option to use undefined code points still needs to be answered.

**Decision:** The document was noted.

R2-071582 (R1-071779, to RAN2). Reply LS (to R2-070409) on HS-DSCH usage in CELL\_FACH RAN WG1  
The document was presented by Richard Burbidge (vice Chairman).

**Discussion:**

**Decision:** The document was noted.

### 7.2 Inputs

R2-071152 Enhanced CELL\_FACH state in FDD in 25.301 CR 25.301 Nokia  
The documents was presented by Juho Pirskanen from Nokia.

**Discussion:**

Subclause 5.3.1: Second change, MAC-ehs entity should be used (will be updated to the new version of the specification anyhow).

End of subclause 5.3.1: RAN3 decision may lead to a change here: MAC-hs assembles data blocks also coming from DTCH in Cell\_FACH, Cell\_PCH and URA\_PCH States.



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**Decision:** The CR was agreed in principle. 25.301 CR number 0084.

R2-071153 Enhanced CELL\_FACH state in FDD in 25.302 CR 25.302 Nokia  
The documents was presented by Juho Pirskanen from Nokia.

**Discussion:**

Clause 6: It was clarified that the sentence "one paging indicate dchannel is associated (...)" does not describe a separate PICH.

Subclause 8.2, configuration 30 needs to be corrected (columns do not match, in fact it is always more than one).

Subclause 7.2: "Zero, one or more physical downlink shared channel". Zero may not have to be included (such as in the previous sub-clause).

**Decision:** The CR was agreed in principle. 25.302 CR number 0179.

R2-071162 Enhanced CELL\_FACH in FDD in 25.304 CR 25.304 Nokia  
The documents was presented by Juho Pirskanen from Nokia.

**Discussion:**

Subclause 8.2b seems to make the Cell\_FACH enhancement mandatory for the UE. But the final decision on optional/mandatory is not taken yet.

**Decision:** The CR was agreed in principle. 25.304 CR number 0156.

R2-071163 Enhanced CELL\_FACH in FDD 25.321 CR 25.321 Nokia  
The document was revised before presentation in R2-071555:

R2-071555 Enhanced CELL\_FACH in FDD 25.321 CR 25.321 Nokia  
The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

Subclauses 9.2.1.1a and 9.4: titles may be incorrect. An alternative would be to use a new subclause.

Subclause 11.6: it is not totally clear that this applies to FDD only (see e.g. subclause 1.6.1.1).

Subclause 6.2.1, last column: there is no HARQ in the enhanced Cell\_FACH State.

Subclause 1.2.1.1a: the bullet point description needs to be clarified (with regards to e.g. what needs to be included).

**Decision:** The CR was agreed in principle. 25.321 CR number 0318.

R2-071164 Enhanced CELL\_FACH in FDD 25.331 CR 25.331 Nokia  
The document was revised befor epresentation in R2-071556:

R2-071556 Enhanced CELL\_FACH in FDD 25.331 CR 25.331 Nokia, Siemens Networks  
The document was presented by Markus Wimmer from Siemens.

**Discussion:**

The exact support needs to be clarified.

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Subclause 8.3.1.6: it is not totally clear that this applies to FDD only.

Subclause 8.1.1.6.6: still refers to the downlink hs-pdsch SI for connected mode. Needs to be corrected.

There are different information (independent configurations) possible between idle and connected mode in the document. After discussions, *SIB5 configuration only will be used, and will be applicable to both idle and connected.*

There are still some MAC-ehs.

Subclause 10.3.6.y.y: The sentence stating the the UTRAN should use the first index needs to be clarified (as it may be understood as the first code itself).

Subclause 8.5.11: FDD/TDD applicability needs to be clarified (e.g. the beginning of the subclause is for FDD only).

**Decision:** The document was noted.

R2-071495 Introduction of Enhanced CELL\_FACH state: Direct data transmission to the UE in CELL\_PCH state CR 25.331 Nokia, Siemens Networks  
The document was presented by Markus Wimmer from Siemens.

**Discussion:**

Subclause 8.5.ph: If the UTRAN does not get the RACH message, the UE could be in Cell\_FACH while the UTRAN believes the UE is in Cell\_PCH.

Subclause 8.5.ph seems to refer to the paging subclause, while the two are not configured together.

10.3.6.pa (/yy)

Subclause 8.6.3.1b: The new bullet point should be after the clause dealing with CRNTI inclusion. Also, this is FDD only. What about the URA\_PACH State ?

Subclauses 7.2.2.1 / 7.2.2.3 / 8.3.1.6: conflict on information required to be received by the UE.

**Decision:** The document was noted.

R2-071496 Introduction of Enhanced CELL\_FACH state: mapping of the PCCH to HS-DSCH CR 25.331 Nokia, Siemens Networks  
The document was presented by Markus Wimmer from Siemens.

**Discussion:**

The CR will be revised for the optionality/mandatory support of the feature.

Subclause B.3.3: last added paragraph. "selected DSCH" (in the DRx sentence) may be incorrect. HS-SCCH monitoring after receiving the PICH is not clear. However, in TS 25.211, the association (of PICH with HS-SCCH) is described.

Making the distinction new/old requirements (before the mode distinctions) would avoid the duplication of legacy requirements and would ease the visibility on the common part.

Subclause 8.5.pd: second line and title: typos.

**Decision:** The document was noted.

**Quality reporting**

R2-071216 Configuration of RACH measurements in HS-FACH CR 25.308 Rel-7 Alcatel-Lucent

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The document was presented by Stanislas Bourdaut from Alcatel-Lucent.

**Discussion:**

**Decision:** The CR was agreed in principle and will be merged with any additional update on the subject. 25.308 CR number 0020.

R2-071391 Feedback of Channel Quality

The document was presented by Paul Bucknell from Philips.

**Discussion:**

**Decision:** The document was noted.

Philips

R2-071404 UL reporting rate for DL quality measurements in CELL\_FACH

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

Subclause 3.1: which error performance was meant ?

**Decision:** The document was noted.

Nokia

R2-071191 Need for additional quality reporting in Enhanced CELL\_FACH

The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The document was noted.

Ericsson

R2-071453 Channel Quality Reporting on RACH

The document was presented by Seung June Yi from LG Electronics.

**Discussion:**

**Decision:** The document was noted.

LG Electronics Inc.

R2-071454 Triggering of CQ Reporting on RACH

(Based on CQI reporting decision).

LG Electronics Inc.

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Conclusions (source: Chairman of the session):

*Need for quality updates in CELL\_FACH needed?*

*-> No (should not rely on CELL\_FACH for long camping)*

*Need for quality report for PCH->FACH initiated by UL DTCH transmission?*

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-> Yes (should have this as we have quality report for case that first message is on CCCH)

Need for channel quality for DL DTCH in PCH state?

-> No strong need - but similar functionality may be needed for other reasons

Report in UL MAC header or RRC or layer 1?

-> MAC (in a new lower MAC terminated in Node B): LG

-> RRC: Nokia, Ericsson, Motorola, Infineon, Qualcomm

-> Layer 1: Philips, ALU

RRC reporting agreed

Type of report RSCP, Ec/Io, CQI or something new (##x)?

Same as already included in RRC reports

---

**DRX:**

R2-071161 Discontinuous reception in CELL-FACH 25.304 HUAWEI  
The document was presented by Sherry Zheng from Huawei.

**Discussion:**

**Decision:** The document was noted.

R2-071190 Solution for optimizing the UE battery life in Enhanced CELL\_FACH Ericsson  
The document was presented by Janne Peisa from Ericsson.

**Discussion:**

Could the DRx of Cell\_FACH and CPC not use the same periods, for simplicity ? CPC values would have to be extended.

**Decision:** The document was noted.

R2-071403 Discontinuous reception in CELL\_FACH Nokia  
The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

**Decision:** The document was noted.

R2-071427 Enhanced CELL\_FACH and power saving NEC  
The document was presented by David Lecompte from NEC

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**Discussion:**

**Decision:** The document was noted.

R2-071557 DRx Schemes comparison

Nokia

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

Question on the choice of the operating points.

There are two ways to improve battery consumption.

**Decisions:**

- DRx scheme will not be introduced in Cell\_FACH.

- No new mechanism for FACH to PCH transition will be introduced (Cell\_FACH is a transition state).

- Multilevel DRx will be introduced in PCH State.

- PCH to FACH trigger for transition will be: uplink data on dch or dtch.

- (Downlink data on dch or dtch do not trigger transfer from PCH to FACH state).

- An HS-SCCH triggers an RRC measurement report. Configured by UTRAN as cell-specific configuration (the need for UE specific configuration is tbd).

**CELL/URA PCH:**

R2-071504 Principles for the new CELL\_PCH/URA\_PCH operation

QUALCOMM Europe, Vodafone

The document was presented by Francesco Grilli from Qualcomm.

**Discussion:**

This was not yet submitted to RAN WG1.

Could not the SIB or reconfiguration change the R'99 paging, as an alternative ?

This is removing one code, but adding one HS-SCCH.

**Decision:** RAN WG1 will be consulted for the feasibility/complexity, highlighting on the paging. An LS will be sent in R2-071584 (Qualcomm).

R2-071340 Improved network load control for CELL/URA\_PCH states

Nokia

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

It was clarified that the difference between the "wait\_time proposal" and the retransmission scheme is that the cell update retransmission increases the probability that the UE misses the cell update confirm. Also, the Wait\_Indication can be controlled by the network.

**Decision:** The document was noted.

Proposal 1, wait time in Cell Update confirm, was agreed for the Rel-7 (TDD mode TBD).

Proposol 2, existing redirection in RRC connection release can be used, was agreed.

R2-071185 Reordering in Enhanced Cell FACH

InterDigital

Mr. Stephen Terry

The document was presented by Paul Marinier from Interdigital.

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**Discussion:**

Removing the reordering function for some logical channels would be an alternative.

**Decision:** The document was noted. The problem needs to be solved.

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## 8 Improved L2 support for high data rates

R2-071192 Open issues for Improved L2 support of high data rates  
The document was presented by Janne Peisa from Ericsson.

Ericsson

**Discussion:**

Rel-6 RLC with MACe-hs, or RLC-flexible-PDU-size with MACe-hs ? This should be added as an open issue.  
The maximum length of the length field is 11 bits.

*RLC format:* No agreement to change the RLC format so far.

*MAC:* The four header fields were agreed. Those four header fields will be present for each SDU.

Indication of the end of the header needs to be clarified.

**Decisions:**

1- *RLC format:* No agreement to change the RLC format so far.

2- *MAC:* The four header fields were agreed. Those four header fields will be present for each SDU.

3- TSN size agreed: 6 bits.

4- The maximum length of the length field is 11 bits.

5- Indication of the end of the header needs to be clarified.

R2-071196 L2 enhancements: Baseline CR to MAC  
The document was presented by Janne Peisa from Ericsson.

CR 25.321 Rel-7 Ericsson

**Discussion:**

Subclause 4.2.3x: mapping should be added also for the UTRAN side.

**Decision:** This will be considered as the baseline 25.321 CR on the subject.

R2-071586 L2 enhancements: Baseline CR to MAC

CR 25.321 Rel-7 Ericsson

R2-071197 L2 enhancements: Baseline CR to RLC

CR 25.322 Rel-7 Ericsson

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The document was presented by Janne Peisa from Ericsson.

**Discussion:**

Subclause 11.3.4.10: the handling may not be appropriate in the case of flexible PDU size. The maximum value of the maximum RLC PDU size should be known by the UE.

**Decision:** This will be considered as the baseline 25.322 CR on the subject.

R2-071198 L2 enhancements: Draft CR to RRC

The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

**Decision:** This will be considered as the baseline 25.331 CR on the subject.

CR 25.331 Rel-7 Ericsson

R2-071194 Optimization to the baseline MAC-ehs header

The document was presented by Janne Peisa from Ericsson.

**Discussion:**

**Decision:** The document was noted.

Ericsson, AsusTek,  
Interdigital, Huawei, ZTE

R2-071268 Enhanced MAC-hs header optimization

The document was presented by Chengyu Yu from Huawei.

**Discussion:**

Same header for dedicated and cell\_FACH was decided.

**Decision:** The document was noted.

HUAWEI

R2-071392 MAC-ehs header structure

The document was presented by Paul Bucknell from Philips.

**Discussion:**

**Decision:** The document was noted.

Philips

R2-071405 On MAC-ehs header structures

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

**Decision:** The document was noted.

Nokia

R2-071490 Enhanced MAC-hs header optimization

The document was presented by Elliot Jen from ASUSTeK.

**Discussion:**

**Decision:** The document was noted.

ASUSTeK

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R2-071542 Flexible MAC-hs Format  
The document was presented by SungDuck from LG Electronics.

LG Electronics Inc.

**Discussion:**  
One header format, byte aligned, was agreed before.  
**Decision:** The document was noted.

R2-071195 RLC optimization for Improved L2  
The document was presented by Janne Peisa from Ericsson.

Ericsson, Nokia, Samsung

**Discussion:**  
**Decision:** The document was noted. There is support for the proposal.  
There is support for the proposal.  
Ericsson, Nokia, Samsung, Qualcomm, ALU, Siemens, VF, LG, Motorola, T-Mobile, TIM  
Object: ASUSTeK  
CRs independent from the Improved L2 will be prepared (Ericsson, Nokia, Siemens).

R2-071487 RLC header optimization with flexible PDU size  
The document was revised before presentation in R2-071585:

ASUSTeK

R2-071585 RLC header optimization with flexible PDU size  
The document was presented by Sam Jiang from ASUSTeK.

ASUSTeK

**Discussion:**  
Proposal 3:  
- Asustek,  
Proposal 3+:  
- LG

**Decision:**  
Proposal 1: Not agreed.  
Proposal 2: Not agreed. 7/15 bits LI, configured by RRC, remain.

R2-071140 L2 header optimization for HSPA+  
The document was presented by (...) from Samsung.

Samsung

**Discussion:**  
**Decision:** The document was noted.



**Current minutes of the 57bis TSG-RAN WG2 meeting**

R2-071543 Discussion on RLC Length Indicator LG Electronics Inc.  
The document was presented by SungDuck from LG Electronics.  
**Discussion:**  
**Decision:** The document was noted.

R2-071470 L2 Improvements and polling Qualcomm Europe  
The document was presented by Etienne Chaponniere from Qualcomm.  
**Discussion:**  
**Decision:** The document was noted.

R2-071193 Configuration of the Enhanced RLC protocol Ericsson  
The document was presented by Janne Peisa from Ericsson.  
**Discussion:**  
**Decision:** The proposal was agreed. RLC re-establishment needed or not when reconfiguration from flexible to fixed is ffs.

R2-071472 L2 improvements - configuration Qualcomm Europe Mr. Etienne Chaponniere

R2-071471 L2 improvements and UE processing Qualcomm Europe  
The document was presented by Etienne Chaponniere deom Qualcomm.  
**Discussion:**  
**Decision:** The document was noted. The two limitations are required.

R2-071587 MAC-ehs header: summary and open issues Ericsson  
The document was presented by Janne Peisa from Ericsson.  
**Discussion:**  
**Decision:** This was agreed as the new baseline.

R2-071198 L2 enhancements: Draft CR to RRC CR 25.321 Rel-7 Ericsson

R2-071186 Mobility and Interworking Between R6 and R7 InterDigital  
This document was revised before presentation in R2-071568:

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R2-071568 Mobility and Interworking Between R6 and R7

InterDigital

For remaining documents, companies were asked to provide comments off-line to the authors.

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## 9 MBMS FDD Physical layer Enhancements

R2-071331 MBMS FDD and TDD Physical Layer Improvements

LG Electronics Inc., IP Wireless

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

It was clarified that SIB11bis was excluded on purpose. In SIB11, for the interfrequency case, only frequencies are indicated, not the full list of neighbour cells. On an MBMSFN cell, the SIB11 only contains neighbour cell information for MBMSFN cells.

What about the application layer coding ?

For the selection of the SFN frequency, the equivalent PLMN concept may be added.

**Decision:** The document was noted. The proposals in the document were agreed in principle, except the list below:

- cell (re-)selection to be discussed in the Nokia document R2-071420

- UE cap. aspects to be confirmed with RAN1.

- for FDD DRX proposal based on TFCI to be confirmed.

Additionally, agreed that EPLMNs can be used to determine suitability of SFN cell.

R2-071420 MBMS SFN Operation Principles

Nokia

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

**Decision:** The document was noted. The Minimum MBMS service area size is an MBMSFN cluster. Neighbour inter frequencies (but not PSC) and need to perform periodic MCCCH reading on neighbour is indicated on MBSFM carrier. Neighbour intra-frequency clusters (PSC) can be given by the network. SIB11 only.

Agreed items:

Proposals A, B, C, D.

Question 3.1: cluster (re-) selection left to UE implementation.

To be captured in stage 2 if necessary

An LS will be sent to RAN1/4, to inform them on the decision not to specify cluster (re-)selection criteria (no action for them). In R2-071589 (LG Electronics).

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R2-071409 UE capabilities for MBSFN

Nokia

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

**Decision:** The document was noted.

R2-071334 MBMS FDD and TDD Physical Layer Improvements

CR 25.331 Rel-7 LG Electronics Inc., IP Wireless

The document was presented by Patrick Fischer from LG Electronics.

**Discussion:**

**Decision:** The document was noted.

R2-071334 MBMS FDD and TDD Physical Layer Improvements

CR 25.331 Rel-7 LG Electronics Inc., IP Wireless

The document was presented by Patrick Fischer from LG Electronics:

**Discussion:**

For any optional IE not included, the UE behaviour will be stated as not specified.

For any mandatory IE not included, the UE behaviour will be to ignore it.

**Decision:** This will be considered as the baseline CR.

R2-071338 MBMS FDD and TDD Physical Layer Improvements

CR 25.304 Rel-7 LG Electronics Inc., IP Wireless

The document was presented by Patrick Fischer from LG Electronics:

**Discussion:**

**Decision:** This will be considered as the baseline CR.

R2-071336 MBMS FDD and TDD Physical Layer Improvements

CR 25.306 Rel-7 LG Electronics Inc., IP Wireless

The document was presented by Patrick Fischer from LG Electronics:

**Discussion:**

**Decision:** The document was noted.

R2-071335 MBMS FDD and TDD Physical Layer Improvements

CR 25.346 Rel-7 LG Electronics Inc., IP Wireless

Mr. Patrick Fischer

R2-071336 MBMS FDD and TDD Physical Layer Improvements

CR 25.306 Rel-7 LG Electronics Inc., IP Wireless

Mr. Patrick Fischer

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## 10 MBMS TDD Physical layer Enhancements

R2-071500 UE Capabilities for TDD MBSFN IPWireless

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## 11 MBMS LCR TDD Physical layer Enhancements

R2-071327 LCR TDD physical layer enhancements text proposal for TR 25.905 TD-Tech  
The document was revised before presentation i R2-071581:

R2-071581 LCR TDD physical layer enhancements text proposal for TR 25.905 TD-Tech  
The document was presented by (...) from TD-Tech.

**Discussion:**

Most of the text concerns RAN WG1.

Changes in other subclauses would be needed.

**Decision:** The document was noted. We will wait for the feedback from RAN WG1.

---

## 12 GNSS in UTRAN

No input.

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## 13 1.28 Mcps TDD Enhanced Uplink

R2-071348	Addition of signature sequence group information for the E-HICH related to non-scheduled transmission in 1.28Mcps TDD mode	CR 25.331	Rel-7	CATT, TD-TECH, ZTE	Mrs. Haiyang Quan
R2-071497	Some Small Editorial Corrections to TS 25.321	CR 25.321	Rel-7	CATT	Mrs. Haiyang Quan

**Incoming LSs:**

R2-071522 (R3-070484, to RAN2). LS on MBMS Session Update of the MBMS Service Area RAN WG3  
 The document was presented by Juho Pirskanen from Nokia.

**Discussion:**  
**Decision:** The document was noted. Nokia and Siemens will provide the CRs for the next [meeting](#).

R2-071524 (RP-070268, to RAN2). LS on Removal of limitation of SRNC identity TSG RAN  
 The document was presented by Agnes Revel from Motorola.

**Discussion:**  
 R2-071341 (Nokia) is a related document.  
**Decision:** The document was noted.

R2-071526 (IETF RoHC WG Chair). Reply LS (to R2-070434) on Questions regarding the ROHC Protocol IETF RoHC WG Chair  
 The document was presented by Juho Pirskanen from Nokia.

**Discussion:**  
**Decision:** The document was noted.

R2-071476	Handling AMD PDU outside the reception window	CR	25.322	Rel-7	ASUSTeK	Mr. Sam Jiang
R2-071478	Improvement of RLC reset procedure	CR	25.322	Rel-7	ASUSTeK	Mr. Sam Jiang
R2-071482	Clarification on Pending Activation Time of Integrity Protection during SRNS Relocation	CR	25.331	Rel-7	ASUSTeK	

Note: All CRs "agreed in principle" at RAN2-57bis will have to be re-presented at RAN2-58.

R2-071131 Use of Integrity protection algorithm UIA/2: removal of a 'shall' in a note CR 25.331 Rel-7 ETSI MCC  
 The document was presented by Claude Arzelier from ETSI MCC.

**Discussion:**  
**Decision:** Agreed in principle, 25.331 CR number 2992.

**Current minutes of the 57bis TSG-RAN WG2 meeting**

R2-071141 Removing an incomplete optimization for RLC operations during HSDPA cell change  
The document was presented by Kyeong in Jeong from Samsung.

Samsung, Ericsson

**Discussion:**

This would have impact on 25.321 as well. This would make the Rel-7 behaviour different than the one of for earlier releases, while legacy UEs would have to be handled anyway.

Would there be any legacy issues (Alcatel-Lucent) ? Would earlier implementation be possible ?

**Decision:** The document was noted. Potential legacy issues may be checked. The document will be seen again on the Thursday.

On the Thursday, the Rel-7 CR was agreed in principle. 25.322 CR 0306. The potential addition of the sentence on earlier implementability on the coversheet will be discussed at the next meeting.

R2-071154 Mobile TV mode switching Delay optimization  
The document was presented by Sherry Zheng Yu from Huawei.

HUAWEI

**Discussion:**

It was commented by the presenter's company that an SA4 LS stated that the application startup time may be large, which would justify some optimisations.

**Decision:** The document was noted.

R2-071166 T305, CELL FACH & SRNC RELOCATION  
The document was presented by Johan Johansson from Huawei.

HUAWEI

**Discussion:**

Would the alternative of having common T305 values for all RNCs in the network (Motorola) be really possible ?

The use of Network mobility signalling to modify T305 seems preferable.

**Decision:** This will be included in the SRNS Relocation container. Huawei will prepare a CR for RAN2-58.

R2-071208 Marooned UE in "Camped on any cell"  
The document was presented by Nathan Tenny from Qialcomm.

QUALCOMM Europe

**Discussion:**

**Decision:** The document was noted.

R2-071209 Changeable Parameters in UE Capability  
The document was presented by Nathan Tenny from Qualcomm.

QUALCOMM Europe  
Nokia

**Discussion:**

What about a Rel-7 UE in a Rel-6 network ?

What if the UE capability change is a downgrade that conflicts with the QoS requirement ?

- Details of what can be changed may allow to move forward on this issue.

**Current minutes of the 57bis TSG-RAN WG2 meeting**

- What may/should the network do in this case ?
- What should the UE do if the network does nothing ?

**Decision:** The document was noted.

R2-071212 PDCP variables handling at SRNS relocation CR 25.323 Alcatel-Lucent  
The document was presented by Stanislas Bourdeaut from Alcatel-Lucent.

**Discussion:**

This is meant to be applicable to earlier releases.

**Decision:** The CR was agreed in principle (sentence on earlier implemtability will be added on the coversheet). 25.323 CR number 0302.

R2-071218 Cell identifier encoding alignment CR 25.331 Rel-7 Alcatel-Lucent  
The document was presented by Stanislas Bourdeaut from Alcatel-Lucent.

**Discussion:**

Radius Cell Id needs to be included in the definition.

RAN WG3 is discussing the RNC Id bits. Hence, refering the RAN3 associated specification may be better instead.

**Decision:** An LS will be sent to RAN3. The CR was agreed in principle. 25.331 CR number 2993.

R2-071311 Correction to signalling connection release at T314/315 expiry CR 25.331 Rel-7 Motorola  
The document was presented by Agnes Revel from Motorola.

**Discussion:**

The note is mentioned in the coversheet, but note in the CR (this should be removed from the coversheet).

**Decision:** The CR was agreed in principle. 25.331 CR number 2994.

R2-071312 Cell Update Confirm with RLC re-establish indicator CR 25.331 Rel-7 Motorola  
The document was presented by Agnes Revel from Motorola.

**Discussion:**

This situation has been in the specifications since the R'99. This will be added in the coversheet.

**Decision:** The CR was agreed in principle. 25.331 CR number 2995.

R2-071321 Correction of STTD Indicator for F-DPCH Tx Diversity CR 25.331 Rel-7 Ericsson  
The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

**Decision:** The CR was agreed in principle. 25.331 CR number 2996.

R2-071323 Introduction of GAN PS handover CR 25.306 Rel-7 Ericsson  
R2-071324 Introduction of GAN PS handover CR 25.331 Rel-7 Ericsson

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The document was presented by Sven Ekemark from Ericsson.

**Discussion:**

GERAN has introduced information on support in the (UE) classmark 3.

Inter-RAT PS Handover was specified in the Rel-6.

**Decision:** An LS will be sent to GERAN to enquire because the linkage between the various intersystem/intermode handovers. In R2-071569 (Juho).

Later-on, CRs agreed in principle. CR numbers 0156 (25.306) and 2997 (25.331).

The LS to GERAN (R2-071569) was withdrawn as a consequence.

R2-071341 Extension of RNC-ID

Nokia

The document was presented by Juho Pirskanen from Nokia.

**Discussion:**

**Decision:** This was agreed in principle. An LS will be sent to RAN3, in R2-071571.

R2-071288 Feature Clean Up: Removal of DRAC leftover

CR 25.331

Siemens Networks

The document was presented by (...) from Siemens.

**Discussion:**

**Decision:** The CR was agreed in principle. 25.331 CR number 2998.

R2-071352 S-CCPCH and PCH channel selection for Band IV or Band IX or Band X

CR 25.304

Siemens Networks

The document was presented by (...) from Siemens.

**Discussion:**

**Decision:** The CR was agreed in principle. 25.304 CR number 0157.

R2-071353 Initialisation of CFN calculation for CELL\_FACH

CR 25.331

Siemens Networks

The document was presented by (...) from Siemens.

**Discussion:**

**Decision:** The CR was agreed in principle. 25.331 CR number 2999.

R2-071410 Ping-pong control

Nokia, 3, Ericsson,  
Motorola

The document was presented by Simone Proveddi from Nokia.

**Discussion:**

The CR is meant to be for the Rel-7, but that it would be possible that a Rel-6 UE implement it.

A default value should be stated.

The parameter would not be applied for the switch-on case.

How should the 'may store' be read? Is the feature meant to be optional? The previous value may be used instead.

The application of the offset is meant to be mandatory.



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Parameter values/ranges need to be further discussed.

Would an earlier implementation be possible ? Would there be any impacts to idle mode testing ? Probably not, as this is a Rel-7 feature. Rel-6 implementation will be possible.

**Decision:** The CRs ~~were~~was agreed in principle. 25.331 CR 3000. 25.304 CR 0158.

R2-071424 Optimization of switching between MBMS broadcast TV channels transmitted on ptp bearers (MBMS for Mobile TV) CR 25.331 Rel-7 NEC, Ericsson

The document was presented by David Lecompte from NEC.

**Discussion:**

**Decision:** The CR was agreed in principle. 25.331 CR number 3001.

R2-071425 Alignment of tabular to ASN.1 for SIB11/SIB12 and event 1J CR 25.331 Rel-7 NEC

The document was presented by David Lecompte from NEC.

**Discussion:**

**Decision:** The CR was agreed in principle. 25.331 CR number 3002.

R2-071426 Correction of Out of Sequence Reception function CR 25.322 Rel-7 NEC

The document was presented by David Lecompte from NEC.

**Discussion:**

'greater than or equal to' should be used instead, in the phrasing.

A modulo should be used.

**Decision:** The CR was agreed in principle. 25.322 CR 0307.

R2-071436 Use of DAR over CCCH LG Electronics Inc, Samsung

R2-071437 Draft CR to 25.322 DAR over CCCH LG Electronics Inc., Samsung

The document was presented by (...) from Samsung.

**Discussion:**

What does it give in addition to the Cell\_FACH enhancement feature ?

Some text (in the 25.331 CR) may lead to believe that this is optional for the UE.

This will be included in the Rel-7, optional for the UE.

Duplication avoidance is needed for MBMS, so this may somehow be linked with the MBMS feature.

Duplication avoidance and re-ordering is optional for the CCCH. This will be clarified with a note.

**Decision:** This will be included in the Rel-7, optional for the UE. The CR was agreed in principle. 25.322 CR 0308.

R2-071438 Draft CR to 25.331 DAR over CCCH LG Electronics Inc, Samsung

The document was presented by (...) from Samsung.

**Current minutes of the 57bis TSG-RAN WG2 meeting**

**Discussion:**

No configurable parameters (no RRR CR).  
RLC CR only - configuration of parameter is UE optional.

**Decision:** The document was noted. The CR was not agreed. No configurable parameters (no RRC CR).

R2-071439	Control Information Transmission in RLC					LG Electronics Inc.
R2-071440	Draft CR to 25.322 on Control Information Transmission in RLC					LG Electronics Inc.

Document R2-071439 was presented by (...) from Samsung.

**Discussion:**

**Decision:** The document was noted. R2-071440 was noted as a consequence.

R2-071476	Handling AMD PDU outside the reception window	CR	25.322	Rel-7	ASUSTeK
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The document was presented by Sam Jiang from ASUSTeK.

**Discussion:**

**Decision:** The document was noted.

R2-071478	Improvement of RLC reset procedure	CR	25.322	Rel-7	ASUSTeK
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The document was presented by Sam Jiang from ASUSTeK.

**Discussion:**

**Decision:** The document was noted. Proposal 4 may be considered again.

R2-071482	Clarification on Pending Activation Time of Integrity Protection during SRNS Relocation	CR	25.331	Rel-7	ASUSTeK
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The document was presented by Sam Jiang from ASUSTeK.

**Discussion:**

This scenario should not happen today, see TS 33.102.

**Decision:** The document was noted.

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## 15 Study Item on scope of future FDD HSPA Evolution

R2-071199	Enhanced SRNS relocation for the HSPA Evolution				QUALCOMM Europe	Mr. Francesco Grilli
R2-071434	Analysis on Uu interface aspect for Enhanced SRNS relocation for the HSPA Evolution	CR			QUALCOMM Europe	Mr. Francesco Grilli

## 16 Release 5 &amp; other Release 6 corrections

R2-071513	(R1-071249, to RAN2). Reply LS (to R2-070953) on High Bit Rate SRB			RAN WG1	Alcatel-Lucent
R2-071517	(R3-070499, to RAN2). LS on Clarification on two scenarios "Enhanced Broadcast over lur"			RAN WG3	Motorola
<u>Those LSs were postponed for the next meeting.</u>					
R2-071132	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	CR	25.993	Rel-7	Alcatel-Lucent
R2-071133	Addition of RAB combinaison for Voip 17.2kbps with Rohc and Rel-6 RLC	CR	25.993	Rel-7	Alcatel-Lucent
R2-071168	Withdrawn before presentation (not available).	CR	25.993	Rel-7	Siemens Networks
R2-071169	Additional DCH RAB Combinations	CR	25.993	Rel-7	Siemens Networks
R2-071181	HSPA RAB Combinations	CR	25.993	Rel-7	Siemens Networks
R2-071423	Multiplexing option selection in case of E_DCH_TRANSMISSION equal FALSE	CR	25.331	Rel-6	Infineon Technologies
R2-071423	MBMS UE linking for enhanced broadcast mode				Mr. Roland Gruber NEC
R2-071499	Correction of the IE 'MBMS service identity' included in the IE 'RAB info'	CR	25.331	Rel-6	Ericsson Mr. David Lecompte Mr. Sven Ekemark

## 17 Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL &amp; 64 QAM DL)

R2-071178	Release-7 dependencies				Samsung, Ericsson, Motorola, Nokia	Mr. Gert-Jan van Lieshout
R2-071219	Correction on introduction of 16QAM uplink	CR	25.331	Rel-7	Alcatel-Lucent	
R2-071220	Correction on 64QAM and MIMO UE capability in RRC	CR	25.331	Rel-7	Alcatel-Lucent	
R2-071221	Correction to CPC UL DTX for addition of a new cell in the active set.	CR	25.331	Rel-7	Alcatel-Lucent	
R2-071406	Considerations on Transport block tables in 64QAM				Nokia	Mr. Juho Pirskanen
R2-071407	Clarification on assigning HARQ process IDs for MIMO	CR	25.331	Rel-7	ASUSTeK	
R2-071421	64QAM and MIMO lower categories				Nokia	Mr. Luis Barreto Mr. Etienne Chaponnière
R2-071473	CPC parameter ranges				Qualcomm Europe	Mr. Etienne Chaponnière
R2-071474	MIMO - DL 64QAM UE categories				Qualcomm Europe	Mr. Etienne Chaponnière
R2-071509	(R1-071238, to RAN2). LS on 64QAM HSDPA and HSDPA MIMO UE categories				RAN WG1	Qualcomm
<u>The LS R2-071509 was postponed for the next meeting.</u>						

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## 18 Other Rel-7 Study Items

No input.

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## 19 Study item on 3G Home NodeB

**R2-071502** 3G Home NodeB Study Item Technical Report

Motorola

R2-071529 Mobility and Access Control Requirements for LTE Home-eNodeB  
The document was presented by Dave Fox from Vodafone.

NTT DoCoMo, Orange, Telecom  
Italia, Vodafone Group,

**Discussion:**

Interworking with GERAN is also meant to be supported.  
This is for LTE.

**Decision:** This will go in one annex in the Stage 2.

Refinements of the requirements will also be discussed *by email* (Vodafone). In R2-071601.

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## 20 TE18

**LSs:**

**R2-071506** (GP-070517, to RAN2). Reply LS (to S1-070300) on Registration in Densely populated area

TSG GERAN

Ericsson

The LS was postponed for the next meeting.

R2-071521 (GP-070497, to RAN2. Reply LS (to S1-061408) on feasibility of GAN enhancements  
Harald (...) (T-Mobile) presented this document.

TSG GERAN

**Discussion:**

An LS will be sent to GERAN from the RAN2 Kobe meeting (the answer is expected for the following week).

**Decision:** This will be discussed under the form of points to be discussed with GERAN. This will be done in Kobe.

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## 21 Liaisons and outputs to other groups

### LTE:

R2-071566 LS on security requirements on the eNode B  
The LS was approved.

RAN WG2

R2-071559 LS to GERAN/2 on neighbour cell list in LTE  
Dave. Revised in R2-071573:

Vodafone

R2-071573 LS to GERAN/2 on neighbour cell list in LTE  
The LS was approved.

Vodafone

R2-071567 LS to RAN1 on Time alignment principles for LTE (exact title tbd)  
The document was presented by Gert-jan van Lieshout from Samsung.

Samsung

#### Discussion:

Is the drift measurement possible ? This is only a question onyhow.

**Decision:** The content of the LS was approved. Number R2-071602 was allocated following the meeting, in order to update the source and correct the doc number on the top.

R2-071572 LS to RAN1 on LS on CQI feedback

Huawei

The document was presented by Johan Johansson from Huawei.

#### Discussion:

**Decision:** The LS was approved in R2-071603 (to update the source).

### Non-LTE:

R2-071569 LS to GERAN on questions on inter-system/modes handovers  
The LS was withdrawn before presentation (not available).

Nokia

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R2-071571 LS to RAN3 on extension of RNC-Id  
The document was presented by Juho Pirskanen from Nokia. Nokia

**Discussion:**

**Decision:** The LS was approved as it was.

R2-071584 LS to RAN1 on CELL\_PCH/URA\_PCH operation in Enhanced CELL\_FACH  
The document was presented by Nathan Tenny from Qualcomm. Qualcomm

**Discussion:**

Text will be rephrased to mention Paging Type 1 (in two places).

**Decision:** The LS was revised in R2-071596, approved.

R2-071589 LS to RAN1/RAN4 on cluster (re-)selection  
The document was presented by Patrick Fischer from LG Electronics. LG Electronics

**Discussion:**

First sentence needs to be clarified.

TSG RAN needs to be copied.

**Decision:** The content of the LS was approved in R2-071597, that was revised again in R2-071605 in order to update the source. Approved.

R2-071593 Uplink VoIP Scheduling  
This document was presented by Jinsock Lee from NEC. NEC

**Discussion:**

"Companies views expressed in RAN2".

**Decision:** *Email agreement. See Point 6.*

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## 22 Email agreement/approvals

**Subject**

**Rapporteur**

**Point 1:**

R2-071592 Email discussion on UE State during MBMS Reception Vodafone Group

**Point 2:**

R2-071389 LTE System Analysis of Control Plane and User Plane Latency and Handover Interruption China Mobile, KPN,

**Current minutes of the 57bis TSG-RAN WG2 meeting**

[Redacted] Times

NTT DoCoMo,  
Orange, Sprint, T-  
Mobile, Telecom  
Italia, Vodafone

Rapporteur: Dave Fox, Vodafone.

The document was revised into:

[Redacted]

China Mobile, KPN,  
NTT DoCoMo,  
Orange, Sprint, T-  
Mobile, Telecom  
Italia, Vodafone

LTE System Analysis of Control Plane and User Plane Latency and Handover Interruption

R2-071607 Times

This will be discussed again at RAN2-58 (see R2-071810 and R2-071811).

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**Point 3:**

R2-071598 EUTRAN Stage 2 Update

The document was approved.

Nokia

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**Point 4:**

R2-071599 Email discussion on cell reselection parameters in LTE

This will be discussed again at RAN2-58.

Ericsson

**Point 5:**

R2-071600 LTE System Information content & delivery

This will be discussed again at RAN2-58.

Motorola

**Point 6:**

R2-071593 Uplink VoIP Scheduling

The LS was approved over the reflector in R2-071606.

NEC

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**Point 7:**

R2-071527 Definitions relating to SFN in E-MBMS

This will be discussed again at RAN2-58.

Vodafone Group

**Point 8:**

R2-071601 Mobility and Access Control Requirements for LTE Home-eNodeB

This will be discussed again at RAN2-58.

Vodafone Group

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## 23 Any other business

During the next meeting (RAN2-58), the LTE will start on the Monday.  
RAN2-58 will close at 16h00.

## 24 Closing of the meeting

The Chairman closed the meeting and thanked the delegates for their work.

## Annex A: List of delegates (attendees)

Name	Representing	Phone	Email
Mr. Aminaka, Hiroaki	NEC Corporation	+81 44 396 3478	aminaka@cd.jp.nec.com
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Annex B: List of documents

Doc. Name	Title	CR?	Source	Reserved by	Agenda Item
R2-071130	RAN2-57bis Agenda		WG Chairman		02: Approval of the agenda
R2-071131	Use of Integrity protection algorithm UIA/2: removal of a 'shall' in a note	CR	25.331 Rel-7 ETSI MCC		14: TEI7
R2-071132	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	CR	25.993 Rel-7 Alcatel-Lucent		16: Release 5 and other Release 6 corrections
R2-071133	Addition of RAB combinaison for Voip 17.2kbps with Rohc and Rel-6 RLC	CR	25.993 Rel-7 Alcatel-Lucent		16: Release 5 and other Release 6 corrections
R2-071134	Transmission of Scheduling Information for Handover in RRC Dedicated Message		Panasonic		05.10: LTE_ACTIVE mobility procedures
R2-071135	Concerns on the group scheduling		samsung		05.5: Scheduling (UL & DL contributions)
R2-071136	Byte alignment of L2 header		Nokia, Samsung, Texas Instruments Inc		05.14: Other LTE stage 2 subjects
R2-071137	PDCP/RLC/MAC header format		samsung		05.14: Other LTE stage 2 subjects
R2-071138	Variable Size RLC Sequence Number		samsung		05.14: Other LTE stage 2 subjects
R2-071139	Lite RLC vs. Normal RLC		samsung		05.14: Other LTE stage 2 subjects
R2-071140	L2 header optimization for HSPA+		samsung		08: Improved L2 support for high data rates
R2-071141	Removing an incomplete optimization for RLC operations during HSDPA cell change		samsung		14: TEI7
R2-071142	System information content		Panasonic		05.3: System Information content & delivery
R2-071143	Random Access Preamble signatures usage		Panasonic		05.4: Random access procedure
R2-071144	Measurement Functionality Split for Broadcast and Dedicated		Panasonic		05.10.1: Intra LTE
R2-071145	MCCH Transmission in LTE		Panasonic		05.12.2: Stage 2 inputs
R2-071146	Uplink feedback for eMBMS operations		Panasonic		05.12.2: Stage 2 inputs
R2-071147	UL HARQ Protocol Issues		Panasonic		05.14: Other LTE stage 2 subjects
R2-071148	RLC TM Mode for U-Plane		Panasonic		05.14: Other LTE stage 2 subjects
R2-071149	RLC PDU format for LTE		Panasonic		05.14: Other LTE stage 2 subjects
R2-071150	MAC PDU format for LTE		Panasonic		05.14: Other LTE stage 2 subjects
R2-071151	Minutes of RAN2-57, 12-16 February 2007, Saint-Louis, USA		ETSI MCC		03: Minutes of the previous meeting
R2-071152	Enhanced CELL_FACH state in FDD in 25.301	CR	25.301 Nokia	Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071153	Enhanced CELL_FACH state in FDD in 25.302	CR	25.302 Nokia	Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071154	mobile TV mode swithing Delay optimization		HUAWEI		14: TEI7
R2-071155	Blacklist Maintenance		HUAWEI		05.3: System Information content & delivery

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R2-071156	Neighbour cell reduction using LCV				HUAWEI				05.3: System Information content & delivery
R2-071157	Admission Control at Target eNB				Nortel				05.10.1: Intra LTE
R2-071158	MBMS Network Optimization				HUAWEI				05.12.2: Stage 2 inputs
R2-071159	Hierarchical MCCH				Nortel				05.12.2: Stage 2 inputs
R2-071160	Redirection scheme in LTE				HUAWEI				05.10.1: Intra LTE
R2-071161	Discontinuous reception in CELL-FACH				HUAWEI				07: Enhanced Cell_FACH State in FDD
R2-071162	Enhanced CELL_FACH in FDD in 25.304	CR	25.304		Nokia		Mr. Juho Pirskanen		07: Enhanced Cell_FACH State in FDD
R2-071163	Enhanced CELL_FACH in FDD 25.321	CR	25.321		Nokia		Mr. Juho Pirskanen		07: Enhanced Cell_FACH State in FDD
R2-071164	Enhanced CELL_FACH in FDD 25.331	CR	25.331		Nokia		Mr. Juho Pirskanen		07: Enhanced Cell_FACH State in FDD
R2-071165	A New Measurement to Support UL Scheduler Operation				Mitsubishi Electric Corp.				05.5: Scheduling (UL & DL contributions)
R2-071166	T305, CELL FACH & SRNC RELOCATION				HUAWEI				14: TEI7 16: Release 5 and other Release 6 corrections
R2-071168	Additional DCH RAB Combinations	CR	25.993	Rel-7	Siemens Networks				16: Release 5 and other Release 6 corrections
R2-071169	HSPA RAB Combinations	CR	25.993	Rel-7	Siemens Networks				16: Release 5 and other Release 6 corrections
R2-071170	LS on Introduction of Additional DCH RAB Combinations into 25.993				Siemens Networks				21: Liaison and output to other groups
R2-071171	Pathloss & Size in RACH signature				Samsung, NTT DoCoMo		Mr. Gert-Jan van Lieshout		05.4: Random access procedure
R2-071172	eNB security handling LTE_IDLE -> LTE_ACTIVE				Samsung		Mr. Gert-Jan van Lieshout		05.14: Other LTE stage 2 subjects
R2-071173	Idle mode paging				Samsung		Mr. Gert-Jan van Lieshout		05.14: Other LTE stage 2 subjects
R2-071174	Access Service Classes in LTE				Samsung		Mr. Gert-Jan van Lieshout		05.4: Random access procedure
R2-071175	UE Downlink reception capability				Samsung		Mr. Gert-Jan van Lieshout		05.8: UE capabilities
R2-071176	Handling of AMBR				Samsung, Ericsson, Nokia, NTT DoCoMo, Siemens Networks		Mr. Gert-Jan van Lieshout		05.5: Scheduling (UL & DL contributions)
R2-071177	CQI handling during DRX				Samsung		Mr. Gert-Jan van Lieshout		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071178	Release-7 dependancies				Samsung, Ericsson, Motorola, Nokia		Mr. Gert-Jan van Lieshout		17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071179	DRX handling				Samsung		Mr. Gert-Jan van Lieshout		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071180	Downlink Hybrid ARQ Signaling				Samsung		Mr. Gert-Jan van Lieshout		05.5: Scheduling (UL & DL contributions)
R2-071181	Multiplexing option selection in case of E_DCH_TRANSMISSION equal FALSE	CR	25.331	Rel-6	Infineon Technologies		Mr. Roland Gruber		16: Release 5 and other Release 6 corrections
R2-071182	Contention-based scheduling request in LTE_ACTIVE				IPWireless				05.4: Random access procedure
R2-071183	Contention-free Intra-LTE handover in synchronous network				IPWireless				05.10.1: Intra LTE
R2-071184	RACH procedure(s) in E-UTRAN				IPWireless				05.4: Random access procedure
R2-071185	Reordering in Enhanced Cell FACH				InterDigital		Mr. Stephen Terry		07: Enhanced Cell_FACH State in FDD
R2-071186	Mobility and Interworking Between R6 and R7				InterDigital		Mr. Stephen Terry		08: Improved L2 support for high data rates

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R2-071187	Byte Alignment for RLC and MAC Headers? Minimizing the RACH Procedure Requirement During LTE Handover				InterDigital	Mr. Stephen Terry Mr. Stephen Terry	05.14: Other LTE stage 2 subjects
R2-071188					InterDigital		05.10.1: Intra LTE
R2-071189	"Maximum_Serving_Grant" setting at TTI change Solution for optimizing the UE battery life in Enhanced CELL_FACH	CR	25.321	Rel-6	Panasonic	Mr. Janne Peisa	06: FDD Enhanced Uplink: inputs on the two open issues discussed in Saint Louis
R2-071190	Need for additional quality reporting in Enhanced CELL_FACH				Ericsson	Mr. Janne Peisa	07: Enhanced Cell_FACH State in FDD
R2-071191					Ericsson	Mr. Janne Peisa	07: Enhanced Cell_FACH State in FDD
R2-071192	Open issues for Improved L2 support of high data rates				Ericsson	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071193	Configuration of the Enhanced RLC protocol				Ericsson	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071194	Optimization to the baseline MAC-ehs header				Ericsson, AsusTek, Interdigital, Huawei, ZTE	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071195	RLC optimization for Improved L2				Ericsson, Nokia, Samsung	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071196	L2 enhancements: Baseline CR to MAC	CR	25.321	Rel-7	Ericsson	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071197	L2 enhancements: Baseline CR to RLC	CR	25.321	Rel-7	Ericsson	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071198	L2 enhancements: Draft CR to RRC	CR	25.321	Rel-7	Ericsson	Mr. Janne Peisa	08: Improved L2 support for high data rates
R2-071199	Enhanced SRNS relocation for the HSPA Evolution				QUALCOMM Europe	Mr. Francesco Grilli	08: Improved L2 support for high data rates 15: Study Item on scope of future FDD HSPA Evolution
R2-071201	Text proposal on measurement gap scheduling				QUALCOMM Europe	Mr. Francesco Grilli	05.10.2: LTE to/from UTRAN
R2-071202	E-MBMS scheduling				QUALCOMM Europe	Mr. Francesco Grilli	05.12.2: Stage 2 inputs
R2-071203	Structure of BCH				QUALCOMM Europe	Mr. Francesco Grilli	05.3: System Information content & delivery
R2-071204	Scheduling of D-BCH				QUALCOMM Europe	Mr. Francesco Grilli	05.3: System Information content & delivery
R2-071205	Protocol termination for HO signalling				QUALCOMM Europe		05.10.1: Intra LTE
R2-071206	Considerations on RRC re-establishment				QUALCOMM Europe		05.10.1: Intra LTE
R2-071207	Camping load balancing in LTE				QUALCOMM Europe		05.11: LTE_IDLE mobility procedures
R2-071208	Marooned UE in "Camped on any cell"				QUALCOMM Europe	Mr. Francesco Grilli	14: TEI7
R2-071209	Changeable Parameters in UE Capability				QUALCOMM Europe Nokia	Mr. Francesco Grilli	14: TEI7
R2-071210	DRX during continuous transmission				LG Electronics Inc.	Mr. Patrick Fischer	05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071211	Framework for UE capability handling in LTE				QUALCOMM Europe		05.8: UE capabilities
R2-071212	PDCP variables handling at SRNS relocation	CR	25.323		Alcatel-Lucent	Mr. Stanislas Bourdeaut	14: TEI7
R2-071213	Further details on LTE neighbouring list optimization				LG Electronics Inc.	Mr. Patrick Fischer	05.2.4: BCH for LTE
R2-071214	Optimization for Tracking Area Update signalling				QUALCOMM Europe		05.11: LTE_IDLE mobility procedures
R2-071215	Allocation of a "short" C-RNTI in message 2				LG Electronics Inc.	Mr. Patrick Fischer	05.4: Random access procedure
R2-071216	Configuration of RACH measurements in HS-FACH	CR	25.308	Rel-7	Alcatel-Lucent	Mr. Stanislas	07: Enhanced Cell_FACH State in FDD

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R2-071217	CQI reporting for E-MBMS AMC				Alcatel-Lucent	Bourdeaut Mr. Stanislas Bourdeaut	05.12.2: Stage 2 inputs
R2-071218	Cell identifier encoding alignment	CR	25.331	Rel-7	Alcatel-Lucent	Bourdeaut Mr. Stanislas Bourdeaut	14: TEI7 17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071219	Correction on introduction of 16QAM uplink	CR	25.331	Rel-7	Alcatel-Lucent		17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071220	Correction on 64QAM and MIMO UE capability in RRC	CR	25.331	Rel-7	Alcatel-Lucent		17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071221	Correction to CPC UL DTX for addition of a new cell in the active set.	CR	25.331	Rel-7	Alcatel-Lucent		17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071222	Correction on E-TFC selection and Serving Grant	CR	25.321	Rel-6	Alcatel-Lucent		06: FDD Enhanced Uplink: inputs on the two open issues discussed in Saint Louis
R2-071225	Performance of Grouping				Nokia	Mr. Benoist Sébire	05.5: Scheduling (UL & DL contributions)
R2-071226	Uplink Feedback for E-MBMS				Motorola		05.12.1: Requirements/scenarios
R2-071227	Number of Control Symbols				Nokia	Mr. Benoist Sébire	05.5: Scheduling (UL & DL contributions)
R2-071228	Dedicated Random Access Signatures				Motorola		05.4: Random access procedure
R2-071229	Radio Link Failure and Context Recovery				Nokia	Mr. Benoist Sébire	05.10.1: Intra LTE
R2-071230	Random Access Design and Procedure with Dedicated Signatures				Motorola		05.4: Random access procedure
R2-071231	Handover Failure Recovery				Nokia	Mr. Benoist Sébire	05.10.1: Intra LTE
R2-071232	Relevant Information for HO				Nokia, Siemens Networks	Mr. Benoist Sébire	05.10.1: Intra LTE
R2-071234	Cell Access Control				Motorola		05.3: System Information content & delivery
R2-071235	Summary of email discussion on implicit vs. explicit DRX control				Motorola Email Rapporteur (NEC)		05.2.3: Implicit versus explicit DRX value update, DRX mechanism
R2-071236	Handover Requirements				Nokia	Mr. Benoist Sébire	05.2.2: Data handling at relocation
R2-071237	RACH Resource Management				Motorola		05.4: Random access procedure
R2-071238	Data Forwarding at Handover				Nokia	Mr. Benoist Sébire	05.2.2: Data handling at relocation
R2-071239	Fast and Reliable Handover				Nokia	Mr. Benoist Sébire	05.10.1: Intra LTE
R2-071240	Forwarding Instant				Nokia	Mr. Benoist Sébire	05.10.1: Intra LTE
R2-071241	Ciphering for the User Plane				Nokia	Mr. Benoist Sébire	05.2.1: U-plane layer for ciphering
R2-071242	Group Based Optimization for Signalling of Downlink Scheduling				SHARP		05.5: Scheduling (UL & DL contributions)
R2-071243	Sequence Number Handling at Handover				Nokia	Mr. Benoist Sébire	05.2.1: U-plane layer for ciphering
R2-071244	MBMS Agreements				Nokia, Samsung, Siemens Networks	Mr. Benoist Sébire	05.12.2: Stage 2 inputs
R2-071245	MBMS Definitions				Nokia, Siemens Networks	Mr. Benoist Sébire	05.12.2: Stage 2 inputs
R2-071246	MCCH Control				Nokia, Siemens Networks	Mr. Benoist Sébire	05.12.1: Requirements/scenarios
R2-071247	Flexible DRX Control in LTE				SHARP		05.2.3: Implicit versus explicit DRX value update, DRX mechanism

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R2-071248	Header Compression in MBMS for E-UTRAN	Nokia, Siemens Networks	Mr. Benoist Sébire	05.12.1: Requirements/scenarios
R2-071249	HARQ-ARQ Interactions	NEC, Nokia, Siemens Networks	Mr. Benoist Sébire	05.14: Other LTE stage 2 subjects
R2-071251	Synchronous adaptive HARQ for E-UTRAN UL	Nokia	Mr. Benoist Sébire	05.14: Other LTE stage 2 subjects, 05.5: Scheduling (UL & DL contributions)
R2-071252	On the need for forward HO	Nokia	Mr. Benoist Sébire	05.10: LTE_ACTIVE mobility procedures
R2-071253	Non-Contention Based HO vs. RACH	Nokia	Mr. Benoist Sébire	05.10.1: Intra LTE
R2-071254	Requirements for redirection in E-UTRAN	Nokia, Telecom Italia	Mr. Benoist Sébire	05.10.2: LTE to/from UTRAN, 05.11.2: LTE to/from other RATs
R2-071255	High level mobility procedure in heterogeneous networks	Nokia	Mr. Benoist Sébire	05.10: LTE_ACTIVE mobility procedures, 05.11: LTE_IDLE mobility procedures
R2-071256	Control of UE Measurements for Network Self-configuration and Optimization	Nokia	Mr. Benoist Sébire	05.14: Other LTE stage 2 subjects
R2-071257	An operator configurable procedure for reading the scheduling units	Nokia	Mr. Benoist Sébire	05.3: System information content & delivery
R2-071258	Mobility uses cases based on the access pipe concept	Nokia	Mr. Benoist Sébire	05.10: LTE_ACTIVE mobility procedures, 05.11: LTE_IDLE mobility procedures
R2-071259	System Information change indication	Nokia	Mr. Benoist Sébire	05.3: System information content & delivery
R2-071260	Efficient CQI feedback	HUAWEI		05.7: MIMO support
R2-071261	Hybrid DRX Control	RIM		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071262	Robust MAC signalling	RIM		05.14: Other LTE stage 2 subjects
R2-071263	Recovery from DRX De-synchronization	RIM		05.14: Other LTE stage 2 subjects
R2-071264	Optimized provisioning of RACH in LTE	Texas Instruments Inc		05.4: Random access procedure
R2-071265	Content of Message1 and the RACH procedure in LTE	Texas Instruments Inc		05.4: Random access procedure
R2-071266	Enabling DL reception of system and control information from Intra-frequency neighbors without gaps in the serving cell	Texas Instruments Inc		05.3: System information content & delivery
R2-071267	On Uplink Synchronization maintenance in LTE	Texas Instruments Inc		05.6: Time alignment principles
R2-071268	Enhanced MAC-hs header optimization	HUAWEI		08: Improved L2 support for high data rates
R2-071269	Optimized HO method for reducing latencies in UL synchronization and initial UL allocation in E-UTRA	Texas Instruments Inc		05.10.1: Intra LTE
R2-071270	On the issue of inter-RAT neighbouring info reduction	NEC		05.2.4: BCH for LTE
R2-071271	Connection Re-establishment	NEC		05.10.1: Intra LTE
R2-071272	On the issue of permanent maintenance of uplink synchronization	NEC		05.6: Time alignment principles
R2-071273	Downlink DRX and downlink HARQ interaction	NEC		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071275	RACH Resource Control	NEC		05.4: Random access procedure
R2-071276	HO measurements	NEC		05.10.1: Intra LTE
R2-071277	Email discussion summary on two open issues on EDCH serving grant update	Email rapporteur (NEC)		06: FDD Enhanced Uplink: inputs on the two open issues discussed in Saint Louis
R2-071278	PTP/PTM radio bearer switching in E-MBMS scenarios	ETRI		05.12.1: Requirements/scenarios
R2-071279	Considerations on uplink feedback channel for E-MBMS	ETRI		05.12.1: Requirements/scenarios
R2-071281	message 2 issue in random access procedure	ZTE	Mr. Zhongda Du	05.4: Random access procedure
R2-071282	optimization of handover procedure by using dedicated	ZTE	Mr. Zhongda	05.10.1: Intra LTE



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R2-071283	Combination of Schedule and frequency hopping				ZTE	Du	Mr. Zhongda Du	05.5: Scheduling (UL & DL contributions)		
R2-071284	Evaluating DRX concepts for E-UTRAN				Nokia	Mr. Benoist Sébire	Mr. Benoist Sébire	05.2.3: Implicit versus explicit DRx value update, DRx mechanism		
R2-071285	DRX parameters in E-UTRAN				Nokia	Mr. Benoist Sébire	Mr. Benoist Sébire	05.2.3: Implicit versus explicit DRx value update, DRx mechanism		
R2-071286	On the need for flexible DRX				Nokia	Mr. Benoist Sébire	Mr. Benoist Sébire	05.2.3: Implicit versus explicit DRx value update, DRx mechanism		
R2-071287	Solution for sending NAS together with RRC connection request				Ericsson	Mr. Janne Peisa	Mr. Janne Peisa	05.14: Other LTE stage 2 subjects		
R2-071288	Feature Clean Up: Removal of DRAC leftover	CR	25.331		Siemens Networks		Mr. Janne Peisa	14: TEI7		
R2-071289	DL User plane handling at mobility				Ericsson		Mr. Janne Peisa	05.2.2: Data handling at relocation		
R2-071290	Intra-LTE handover optimization				Ericsson		Mr. Janne Peisa	05.10.1: Intra LTE		
R2-071291	On Intra-LTE Cell Reselection Methods				Ericsson		Mr. Janne Peisa	05.13: Cell selection & re-selection, roaming restrictions		
R2-071292	Scheduling optimizations – way forward				Ericsson		Mr. Janne Peisa	05.5: Scheduling (UL & DL contributions)		
R2-071293	Email discussion on U-plane ciphering location for LTE				NTT DoCoMo (email rapporteur)			05.2.1: U-plane layer for ciphering		
R2-071294	Email discussion on data handling at handover				NTT DoCoMo (email rapporteur)			05.2.2: Data handling at relocation		
R2-071295	Termination of Security				Ericsson		Mr. Janne Peisa	05.2.1: U-plane layer for ciphering		
R2-071296	Consideration on one-to-all Qoffset				NTT DoCoMo			05.2.4: BCH for LTE		
R2-071297	Clean up of Stage 2 FFS				Ericsson		Mr. Janne Peisa	05.14: Other LTE stage 2 subjects		
R2-071298	BCH transmission interval in LTE				NTT DoCoMo			05.3: System Information content & delivery		
R2-071299	Contention-based and contention-free access procedures in LTE				NTT DoCoMo			05.4: Random access procedure		
R2-071300	Uplink synchronization				NTT DoCoMo			05.6: Time alignment principles		
R2-071301	Inter-frequency/RAT mobility control drivers and solutions				NTT DoCoMo, Orange, Telecom Italia, T-Mobile, Vodafone			05.10: LTE_ACTIVE mobility procedures, 05.11: LTE_IDLE mobility procedures		
R2-071302	Support for ROHC in SAE/LTE				Ericsson		Mr. Janne Peisa	05.14: Other LTE stage 2 subjects		
R2-071303	Non-contention based RA preamble				ETRI			05.4: Random access procedure		
R2-071304	DRX management for LTE_ACTIVE				ETRI			05.2.3: Implicit versus explicit DRx value update, DRx mechanism		
R2-071305	Load balancing solutions for LTE				NTT DoCoMo, T-Mobile, Orange, LG Electronics			05.11: LTE_IDLE mobility procedures		
R2-071306	Configuration of PDCP in SAE/LTE				Ericsson		Mr. Janne Peisa	05.14: Other LTE stage 2 subjects		
R2-071307	Measurement gap control principles				NTT DoCoMo			05.10.2: LTE to/from UTRAN		
R2-071308	RACH backoff control				Siemens Networks			05.4: Random access procedure		
R2-071309	Paging procedure in LTE				NTT DoCoMo			05.14: Other LTE stage 2 subjects		
R2-071311	Correction to signalling connection release at T314/315 expiry	CR	25.331	Rel-7	Motorola		Mr. Richard Burbidge	14: TEI7		
R2-071312	Cell Update Confirm with RLC re-establish indicator	CR	25.331	Rel-7	Motorola		Mr. Richard Burbidge	14: TEI7		
R2-071313	Paging procedure in LTE				NTT DoCoMo			05.14: Other LTE stage 2 subjects		

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R2-071314	MAC PDU structure for LTE				NTT DoCoMo			05.14: Other LTE stage 2 subjects
R2-071315	RLC PDUs for LTE				NTT DoCoMo			05.14: Other LTE stage 2 subjects
R2-071316	RACH backoff control				Siemens Networks			05.4: Random access procedure
R2-071317	RLC PDUs for LTE				NTT DoCoMo			05.14: Other LTE stage 2 subjects
R2-071318	Gap control in E-UTRAN				Samsung			05.10.1: Intra LTE
R2-071319	Inter Layer Notification				Siemens Networks			05.12.2: Stage 2 inputs
R2-071320	Considerations on L1/L2 control signaling				ETRI			05.14: Other LTE stage 2 subjects
R2-071321	Correction of STTD Indicator for F-DPCH Tx Diversity	CR	25.331	Rel-7	Ericsson	Mr. Sven Ekemark		14: TEI7
R2-071322	Transport format and power headroom in preamble				LG Electronics Inc.	Mr. Patrick Fischer		05.4: Random access procedure
R2-071323	Introduction of GAN PS handover	CR	25.306	Rel-7	Ericsson	Mr. Sven Ekemark		14: TEI7
R2-071324	Introduction of GAN PS handover	CR	25.331	Rel-7	Ericsson	Mr. Sven Ekemark		14: TEI7
R2-071325	UE assisted tracking area update				LG Electronics Inc.	Mr. Patrick Fischer		05.11.1: Intra LTE
R2-071326	Layer 1 signalling based user detection for LTE MBMS				IPWireless			05.12.2: Stage 2 inputs
R2-071327	LCR TDD Physical layer enhancements text proposal for TR 25.905				TD-Tech			11: MBMS LCR TDD Physical layer Enhancements
R2-071328	Handling of UE capability information in SAE/LTE				Ericsson	Mr. Janne Peisa		05.8: UE capabilities
R2-071329	UE support for self-configuration and self-optimisation - Proposal for Stage2 (only RAN2 relevant part)				Mobile: Orange, NTT DoCoMo, Vodafone, Sprint, Telecom Italia	Mr. Axel Klatt		05.14: Other LTE stage 2 subjects
R2-071330	LTE MBMS SFN: Super-frame Based Content Synchronisation				IPWireless			05.12.2: Stage 2 inputs
R2-071331	MBMS FDD and TDD Physical Layer Improvements				LG Electronics Inc., IP Wireless	Mr. Patrick Fischer		09: MBMS FDD Physical layer Enhancements, 10: MBMS TDD Physical layer Enhancements
R2-071332	Guidelines on the definition of LTE UE classes				T-Mobile, NTT DoCoMo, Telecom Italia, Orange, ChinaMobile, Ericsson, Infineon Technologies, Nokia	Mr. Axel Klatt		05.8: UE capabilities
R2-071333	Byte alignment for user plane protocols in LTE				Ericsson	Mr. Janne Peisa		05.14: Other LTE stage 2 subjects
R2-071334	MBMS FDD and TDD Physical Layer Improvements	CR	25.331	Rel-7	LG Electronics Inc., IP Wireless	Mr. Patrick Fischer		09: MBMS FDD Physical layer Enhancements, 10: MBMS TDD Physical layer Enhancements
R2-071335	MBMS FDD and TDD Physical Layer Improvements	CR	25.346	Rel-7	LG Electronics Inc., IP Wireless	Mr. Patrick Fischer		09: MBMS FDD Physical layer Enhancements, 10: MBMS TDD Physical layer Enhancements
R2-071336	MBMS FDD and TDD Physical Layer Improvements	CR	25.306	Rel-7	LG Electronics Inc., IP Wireless	Mr. Patrick Fischer		09: MBMS FDD Physical layer Enhancements, 10: MBMS TDD Physical layer Enhancements
R2-071337	System information scheduling and change notification				Samsung	Mr. Himke van der Velde		05.3: System Information content & delivery
R2-071338	MBMS FDD and TDD Physical Layer Improvements	CR	25.304	Rel-7	LG Electronics Inc., IP Wireless	Mr. Patrick Fischer		09: MBMS FDD Physical layer Enhancements, 10: MBMS TDD Physical

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Item ID	Description	CR	Priority	Rel	Contributors	Subjects
R2-071339	The life cycle of the cell from UE view				Panasonic	layer Enhancements
R2-071340	Improved network load control for CELL/URA_PCH states				Nokia	05.3: System Information content & delivery 07: Enhanced Cell_FACH State in FDD, 14: TEI7
R2-071341	Extension of RNC-ID				Nokia	14: TEI7
R2-071342	Neighbouring cell information				Samsung	05.3: System Information content & delivery
R2-071343	Notification scheme of SI's Change				CATT	05.3: System Information content & delivery
R2-071344	NDI-less HARQ operation				Ericsson	05.14: Other LTE stage 2 subjects
R2-071345	Enhancement to Buffer Status Reporting				CATT, RITT	05.5: Scheduling (UL & DL contributions)
R2-071346	HARQ-ARQ Interactions for NACK to ACK error				Ericsson	05.14: Other LTE stage 2 subjects
R2-071347	Counting procedure for LTE MBMS				CATT	05.12.2: Stage 2 inputs
R2-071348	Addition of signature sequence group information for the E-HICH related to non-scheduled transmission in 1.28Mcps TDD mode	CR	25.331	Rel-7	CATT, TD-TECH, ZTE	Mrs. Haiyang Quan 13: 1.28 Mcps TDD Enhanced Uplink
R2-071349	Use of tracking area- and cell identity for private networks/home cells				Samsung	Mr. Himke van der Velde 05.9: E-UTRAN identities
R2-071350	Feature Clean Up: Removal of DRAC leftover	CR	25.331		Siemens Networks	14: TEI7
R2-071351	Drivers for Inter-RAT Radio Resource Management				Ericsson	Mr. Janne Peisa 05.10.2: LTE to/from UTRAN
R2-071352	S-CCPCH and PCH channel selection for Band IV or Band IX or Band X	CR	25.304		Siemens Networks	14: TEI7
R2-071353	Initialisation of CFN calculation for CELL_FACH	CR	25.331		Siemens Networks	14: TEI7
R2-071354	On Inter-RAT Cell Reselection Principles				Ericsson	Mr. Janne Peisa 05.11.2: LTE to/from other RATs
R2-071355	Radio Resource Management Aspects of Inter-RAT Handovers				Ericsson	Mr. Janne Peisa 05.10.2: LTE to/from UTRAN
R2-071356	Ciphering Location				Ericsson	Mr. Janne Peisa 05.2.1: U-plane layer for ciphering
R2-071357	Resource fragmentation in LTE uplink				Ericsson, NTT DoCoMo, Inc, Ericsson, Nokia, Samsung, NTT DoCoMo, Inc	Mr. Janne Peisa 05.14: Other LTE stage 2 subjects
R2-071358	Text Proposal for LTE QoS Terminology and Working Assumptions				Ericsson	Mr. Janne Peisa 05.14: Other LTE stage 2 subjects
R2-071359	Radio link failure				Ericsson	Mr. Janne Peisa 05.10.1: Intra LTE
R2-071360	Reliability considerations for the Handover Command				Alcatel-Lucent	Mr. Osman Aydin 05.10.1: Intra LTE
R2-071361	RLC status reporting during handover				Alcatel-Lucent	Mr. Osman Aydin 05.10.1: Intra LTE
R2-071362	Radio Link Failure and RRC Context Recovery				Alcatel-Lucent	Mr. Osman Aydin 05.10.1: Intra LTE
R2-071363	UL user plane handling at mobility				Ericsson	Mr. Janne Peisa 05.2.2: Data handling at relocation
R2-071364	Relevant Information for Handover				Alcatel-Lucent	Mr. Osman Aydin 05.10.1: Intra LTE
R2-071365	High Level Principles for DRX in LTE Active				Ericsson	Mr. Janne Peisa 05.2.3: Implicit versus explicit DRx value

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			Peisa	update, DRx mechanism
R2-071366	Further Requirements for the CQI Feedback	Alcatel-Lucent	Mr. Osman Aydin	05.14: Other LTE stage 2 subjects
R2-071367	RLC-MAC Header Formats	Ericsson	Mr. Janne Peisa	05.14: Other LTE stage 2 subjects
R2-071368	Persistent DL Scheduling and VoIP	Alcatel-Lucent	Mr. Osman Aydin	05.5: Scheduling (UL & DL contributions)
R2-071369	Multiplexing of MBMS services	Ericsson, Samsung	Mr. Janne Peisa	05.12.2: Stage 2 inputs
R2-071370	RLC header format	Fujitsu		05.14: Other LTE stage 2 subjects
R2-071371	Mapping of MBMS logical channels to DL-SCH	Ericsson	Mr. Janne Peisa	05.12.1: Requirements/scenarios
R2-071372	E-UTRA Measurement Configuration and Control	Ericsson	Mr. Janne Peisa	05.10: LTE_ACTIVE mobility procedures
R2-071373	Evaluation of backward handover schemes	Samsung	Mr. Himke van der Velde	05.10.1: Intra LTE
R2-071374	Radio connection establishment	Samsung	Mr. Himke van der Velde	05.14: Other LTE stage 2 subjects
R2-071375	RRC messages and procedures	Samsung	Mr. Himke van der Velde	05.14: Other LTE stage 2 subjects
R2-071376	RRC specification, way forward	Samsung	Mr. Himke van der Velde	05.14: Other LTE stage 2 subjects
R2-071377	Time critical system information	Samsung	Mr. Himke van der Velde	05.3: System Information content & delivery
R2-071378	The Urgency of HARQ-ARQ Interactions	ITRI		05.14: Other LTE stage 2 subjects
R2-071379	Early RACH Access with Reserved Signatures for inter-eNB Handover	ITRI		05.10.1: Intra LTE
R2-071380	Granularity Control on Buffer Reporting	ITRI		05.14: Other LTE stage 2 subjects
R2-071381	On setting the C-RNTI in RACH message two	Siemens Networks		05.4: Random access procedure 05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071382	DRX handling in LTE	Panasonic		
R2-071383	Discussion on RAN implications of Equivalent Tracking areas	Alcatel-Lucent		05.11.2: LTE to/from other RATs
R2-071384	Discussion on contents of message 3	Alcatel-Lucent, Samsung		05.4: Random access procedure
R2-071385	Discussion on Security mode control for LTE	Alcatel-Lucent		05.14: Other LTE stage 2 subjects
R2-071386	Contention resolution in aRACH	Samsung		05.4: Random access procedure
R2-071387	First quantification of UL control	Samsung		05.14: Other LTE stage 2 subjects
R2-071388	UL timing synchronized handover	Samsung, China Mobile, KPN, NTT DoCoMo, Orange, Sprint, T-Mobile, Telecom Italia, Vodafone		05.10.1: Intra LTE
R2-071389	LTE System Analysis of Control Plane and User Plane Latency and Handover Interruption Times	TD Tech Ltd.	Mr. Prakash Bhat	05: UTRA/UTRAN Long Term Evolution
R2-071390	Discussion on Uplink Scheduling Request			05.5: Scheduling (UL & DL contributions)
R2-071391	Feedback of Channel Quality	Philips	Mr. Paul Bucknell	07: Enhanced Cell_FACH State in FDD
R2-071392	MAC-ehs header structure	Philips	Mr. Paul Bucknell	08: Improved L2 support for high data rates
R2-071393	A Semi-Autonomous DRX Control Scheme for LTE_ACTIVE	Ericsson	Mr. Janne Peisa	05.2.3: Implicit versus explicit DRx value update, DRx mechanism

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R2-071394	CQI Reporting with regards to DRX operation	Ericsson	Mr. Janne Peisa	05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071395	LTE MBMS functionality	Ericsson	Mr. Janne Peisa	05.12.2: Stage 2 inputs
R2-071396	A way forward for registration in densely-populated area (RED)	NTT DoCoMo		20: TEI8
R2-071397	L2 MBMS content synchronization	Ericsson	Mr. Janne Peisa	05.12.2: Stage 2 inputs
R2-071398	Idle Gaps for Handover Measurements in E-UTRAN	Ericsson	Mr. Janne Peisa	05.10: LTE_ACTIVE mobility procedures
R2-071399	HARQ Configuration for LTE	Ericsson	Mr. Janne Peisa	05.14: Other LTE stage 2 subjects
R2-071400	DL-SCH supporting single cell PTM with HARQ/CQI	Ericsson	Mr. Janne Peisa	05.12.1: Requirements/scenarios
R2-071401	Summary of BCH for LTE email discussion	Ericsson	Mr. Janne Peisa	05.2.4: BCH for LTE
R2-071402	Mobility during attach	Ericsson	Mr. Janne Peisa	05.10.1: Intra LTE
R2-071403	Discontinuous reception in CELL_FACH	Nokia	Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071404	UL reporting rate for DL quality measurements in CELL_FACH	Nokia	Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071405	On MAC-ehs header structures	Nokia	Mr. Juho Pirskanen	08: Improved L2 support for high data rates
R2-071406	Considerations on Transport block tables in 64QAM	Nokia	Mr. Juho Pirskanen	17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071407	Clarification on assigning HARQ process IDs for MIMO	CR 25.331 Rel-7 ASUSTeK		17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071408	Voice support in E-UTRAN	Orange		05.14: Other LTE stage 2 subjects
R2-071409	UE capabilities for MBSFN	Nokia	Mr. Luis Barreto	09: MBMS FDD Physical layer Enhancements
R2-071410	Ping-pong control	Nokia, 3, Ericsson, Motorola	Mr. Luis Barreto	14: TEI7
R2-071411	MBMS multi cell SFN transmission over areas of varying inter site distance	Ericsson	Mr. Janne Peisa	05.12.2: Stage 2 inputs
R2-071412	On User Plane handling during inter-eNB HO	NEC		05.2.2: Data handling at relocation
R2-071413	Discussion of eMBMS Uplink Feedback Schemes	NEC		05.12: LTE MBMS
R2-071414	Simultaneous Tx/Rx (Duplex) Capabilities of LTE	IPWireless		05.8: UE capabilities
R2-071415	Clarification on use of Prioritized Bit Rate (PBR)	NEC		05.12.2: Stage 2 inputs
R2-071416	Resource allocations in target cell after Handover	NEC		05.10.1: Intra LTE
R2-071417	Text Proposal for Intra-LTE Handover	NEC		05.10.1: Intra LTE
R2-071418	User plane handling in case of IRAT mobility	NEC		05.10.2: LTE to/from UTRAN
R2-071419	Delivery of TA in LTE_ACTIVE	IPWireless		05.6: Time alignment principles
R2-071420	MBMS SFN Operation Principles	Nokia	Mr. Luis Barreto	09: MBMS FDD Physical layer Enhancements
R2-071421	64QAM and MIMO lower categories	Nokia	Mr. Luis Barreto	17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071422	Random access with dedicated preambles at handover	Ericsson	Mr. Janne Peisa	05.4: Random access procedure
R2-071423	MBMS UE linking for enhanced broadcast mode	NEC	Mr. David Lecompte	16: Release 5 and other Release 6 corrections

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R2-071424	Optimization of switching between MBMS broadcast TV channels transmitted on plp bearers (MBMS for Mobile TV)	CR	25.331	Rel-7	NEC, Ericsson	Mr. David Lecompte	14: TEI7
R2-071425	Alignment of tabular to ASN.1 for SIB11/SIB12 and event 1J	CR	25.331	Rel-7	NEC	Mr. David Lecompte	14: TEI7
R2-071426	Correction of Out of Sequence Reception function	CR	25.331	Rel-7	NEC	Mr. David Lecompte	14: TEI7
R2-071427	Enhanced CELL_FACH and power saving				NEC	Mr. David Lecompte	07: Enhanced Cell_FACH State in FDD
R2-071428	Use of home/ private cells				Samsung	Mr. Himke van der Velde	05.14: Other LTE stage 2 subjects
R2-071429	E-MBMS architecture				Samsung	Mr. Himke van der Velde	05.12.2: Stage 2 inputs
R2-071430	LTE MBMS User detection Scheme				Freescall Semiconductor Inc	Mr. Natarajan Ekambaram	05.12.2: Stage 2 inputs
R2-071431	Support of ROHC and context relocation				NEC	Mr. David Lecompte	05.10.1: Intra LTE
R2-071432	Considerations on MBMS Resource Allocation				Motorola		05.12.2: Stage 2 inputs
R2-071433	Multicell EMBMS CQI Feedback				Motorola		05.12.2: Stage 2 inputs
R2-071434	Analysis on Uu interface aspect for Enhanced SRNS relocation for the HSPA Evolution	CR			QUALCOMM Europe	Mr. Francesco Grilli	15: Study Item on scope of future FDD HSPA Evolution
R2-071435	Over provisioning required to accommodate overlapping SFN areas				Motorola		05.12.1: Requirem,ents/scenarios
R2-071436	Use of DAR over CCCH				LG Electronics Inc., Samsung		14: TEI7
R2-071437	Draft CR to 25.322 DAR over CCCH				LG Electronics Inc., Samsung		14: TEI7
R2-071438	Draft CR to 25.331 DAR over CCCH				LG Electronics Inc., Samsung		14: TEI7
R2-071439	Control Information Transmission in RLC				LG Electronics Inc.		14: TEI7
R2-071440	Draft CR to 25.322 on Control Information Transmission in RLC				LG Electronics Inc.		14: TEI7
R2-071441	Discussion on MAC PDU structure				LG Electronics Inc.		05.14: Other LTE stage 2 subjects
R2-071442	Discussion on Uplink Traffic Shaping				LG Electronics Inc.		05.14: Other LTE stage 2 subjects
R2-071443	On the issue of HARQ/ARQ interaction				LG Electronics Inc.		05.14: Other LTE stage 2 subjects
R2-071444	Discussion on Behaviour in DRX				LG Electronics Inc.		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071445	DRX mechanism in LTE_ACTIVE UE				LG Electronics Inc.		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071446	Clarification and optimization of message 2				LG Electronics Inc.		05.4: Random access procedure
R2-071447	How to transmit TA information				LG Electronics Inc.		05.6: Time alignment principles
R2-071448	Issue on periodic measurement reporting				LG Electronics Inc.		05.10.1: Intra LTE
R2-071449	Transition indicator for VoIP in UL				LG Electronics Inc.		05.14: Other LTE stage 2 subjects
R2-071450	ACK to NACK error detecting mechanism				LG Electronics Inc.		05.14: Other LTE stage 2 subjects
R2-071451	LTE MBMS Transmission				LG Electronics Inc.		05.12.2: Stage 2 inputs
R2-071452	LTE MBMS Notifications				LG Electronics Inc.		05.12.2: Stage 2 inputs
R2-071453	Channel Quality Reporting on RACH				LG Electronics Inc.		07: Enhanced Cell_FACH State in FDD
R2-071454	Triggering of CQ Reporting on RACH				LG Electronics Inc.		07: Enhanced Cell_FACH State in FDD
R2-071455	Use of dedicated RACH signatures				LG Electronics Inc.		05.4: Random access procedure
R2-071456	Discussion on Message 4 in Random Access				LG Electronics Inc.		05.4: Random access procedure

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R2-071457	Transmission of LTE Paging				LG Electronics Inc.		05.14: Other LTE stage 2 subjects
R2-071459	High Level Comparison of Handover in GSM, UMTS and LTE				QUALCOMM Europe		05.10.1: Intra LTE
R2-071460	Uplink Scheduling for VoIP				Nokia	Mr. Benoit Sébire	05.5: Scheduling (UL & DL contributions)
R2-071461	RACH signature content				QUALCOMM Europe		05.4: Random access procedure
R2-071462	Comparison of persistent and group scheduling				QUALCOMM Europe		05.5: Scheduling (UL & DL contributions)
R2-071463	LTE Intra/Inter-RAT handover algorithms for LTE_ACTIVE state				QUALCOMM Europe	Mr. Francesco Grilli	05.10: LTE_ACTIVE mobility procedures
R2-071464	DRX principles				QUALCOMM Europe		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071465	Support of scalable codec for E-MBMS				Alcatel-Lucent		05.12.2: Stage 2 inputs
R2-071466	Transmission of E-MBMS control information				Alcatel-Lucent		05.12.2: Stage 2 inputs
R2-071467	Discussion on E-MBMS deployment scenarios				Alcatel-Lucent		05.12.1: Requirements/scenarios
R2-071468	Audience measurement for MBMS in LTE				Alcatel-Lucent		05.12.2: Stage 2 inputs
R2-071469	Data forwarding of IP packets				Qualcomm Europe	Mr. Etienne Chaponnière	05.2.2: Data handling at relocation
R2-071470	L2 Improvements and polling				Qualcomm Europe	Mr. Etienne Chaponnière	08: Improved L2 support for high data rates
R2-071471	L2 improvements and UE processing				Qualcomm Europe	Mr. Etienne Chaponnière	08: Improved L2 support for high data rates
R2-071472	L2 improvements - configuration				Qualcomm Europe	Mr. Etienne Chaponnière	08: Improved L2 support for high data rates
R2-071473	CPC parameter ranges				Qualcomm Europe	Mr. Etienne Chaponnière	17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071474	MIMO - DL 64QAM UE categories				Qualcomm Europe	Mr. Etienne Chaponnière	17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071475	Ciphering in RLC				Qualcomm Europe	Mr. Etienne Chaponnière	05.2.1: U-plane layer for ciphering
R2-071476	Handling AMD PDU outside the reception window	CR	25.322	Rel-7	ASUSTeK	Mr. Sam Jiang	14: TEI7
R2-071477	LTE MBMS Rate Control				TD Tech		05.12.2: Stage 2 inputs
R2-071478	Improvement of RLC reset procedure	CR	25.322	Rel-7	ASUSTeK	Mr. Sam Jiang	14: TEI7
R2-071479	RLC local gap detection				Qualcomm Europe	Mr. Etienne Chaponnière	05.14: Other LTE stage 2 subjects
R2-071480	HARQ-ARQ interaction at the receiver				Qualcomm Europe	Mr. Etienne Chaponnière	05.14: Other LTE stage 2 subjects
R2-071481	System Information Scheduling				Motorola		05.3: System Information content & delivery
R2-071482	Clarification on Pending Activation Time of Integrity Protection during SRNS Relocation	CR	25.331	Rel-7	ASUSTeK		14: TEI7
R2-071483	VoIP Performance				Motorola		05.5: Scheduling (UL & DL contributions)
R2-071484	Text proposal for DL scheduling				Motorola,.....		05.5: Scheduling (UL & DL contributions)
R2-071485	Text proposal for UL scheduling				Motorola,.....		05.5: Scheduling (UL & DL contributions)
R2-071486	Discussion on scheduling				Motorola,.....		05.5: Scheduling (UL & DL contributions)
R2-071487	RLC header optimization with flexible PDU size				ASUSTeK	Mr. Sam Jiang	08: Improved L2 support for high data rates
R2-071488	MAC header for control message in LTE				ASUSTeK		05.14: Other LTE stage 2 subjects
R2-071489	RLC header design				Motorola		05.14: Other LTE stage 2 subjects
R2-071490	Enhanced MAC-hs header optimization				ASUSTeK		08: Improved L2 support for high data rates

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R2-071491	L2 architecture for LTE				LG Electronics Inc.				05.2.1: U-plane layer for ciphering, 05.2.2: Data handling at relocation
R2-071492	Contention Resolution and Initial Random Access				TD Tech				05.4: Random access procedure
R2-071493	Multiple tracking areas concept and influence on paging load				NEC				05.11.1: Intra LTE
R2-071494	Intra-LTE and inter-RAT cell reselection				NEC				05.11.1: Intra LTE
R2-071495	Introduction of Enhanced CELL_FACH state: Direct data transmission to the UE in CELL_PCH state	CR	25.331		Nokia, Siemens Networks	Mr. Juho Pirskanen			07: Enhanced Cell_FACH State in FDD
R2-071496	Introduction of Enhanced CELL_FACH state: mapping of the PCCH to HS-DSCH	CR	25.331		Nokia, Siemens Networks	Mr. Juho Pirskanen			07: Enhanced Cell_FACH State in FDD
R2-071497	Some Small Editorial Corrections to TS 25.321	CR	25.321	Rel-7	CATT	Mrs. Haiyang Quan			13: 1.28 Mcps TDD Enhanced Uplink
R2-071498	Proposed work plan for LTE performance verification				Rapporteur				05: UTRA/UTRAN Long Term Evolution
R2-071499	Correction of the IE 'MBMS service identity' included in the IE 'RAB info'	CR	25.331	Rel-6	Ericsson	Mr. Sven Ekemark			16: Release 5 and other Release 6 corrections
R2-071500	UE Capabilities for TDD MBSFN				IPWireless				10: MBMS TDD Physical layer Enhancements
R2-071501	Additional Results on EMBMS Transmission Configurations				Motorola				05.12.1: Requirements/scenarios
R2-071502	3G Home NodeB Study Item Technical Report				Motorola				19: Study Item on 3G Home NodeB
R2-071503	DRX control in LTE_Active				IPWireless				05.2.3: Implicit versus explicit DRX value update, DRX mechanism
				Update of R2-071200. The only change is in the Source field (Vodafone has been added)					
R2-071504	Principles for the new CELL_PCH/URA_PCH operation (CP-070227, Cc RAN2). Reply LS (to CP-070083) on GERAN – LTE interworking				QUALCOMM Europe, Vodafone	Mr. Francesco Grilli			07: Enhanced Cell_FACH State in FDD
R2-071505	(GP-070517, to RAN2). Reply LS (to S1-070300) on Registration in Densely populated area				TSG CT	Motorola			05.1: Incoming LSs on LTE
R2-071506	(GP-070549, to RAN2). LS on GERAN – LTE interworking				TSG GERAN	Ericsson			20: TEI8
R2-071507	(R1-071213, to RAN2). Reply LS (to R2-063557) on Radio efficiency for delivery of Broadcast/Multicast Services				TSG GERAN	Motorola			05.1: Incoming LSs on LTE
R2-071508	(R1-071238, to RAN2). LS on 64QAM HSDPA and HSDPA MIMO UE categories				RAN WG1	Samsung			05.1: Incoming LSs on LTE
R2-071509	(R1-071239, to RAN2). Reply LS (to R2-070411) on DRX interval and CQI reporting cycle in LTE				RAN WG1	Qualcomm			17: Other Rel-7 Work Items (CPC, MIMO, 16 QAM UL & 64 QAM DL)
R2-071510	(R1-071241, to RAN2). Reply LS (to R2-070421) on Intra-frequency vs. Inter-frequency				RAN WG1	Nokia			05.1: Incoming LSs on LTE
R2-071511	(R1-071248, to RAN2). Reply LS (to R2-070418) on non-initial cell search				RAN WG1	Qualcomm			05.1: Incoming LSs on LTE
R2-071512	(R1-071249, to RAN2). Reply LS (to R2-070953) on High Bit Rate SRB				RAN WG1	Ericsson			05.1: Incoming LSs on LTE
R2-071513	(R1-071250, Cc RAN2). LS on LTE measurement supporting Mobility				RAN WG1	Alcatel-Lucent			16: Release 5 and other Release 6 corrections
R2-071514	(R1-071254, to RAN2). Reply LS (to R2-070419) on HS-SCCH enhancements in CELL_FACH				RAN WG1	Samsung			05.1: Incoming LSs on LTE
R2-071515	(R3-070479, to RAN2). Reply LS (to C1-070401, R2-063683) on Radio Access Network Sharing in SAE/LTE				RAN WG1	Nokia			07: Enhanced Cell_FACH State in FDD
R2-071516	(R3-070499, to RAN2). LS on Clarification on two				RAN WG3	Ericsson			05.1: Incoming LSs on LTE
R2-071517					RAN WG3	Motorola			16: Release 5 and other Release 6



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	scenarios "Enhanced Broadcast over lur"			corrections
R2-071518	(R4-070317, to RAN2). Reply LS (to R2-070421) on Intra-frequency vs. Inter-frequency	RAN WG4	Qualcomm	05.1: Incoming LSs on LTE
R2-071519	(R4-070320, to RAN2). Reply LS (to R2-070418) on Initial search	RAN WG4	Nokia	05.1: Incoming LSs on LTE
R2-071520	(S3-070162, to RAN2). Reply LS (to R2-070420) on SIM and USIM usage in LTE/SAE	SA WG3	Ericsson	05.1: Incoming LSs on LTE
R2-071521	(GP-070497, to RAN2). Reply LS (to S1-061408) on feasibility of GAN enhancements	TSG GERAN	Vodafone	20: TEI8
R2-071522	(R3-070484, to RAN2). LS on MBMS Session Update of the MBMS Service Area	RAN WG3	Nokia	14: TEI7
R2-071523	(S2-071058, to RAN2). LS on MME separation Option B from SAE Gateway	SA WG2	Alcatel-Lucent	05.1: Incoming LSs on LTE
R2-071524	(RP-070268, to RAN2). LS on Removal of limitation of SRNC identity	TSG RAN	Motorola	14: TEI7
R2-071525	(S2-071046, Cc RAN2). LS on Location of PDCP in eNode B	SA WG2	Ericsson	05.1: Incoming LSs on LTE
R2-071526	(IETF RoHC WG Chair). Reply LS (to R2-070434) on Questions regarding the ROHC Protocol	IETF RoHC WG Chair	Nokia	14: TEI7
R2-071527	Definitions relating to SFN in E-MBMS	Vodafone Group		05.12: LTE MBMS
R2-071528	MCCH Optimisation for MBMS Enhanced Broadcast Mobility and Access Control Requirements for LTE Home-eNodeB	Vodafone Group		05.12.1: Requirements/scenarios
R2-071529	Scheduling of the MCCH	NTT DoCoMo, Orange, Telecom Italia, Vodafone Group,		05.12.1: Requirements/scenarios
R2-071530	UE State during MBMS Reception	Vodafone Group		05.12: LTE MBMS
R2-071531	Initial Standardisation Requirements from Self-Organizing Networks	Vodafone Group		05.12: LTE MBMS
R2-071532	Response to R2-071225	Motorola		05.14: Other LTE stage 2 subjects
R2-071533	Response to R2-071292	Motorola		05.5: Scheduling (UL & DL contributions)
R2-071534	Response to R2-071292	Motorola, Alcatel-Lucent, CATT, Elektrotbit, ETRI, Fujitsu, ITRI, Mitsubishi, NEC, Nokia, NTT DoCoMo, Panasonic, Qualcomm, Samsung, Siemens Networks, Texas Instruments	Mr. Benoist Sébire	05.5: Scheduling (UL & DL contributions)
R2-071535	Way Forward for DL Scheduling	CATT, Elektrotbit, ETRI, Fujitsu, ITRI, LGE, Mitsubishi, NEC, Nokia, NTT DoCoMo, Qualcomm, Samsung, Siemens Networks	Mr. Benoist Sébire	05.5: Scheduling (UL & DL contributions)
R2-071536	Way Forward for UL Scheduling	ASUSTeK	Mr. Sam Jiang	05.5: Scheduling (UL & DL contributions)
R2-071537	Issues on Random Access Procedure	ASUSTeK	Mr. Sam Jiang	05.4: Random access procedure
R2-071538	Optimization of RACH model	Ericsson	Mr. Sam Jiang	05.4: Random access procedure
R2-071539	Scheduling of System Information	Nokia	Mr. Benoist Sébire	05.3: System Information content & delivery
R2-071540	Synchronous adaptive HARQ for E-UTRAN UL	NTT DoCoMo, KPN, Orange, Telecom	Mikio Iwamura	05.14: Other LTE stage 2 subjects, 05.5: Scheduling (UL & DL contributions)
R2-071541	Standardised eNB measurements			05.14: Other LTE stage 2 subjects, 05.5: Scheduling (UL & DL contributions)

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R2-071542	Flexible MAC-hs Format			Italia, Telefonica, T-Mobile, Vodafone		
R2-071543	Discussion on RLC Length Indicator			LG Electronics Inc.	SungDuck	08: Improved L2 support for high data rates
R2-071544	RAN Chairman report of RAN-35 to SA-35 (SP-070223) (R3-070509, Cc RAN2). LS on EPC update at inter			LG Electronics Inc.	SungDuck	08: Improved L2 support for high data rates
R2-071545	eNodeB mobility (R3-070517, Cc RAN2). Reply LS on MME / UPE Pool			TSG RAN Chairman		04: Reports from other groups
R2-071546	Areas and triggers for relocation Updated Minutes of RAN2-57, 12-16 February 2007, Saint-Louis, USA			RAN WG3	Alcatel-Lucent	05.1: Incoming LSs on LTE
R2-071547	(Draft2) Minutes of TSG RAN-35 meeting, Cyprus, 06-09 March 2007			RAN WG3	Ericsson	05.1: Incoming LSs on LTE
R2-071548	(R3-070478, Cc RAN2). Reply LS (to C1-070562) on Usage of Tracking Areas (TA) in LTE/SAE			ETSI MCC		03: Minutes of the previous meeting
R2-071549	U-Plane ciphering at MAC/ciphering layer			ETSI MCC		04: Reports from other groups
R2-071550				RAN WG3		05.1: Incoming LSs on LTE
				LG Electronics		05.2.1: U-plane layer for ciphering
				Alcatel-Lucent, CATT, Elektrotbit, ETRI, Fujitsu, ITRI, Mitsubishi, NEC, Nokia, NTT DoCoMo, Panasonic, Qualcomm, Samsung, Siemens Networks, Texas Instruments, Ericsson	Mr. Benoist Sébire	05.5: Scheduling (UL & DL contributions)
R2-071551	Way Forward for DL Scheduling			CATT, Elektrotbit, ETRI, Fujitsu, ITRI, LGE, Mitsubishi, NEC, Nokia, NTT DoCoMo, Qualcomm, Samsung, Siemens Networks, Ericsson	Mr. Benoist Sébire	05.5: Scheduling (UL & DL contributions)
R2-071552	Way Forward for UL Scheduling			Email Rapporteur (NEC)		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
R2-071553	Summary of email discussion on implicit vs. explicit DRX control			QUALCOMM Europe		05.5: Scheduling (UL & DL contributions)
R2-071554	Comparison of persistent and group scheduling				Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071555	Enhanced CELL_FACH in FDD 25.321	CR	25.321	Nokia	Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071556	Enhanced CELL_FACH in FDD 25.331	CR	25.331	Nokia	Mr. Juho Pirskanen	07: Enhanced Cell_FACH State in FDD
R2-071557	DRx Schemes comparison			Nokia		07: Enhanced Cell_FACH State in FDD
R2-071558	Neighbor cell specific parameters currently specified for UMTS			Ericsson		05.2.4: BCH for LTE
R2-071559	LS on neighbour cell list in LTE			Vodafone		21: Liaisons and outputs to other groups
R2-071560	Inter-frequency/RAT mobility control drivers (text proposal)			NTT DoCoMo		05.10: LTE_ACTIVE mobility procedures
R2-071561	Draft TP on use of NCL for idle mode mobility			Samsung		05.3: System Information content & delivery
R2-071562	Text proposal on random access procedures			NTT DoCoMo		05.4: Random access procedure
R2-071563	Group Management			Motorola		05.5: Scheduling (UL & DL contributions)
R2-071564	Discussion on Uplink Scheduling Request			TD-Tech, Siemens Network		05.5: Scheduling (UL & DL contributions)
R2-071565	LS on security requirements on the eNode B			Ericsson		05.2.1: U-plane layer for ciphering

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approved LS	R2-071566	LS on security requirements on the eNode B				RAN WG2		05.2.1: U-plane layer for ciphering
	R2-071567	LS to RAN1 on Time alignment principles for LTE (exact title tbd)				Samsung		21: Liaisons and outputs to other groups
	R2-071568	Mobility and Interworking Between R6 and R7				InterDigital	Mr. Stephen Terry	08: Improved L2 support for high data rates
	R2-071569	LS to GERAN on questions on inter-system/modes handovers				Nokia		21: Liaisons and outputs to other groups
	R2-071570	Scheduling of System Information				Ericsson		05.3: System Information content & delivery
	R2-071571	LS to RAN3 on extension of RNC-Id				Nokia		21: Liaisons and outputs to other groups
	R2-071572	LS to RAN1 on MIMO support for LTE (exact title tbd)				Huawei		21: Liaisons and outputs to other groups
	R2-071573	LS on neighbour cell list in LTE				Vodafone		21: Liaisons and outputs to other groups
	R2-071574	Draft TP on use of NCL for idle mode mobility				Samsung		05.3: System Information content & delivery
	R2-071575	Void						
	R2-071576	Void						
	R2-071577	Void						
	R2-071578	Void						
	R2-071579	Void						
	R2-071580	Void						
	R2-071581	LCR TDD physical layer enhancements text proposal for TR 25.905				TD-Tech		11: MBMS LCR TDD Physical layer Enhancements
	R2-071582	(R1-071779, to RAN2). Reply LS (to R2-070409) on HS-DSCH usage in CELL_FACH				RAN WG1		07: Enhanced Cell_FACH State in FDD
	R2-071583	(R3-070700, Cc RAN2). LS on NAS Handling during intra-LTE handover				RAN WG3		05.1: Incoming LSs on LTE
	R2-071584	LS to RAN1 on new CELL_PCH/URA_PCH operation				Qualcomm		21: Liaisons and outputs to other groups
	R2-071585	RLC header optimization with flexible PDU size				ASUSTeK	Mr. Sam Jiang Mr. Janne Peisa	08: Improved L2 support for high data rates
	R2-071586	L2 enhancements: Baseline CR to MAC	CR	25.321	Rel-7	Ericsson		08: Improved L2 support for high data rates
	R2-071587	MAC-ehs header: summary and open issues				Ericsson		08: Improved L2 support for high data rates
	R2-071588	(S3-070283, to RAN2). LS on eNodeB Security				SA WG3		05.1: Incoming LSs on LTE
	R2-071589	LS to RAN1/RAN4 on cluster (re-)selection				LG Electronics		21: Liaisons and outputs to other groups
	R2-071590	Way forward for ciphering location and user plane data handling				Nokia		05.2.1: U-plane layer for ciphering
	R2-071591	UE State during MBMS Reception				Vodafone Group		05.12: LTE MBMS
email discussion point 1	R2-071592	Email discussion on UE State during MBMS Reception				Vodafone Group		05.12: LTE MBMS
email agreement	R2-071593	LS on Uplink VoIP Scheduling				NEC		05.5: Scheduling (UL & DL contributions)
	R2-071594	DRx and CQI reporting				NEC		05.2.3: Implicit versus explicit DRx value update, DRx mechanism
	R2-071595	Text proposal				LG		
	R2-071596	LS to RAN1 on new CELL_PCH/URA_PCH operation				Qualcomm		
	R2-071597	LS to RAN1/RAN4 on cluster (re-)selection				LG Electronics		21: Liaisons and outputs to other groups
email	R2-071598	Email: EUTRAN Stage 2 Update				Nokia		
	R2-071599	Email discussion on cell reselection parameters in LTE				Ericsson		05.2.4: BCH for LTE

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R2-071600	Email discussions: LTE System Information content & delivery	Motorola	05.3: System Information content & delivery
R2-071601	Email discussions: Mobility and Access Control Requirements for LTE Home-eNodeB	Vodafone Group	05.12.1: Requirements/scenarios
R2-071602	LS to RAN1 on Time alignment principles for LTE (exact title tbd)	Samsung	21: Liaisons and outputs to other groups
R2-071603	LS to RAN1 on MIMO support for LTE (exact title tbd)	Huawei	21: Liaisons and outputs to other groups
R2-071604	Void		
R2-071605	LS to RAN1/RAN4 on cluster (re-)selection	LG Electronics	21: Liaisons and outputs to other groups

Annex C: Table of Outgoing LSs to 3GPP groups

NUMBER	TITLE	RAN	R1	R3	R4	R5	SA	S1	S2	S3	S4	S5	CT	CT1	CT3	CT4	GERAN	GERAN1	GERAN2
R2-071566	LS on security requirements on the eNode B			cc						to									
R2-071573	LS on neighbour cell list in LTE																to		to
R2-071602	LS on maintenance of UL Synchronisation		to		to														
R2-071603	LS to RAN1 on LS on CQI feedback		to																
R2-071571	Reply LS on Removal of limitation of SRNC identity	to		cc			cc		cc							cc	cc		cc
R2-071596	LS on CELL_PCH/URA_PCH operation in Enhanced CELL_FACH		to																
R2-071605	LS on MBSFN cluster selection and reselection, and suitability criteria	cc	to		to														
R2-071593	LS on Uplink VoIP Scheduling		to																
R2-071606	<del>LS on Uplink VoIP Scheduling</del> <del>(Email agreement)</del>		to																

The outgoing Liaison Statements are also available at:  
[tsg\\_ran/WG2\\_RL2/Outgoing\\_Liaisons/TSGR2\\_57bis](http://tsg_ran/WG2_RL2/Outgoing_Liaisons/TSGR2_57bis)

## Annex D: Meeting schedule

### Future WG2 and RAN plenary meetings:

Year	Meeting	Dates	Location	Country	Host
2004	RAN#24	02-04 June	Seoul	Korea	TTA
	WG2#43	16-20 Aug	Prague	Czech Republic	European Friends of 3GPP
	RAN#25	08-10 Sep	Palm Springs	USA	NA Friends of 3GPP
	WG2#44	04-08 Oct	Sophia-Antipolis	France	ETSI
	WG2#45	15-19 Nov	Shin-Yokohama	Japan	Japanese Friends of 3GPP
	RAN#26	07-10 Dec	Athens	Greece	European Friends of 3GPP
2005	WG2#45bis	10-14 Jan	Sophia-Antipolis	France	ETSI
	WG2#46	14-18 Feb	Scottsdale	USA	
	RAN#27	09-11 Mar	Tokyo	Japan	
	WG2#46bis	04-08 April	Beijing	China	Huawei
	WG2#47	09-13 May	Athens	Greece	EF3
	RAN#28	01-03 June	Quebec	Canada	
	WG2#48	29 Aug – 02 Sep	London	UK	EF3
	RAN#29	21-23 Sep	Tallin	Estonia	EF3
	WG2#48bis	10-14 Oct	Cannes	France	EF3
	WG2#49	07-11 Nov	Seoul	Korea	Samsung
	RAN#30	30 Nov – 02 Dec	St Julian	Malta	EF3
	WG2#50	09-13 Jan	Sophia-Antipolis	France	ETSI
	WG2#51	13 - 17 Feb	Denver, Colorado	US	NA Friends of 3GPP
	(Joint session RAN2-RAN3-SA2)	20 - 21 Feb	Denver, Colorado	US	NA Friends of 3GPP
	RAN#31	08 – 10 March		China	
WG2#52	27 - 31 March	Athens	Greece	EF3	
WG2 Ad-hoc	01-02 May	Espoo	Finland	Nokia	
WG2#53	08 - 12 May	Shanghai	China	Datang	
RAN#32	31 May - 02 June	Warsaw	Poland	EF3	
WG2 LTE Ad-hoc	27 - 30 June	Cannes	France	EF3	
WG2#54	28 Aug - 01 Sept	Estonia	Tallin	EF3	
RAN#33	19 - 22 Sep	US	Palm Springs	NA Friends of 3GPP	
WG2#55	09-13 October 2006	Seoul	Korea	Samsung	
WG2#56	06 - 10 Nov	Riga	Latvia	EF3	
RAN#34	29 Nov - 01 Dec	Budapest		EF3	
2007	Workshop with GERAN, SA and SA1 on GSM LTE handovers	10-11 Jan	Sophia-Antipolis	France	ETSI

Current minutes of the 57bis TSG-RAN WG2 meeting

WG2#56bis	15-19 Jan	Sorrento	Italy	EF3
WG2#57	12-16 Feb	Saint Louis, Missouri	US	NA Friends of 3GPP
RAN#35	06-09 March	Lemesos	Chypre	EF3
WG2#57bis	27-30 March	St Julians	Malta	EF3
WG2#58	07-11 May 2006	Kobe	Japan	Japanese friends of 3GPP
RAN#36	29 May - 01 June	Busan	Korea	
WG2#58bis	25-29 June	Orlando	US	NA Friends of 3GPP
WG2#59	20-24 August 2006	Athens	Greece, Europe	
RAN#37	11-14 September	Riga	Latvia	
WG2#59bis	08-12 October		China	Huawei
WG2#60	05-09 November		Korea	
RAN#38	28-30 November	US		NA Friends of 3GPP