

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OnePlus Technology (Shenzhen) Co., Ltd.
Petitioner

v.

Pantech Corporation
Patent Owner

U.S. Patent No. 8,995,372

Case No. IPR2025-00887

DECLARATION OF FRIEDHELM RODERMUND
IN SUPPORT OF A PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 8,995,372

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Declaration of Friedhelm Rodermund

I, Friedhelm Rodermund, do hereby declare as follows:

I. INTRODUCTION AND ENGAGEMENT

1. I have been retained in this matter by the Petitioner to provide testimony regarding the standard business practices of 3rd Generation Partnership Project (“3GPP”) for record keeping and publishing technical specifications, change request proposals, reports, and other documents developed during the course of standards activities carried out by 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:

- TDoc R2-100372, which represents a 3GPP document with the title “RACH and carrier aggregation” (hereinafter “R2-100372”) (Ex. 1010)
- TDoc R2-100110, which represents a 3GPP document with the title “Multiple Timing Advance Impact on RAN2” (hereinafter “R2-100110”) (Ex. 1006)
- TDoc R2-100054, which represents a 3GPP document with the title “Primary Component Carrier” (hereinafter “R2-100054”) (Ex. 1015)
- Version 9.2.0 of technical specification 3GPP TS 36.300 (“Technical Specification Group (TSG) Radio Access Network; Evolved Universal

Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2 (Release 9)”) (hereinafter “TS 36.300 v9.2.0”) (Ex. 1017)

- Version 8.8.0 of technical specification 3GPP TS 36.321 (“Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification (Release 8)”) (hereinafter “TS 36.321 V8.8.0”) (Ex. 1016)

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 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 3GPP 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.

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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 the Petitioner.

6. I have been informed that Pantech Corporation (“Pantech” or “Patent Owner”) is the current assignee of U.S. Patent No. 8,995,372 (“the ’372 Patent”) (Ex. 1001). I have no financial interest in the Patent Owner or the ’372 patent.

7. In forming my opinions, I have considered the cited exhibits, including the exhibits identified in Appendix B, and my academic and professional training and experience in the field of wireless communications and standards development as described herein.

II. BACKGROUND AND QUALIFICATIONS

8. I have more than 25 years of experience working with standards development organizations including 3GPP, ETSI, and the 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.

9. I attended the University of Technology Aachen in Aachen, Germany, where I performed graduate studies in Electrical Engineering with a focus on

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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.

10. 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).

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

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Group (“T2”), the group which played a leading role in the creation of standards for Multimedia such as the Multimedia Messaging Service (“MMS”).

12. 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.

13. 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.

14. 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, 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.

15. Since I left ETSI as a staff member in 2005, I have been continuously involved in standardization activities, including with OMA, ETSI, and 3GPP. Since 2017, I also have been attending the ETSI Intellectual Property Rights (“IPR”) Special Committee, which is responsible for the maintenance of the ETSI IPR Policy.

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

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17. 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 (LwM2M) and 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.

18. I also provide consulting services related to patents, in particular around 3GPP Standard Essential Patents ("SEPs"), and I have worked 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.

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

20. 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

21. It is my opinion that Ex. 1010 is an authentic copy of 3GPP TDoc R2-100372 that was uploaded and made available via the 3GPP FTP server to 3GPP delegates and the general public by January 12, 2010, at the latest.

22. It is my opinion that Ex. 1006 is an authentic copy of 3GPP TDoc R2-100110 that was uploaded and made available via the 3GPP FTP server to 3GPP delegates and the general public by January 12, 2010, at the latest.

23. It is my opinion that Ex. 1015 is an authentic copy of 3GPP TDoc R2-100054 that was uploaded and made available via the 3GPP FTP server to 3GPP delegates and the general public by January 12, 2010, at the latest.

24. It is my opinion that Ex. 1017 is an authentic copy of 3GPP TS 36.300 V9.2.0 that was uploaded and made available via the 3GPP FTP server to 3GPP delegates and the general public by January 6, 2010, at the latest.

25. It is my opinion that Ex. 1016 is an authentic copy of 3GPP TS 36.321 V8.8.0 that was uploaded and made available via the 3GPP FTP server to 3GPP delegates and the general public by December 28, 2009, at the latest.

IV. PUBLICATION OF 3GPP SPECIFICATIONS AND RELATED DOCUMENTS

A. General Practices

26. Unless otherwise noted, the foregoing and following is an accurate description of 3GPP general practices from 1998 to the present, including in 2009/2010, regardless of whether I use the present or past tense to describe those practices.

27. 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 Industry Solutions, USA (“ATIS”), China Communications Standards Association (“CCSA”), European Telecommunications Standards Institute (“ETSI”), Telecommunications Standards Development Society, India (“TSDSI”), 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 exploders.

28. 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 curriculum vitae, I began working for 3GPP, as part of my work at ETSI, the European-based organizational partner of 3GPP.

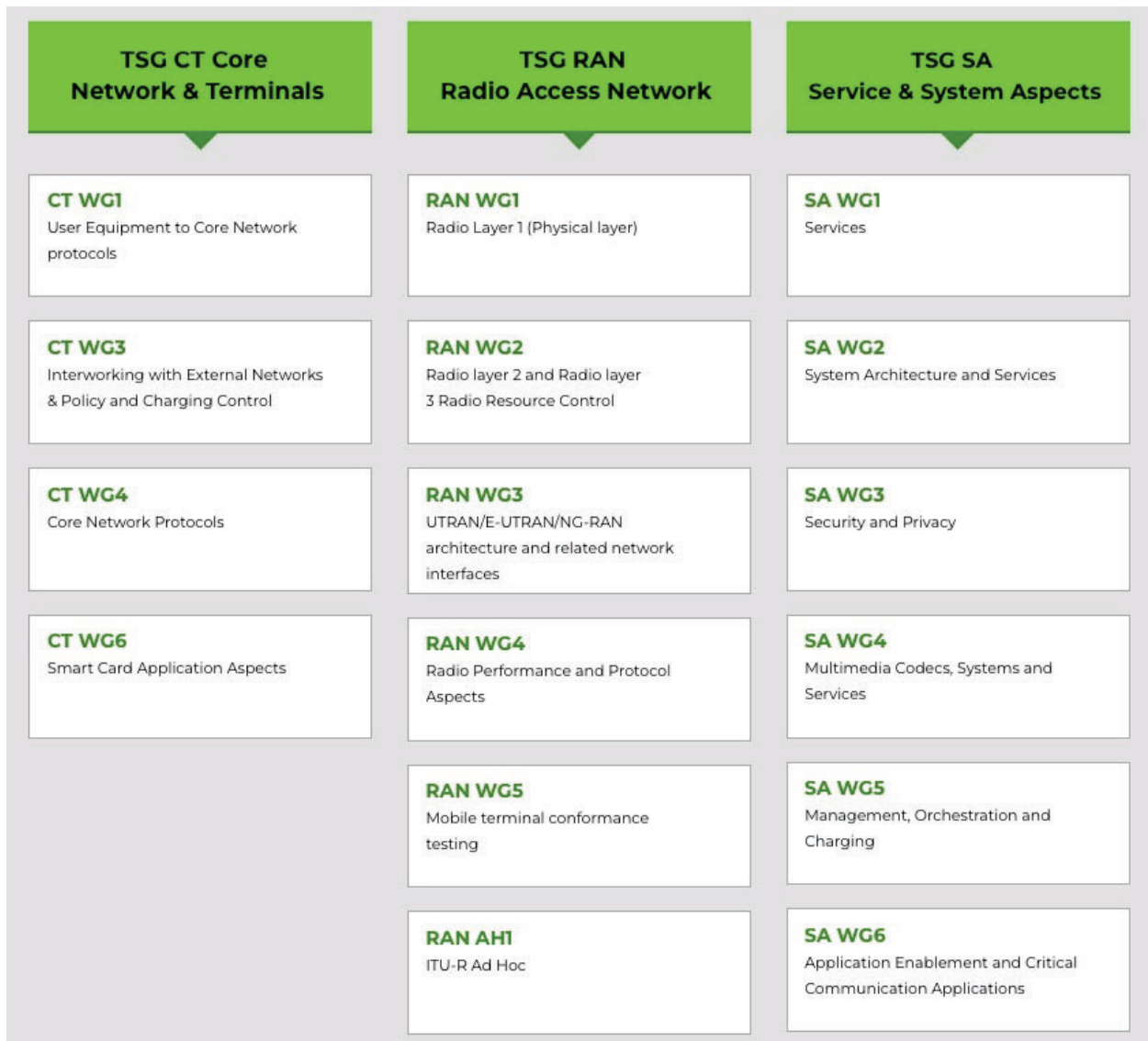
29. In the ordinary course of its regularly conducted business activities, and pursuant to its standard business practices, 3GPP publishes technical specifications, proposals, reports, and other documents related to the development of cellular telecommunications standards. Such documents are published 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.

30. 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,

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including on the FTP server associated with the 3GPP website, currently residing at ftp.3gpp.org. Such documents are referred to as “TDocs.” Final versions of the technical specifications also were, and continue to be, publicly accessible from that same FTP server.

31. The names and the structure of 3GPP working groups, as of today, can be found at <https://www.3gpp.org/3gpp-groups> (reproduced below):



32. 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: xminnnzzzz. The numbering system normally comprises five logical elements: (1) x: a single letter corresponding to the TSG; wherein in 2010 x was one of G (GSM EDGE Radio Access Network), R (Radio Access Network), C (Core Network and Terminals), or S (Service and System Aspects); (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 “-”; (4) nn: the calendar year of the meeting to which the document was submitted; and (5) zzzz: a running number (some working groups use 5 digits).

33. 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 its TDocs 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](ftp://ftp.3gpp.org).

34. As early as December 1998, including in 2009/2010, 3GPP’s FTP server was freely accessible to the general public with no login, password, or membership requirement.

35. 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 informed of their availability by email.

36. 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 or 5G network, 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.

37. Since its creation in December 1998, 3GPP's FTP server has been well-known to persons in the cellular telecommunications industry as a source of public information regarding industry standards and technological advances.

38. 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-technologies/specifications-by-series>, 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)
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		

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39. Following a link for a series (e.g., “23 series” link) leads to a 3GPP web page providing access to all specifications in a series, as shown in the screenshot below:

The screenshot shows the 3GPP Portal website. At the top, there is a navigation bar with links for Home, Directory, Browser, FTP, and Help. Below the navigation bar, there is a search bar and a list of specifications. The 23 series is selected, and a list of specifications is displayed. The specifications are listed in a table with columns for Specification number, Title, Status, and Primary Responsible Group. The specifications are grouped by status: Draft, Under change control, Withdrawn before change control, and Withdrawn under change control. The specifications are listed in descending order of their specification number, starting from 23.000 and ending at 23.072.

Specification number	Title	Status	Primary Responsible Group
23.000	Network architecture	Under change control	S2
23.003	Numbering, addressing and identification	Under change control	C4
23.007	Restoration procedures	Under change control	C4
23.008	Organization of subscriber data	Under change control	C4
23.009	Handover procedures	Under change control	C4
23.010	OSM Public Land Mobile Network (PLMN) Connection Types	Withdrawn under change control	-
23.011	Technical realization of Supplementary Services	Under change control	C4
23.012	Location management procedures	Under change control	C4
23.014	Support of Dual-Tone Multi-Frequency (DTMF) signalling	Under change control	C1
23.015	Technical realization of Operator Determined Barring (ODB)	Under change control	C4
23.016	Subscriber data management, Stage 2	Under change control	C4
23.018	Basic call handling, Technical realization	Under change control	C4
23.019	General UITS architecture	Withdrawn under change control	S2/S12
23.020	Functions related to Mobile Station (MS) in idle mode and group reserve mode	Withdrawn under change control	-
23.021	3G Security: Fraud Information Gathering System (FIGS), Technical realization, Stage 2	Under change control	S3
23.022	Universal Geographical Area Description (GAD)	Under change control	S2
23.024	High-Speed Circuit Switched Data (HSCSD), Stage 2	Under change control	C1
23.025	Immediate Service Termination (IST), Stage 2	Under change control	S3
23.026	Alphabets and language-specific information	Under change control	C1
23.027	Interface Protocols for the connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)	Under change control	C1
23.028	Technical realization of the Short Message Service (SMS)	Under change control	C1
23.029	Technical realization of Cell Broadcast Service (CBS)	Under change control	C1
23.030	Compression algorithm for text messaging services	Under change control	C1
23.031	Support of Videotex	Withdrawn under change control	-
23.032	Support of Video	Withdrawn under change control	-
23.033	Technical Realization of Facsimile Group 3 Service - transparent	Withdrawn under change control	N3
23.034	Technical realization of Facsimile Group 3 service - non-transparent	Withdrawn under change control	-
23.035	Security mechanisms for the UGSM application toolkit, Stage 2	Under change control	C8
23.036	Technical Realization of UGSM application toolkit, Stage 2	Under change control	S4
23.037	Shared Interworking Functions (SIF), Stage 2	Withdrawn under change control	N3
23.038	Mobile Execution Environment (MEE), Functional description, Stage 2	Under change control	S2
23.039	UITS Network protocols	Withdrawn under change control	-
23.040	General Packet Radio Service (GPRS), Service description, Stage 2	Under change control	S2
23.041	Support of Mobile Number Portability (MNP), Technical realization, Stage 2	Under change control	C4
23.042	enhanced Multi-Level Precedence and Pre-emption Service (eLPP), Stage 2	Under change control	C4
23.043	Voice Broadcast service (VBS), Stage 2	Withdrawn under change control	N1
23.044	Routing of calls between Public Data Networks (PDNs) and the GSM Public Land Mobile Network (PLMN)	Withdrawn under change control	-
23.045	Location Services (LS), Functional description, Stage 2	Withdrawn under change control	-
23.046	Cell Deflection (CD) supplementary service, Stage 2	Under change control	C4

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

41. As another example of a series, the 5G New Radio (NR) standard is covered in the “38 series” and is further subdivided into separate sections or specifications. Selecting the “38 series” link on the website shown in paragraph 33 leads to the 3GPP portal (portal.3gpp.org) page for all of the 38 series technical specifications.¹ These 5G NR specifications start at TS 38.101 and end at TR 38.922. Excluding withdrawn specifications, the 5G NR standard consists of more than 140 specifications.

42. Each LTE or 5G specification can span from a few pages to hundreds of pages. One full version of the LTE or 5G standard is massive, spanning tens of thousands of pages across the particular series of technical specifications.

43. In the ordinary course of 3GPP’s regularly conducted business activities, and pursuant to its standard business practices, TDocs 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).

1

<https://portal.3gpp.org/Specifications.aspx?q=1&series=45&releases=all&draft=False&underCC=False&withACC=False&withBCC=False&numberNYA=False>

44. 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.

45. Since their creation in December 1998, all of 3GPP's email archives, including the dedicated email lists for TSG RAN WG1, have been freely accessible to the general public with no login, password, or membership requirement and subscription was possible for every interested individual. As an example, the screenshot below represents the subscription page of the 3GPP RAN WG2 email list on list.etsi.org² demonstrating that this webpage is publicly available and that only an email address and name had to be entered to join the email list. In 2006, the registration webpage looked as follows:³

² In the past there was also list.3gpp.org which did not represent a dedicated website but instead redirected to list.etsi.org.

³ https://web.archive.org/web/20060105222647/http://list.etsi.org/scripts/wa.exe?SUBED1=3gpp_tsg_ran_wg2&A=1.

Subscription Settings

[Subscriber's Corner](#)

[Server Archives](#)

[Help](#)

[Log off](#)

Join or Leave the 3GPP_TSG_RAN_WG2 List

This screen allows you to join or leave the 3GPP_TSG_RAN_WG2 list. To confirm your identity and prevent third parties from subscribing you to a list against your will, an e-mail message with a confirmation code will be sent to the address you specify in the form. Simply wait for this message to arrive, then follow the instructions to confirm the operation.

Alternatively, you can [login with your LISTSERV password](#) (if you have one) and update your subscription interactively, without e-mail confirmation.

Your E-Mail Address:

Your Name:

Subscription Type:

☒ Regular
☐ Digest (traditional)
☐ Digest (MIME format)
☐ Digest (HTML format)
☐ Index (traditional)
☐ Index (HTML format)

[NODIGEST]
 [NOMIME DIGEST]
 [NOHTML MIME DIGEST]
 [HTML DIGEST]
 [NOHTML INDEX]
 [HTML INDEX]

Mail Header Style:

☒ Normal LISTSERV-style header
☐ LISTSERV-style, with list name in subject
☐ LISTSERV-style, short
☐ "Dual" (second header in mail body)
☐ sendmail-style

[FULLHDR]
 [SUBJECTHDR]
 [SHORTHDR]
 [DUALHDR]
 [IETFHDR]

Acknowledgements:

☐ No acknowledgements
☐ Short message confirming receipt
☐ Receive copy of own postings
☒ [Special or obsolete setting]

[NOACK NOREPRO]
 [ACK NOREPRO]
 [NOACK REPRO]

Miscellaneous:

☐ Mail delivery disabled temporarily
☐ Address concealed from REVIEW listing

[NOMAIL]
 [CONCEAL]

LIST.ETSI.ORG

46. Alternatively, anyone interested can obtain a LISTSERV password for managing subscriptions interactively without email confirmations.

47. Each of 3GPP's member companies typically assigned one or more individuals to regularly participate in these email lists. Thus, not only did the 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.

48. Since their creation in December 1998, 3GPP's email archives have been well-known to persons in the cellular telecommunications industry as a source of public information and for technical specifications, proposals, meeting announcements, technical discussions and reports regarding industry standards and technological advances.

49. 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. The screenshot below shows an excerpt of the "Spec" folder at [ftp.3gpp.org](ftp://ftp.3gpp.org):

Filename	Size	Modified
> 2016-12	--	14.06.21, 15:53
> 2017-03	--	14.06.21, 15:52
> 2017-06	--	23.06.21, 06:54
> 2017-09	--	23.06.21, 06:54
> 2017-12	--	23.06.21, 06:53
> 2018-03	--	09.07.21, 14:00
> 2018-06	--	26.11.21, 14:34
> 2018-09	--	30.08.21, 15:48
> 2018-12	--	13.12.21, 13:36
> 2019-03	--	18.02.22, 16:23
> 2019-06	--	30.03.22, 11:02
> 2019-09	--	30.03.22, 11:03
> 2019-12	--	30.03.22, 11:05
> 2020-03	--	09.06.22, 07:20
> 2020-06	--	07.09.22, 15:20
> 2020-09	--	21.11.22, 18:02
> 2020-12	--	21.11.22, 18:03
> 2021-03	--	01.04.21, 12:38
> 2021-06	--	30.06.21, 10:58
> 2021-09	--	30.08.21, 15:49
> 2021-12	--	25.11.21, 12:52
> 2022-03	--	19.05.22, 14:04
> 2022-06	--	17.06.22, 15:37
> 2022-09	--	14.10.22, 11:58
> 2022-12	--	29.11.22, 14:31
> archive	--	28.03.19, 15:49
> html-info	--	22.03.18, 11:55
> latest	--	16.06.22, 12:42
> latest-drafts	--	Yesterday, 11:47

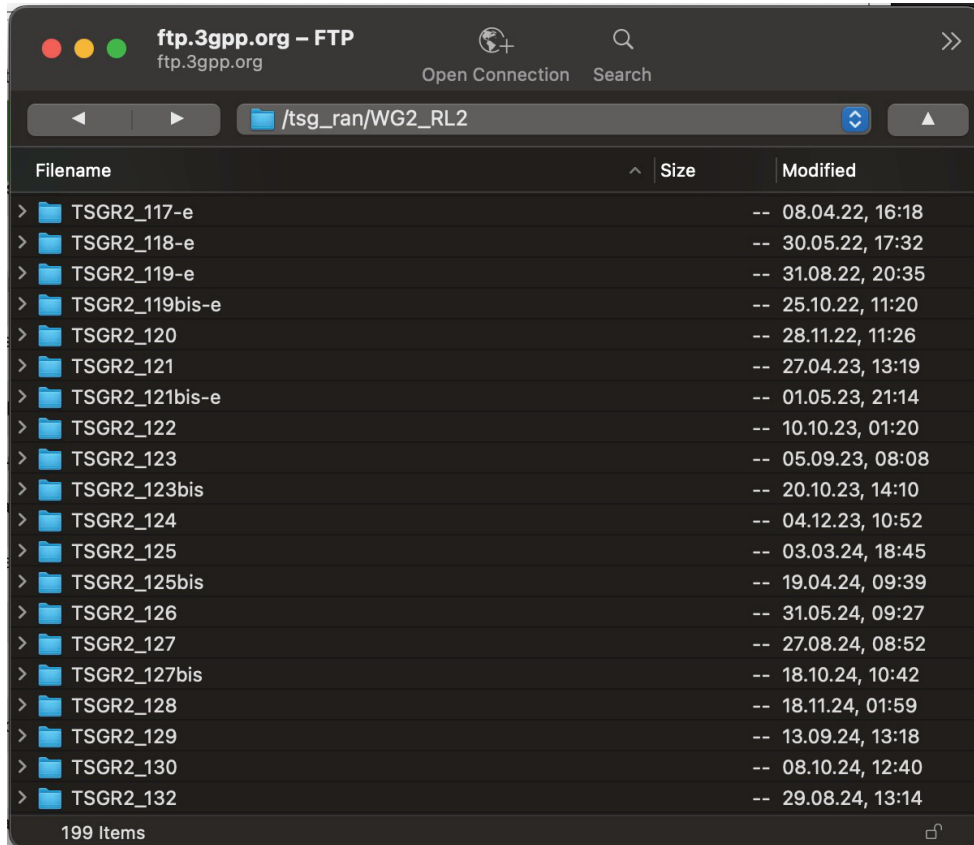
120 Items

50. While 3GPP aims to upload the updated specifications to both locations at the same time, occasionally there may 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 called “draft” specifications) are presented as TDocs at working group and at plenary meetings (as

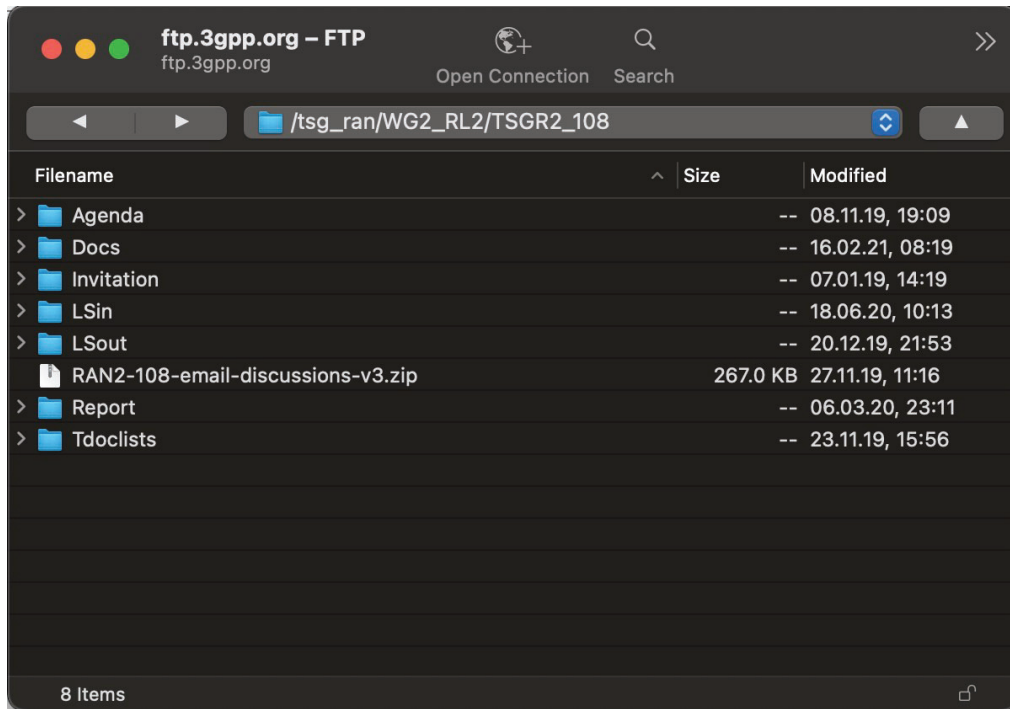
soon as the working group decides to submit the specification to the plenary meeting for information or approval). In many cases, the TDocs are also distributed on the email exploder of the working group prior to the meeting, making the TDocs available to all those subscribed to the email distribution list.

51. 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 occasionally. 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.

52. 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. As an example, the screenshot below shows an extract of the RAN WG2 folder named "WG2_RL2" showing that every meeting has a dedicated number:



53. As an example, the screenshot below shows the typical structure of a meeting folder including the most important folders “Agenda,” “Docs” (includes all meeting contributions), and “Report” (includes the meeting report):



54. In addition to the plenary and WG meeting folders, and some other folders, 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 in order 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.

55. 3GPP maintains a set of publicly accessible documents⁴ providing further details on its way of working:

⁴ All are available at <https://www.3gpp.org/delegates-corner/3gpp-working-procedures>.

- 3GPP Working Procedures
- Vocabulary for 3GPP Specifications 3GPP TR 21.905
- Working Methods 3GPP TR 21.900
- Specification Drafting Rules 3GPP TR 21.801

B. Specific Documents

1. TDoc R2-100372

56. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1010 as a true and correct copy of 3GPP TDoc R2-100372, which represents a 3GPP document with the title "RACH and carrier aggregation." The document was authored by Nokia Corporation and Nokia Siemens Networks and discussed issues to be addressed when applying RACH with carrier aggregation.

57. On its face, R2-100372 refers to the RAN WG2 #68bis meeting held on January 18-22, 2010, in Valencia, Spain. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-100372 was available either prior to or during or shortly after that meeting to all attending 3GPP members and to the general public.

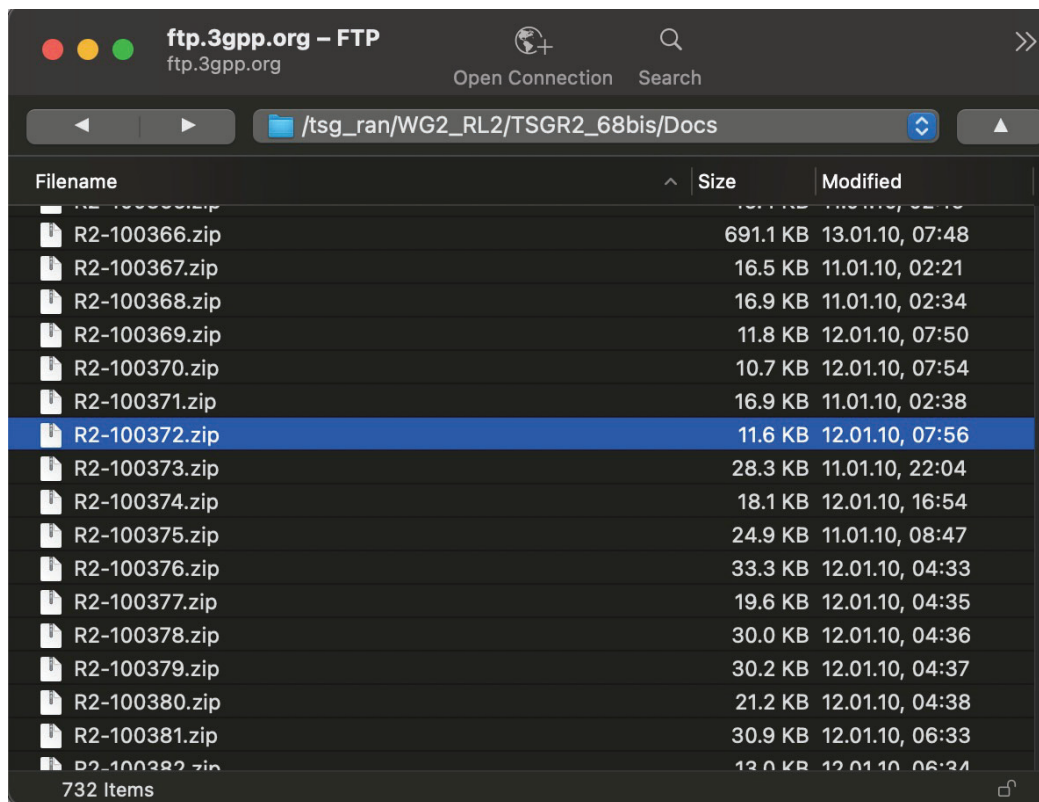
58. The public availability of the document is confirmed by the date stamp, January 12, 2010, shown on the historic 3GPP FTP server for the

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corresponding downloadable file (“R2-100372.zip”), as maintained by the Internet Archive at

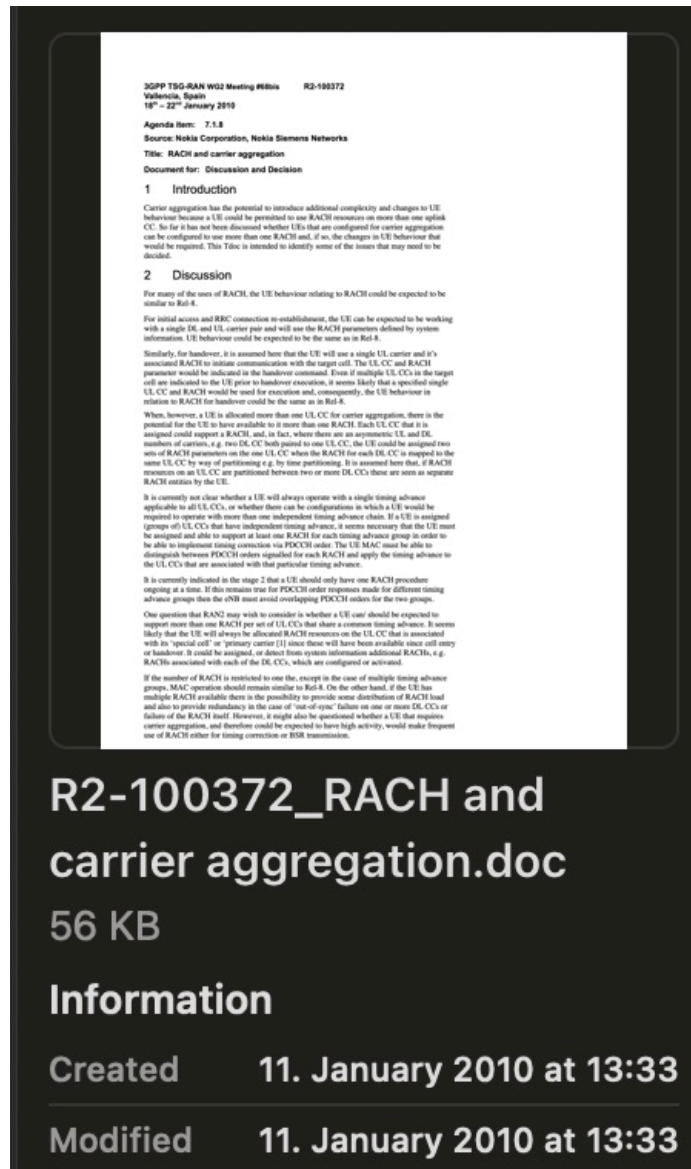
https://web.archive.org/web/20140327055401/http://3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_68bis/docs/. This information is also shown on the date stamp for the present-day listing of the same document on the 3GPP FTP server at

https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_68bis/Docs, as shown in the screenshot below:



59. Experts in the field of determining the public availability of 3GPP documents would reasonably rely upon the FTP server upload date on the 3GPP FTP server as the date the document became available to the public.

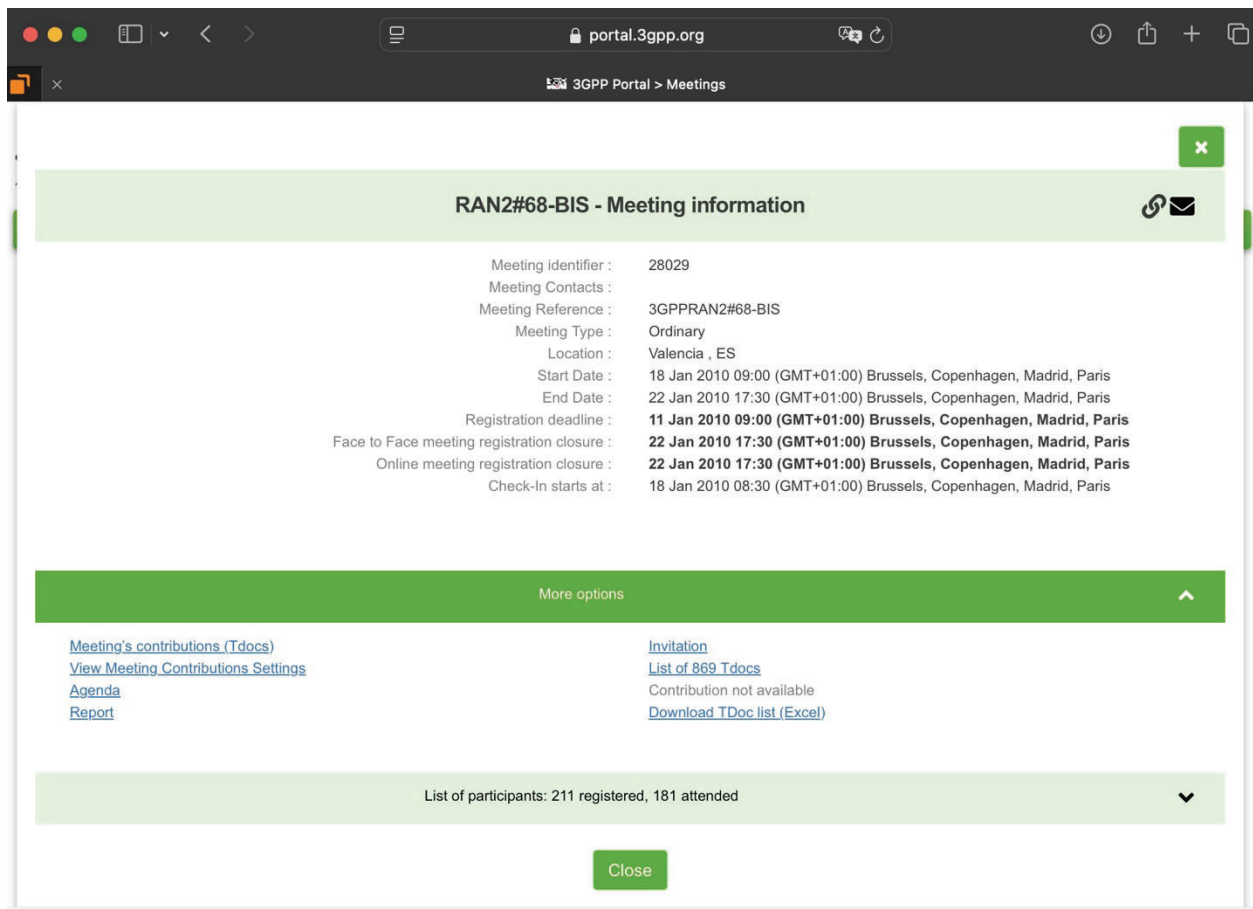
60. In addition, metadata information for the downloaded and extracted TDoc file states a last modified date of “11. January 2010,” as shown in the screenshot below.



61. This last modified date is well aligned with the January 12, 2010, upload date of the document, and the standard business practice among 3GPP participants to upload submissions shortly after completing them.

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62. The final meeting report of the RAN WG2 #68bis meeting held on January 18-22, 2010, in Valencia, Spain, can be found in Appendix C. According to the 3GPP website at [https://portal.3gpp.org/Meetings.aspx#/,](https://portal.3gpp.org/Meetings.aspx#/) which is shown in the screenshot below, that meeting was attended by 181 individuals (out of 211 registered participants):



63. The meeting report mentions R2-100372 on page 82 which clearly indicates that the document was registered for this meeting. The document is

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indicated as “not treated” (likely due to lack of meeting time), as can be seen in the screenshot below:

RACH

R2-100335: Multiple Uplink Carriers Serving RACH LG Electronics Inc.Disc
R2-100087: RACH Procedures for Carrier Aggregation InterDigital Disc
R2-100429: Random access with carrier aggregation Ericsson, ST-EricssonDisc
R2-100336: RACH for Carrier Aggregation LG Electronics Inc.Disc
R2-100372: RACH and carrier aggregation Nokia Corporation, Nokia Siemens NetworksDisc
R2-100194: DL carrier ambiguity issue at initial RACH in asymmetric CA SamsungDisc
R2-100312: On DL Component Carrier Ambiguity in Initial Random Access Procedure ZTE Disc

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Report of TSG RAN WG2 #68bis, Valencia, Spain, Jan. 18 - 22, 2010

All 7 Tdocs not treated

64. Furthermore, the meeting report includes in the zip file the meeting’s document list of which an excerpt can be found in Appendix D⁵. R2-100372 is listed in row 374 and is tagged as “Uploaded: Yes”:

	A	B	C	D	E	F	G	H	I
	Agenda item	Uploaded	status	Late	Tdoc	Title	Source	Type:	Spec
374	07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100372	RACH and carrier aggregation	Nokia Corporation, Nokia Siemens Networks	Disc	

⁵ Given the size of the document list, Appendix D only includes the columns relevant for this declaration.

65. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, Ex. 1010 is an authentic copy of 3GPP TDoc R2-100372 that was uploaded and made available via the 3GPP FTP server to the general public by January 12, 2010, at the latest.

2. TDoc R2-100110

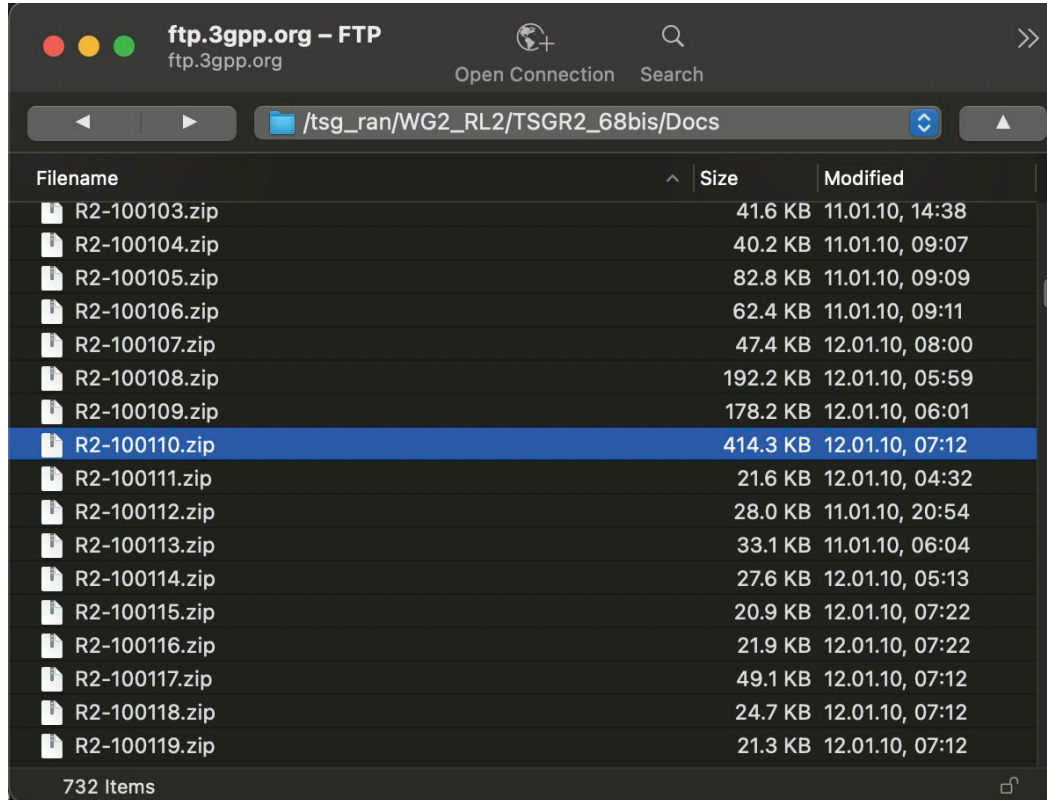
66. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1006 as a true and correct copy of 3GPP TDoc R2-100110, which represents a 3GPP document with the title "Multiple Timing Advance Impact on RAN2." The document was authored by Huawei and analyses the impact of supporting multiple timing advance.

67. On its face, R2-100110 refers to the RAN WG2 #68bis meeting held on January 18-22, 2010, in Valencia, Spain. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-100110 was available either prior to or during or shortly after that meeting to all attending 3GPP members and to the general public.

68. Further, I note that R2-100110 and R2-100372 both have the same meeting number, location, and date. *See* Ex. 1010, 1; Ex. 1006, 1. The "Agenda item" of R2-100110 is 7.1.1 while that of R2-100372 is 7.1.8. Based on my personal knowledge and experience with ETSI's and 3GPP's standard business

practices, these two documents were most likely available to 3GPP members and the general public at about the same time.

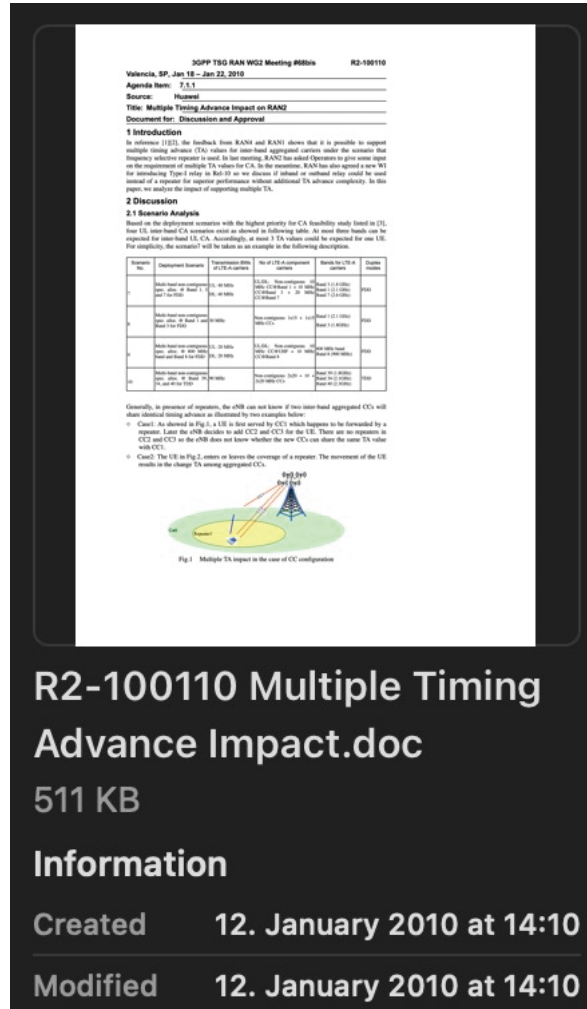
69. The public availability of the document is confirmed by the date stamp, January 12, 2010, shown on the historic 3GPP FTP server for the corresponding downloadable file (“R2-100110.zip”), as maintained by the Internet Archive at https://web.archive.org/web/20140327055401/http://3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_68bis/docs/. 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_68bis/Docs, as shown in the screenshot below:



Filename	Size	Modified
R2-100103.zip	41.6 KB	11.01.10, 14:38
R2-100104.zip	40.2 KB	11.01.10, 09:07
R2-100105.zip	82.8 KB	11.01.10, 09:09
R2-100106.zip	62.4 KB	11.01.10, 09:11
R2-100107.zip	47.4 KB	12.01.10, 08:00
R2-100108.zip	192.2 KB	12.01.10, 05:59
R2-100109.zip	178.2 KB	12.01.10, 06:01
R2-100110.zip	414.3 KB	12.01.10, 07:12
R2-100111.zip	21.6 KB	12.01.10, 04:32
R2-100112.zip	28.0 KB	11.01.10, 20:54
R2-100113.zip	33.1 KB	11.01.10, 06:04
R2-100114.zip	27.6 KB	12.01.10, 05:13
R2-100115.zip	20.9 KB	12.01.10, 07:22
R2-100116.zip	21.9 KB	12.01.10, 07:22
R2-100117.zip	49.1 KB	12.01.10, 07:12
R2-100118.zip	24.7 KB	12.01.10, 07:12
R2-100119.zip	21.3 KB	12.01.10, 07:12

70. Experts in the field of determining the public availability of 3GPP documents would reasonably rely upon the FTP server upload date on the 3GPP FTP server as the date the document became available to the public.

71. In addition, metadata information for the downloaded and extracted TDoc file states a last modified date of “12. January 2010,” as shown in the screenshot below.



72. This last modified date is well aligned with the January 12, 2010, upload date of the document, and the standard business practice among 3GPP participants to upload submissions shortly after completing them.

73. The final meeting report of the RAN WG2 #68bis meeting held on January 18-22, 2010, in Valencia, Spain, can be found in Appendix C. According to the 3GPP website at [https://portal.3gpp.org/Meetings.aspx#/,](https://portal.3gpp.org/Meetings.aspx#/) which is shown in the screenshot below, that meeting was attended by 181 individuals (out of 211 registered participants):

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The screenshot shows a web browser window with the address bar displaying 'portal.3gpp.org'. The page title is '3GPP Portal > Meetings'. The main content area is titled 'RAN2#68-BIS - Meeting information' and contains the following details:

Meeting Identifier :	28029
Meeting Contacts :	
Meeting Reference :	3GPPRAN2#68-BIS
Meeting Type :	Ordinary
Location :	Valencia , ES
Start Date :	18 Jan 2010 09:00 (GMT+01:00) Brussels, Copenhagen, Madrid, Paris
End Date :	22 Jan 2010 17:30 (GMT+01:00) Brussels, Copenhagen, Madrid, Paris
Registration deadline :	11 Jan 2010 09:00 (GMT+01:00) Brussels, Copenhagen, Madrid, Paris
Face to Face meeting registration closure :	22 Jan 2010 17:30 (GMT+01:00) Brussels, Copenhagen, Madrid, Paris
Online meeting registration closure :	22 Jan 2010 17:30 (GMT+01:00) Brussels, Copenhagen, Madrid, Paris
Check-In starts at :	18 Jan 2010 08:30 (GMT+01:00) Brussels, Copenhagen, Madrid, Paris

Below the meeting information, there is a green bar with the text 'More options' and an upward arrow. Underneath, there are several links: 'Meeting's contributions (Tdocs)', 'View Meeting Contributions Settings', 'Agenda', 'Report', 'Invitation', 'List of 869 Tdocs', 'Contribution not available', and 'Download TDoc list (Excel)'. At the bottom, there is a green bar with the text 'List of participants: 211 registered, 181 attended' and a downward arrow. A 'Close' button is located at the bottom center of the page.

The meeting report mentions R2-100110 on page 69 which clearly indicates that the document was registered for this meeting:

Impact

R2-100110: Multiple Timing Advance Impact on RAN2 Huawei Disc

R2-100423: Supporting multiple timing advance groups Qualcomm Incorporated Disc Discussion

- Panasonic wonders about proposal3: there could also be a UL refer CC, and then other UL CCs are linked to that UL CC. Could be considered

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74. Furthermore, the meeting report includes in the zip file the meeting's document list of which an excerpt can be found in Appendix D⁶. R2-100110 is listed in row 112 and is tagged as "Uploaded: Yes":

	A	B	C	D	E	F	G	H	I
	Agenda item	Uploaded	status	Late	Tdoc	Title	Source	Type:	Spec
112	07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	noted		R2-100110	Multiple Timing Advance Impact on RAN2	Huawei	Disc	

75. Furthermore, the document was announced via the 3GPP_TSG_RAN_WG2 email exploder as available for download from the 3GPP FTP server on January 12, 2010, as shown in Appendix E. At about that time, this email exploder had around 1030 subscribers as can be seen by the Internet Archive at <https://web.archive.org/web/20100116155721/http://list.etsi.org:80/>.

76. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, Ex. 1006 is an authentic copy of 3GPP TDoc R2-100110 that was uploaded and made available via the 3GPP FTP server to the general public by January 12, 2010, at the latest.

3. TDoc R2-100054

⁶ Given the size of the document list, Appendix D only includes the columns relevant for this declaration.

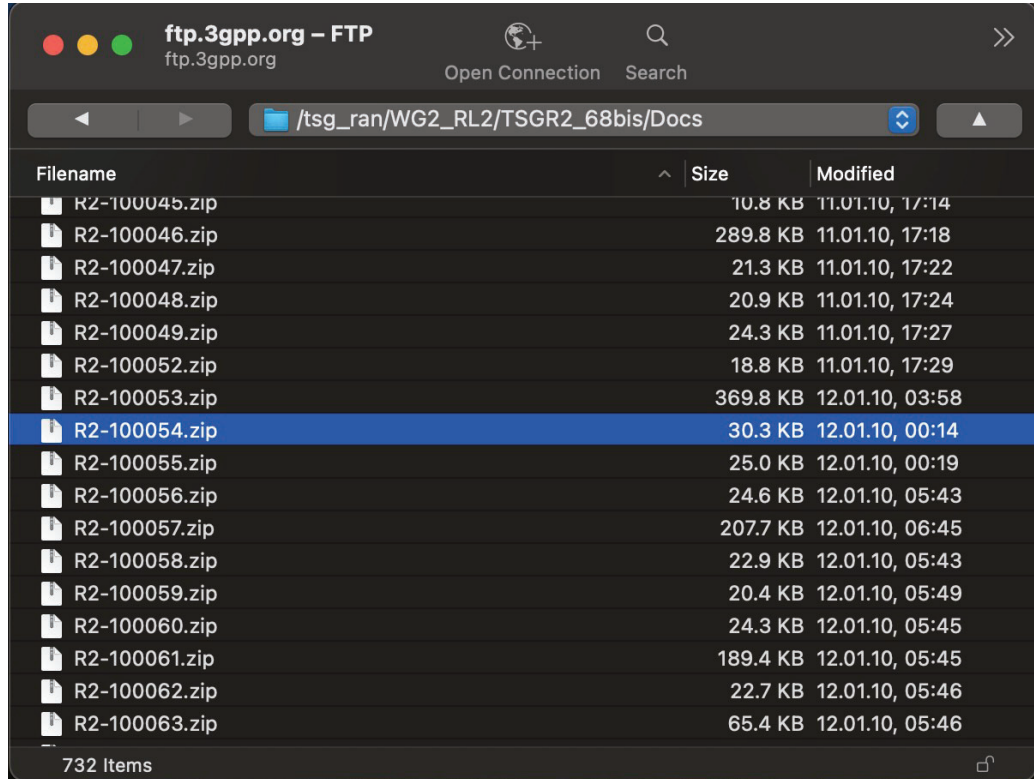
77. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1015 as a true and correct copy of 3GPP TDoc R2-100054, which represents a 3GPP document with the title "Primary Component Carrier." The document was authored by Nokia Siemens Networks and Nokia Corporation and discussed whether to use a primary carrier in LTE carrier aggregation.

78. On its face, R2-100054 refers to the RAN WG2 #68bis meeting held on January 18-22, 2010, in Valencia, Spain. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, this information tells me that R2-100054 was available either prior to or during or shortly after that meeting to all attending 3GPP members and to the general public.

79. The public availability of the document is confirmed by the date stamp, January 12, 2010, shown on the historic 3GPP FTP server for the corresponding downloadable file ("R2-100054.zip"), as maintained by the Internet Archive at

https://web.archive.org/web/20140327055401/http://3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_68bis/docs/. 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_68bis/Docs, as shown in the screenshot below:



80. Experts in the field of determining the public availability of 3GPP documents would reasonably rely upon the FTP server upload date on the 3GPP FTP server as the date the document became available to the public.

81. In addition, metadata information for the downloaded and extracted TDoc file states a last modified date of “12. January 2010,” as shown in the screenshot below.

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3GPP TSG-RAN WG2 Meeting #68bis R2-100054
Valencia, Spain, 18th – 22nd January 2010

Agenda Item: 7.1.2
Source: Nokia Siemens Networks, Nokia Corporation
Title: Primary Component Carrier
Document for: Discussion and Decision

1 Introduction

Carrier aggregation for LTE in Rel-10 is in some ways comparable to multi-carrier for GERAN in Rel-5 and multi-carrier for UTRAN introduced in Release 9.1.1 [1]. An interesting difference between GERAN and UTRAN is the primary carrier concept. In multi-carrier for UTRAN, a primary carrier is used: it is the carrier that cannot be disabled and on which RLF and mobility measurements are based. In GERAN multi-carrier, there is no primary carrier concept and all resources are seen as equal: multi-carrier is a simple extension of the multi-slot mechanism. Because both approaches seem viable, this contribution discusses which one is best suited to LTE.

2 Primary Carrier Concept

A short overview of the two alternatives as we understand them for LTE is first given below:

- **One primary carrier:** a UE is assigned a primary component carrier (PCC) which it utilizes much the same as for Rel-8 i.e. it performs PDCCH monitoring using DRX, it may have SR resources and it has RACH. The PCC corresponds to the "special" cell and can only be changed via handover. The UE can be configured with additional UL and DL CCs.
- **No primary carrier:** UE is configured/reconfigured with a number of DL and UL CCs. There is a "special" cell for the purpose of security and NAS mobility but at the lower level all CCs are equal.

In the following subsections, the impacts the PCC has on handovers and radio link failure, scheduling requests, CC activation and DRX are investigated.

2.1 Handover and Radio Link Failure

With a PCC defined, the loss of the PCC alone triggers an RLF while without a PCC, it is in theory possible to avoid RLF as long as one CC is still available. In practice however, not only having a PCC should not increase the number of RLFs compared to Rel-8 (whenever a change of the PCC is needed, an HO would have happened in Rel-8 anyway), but also the scenario where a PCC is selected as the CC offering the smallest coverage of all CCs offered by the eNB is questionable. In the latter case however, optimizations for the re-establishment procedure on CCs that belonged to the CC set before PCC loss could be studied.

Observation 1: defining a PCC does not increase RLF/HO compared to Rel-8.

Furthermore, limiting RLF monitoring (i.e. detection of physical layer problems in RRC_CONNECTED through wideband measurements) to the PCC reduces the need for measuring secondary component carriers (SCCs). Depending on which SCC measurements are agreed, this can be expected to reduce the power consumption of the UE.

Observation 2: limiting RLF monitoring (i.e. detection of physical layer problems in RRC_CONNECTED) to the PCC is expected to reduce the power consumption of the UE.

2.2 Scheduling Requests

It was agreed by RAN1 that scheduling requests can only be mapped onto one UE specific UL CC [1]. This decision obviously makes an UL carrier more important than others and also suggests that this CC should not be de-activated (assuming that an activation mechanism is agreed).

Observation 3: RAN1 decision on SR mapping points towards the adoption of a PCC.

2.3 CC Activation

Although the need for a separate CC activation (in addition to CC configuration) is still debated, it is important to understand the difference the adoption of a PCC makes in that context. Having a PCC defined ensures (as in UTRAN) that one CC can never be de-activated and thus guarantees a constant communication link between the UE and the eNB. Without a PCC defined, special care need to be taken with activation/de-activation.

Observation 4: defining a PCC simplifies CC activation/de-activation.

R2-100054 CA and Primary Carrier.doc

118 KB

Information

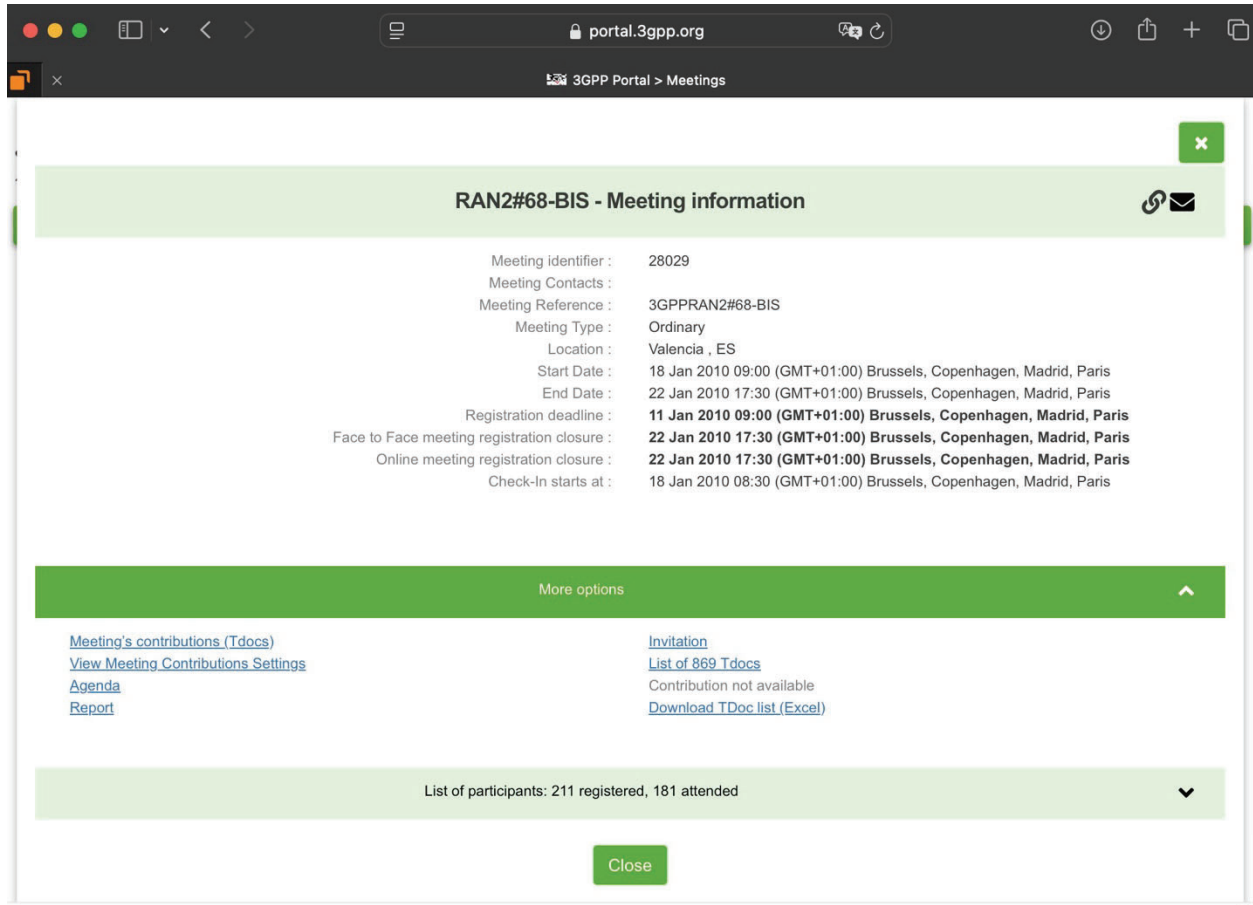
Created	12. January 2010 at 09:09
Modified	12. January 2010 at 09:09

82. This last modified date is well aligned with the January 12, 2010, upload date of the document, and the standard business practice among 3GPP participants to upload submissions shortly after completing them.

83. The final meeting report of the RAN WG2 #68bis meeting held on January 18-22, 2010, in Valencia, Spain, can be found in Appendix C. According to

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the 3GPP website at [https://portal.3gpp.org/Meetings.aspx#/,](https://portal.3gpp.org/Meetings.aspx#/) which is shown in the screenshot below, that meeting was attended by 181 individuals (out of 211 registered participants):



84. The meeting report captured on page 70-71 an extensive discussion of R2-100054 of which an excerpt is shown below:

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Special cell/anchor CC

- R2-100054:** Primary Component Carrier Nokia Siemens Networks, Nokia Corporation Disc
- DT fully supports this concept since it is in line with their deployments. Intel also support the concept of anchor CC and have the special there. Intel thinks it might be interesting to optimise anchor CC changes
 - Motorola also supports this. Motorola thinks that for the change of anchor CC, the current reconfiguration might be sufficient.
 - Vdf supports the proposal. Samsung supports the concept of an anchor CC. Samsung wonders whether observation 2 is really correct. NSN indicates that this might depend on what we decide. NSN would prefer not to have a wideband measurement on all CC's.
 - LG wonders whether without anchor CC, primary CC failure would not result in RLF. NSN indicates the proposal has the same result as in Rel-8. We consider further optimisations e.g. during re-establishment.
 - LG thinks UE can survive D-SR failure. NSN could agreed. LG thinks CMAS/ETWS work fine without this. NSN agrees it could work (is probably not the strongest argument).
 - Ericsson thinks it is an attractive way forward since it would simplify the specification work considerable. Ericsson is still a bit worried about number of RLF's being increased. Also Ericsson wonders about the load on the coverage layer. This coverage layer would probably have the lowest capacity. Ericsson is also a bit worried about the RACH load on this anchor CC. However still Ericsson sees clear benefits for speeding up the specification work, but would like some more time to study this.
 - Panasonic would appreciate some clarification for observation 5 (is this a deviation from common DRX) ? NSN thinks this depends on whether we have act/deact. E.g. expiry of inactivity timer could mean UE goes back to 1 CC.
 - Panasonic wonders if the D-SR is always mapped to the anchor CC. NSN indicates that the anchor CC should not be deactivated so then it would be logical to place the D-SR there.
 - Samsung's understanding is that situation for COL is same situation as D-SR

85. Furthermore, the meeting report includes in the zip file the meeting's document list of which an excerpt can be found in Appendix D⁷. R2-100054 is listed in row 56 and is tagged as "Uploaded: Yes":

	A	B	C	D	E	F	G	H	I
	Agenda item	Uplode	status	Late	Tdoc	Title	Source	Type:	Spec
56	07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted		R2-100054	Primary Component Carrier	Nokia Siemens Networks, Nokia Corporation	Disc	

⁷ Given the size of the document list, Appendix D only includes the columns relevant for this declaration.

86. Thus, based on my personal knowledge and experience with ETSI's and 3GPP's standard business practices, Ex. 1015 is an authentic copy of 3GPP TDoc R2-100054 that was uploaded and made available via the 3GPP FTP server to the general public by January 12, 2010, at the latest.

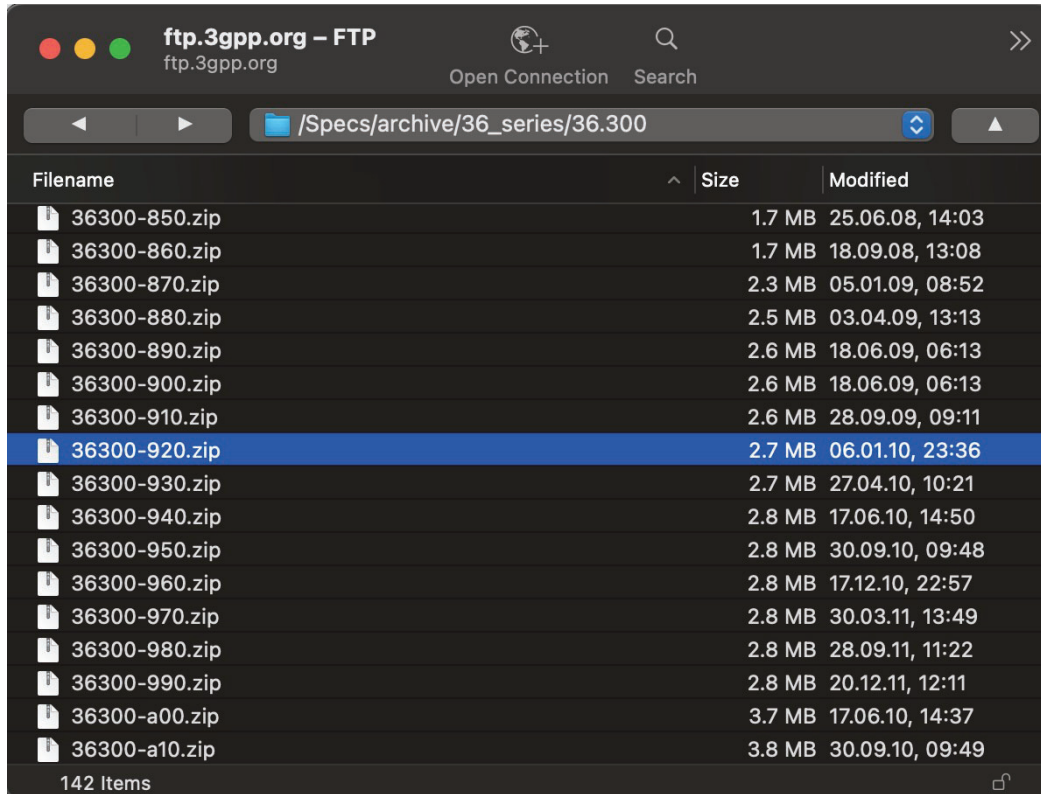
4. TS 36.300 V9.2.0

87. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1017 as a true and correct copy of version 9.2.0 of technical specification 3GPP TS 36.300 ("Technical Specification Group (TSG) Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2 (Release 9)"), which shows on its cover page "2009-12" as the year (2009) and month (December) during which this document was approved by 3GPP.

88. The document was published and freely available on 3GPP's FTP server by January 6, 2010. This is confirmed by the date stamp shown on the historic 3GPP FTP server for the corresponding downloadable file ("36300-920.zip"), as maintained by the Internet Archive at https://web.archive.org/web/20140714052548/http://3gpp.org/ftp/specs/archive/36_series/36.300/. This information is also shown on the date stamp for the present-day listing of the same document on the 3GPP FTP server at

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https://www.3gpp.org/ftp/Specs/archive/36_series/36.300, as shown by the screenshot below:

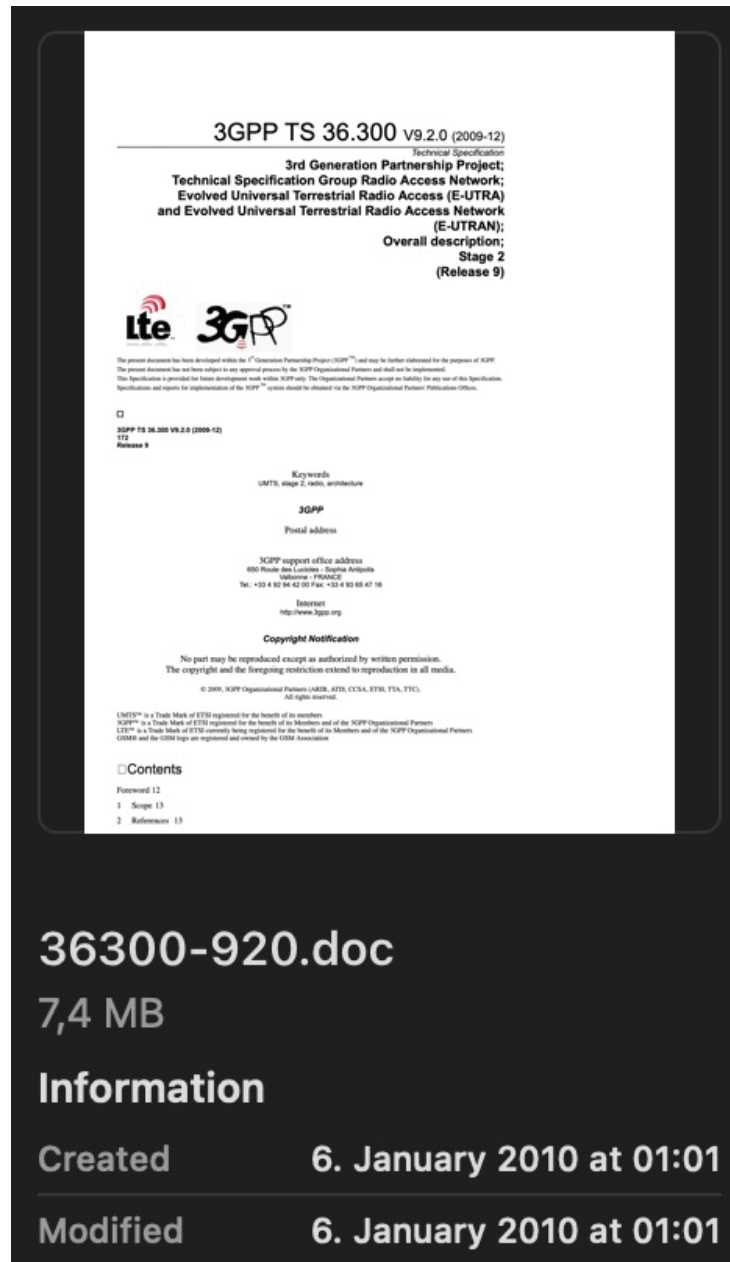


The screenshot shows an FTP client window titled "ftp.3gpp.org – FTP" with the address bar displaying "/Specs/archive/36_series/36.300". The window contains a table of files with columns for Filename, Size, and Modified. The file "36300-920.zip" is highlighted in blue. The status bar at the bottom indicates "142 Items".

Filename	Size	Modified
36300-850.zip	1.7 MB	25.06.08, 14:03
36300-860.zip	1.7 MB	18.09.08, 13:08
36300-870.zip	2.3 MB	05.01.09, 08:52
36300-880.zip	2.5 MB	03.04.09, 13:13
36300-890.zip	2.6 MB	18.06.09, 06:13
36300-900.zip	2.6 MB	18.06.09, 06:13
36300-910.zip	2.6 MB	28.09.09, 09:11
36300-920.zip	2.7 MB	06.01.10, 23:36
36300-930.zip	2.7 MB	27.04.10, 10:21
36300-940.zip	2.8 MB	17.06.10, 14:50
36300-950.zip	2.8 MB	30.09.10, 09:48
36300-960.zip	2.8 MB	17.12.10, 22:57
36300-970.zip	2.8 MB	30.03.11, 13:49
36300-980.zip	2.8 MB	28.09.11, 11:22
36300-990.zip	2.8 MB	20.12.11, 12:11
36300-a00.zip	3.7 MB	17.06.10, 14:37
36300-a10.zip	3.8 MB	30.09.10, 09:49

89. In addition, metadata information for the downloaded and extracted specification file states a last modified date of “6. January 2010”, as shown in the screenshot below:

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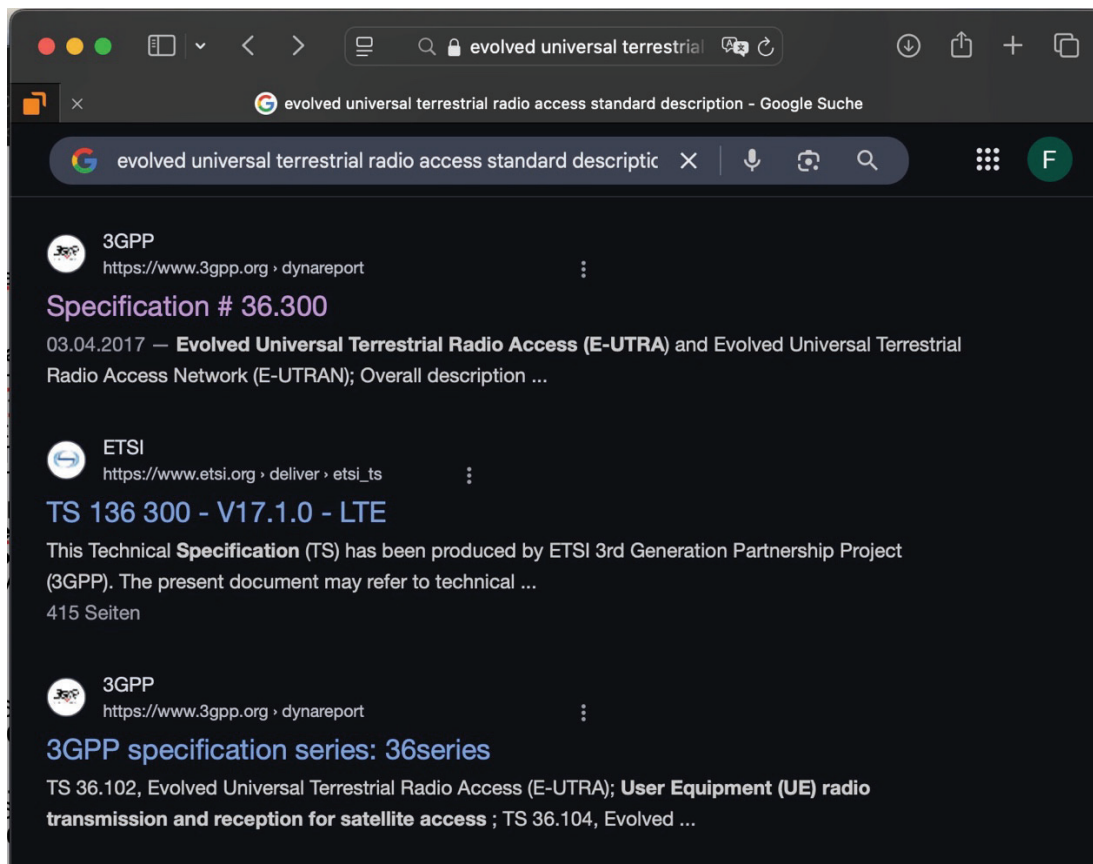


90. This last modified date well aligned with the January 6, 2010, upload date of the document, and the standard business practice among 3GPP participants to upload documents shortly after completing them.

91. Furthermore, the document was announced by the RAN WG 2 secretary via the 3GPP_TSG_RAN_WG2 email exploder as available for download from the

3GPP FTP server on January 7, 2010, as shown in Appendix F. At about that time, this email exploder had around 1030 subscribers, as can be seen by the Internet Archive at <https://web.archive.org/web/20100116155721/http://list.etsi.org:80/>.

92. I believe that a person without prior knowledge of 3GPP and/or the technical specification (TS) number would have been able to easily find the TS for download via internet search. For instance, a Google search for “evolved universal terrestrial radio access standard description” provides the TS number “36.300” as one of the top results, as can be seen in the screenshot below:



93. Following the provided search result link “Specification # 36.300” leads to a 3GPP web page offering under the tab “Versions” download links to all versions of TS 36.300 including version 9.2.0, as shown by the screenshot below:

The screenshot shows the 3GPP Portal website for Specification # 36.300. The 'Versions' tab is selected, and a table lists the following versions:

Meetings	Version	Upload date	Comment
RAN#58	9.10.0	2013-01-08	ETSI TDok CR
RAN#54	9.9.0	2011-12-21	ETSI TDok CR
RAN#53	9.8.0	2011-10-03	ETSI TDok CR
RAN#51	9.7.0	2011-03-30	ETSI TDok CR
RAN#50	9.6.0	2010-12-21	ETSI TDok CR
RAN#49	9.5.0	2010-10-04	ETSI TDok CR
RAN#48	9.4.0	2010-06-18	ETSI TDok CR
RAN#47	9.3.0	2010-04-28	ETSI TDok CR
RAN#46	9.2.0	2010-01-07	ETSI TDok CR
RAN#45	9.1.0	2009-09-28	ETSI TDok CR
RAN#44	9.0.0	2009-06-18	ETSI TDok CR

Below the table, the 'Release 8' section is visible, showing versions 8.12.0, 8.11.0, and 8.10.0. The 'Exit' button is located at the bottom left of the page.

94. The above example search illustrates that it is very easy for an interested member of the public without prior knowledge of the TS number and even without prior knowledge of 3GPP to locate any version of TS 36.300, including version 9.2.0, for download.

95. The above search was performed at the time of writing this report. According to my personal experience, similar searches done in January 2010 or around that timeframe would have similarly provided the path to download version 9.2.0 of TS 36.300.

96. 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 January 6, 2010, at the latest.

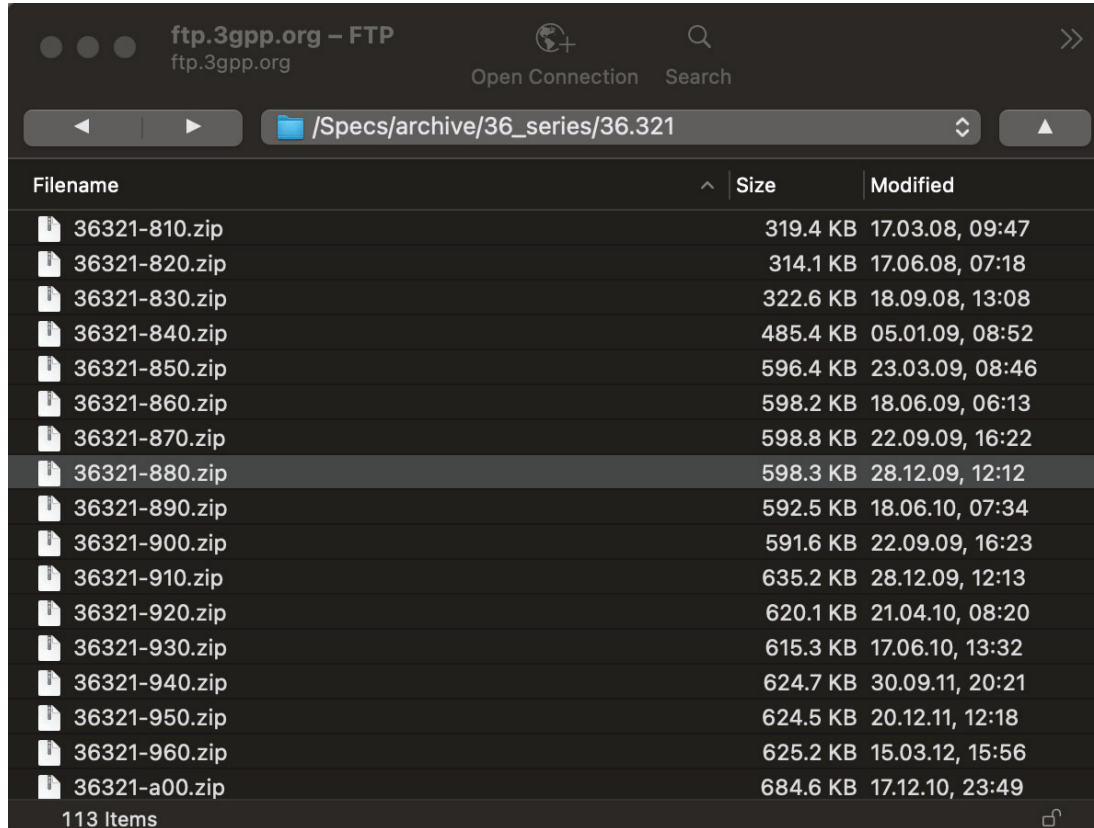
5. TS 36.321 V8.8.0

97. Based on my personal knowledge and my review of 3GPP's business records, I recognize Ex. 1016 as a true and correct copy of version 8.8.0 of technical specification 3GPP TS 36.321 ("Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification (Release 8)"), which shows on its cover page

Declaration of Friedhelm Rodermund

“2009-12” as the year (2009) and month (December) during which this document was released by 3GPP.

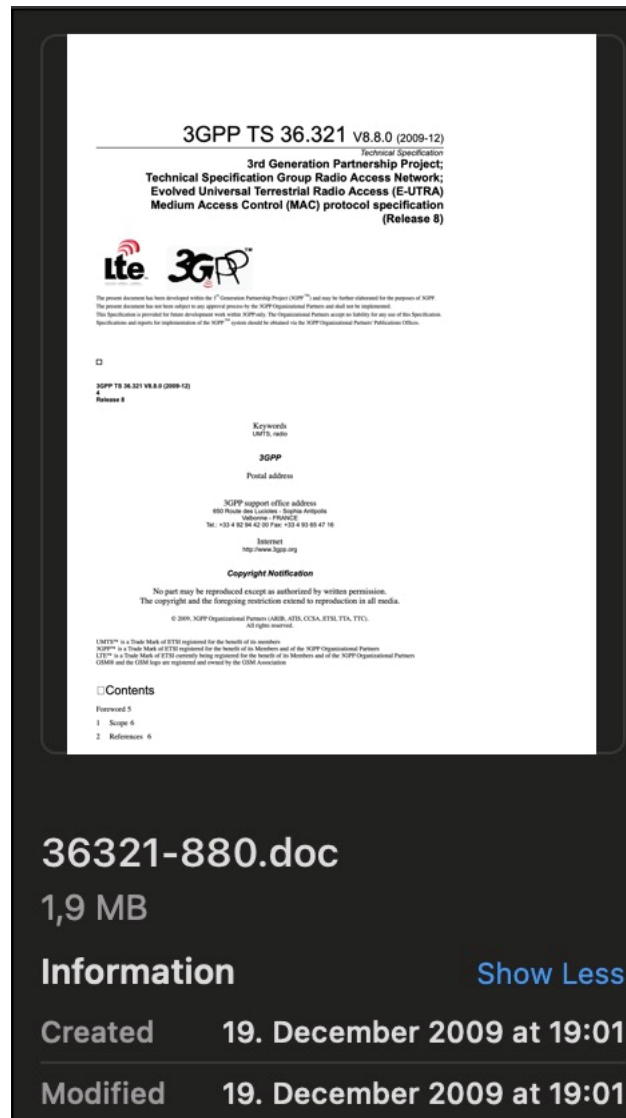
98. The document was published and freely available on 3GPP’s FTP server by December 28, 2009. This is confirmed by the date stamp shown on the historic 3GPP FTP server for the corresponding downloadable file (“36321-880.zip”), as maintained by the Internet Archive at https://web.archive.org/web/20140714013900/http://3gpp.org/ftp/specs/archive/36_series/36.321/. 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/Specs/archive/36_series/36.321, as shown by the screenshot below:



The screenshot shows an FTP client window titled 'ftp.3gpp.org - FTP'. The address bar displays the path '/Specs/archive/36_series/36.321'. Below the address bar is a table listing files with columns for 'Filename', 'Size', and 'Modified'. The file '36321-880.zip' is highlighted, showing a size of 598.3 KB and a modified date of 28.12.09, 12:12. The bottom of the window indicates '113 Items'.

Filename	Size	Modified
36321-810.zip	319.4 KB	17.03.08, 09:47
36321-820.zip	314.1 KB	17.06.08, 07:18
36321-830.zip	322.6 KB	18.09.08, 13:08
36321-840.zip	485.4 KB	05.01.09, 08:52
36321-850.zip	596.4 KB	23.03.09, 08:46
36321-860.zip	598.2 KB	18.06.09, 06:13
36321-870.zip	598.8 KB	22.09.09, 16:22
36321-880.zip	598.3 KB	28.12.09, 12:12
36321-890.zip	592.5 KB	18.06.10, 07:34
36321-900.zip	591.6 KB	22.09.09, 16:23
36321-910.zip	635.2 KB	28.12.09, 12:13
36321-920.zip	620.1 KB	21.04.10, 08:20
36321-930.zip	615.3 KB	17.06.10, 13:32
36321-940.zip	624.7 KB	30.09.11, 20:21
36321-950.zip	624.5 KB	20.12.11, 12:18
36321-960.zip	625.2 KB	15.03.12, 15:56
36321-a00.zip	684.6 KB	17.12.10, 23:49

99. In addition, metadata information for the downloaded and extracted specification file states a last modified date of “19. December 2009”, as shown in the screenshot below:



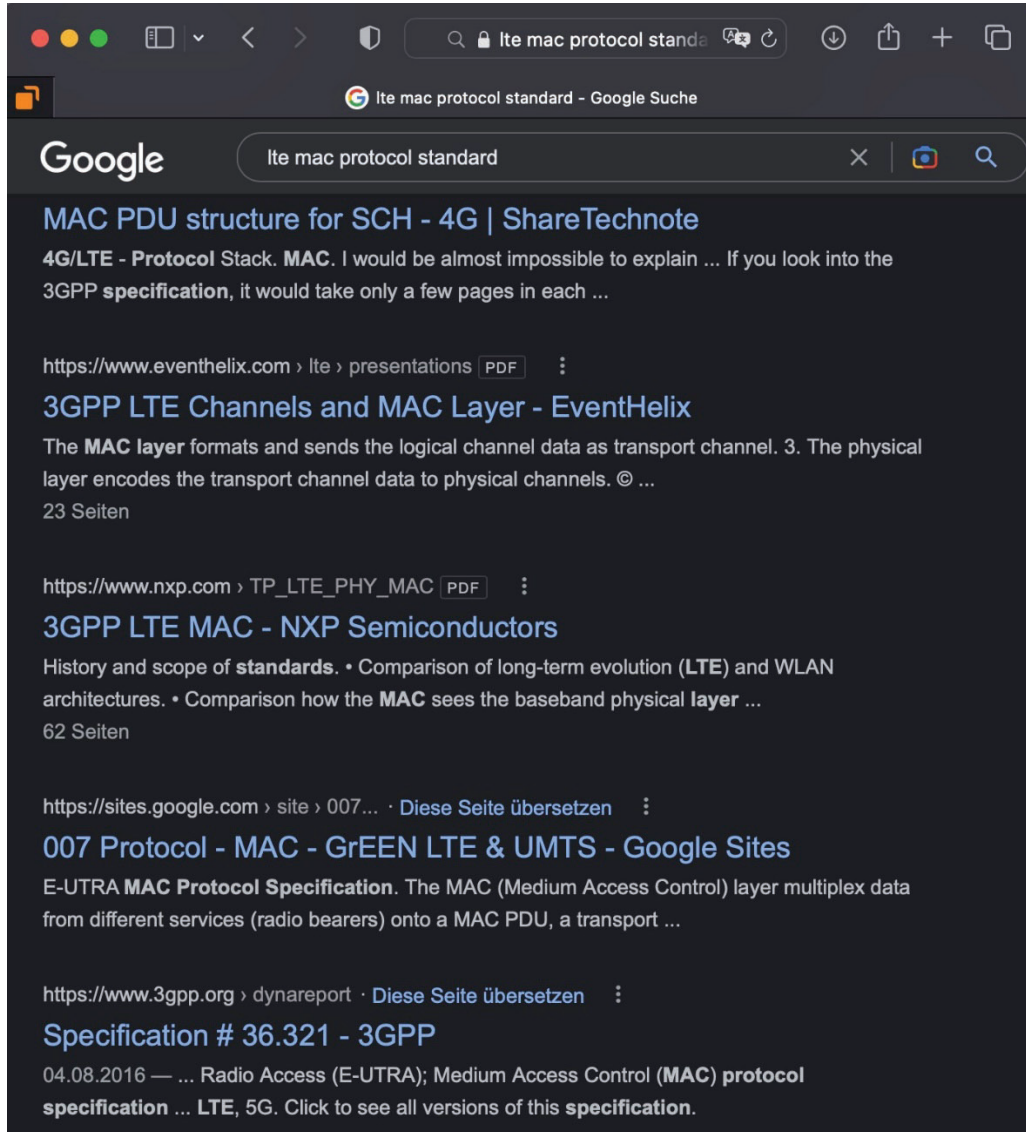
100. This last modified date well aligned with the December 28, 2009, upload date of the document, and the standard business practice among 3GPP participants to upload documents shortly after completing them. In this case, the upload was slightly delayed probably due to Christmas holidays.

101. Furthermore, the final draft of TS 36.321 V8.8.0 was announced by the RAN WG 2 secretary via the 3GPP_TSG_RAN_WG2 email exploder as available

Declaration of Friedhelm Rodermund

for download from the 3GPP FTP server on December 28, 2009, as shown in Appendix G. At about that time, this email exploder had around 1000 subscribers, as can be seen by the Internet Archive at <https://web.archive.org/web/20100116155721/http://list.etsi.org:80/>.

102. I believe that a person without prior knowledge of 3GPP and/or the technical specification (TS) number would have been able to easily find the TS for download via internet search. For instance, a Google search for “LTE mac protocol standard” provides the TS number “36.321” as one of the top results, as can be seen in the screenshot below:



103. Following the provided search result link “Specification # 36.321 – 3GPP” leads to a 3GPP web page offering under the tab “Versions” download links to all versions of TS 36.321, including version 8.8.0, as shown by the screenshot below:

portal.3gpp.org

Specification # 36.321

3GPP Portal

General Versions Responsibility Related

Specification #: 36.321

RAN#	Version	Date	Document	ETSI	TDoc	CR
RAN#48	8.9.0	2010-06-18				
RAN#46	8.8.0	2010-01-05				
RAN#45	8.7.0	2009-09-28				
RAN#44	8.6.0	2009-06-18				
RAN#43	8.5.0	2009-03-23				
RAN#42	8.4.0	2009-01-05				
RAN#41	8.3.0	2008-09-23				
RAN#40	8.2.0	2008-06-17				
RAN#39	8.1.0	2008-03-20				
RAN#38	8.0.0	2007-12-20				
RAN#38	2.0.0	2007-12-11	RP-070917			
-	1.3.0		R2-075488			
-	1.2.0		R2-075243			
-	1.1.1		R2-075093			
-	1.1.0	2014-12-18	R2-074530			
RAN#37	1.0.0	2007-09-24	RP-070688			
-	0.2.1		R2-073885			
-	0.2.0		R2-073715			
-	0.1.1		R2-072994			
-	0.1.0		R2-072912			

Exit

104. The above example search illustrates that it is very easy for an interested member of the public without prior knowledge of the TS number and even without prior knowledge of 3GPP to locate any version of TS 36.321, including version 8.8.0, for download.

105. The above search was performed at the time of writing this report. According to my personal experience, similar searches done in December 2009 or around that timeframe would have similarly provided the path to download version 8.8.0 of TS 36.321.

106. 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 December 28, 2009, at the latest.

V. AVAILABILITY FOR CROSS-EXAMINATION

107. 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 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.

Declaration of Friedhelm Rodermund

A. Right To Supplement

108. 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

109. 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.

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

Dated: May 5, 2025



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: fred@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 patent litigations, and development/introduction of new services.

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 including ETSI and 3GPP standards such as 5G and 6G, and OMA Lightweight M2M (LwM2M).

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

- | | | |
|--------------------------|--|-------------------------|
| 01/2015 – present | IOTECC GmbH | Koblenz, Germany |
| | <u>Founder and CEO</u> | |
| | <ul style="list-style-type: none">➤ Mobile telecommunications, Internet of Things (IoT) technology and standards consulting➤ Telecommunications and IoT patent consulting<ul style="list-style-type: none">○ Consulting services around telecommunications and IoT patents in particular related to 3GPP, ETSI and OMA standards○ State of the art/prior art research services related to patent filing e.g. for 5G and 6G○ Prior art research, essentiality assessment, patent infringement analysis related to litigations and validity actions○ Advising on IP strategy○ Advising on Standards Development Organisations (SDO) e.g. ETSI and 3GPP working processes and IPR policy○ Conducting seminar on Standards Essential Patents (SEPs) for the Internet of Things at the Technical University of Ilmenau, Germany○ Experienced expert witness (please see section III for a list of supported actions) | |
| 11/2014 – 12/2014 | Friedhelm Rodermund Consulting | Koblenz, Germany |
| | <u>Internet of Things (IoT) Consultant</u> | |
| | <ul style="list-style-type: none">○ IoT standards development and introduction of new IoT services | |

CURRICULUM VITAE

- 01/2011 – 10/2014** **Vodafone Germany / Vodafone Group R&D** **Düsseldorf, Germany**
- Senior Standards Strategist
- o Representing Vodafone in various standardisation bodies
 - o Creating technical standards for the Internet of Things
 - o Work item lead, technical editor and key contributor of Open Mobile Alliance (OMA) "Lightweight M2M (LwM2M)" – the new standard for the Internet of Things
 - o Advising and supporting various IoT/M2M projects related to e.g. smart metering
 - o Advising on the introduction of new IoT/M2M technologies and services
 - o Leading Proof of Concepts of emerging technologies
 - o Involved in innovation projects
 - o 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)
- o Responsible for Vodafone's Device Management standardisation
 - o 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
 - o Editor of several specifications, rapporteur of various work items
 - o Support of projects for the introduction of device management
 - o Delegate to 3GPP SA1 with responsibility 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
- o Responsible for Mobile Broadcast standardisation across different broadcast systems/standards bodies and across all Vodafone local operations
 - o Responsible for Mobile Broadcast standardisation strategy development and implementation
 - o Delegation Lead for the Open Mobile Alliance (OMA) BCAST working group
 - o Initiated and managed the BCAST device profile development in the BMCO Forum
 - o Leading the "Service Protection" (pay-TV) stream of the German DVB-H Consortium
 - o Filed several patents
 - o 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
- o Verification of the MMS operator interworking framework
 - o Supporting the definition and specification of the MMS functional evolution
 - o 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"

CURRICULUM VITAE

01/1999 – 12/2001: Secretary 3GPP Terminals Working Group 2 “Terminal Services and Capabilities” and GERAN 3 “Base Station Testing”

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

- Supported the establishment of 3GPP (3rd 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

- 2024
Pantech Corporation v. Oppo Mobile Telecommunications Corp., Ltd.
Inter Partes Review matters
On behalf of Oppo
Counsel: Bayes PLLC
Role: Expert witness and consulting services
- 2024
Pantech Corp. et al. v. LG Electronics Inc. et al.
Civil Action No. 5:22-cv-00113-RWS-JBB (E.D.Tx.)
On behalf of LG Electronics
Counsel: Ropes & Gray LLP
Role: Expert witness and consulting services
- 2024
Ericsson v. Lenovo
Inter Partes Review matters
On behalf of Lenovo
Counsel: Kirkland & Ellis LLP
Role: Expert witness and consulting services
- 2024
Pantech Corp. et al. v. OnePlus Technology Co., Ltd.
Civil Action No. 5:22-cv-00069-RWS (E.D.Tx.)
On behalf of OnePlus
Counsel: Leydig, Voit & Mayer, Ltd.
Role: Expert witness and consulting services
- 2024
G+ Communications, LLC, v. Samsung Electronics Co., Ltd.
Civil Action No. 2:22-CV-78 (E.D.Tx.)
On behalf of Samsung
Counsel: Fish&Richardson P.C.
Role: Expert witness and consulting services
- 2023
Unified Patents, LLC v. Helios Streaming LLC
Inter Partes Review matters
On behalf of Unified Patents
Counsel: Akin
Role: Expert witness and consulting services
- 2023
Unified Patents, LLC v. SLS Manager Technologies
Inter Partes Review matters
On behalf of Unified Patents
Counsel: Unified Patents
Role: Expert witness and consulting services
- 2023
Headwater Research LLC v. Samsung Electronics Co., Ltd.
Inter Partes Review matters
On behalf of Samsung
Counsel: Fish&Richardson P.C.
Role: Expert witness and consulting services
- 2023

CURRICULUM VITAE

Pantech Corp. et al. v. LG Electronics Inc. et al.

Inter Partes Review matters
On behalf of LG Electronics
Counsel: Ropes & Gray LLP
Role: Expert witness and consulting services

2023

Apple Computer Trading (Shanghai) Co., Ltd. Apple Electronics Products Commerce (Beijing) Co., Ltd. v. Optis Cellular Technology LLC

Shenzhen, China, Intermediate People's Court
On behalf of Apple
Counsel: WilmerHale
Role: Expert witness and consulting services

2023

Huawei Technologies Co., Ltd. v. MediaTek Inc.

Inter Partes Review matters
On behalf of MediaTek
Counsel: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
Role: Expert witness and consulting service

2023

Apex Beam Technologies LLC v. Samsung

Inter Partes Review matters
On behalf of Samsung
Counsel: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
Role: Expert witness and consulting services

2022

Constellation Designs LLC v. LG Electronics, Inc.

Inter Partes Review matters
On behalf of LG Electronics
Counsel: Fish&Richardson P.C.
Role: Expert witness and consulting services

2022

Unified Patents, LLC v. Togail Technologies LTD.

Inter Partes Review matters
On behalf of Unified Patents
Counsel: Duane Morris LLP
Role: Expert witness and consulting services

2022

Ericsson v. Apple

Certain Mobile Telephones, Tablet Computers With Cellular Connectivity, And Smart Watches With Cellular Connectivity, Components Thereof, And Products Containing Same, Inv. No. 337-TA-1299 (U.S.I.T.C.)
On behalf of Apple
Counsel: WilmerHale
Role: Expert and consulting services

2022

Ericsson v. Apple

Civil Action No. 2:21-cv-376 (E.D.Tex.)
On behalf of Apple
Counsel: WilmerHale
Role: Expert and consulting services

2022

Intellectual Ventures II LLC v. Toyota Motor Cooperation.

Inter Partes Review matters
On behalf of Toyota

CURRICULUM VITAE

Counsel: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
Role: Expert witness and consulting services

2022

Ericsson v. Apple
2nd Business Court, Rio de Janeiro, Brazil
On behalf of Apple
Counsel: WilmerHale
Role: Expert and consulting services

2022

Ericsson v. Apple
Civil Court, Bogotá, Columbia
On behalf of Apple
Counsel: WilmerHale
Role: Expert and consulting services

2022

Proven Networks LLC. v. NetApp Inc.
Inter Partes Review matters
On behalf of NetApp
Counsel: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., Ropes & Gray LLP
Role: Expert witness and consulting services

2022

Ericsson v. Apple
Inter Partes Review matters
On behalf of Apple
Counsel: Fish&Richardson, Erise IP
Role: Expert witness and consulting services

2021

AEGIS 11 LLC v. Hisense Company, Ltd. and Hisense USA Corporation
Inter Partes Review matters
On behalf of Hisense
Counsel: Orrik Herrington & Sutcliffe LLP
Role: Expert witness and consulting services

2021

Nokia v. Lenovo
Certain Electronic Devices, Including Computers, Tablet Computers, and Components and Modules Thereof, Inv. No. 337-TA-1208 (U.S.I.T.C.)
On behalf of Lenovo
Counsel: WilmerHale
Role: Expert witness and consulting services

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

2021

Ericsson v. Samsung
Inter Partes Review matters
On behalf of Samsung
Counsel: Kirkland&Ellis LLP, Fish&Richardson
Role: Expert witness and consulting services

2020

CURRICULUM VITAE

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 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 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 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 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 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 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

Role: Expert witness 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 and consulting services

2019

Qualcomm v. KFTC

South Korean Case, Seoul High Court

On behalf of intervenor Apple supporting the KFTC

CURRICULUM VITAE

Counsel: Boies Schiller Flexner
Role: Expert witness

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 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 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 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 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

2017

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

2016

SSH v. Sony

CURRICULUM VITAE

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 Partes Review of U.S. Patent No. 8,165,049
On behalf of LG Electronics
Counsel: Greenberg Traurig
Role: Expert witness

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

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

10/1984 – 10/1993 University of Technology Aachen Aachen, Germany
Graduate of Electrical Engineering with a focus on telecommunications technologies (Dipl.-Ing. TH)

10/1992 – 04/1993 University of Technology Trondheim Trondheim, Norway
Diploma Thesis "Design of a dual processor computer for digital signal processing in power electronics"

V. LANGUAGES

German, English, French

VI. PUBLICATIONS (selection)

- "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

Declaration of Friedhelm Rodermund

Appendix	Description
A	Curriculum Vitae of Friedhelm Rodermund
B	List of Appendices
C	Report of 3GPP TSG RAN WG2 meeting #68bis held in Valencia, Spain, February 18 - 22, 2010
D	Document list of 3GPP TSG RAN WG2 meeting #68bis
E	3GPP_TSG_RAN_WG2 email from January 12, 2010, announcing upload of R2-100110
F	3GPP_TSG_RAN_WG2 email from January 7, 2010, announcing upload of TS 36.300 V9.2.0
G	3GPP_TSG_RAN_WG2 email from December 28, 2009, announcing upload of TS 36.321 V8.8.0

Appendix C

Agenda Item: 3
Source: ETSI MCC
Title: Report of 3GPP TSG RAN WG2 meeting #68bis,
Valencia, Spain, January 18 - 22, 2010
Document for: Approval

**Report of 3GPP TSG RAN WG2 meeting #68bis
held in Valencia, Spain
February 18 - 22, 2010**



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Organisation of the meeting

Meeting:	3GPP TSG RAN WG2 #68bis	
Meeting location:	Valencia, Spain	
Duration:	Monday 18.01.2010 - Friday 22.01.2010	
Host:	European Friends of 3GPP (EF3)	
TSG RAN WG2 Chairman:	Gert-Jan van Lieshout (Samsung)	email: Gert.vanLieshout@samsung.com
TSG RAN WG2 Vice chairman:	Etienne Chaponniere (Qualcomm)	email: echaponn@qualcomm.com
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Technical documents:	ftp://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_68bis/Docs	
Ad hocs:	Parallel ad hocs held (see agenda item 2.1) on - UTRA (see agenda items 8-12, Tue - Fri noon): chaired by Etienne Chaponniere - LTE user plane (see Annex A, Tue): chaired by Benoist Sebire - LTE MBMS (see Annex B, Wed): chaired by Benoist Sebire No joint ad hocs with other WGs were held.	
next meetings:	TSG RAN WG2 #69,	22.02. - 26.02.2010 San Francisco, USA
	TSG RAN #47,	16.03. - 19.03.2010 Vienna, Austria

Statistics/Executive Summary

TSG RAN WG2 #68bis was held in Valencia, Spain, co-located with RAN WG1 and WG3. The RAN WG2 meeting had 3 parallel sessions: UTRA session (see agenda items 8-12; Tue - Fri noon), LTE user plane session (UP) on Tue (see Annex A or R2-100588) and LTE MBMS session on Wed (see Annex B or R2-100589). All other topics were treated in the main session.

- 181 participants (registered before the meeting: 207)
- 848 Tdocs allocated with 709 available contributions.
- 40 incoming liaison statements (2 related to UTRA, 28 related to LTE/E-UTRA, 10 on joint aspects): 4 received during RAN2 #68bis, 37 incoming LSs were treated.
- 12 outgoing liaison statements (1 related to UTRA, 9 on LTE; and 2 on joint aspects, 4 of the 12 agreed by email)
- 26 email discussions scheduled after RAN2 #68bis (see Annex H)
- ASN.1 reviews carried out for 25.331 REL-9, 36.331 REL-9 and 36.355 REL-9.
Note: For LTE Positioning an announced offline session took place on Thu morning in room Ibiza (outputs: R2-100791, R2-100792, R2-100793) organized by the TS 36.355 rapporteur (Qualcomm).
- About a 1/4 day spent on REL-9 LTE advanced SI on Relays only (see AI 6.9.3). Joint meeting with RAN3 planned for RAN2 #69 for Thursday to decide LTE-A Relay architecture.
- TS 37.xxx v0.2.0 stage 2 specification for REL-10 WI minimization of drive tests agreed (R2-100846).
- TR 37.868 v0.1.0 for REL-10 SI on machine type communications agreed (R2-100847).
- About 3/4 day spent on REL-10 WI Carrier aggregation (see AI 7.1).
- About 1/4 day spent on REL-10 WI Latency Reduction (see AI 7.2).
- Among 366 change requests (CRs) in total: 109 CRs (56 for UTRA specs, 53 for LTE specs) were agreed in principle. They will be (re)submitted to RAN2 #69 for final agreement.

Note: The sequence in which the different topics appear in this report is related to the agenda of the meeting. However, the Tdocs do not necessarily appear in the sequence as they were treated in the meeting.

1 Opening of the meeting

TSG RAN WG2 chairman Gert-Jan van Lieshout (Samsung) opened the meeting RAN WG2 #68bis on Monday morning 18.01.2010 at 09:00 o'clock.

On behalf of the host, the European Friends of 3GPP, Jose Luis Pradas (Ericsson) welcomed the delegates to Valencia, Spain and explained organisational issues.

RAN WG2 meeting rooms:

Main RAN2 room:	Jardin (6th floor),	planned for up to 180+20 participants, Mon-Fri
RAN2 ad hoc room 1:	Alicante (6th floor),	planned for up to 50 participants, Mon-Fri noon (UTRA)
RAN2 ad hoc room 2:	Ibiza (1st floor),	planned for up to 80 participants, Tue-Thu (UP/MBMS)

Other RAN WGs: same location:

RAN1: Mallorca/Menorca (1st floor) + ad hoc room

RAN3: Baleares (1st floor)

1.1 Call for IPR

Gert-Jan van Lieshout (TSG RAN WG2 chairman) made the following call for IPRs and reminded the delegates of their obligations with respect to IPRs:

The attention of the delegates of this Working Group is drawn to the fact that **3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective Organizational Partners of Essential IPRs they become aware of**.

The 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 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 chairmen.

2 General: Agenda / Organisation

2.1 Approval of the proposed agenda

R2-100001: Proposed agenda for RAN2 #68bis, Valencia, Spain, 9.01.-13.01.2010 Samsung (RAN2 chairman) Agenda
=> Approved

Time-schedule (only indicative. If issues go quicker, topics may be moved forward):

Indicative Time-schedule	Main room	2nd LTE room	UMTS room
Mon: before morning coffee	[2],[3],[4]		
Mon: morning coffee -> lunch			
Mon: lunch -> afternoon coffee			
Mon: after afternoon coffee			

Tue: before morning coffee	[5][6.10][6.2][6.4][6.8.1]		[8 without TDD] [9 without TDD]
Tue: morning coffee -> lunch			
Tue: lunch -> afternoon coffee			
Tue: after afternoon coffee			
Wed: before morning coffee	Positioning [6.1]	MBMS [6.3]	[9 without TDD] cont'd [10.1], [10.2]
Wed: morning coffee -> lunch			
Wed: lunch -> afternoon coffee			
Wed: after afternoon coffee			
Thu: before morning coffee	Rel-9 left-overs [6.x] CA [7.1] DR [7.2]		TDD session: [8], [9.05], [9.11], [9.12] [10.3],[10.4], [10.5]
Thu: morning coffee -> lunch			
Thu: lunch -> afternoon coffee			
Thu: after afternoon coffee			
Fri: before morning coffee	[13][14][15]		Come -backs [11?]
Fri: morning coffee -> lunch			
Fri: lunch -> until 5pm			

THANK YOU for companies that submit contributions before deadline. Also early submissions are appreciated. Will refrain from treating late documents.

2.2 Minutes of previous meeting

R2-100002: Draft report of RAN2 #68, Jeju, Korea, 9.11.-13.11.2009 ETSI MCC Report
to be agreed on Friday of the meeting
=> Comments up to Thursday evening. Will comeback on Friday. No further comments. Email
summary numbers will be added => Agreed in R2-100826.

2.3 Reporting from other meeting

Reporting from RAN

WI/SI's status:

- Most Rel-9 WI's received a one quarter exception: see table in 2.4 for status of main RAN2 related Rel-9 WI/SI's.
- See table in section 2.4 also for main RAN2 related new WI/SI's accepted by RAN.

Rel-8 FGI bits:

- Discussion on RAN reflector on handling of Rel-8 FGI bits by Rel-9 UE's; no immediate action for RAN2.

Rel-9 optionality bits:

- RAN decided not to have FGI bits for Rel-9 features.
- RAN2 should capture the optionality and mandatory features as agreed by RAN#46 (see RP-091452), see agenda item 4.2.2.

UMTS fast dormancy:

- Technically endorsed CR's not accepted; RAN2 can see whether some additional changes are really necessary. Should have no ASN.1 impact

Reporting from SA (copied from RAN chairman reporting)

1xRTT CSFB

- SA2 CRs, which RAN endorsed in RAN#46, were approved in SA. LSs to SA and 3GPP2 were noted without any discussion.
- SA3 CR 0319 to TS33.401 titled "Clarification of SIM user handover from UTRAN to E-UTRAN" (SP-090812)
- It was pointed out that this CR was developed based on LS from RAN2, however, there is a possibility that SA3 misunderstood RAN2 intention. This CR was not approved and agreed to send a LS to RAN2 to ask RAN2 intention. The LS is SP-090893
- This LS was submitted to RAN2, RAN3 and RAN4 to inform latest version of a SA1 spec on machine type communication. This TS is expected to be approved in February 2010 in SA1. I'm sure that RAN group will start discussion on SI: RAN improvements for Machine-type communication in each WG and I hope RAN group to note SA1 outcome for our study after this.

Reporting from ITU meeting

R2-100576: Report from LTE Advanced Evaluation Workshop Ericsson Report REL-9 FS_RAN_LTEA
=> For information; One reference in error. Will provide update in R2-100598
R2-100598: Report from LTE Advanced Evaluation Workshop Ericsson Report REL-9 FS_RAN_LTEA
=> Noted

2.4 Other

Rapporteurship changes

	Previous	Proposed New
25.321	Markus Wimmer (NSN)	He Jing (NSN)
=> Rapporteur change is agreed		

Planning

For information, main open WI's/SI's with RAN2 responsible for certain output to a certain RAN meeting:

Main RAN2 related WI/SI's	RAN Tdoc	Lead WG	WI or SI	RAN2 Agenda	Planning w.r.t. RAN delivery	Remarks
UMTS + LTE						
Home-(e)NB enhancements	RP-091392	2	WI	4.2.1 6.4 - LTE 10.3 - UMTS	Exception up to RAN#47	Exception sheet: RP-091442
Minimisation of Drive Test	RP-091423	2	WI	4.3.1	All CR's: RAN#50	
RAN Improvements for Machine-type Communications	RP-090991	2	SI	4.3.2	TR for approval to RAN#48	
UMTS						
DC-HSUPA	RP-090014	1	WI	10.2	Exception up to RAN#47	Exception sheet: RP-091388
LCR TDD MC-HSUPA	RP-090990	1	WI	11.1	Stage-2: RAN#48 Stage-3: RAN#49	
4C-HSDPA	RP-091438	1	WI	11.2	Stage-2: RAN#47 Stage-3: RAN#49	
RF pattern matching in UMTS	RP-091427	2	WI	11.3	All CR's: RAN#48	
LTE						
Positioning	RP-091389	2	WI	6.1	Exception up to RAN#47	Exception sheet: RP-091390
MBMS over LTE	RP-091457	2	WI	6.3	Exception up to RAN#47	Exception sheet: RP-091221
Network-Based positioning Support for LTE	RP-090354	2	WI	6.7	Exception up to RAN#47	Exception sheet: RP-091391 Only discuss in RAN2 after RAN1 has agreed on significant benefit
Carrier aggregation	RP-091440	1	WI	7.1	All CR's: RAN#50	
Latency reduction	RP-091449	2	WI	7.2	All CR's: RAN#50	
Relay	RP-091434	1	WI	-	All CR's: RAN#50	Only start from 2010 Q2 in RAN2
LTE-A	RP-091360	1	SI	7.3	Relay TR for approval to RAN#47	

R2-100003: RAN WG2 compendium v6.0 ETSI MCC Info
updated after RAN #46
=> Noted (for information)

3 Incoming liaisons

3.1 Joint UMTS/LTE relevance

Preventing SIM handover

R2-100032 Reply LS to R2-096245 on preventing UTRA to EUTRA handover for USIM-less UE REL-9 TEI9, LTE-L23
(S3-092180; to: RAN2; cc: -; contact: Ericsson) SA3
no explicit RAN2 action requested; no LS answer?
=> Confirmation that the solution works
=> Noted, no LS answer

R2-100036 LS on preventing UTRA to EUTRA handover for USIM-less UE REL-9TEI9, LTE-L23
(SP-090893; to: RAN2; cc: SA3; contact: Huawei) SA
RAN2 action requested; LS answer drafted?
- Understanding is that this is an optional feature for an RNC (not very frequent case)
=> Optional functionality for RNC
=> Should capture optionality in our stage-2 (look at ALU contribution)

=> Should reply to SA/SA3 in RP-100599 provided by Huawei

Other

- R2-100033 Reply LS to R2-097508 on key invalidation following SR-VCC failure REL-8LTE-L23 (S3-092193; to: RAN2; cc: CT4; contact: Nokia) SA3
RAN2 action requested; LS answer drafted?
- Nokia assumes that since for PS handover, the KSI for PS is always derived from PS, the same problem should not exist. In the SRVCC case the CS KSI is derived from the PS KSI in LTE.
- Huawei thinks the same issue might exist for PS handover.
=> Can check further offline. E.g. who derives the KSI for UMTS after the PS handover
=> Proposed outgoing LS in R2-100817 by Huawei
- R2-100016 LS on support for inbound mobility to CSG and hybrid cells REL-9EHNB-RAN2 (R3-093377; to: RAN2, SA2; cc: -; contact: Qualcomm) RAN3
RAN2 action requested; LS answer drafted?
- Currently UMTS->LTE is still missing but Huawei has contribution available
=> Noted, no LS answer
- R2-100035 LS on H(e)NB emergency handling security requirement REL-9FS_HNB_sec (S3-092205; to: RAN2, SA1; cc: SA2; contact: Huawei) SA3
RAN2 action requested; LS answer drafted?
- Huawei thinks RAN3 should be involved. RAN2 chairman agrees. Huawei will inform RAN3 chairman that it would be good if RAN3 takes a look.
=> Noted from RAN2 point of view, no LS answer
- R2-100022 LS on Minimization of drive tests for E-UTRAN and UTRAN REL-9FS_NGN_min_drive-tests (RP-091421; to: OMA DM; cc: RAN2, SA5; contact: O2) RAN
no RAN2 action requested; no LS answer?
=> Noted, no LS answer

Late LSs received during RAN2 #68bis:

- R2-100814 LS on Location Updating Improvements for CS FallBack REL-9SAES-CSFB (S2-100936; to: RAN2, RAN3, CT1; cc: SA5, GERAN2; contact: Vodafone) SA2
RAN2 action requested; LS answer drafted?
not treated
- R2-100815 LS on E-UTRAN to GSM Redirection Improvements for CS FallBack REL-9SAES-CSFB (S2-100937; to: GERAN1, GERAN2, RAN 2; cc: -; contact: Vodafone) SA2
no explicit RAN2 action requested; no LS answer?
not treated

3.2 LTE relevance

Release-8

- R2-100020 LS Response to R5-096343 = R2-096322 on DCCH TTI and Cell Timing Change Requirements REL-8LTE-L23 (R4-095029; to: RAN5, RAN2; cc: -; contact: Ericsson) RAN4
RAN2 action requested; LS answer drafted?
- We have already replies to the original LS.
=> Noted, no further LS answer

PLMN mismatch between UE and network

- R2-100010 LS on Network sharing and stand alone Authentication procedure REL-8LTE-L23 (C1-095748; to: SA3; cc: RAN2; contact: Motorola) CT1
no RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100024 Reply LS to S2-096387 = R2-096319 on inter PLMNs handover REL-8LTE-L23 (S1-094130; to: SA2, CT1, SA3, RAN2; cc: RAN3; contact: Ericsson) SA1
no explicit RAN2 action requested; no LS answer?

=> Intra-LTE, only 1 PLMN can be contained in the multi-TA list in Rel8/9
=> Noted, no LS answer

R2-100018 Reply LS to R2-096277 on Inter-PLMN Handover REL-8LTE-L23
(R3-093403; to: CT1, SA2, RAN2; cc: SA3, CT4; contact: NEC) RAN3
no explicit RAN2 action requested; no LS answer?
- HRL/SNA not useable solution since there is roaming agreement.
- NSN thinks by configuration, the handover problem should be possible to prevent. NSN understands that also SA2 is discussing this. NSN is not clear why HRL/SNA cannot be used. QC assumes this has been discussed in RAN3.
=> Noted, no LS answer

R2-100008 Response LS to R2-096277 on CS Inter-PLMN Handover REL-8LTE-L23
(C1-095733; to: RAN2, SA2, RAN3; cc: CT4, SA1, SA3; contact: Ericsson) CT1
no explicit RAN2 action requested; no LS answer?
=> Noted, no LS answer

R2-100015 Reply LS to C1-094773 = R2-096302 on Emergency Call Support Indication on BCCH REL-9 IMS_EMER_LTE
(R3-093339; to: CT1; cc: RAN2, SA2; contact: Alcatel-Lucent) RAN3
no RAN2 action requested; no LS answer?
- RAN3 thinks MME is already aware when a different PLMN is selected by the eNB at emergency call establishment
=> Noted, no LS answer

R2-100009 Reply LS to S2-096386 = R2-096318 on emergency attach in a shared LTE network REL-9 TEI9, LTE-L23
(C1-095744; to: RAN2, RAN3, SA2, SA3; cc: -; contact: NSN) CT1
RAN2 action requested; LS answer drafted?
=> Noted, LS answer drafted in R2-100387; finally no LS answer sent (will wait for SA2 reply)

R2-100031 Reply LS to C1-094652 = R2-096231, R2-096277, S2-096387 = R2-096319, C1-095733 = R2-100008, R3-093403 = R2-100018, C1-095748 = R2-100010, S2-096386 = R2-096318, R2-097461, C1-095744 = R2-100009, R3-093339 = R2-100015, R2-096278 on PLMN confusion during EPS-AKA REL-8LTE-L23
(S3-092168; to: CT1, SA2, RAN2; cc: CT4, RAN3; contact: Qualcomm) SA3
RAN2 action requested; LS answer drafted?
- Emergency calls might have to be authenticated; Indicating PLMN only in SMC is to late

Status (chairman understanding):

- 1) Intra-LTE: Multiple PLMN in multi-TA-list: No problem for Rel-8/9
- 2) Different PLMN selected by network at handover in shared network Agreed no AS change for Rel-8; Rel-9 ?
- 3) Different PLMN selected by network at emergency call attach Issue for Rel-9

Options still on the table

- AS solution
 - e.g. inform UE about eNB selected PLMN by AS signalling
- NAS:
 - PLMN in authentication request
- ...

Discussion:

- Huawei has paper for this meeting.
- Ericsson thinks that since SA2 is also discussing this issue this week, Ericsson would prefer to wait for SA2. NSN agrees. Huawei is also fine to wait for SA2 decision.
- Chairman wonders why we should not go for the same solution as for UMTS, i.e. indicate PLMN in reconfiguration ? DT agrees. ALU thinks for the emergency call additional signalling would be needed for the emergency call case.
- ALU wonders if we wait for SA2, does it mean we accept anything coming from SA2?

- QC wonders if we should inform SA2 that we would not have a problem with an AS solution. NSN would prefer not to sent such an LS, but only take action on AS level when requested by SA2. NSN thinks that both scenarios occur very infrequent.
- => Noted. For the issue of emergency call / inter-RAT case we will wait for SA2 outcome. Need to realise that changes after next meeting are very difficult. Response also from next meeting.

Emergency calls

- R2-100013 LS on use of emergency cause value for TAU REL-9IMS_EMER_LTE (CP-091060; to: RAN2, CT1; cc: SA2; contact: Alcatel-Lucent) CT
RAN2 action requested; LS answer drafted?
- ALU has discussion document in R2-100386.
- => Based on further discussion we probably have response LS in R2-100600
Note: R2-100600 was finally withdrawn (LS will be sent from RAN2 #69).

Positioning: Cell change notification

- R2-100004 Reply LS to R2-096257 on use cases for cell change indication from MME to E-SMLC REL-9 LCS_LTE (C4-094007; to: RAN2; cc: SA2, CT1, RAN3; contact: Andrew) CT4
was not treated LS in at RAN2 #68; no explicit RAN2 action requested; no LS answer?
- See several use cases for the E-SMLC to be aware of this information
- => Noted, no LS answer

- R2-100005 Reply LS to R2-096257 on Use cases for cell change indication from MME to E-SMLC REL-9 LCS_LTE (C1-095299; to: RAN2, SA2, CT4; cc: -; contact: Qualcomm) CT1
no explicit RAN2 action requested; no LS answer?
- QC thinks the second answer is incorrect; there are other use case as indicated by CT4.
- => Noted, no LS answer

- R2-100027 Reply LS to R2-096257 on Use cases for cell change indication from MME to E-SMLC REL-9 LCS_LTE (S2-097525; to: RAN2, RAN3, CT4; cc: CT1; contact: Alcatel-Lucent) SA2
RAN2 action requested; LS answer drafted?
- SA2 seems to prefer to have it LPP/LPPa.

So two options:

- 1) Serving cell indication from MME
- 2) Inband (in LPP/LPPa) indication from UE/eNB

Discussion

- QC has related contribution in R2-100510.
 - NSN wonders if any of the identified use cases requires additional standardisation work, this would be out of Rel9 scope ? QC thinks we should determine on case by case basis.
 - Samsung thinks the MME can ask the eNB to also report intra-eNB serving cell change, and thus would be aware of any serving cell change
 - CSR is not worried about continuously being aware of the serving cell, but would like it to be reported in LPP.
- => Noted. Qualcomm will draft LS answer in R2-100601.

Positioning: LPP reliability

- R2-100029 Reply LS to R2-097372 on feasibility of reliable transmission of LPP message REL-9 LCS_LTE (S2-097527; to: RAN2; cc: CT1, CT4; contact: NTT DOCOMO) SA2
no explicit RAN2 action requested; no LS answer?
- => Noted; Can further discuss in positioning session. Response in R2-100602

Positioning: Other

- R2-100026 Reply LS to C1-094472 = R2-096214, R2-095338 on Transport and storage of capabilities for UE positioning REL-9LCS_LTE
(S2-097327; to: CT1, CT4, RAN2; cc: -; contact: Motorola) SA2
no explicit RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100006 Reply LS to R2-096253 on segmentation and reassembly for LPP REL-9LCS_LTE
(C1-095710; to: RAN2; cc: -; contact: Ericsson) CT1
no explicit RAN2 action requested; no LS answer?
- Ericsson assumes that this means we do not need segmentation in LPP; largest LPP message should be much smaller than this maximum. QC agrees but has small concern, since we do not have control of external PDU's. Chairman wonders if the external extensions would also make it into the control plane. QC thinks we have not ruled out. QC thinks we should have a note in LPP pointing out this limitation.
- ALU wonders what the applicability for the control-plane really is. QC wonders why we would want to restrict. Ericsson assumed the control plane positioning cases would always be standardised by RAN
=> Can think if a clarification in LPP is needed for max message size in control plane.
=> Noted, finally no LS answer
- R2-100011 LS on ECGI in the Location Request message REL-9LCS_LTE
(C4-094013; to: SA2, CT1; cc: RAN2, RAN3; contact: Huawei) CT4
no RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100028 Reply LS to C4-094013 = R2-100011 on ECGI in the Location Request message REL-9LCS_LTE
(S2-097526; to: CT4; cc: CT1, RAN2, RAN3; contact: Huawei) SA2
no RAN2 action requested; no LS answer?
- Huawei thinks that MME may not always know the latest ECGI. MME should typically know if it pages the UE, but e.g. not if the UE is already in connected state and has performed intra-eNB handover. Then the MME might not have the latest ECGI.
=> Noted; can be discussed further together with the cell change indication issue.
- R2-100017 LS on Transparent Routing of LPPa PDUs over S1 interface REL-9LCS_LTE
(R3-093382; to: SA2; cc: RAN2, CT4; contact: Alcatel-Lucent) RAN3
no RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100037 LS Response to R1-093727 = R2-095415 on RSTD Measurement Applicability REL-9LCS_LTE
(R4-094990; to: RAN1, RAN2; cc: RAN3; contact: Ericsson) RAN4
no explicit RAN2 action requested; no LS answer?
- Ericsson clarifies that in stage-3 we can remove an FFS now which we had for inter-frequency.
=> Noted, no LS answer
- R2-100039 LS Response to R1-093729 = R2-095416 on Assistance Information for OTDOA Positioning Support for LTE REL-9LCS_LTE
(R4-095038; to: RAN1, RAN2, RAN3; cc: -; contact: Ericsson) RAN4
no explicit RAN2 action requested; no LS answer?
- Ericsson indicates that there is still some discussion on how many bits should be needed for both parameters Estimated Timing Diff and Window size.
=> Noted (several related CRs available), no LS answer
- Rel9 Other**
- R2-100023 LS on providing backhaul signalling in support of time and frequency synchronization using network listening REL-9HeNB-RF_TDD
(RP-091447; to: RAN3, RAN4; cc: RAN2; contact: Qualcomm) RAN
no RAN2 action requested; no LS answer?
- It seems a solution based on adding radio signalling for this is no longer on the table
=> Noted, no LS answer

- R2-100025 Reply LS to C1-093961 = R2-095407, R2-097493 on SSAC REL-9SSAC
(S1-094339; to: CT1, RAN2; cc: -; contact: NTT DOCOMO) SA1
SSAC: Service Specific Access Control; no explicit RAN2 action requested; no LS answer?
- NTT DCM has discussion paper & CR. Some errors are detected and some updates will
be provided (R2-100592/ R2-100593)
=> Noted, no LS answer

Relay

- R2-100030 LS Response to R2-095331 on Relay Architecture Aspects REL-9FS_RAN_LTEA
(S2-097544; to: RAN2, RAN3; cc: CT1, SA5; contact: Motorola) SA2
no explicit RAN2 action requested; no LS answer?
- Ericsson points out that SA2 is assuming RAN takes a decision on architecture first before
SA2 will do more work on this.
=> Noted, no LS answer
- R2-100007 Reply LS to R2-095331 on Relay Architecture Aspects REL-9FS_RAN_LTEA
(C1-095731; to: RAN2, RAN3; cc: SA2; contact: NSN) CT1
no explicit RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100019 LS on Un interface security for Relay Architecture in LTE-Advanced REL-9FS_RAN_LTEA
(R3-093404; to: SA3; cc: SA2, RAN2; contact: NTT DOCOMO) RAN3
no RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100034 Reply LS to R3-093404 = R2-100019 on Un interface security for Relay Architecture in LTE-
Advanced REL-9FS_RAN_LTEA
(S3-092195; to: RAN3; cc: SA2, RAN2; contact: Huawei) SA3
no explicit RAN2 action requested; no LS answer?
=> Noted, no LS answer

Carrier aggregation

- R2-100021 Reply LS to R1-084707, R1-094415 = R2-096309 on Support for wider bandwidths in LTE-
Advanced REL-9FS_RAN_LTEA
(R4-095035; to: RAN1; cc: RAN2; contact: NTT DOCOMO) RAN4
note: R1-084707 was not sent to RAN2; no RAN2 action requested; no LS answer?
- NTT DCM assumes we should still wait for RAN1 on whether we have
segments/extension carriers.
=> Noted, no LS answer

Withdrawn:

- R2-100012 Reply LS to R2-097372 on feasibility of reliable transmission of LPP message REL-9
LCS_LTE
(C4-094207; to: RAN2; cc: RAN3, CT1, SA2; contact: NTT DOCOMO) CT4
=> withdrawn as already treated at RAN2 #68

Late LSs received during RAN2 #68bis:

- R2-100040 Reply LS to R2-107372 on feasibility of reliable transmission of LPP message REL-9
LCS_LTE
(R3-100515; to: RAN2; cc: CT1, SA2, CT4; contact: NTT DOCOMO) RAN3
no explicit RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100041 Response LS to RAN1 R1-094414 = R2-096308 on UTDOA REL-9LCS_LTE-NBPS
(R3-100518; to: RAN1, RAN2, CT4, SA2; cc: ; contact: TruePosition) RAN3
received during RAN2 #68bis; no RAN2 action requested; no LS answer?
=> not treated

3.3 UMTS relevance

- R2-100014 LS on indication of support of priority-based cell reselection from GERAN to UTRAN REL-8 GELTE
(GP-092439; to: CT1, SA2; cc: RAN2; contact: NSN) GERAN2
no RAN2 action requested; no LS answer?
=> Noted, no LS answer
- R2-100038 LS Response to R2-096295 on the capability of search on the secondary carrier REL-9 RANimp-MultiBand_DC_HSDPA
(R4-094996; to: RAN2; cc: RAN3; contact: Qualcomm) RAN4
no explicit RAN2 action requested; no LS answer?
- QC indicates RAN2 has already taken 2 capability flags into account.
=> Noted, no LS answer

4 UMTS/LTE joint session

Contributions submitted under this agenda item will be handled in a joint UMTS/LTE session. Documents should focus on Stage-2 aspects common for both UTRA and E-UTRA.

4.1 Release 8

- R2-100089: Clarification on Intra-Domain NAS Node Selector-REL8 Vodafone
- R2-100090: Clarification on Intra-Domain NAS Node Selector-REL9 Vodafone
- Vdf indicates that 24.008 does not clarify this, and this seems the easiest way forward for Rel-8.
 - DT thinks this should be solved in NAS specifications. This is a NAS rule
 - Vdf agrees that in principle IDNNS should be derived by NAS. But in 25.331 we did describe some functionality about IDNNS. Vdf thinks this is fastest way. Vdf is open where to capture for Rel-9.
 - Nokia agrees with DT. RRC should just indicate we use the P-TMSI as provided by higher layers.
- => Nobody questions the functionality.
- Vdf wonders if we move the derivation to NAS, will we move the whole IDNNS derivation to NAS ? Chairman assumes that if NAS is clear on what P-TMSI is past to AS, no further AS change is required.
- => For the moment assume that we will sent an LS to CT1 asking them to indicate the P-TMSI passed to lower layers clearly in their specifications. See LS in R2-100603. Can still think if there is a better other approach.
- R2-100166: Security issue raised by PLMN changing Huawei
=> Deferred (waiting for SA2 input)
- R2-100403: Inheritance of the dedicated priorities for cell reselection Infineon Technologies
- Panasonic thinks GERAN specifications are also not clear, and they assume at cell selection the priorities are kept. Panasonic sees no need to differentiate cell reselection and cell selection. DT agrees with Panasonic. DT thinks if cell selection is excluded, ISR would be a problem (clear priorities but no means to enforce again).
 - DT thinks redirection should be added. Afterwards DT agrees nothing is needed.
 - Huawei agrees that the change is not needed.
 - Nokia thinks redirection is always a cell selection, so this is already captured by the current text.
 - Infineon thinks still there is a misalignment with the GERAN specifications. Infineon thinks that e.g. if we want to survive RLF, we have to store it in NAS. However Infineon will not push very hard, but then we should update GERAN.
 - DT thinks we should liaise to GERAN.
- => Will sent LS to GERAN to explain the situation to GERAN and ask them to align in R2-100604

4.2 Release 9

4.2.1 Home-(e)NB (RP-091392)

(EHNB-RAN2, leading WG: RAN2, started: March 09, target: March 10, WIDS: RP-091392)

Contributions related to Rel-9 home-(e)NB topics like inbound mobility, hybrid cells or enhanced manual selection/cell reselection.

Stage-2

- R2-100450: CR capturing HeNB inbound mobility agreements Motorola, Qualcomm, NTT DoCoMo CR 36.300 F REL-9EHNB-RAN2
- ZTE wonders whether it is correct to add hybrid cell to 10.5 ? Motorola thinks both hybrid and CSG cell behaviour is captured. DT thinks the text is clear on this (hybrid cells within CSG in whitelist)
 - Nokia wonders if there can be PCI confusion in macro-cell (referring to last line) ? Motorola thinks we have never agreed that there could be no confusion for open femto cells. Nokia would like to remove the text after "and reporting for any PCI". NTT DCM thinks there will be PCI confusion with open femto and would like to keep the text as it is. Ericsson would also prefer to keep the text.
 - => Remove "to solve PCI/PSC confusion in general" from last sentence
 - STE wonders whether the figure is confirmed by RAN3 ? What does a "*" mean ? Motorola assumes they might still need to be concluded by RAN3.
 - LG wonders if emergency call handover to non-member cell should be allowed ? Huawei thinks the UE should just do what the network indicates. LG indicates that the ACB text seems to indicate the network is not allowed to do this.
 - => General understanding is that it is a network decision whether to handover an emergency call to a non-member cell. So the text should not exclude this case. Also for normal case text should not be too strong. QC thinks it is anyway already a "should"
 - => Will see update for these two changes in R2-100605
- R2-100605: CR capturing HeNB inbound mobility agreements Motorola, Qualcomm, NTT DoCoMo CR 36.300 F REL-9EHNB-RAN2
- DT wonders what the changes "allowed to access the CSG cell" really mean ?
 - => Remove the first sentence under access control
 - => Specification impacts needs to be ticked "N"
 - => CR is in principle agreed with these changes in R2-100828
- R2-100483: CR capturing HNB inbound mobility agreements Qualcomm Incorporated (very late)
- => Same comments as on LTE text
 - NSN would like some more time to check it. They have also several editorial comments.
 - => Chairman wonders why one-shot is indicated for bullet 3, interfrequency ? Should not be a one-shot.
 - => DT thinks that the outcome of any decision we make on how often the proximity is sent should be captured in the CR's.
 - => Will see update in R2-100606, also including inter-RAT case
- R2-100606: CR capturing HNB inbound mobility agreements Qualcomm Incorporated (very late)
- Huawei thinks in 8.1.2. figure, there is no need to indicate "periodical" in the figure step3. QC thinks it does not work with event based since event based is per frequency. NEC thinks event based was never ruled out although periodical would probably be typical.
 - Huawei thinks also the reporting in step 5 should not be limited to "periodical". It is a 1-shot report, but it could also be "event based" ? Samsung thinks it is clearly agreed that this should be periodical, 1-shot. NEC agrees there is no other option.
 - => EMAIL DISC [68b#3] 1 week HUAWEI; scope is limited to this call flow. Final version can be provided in R2-100844

Proximity handling at mobility

- R2-100400: Handling of proximity indications after handover and reestablishment Alcatel-Lucent Disc Proposal 1:
- Alternative is to have proximity indication configuration as separate IE in the container.

- R2-100535: Remaining issues in the proximity report procedure SamsungDisc
- Huawei wonders if the UE has memory, if he has to resend ? Huawei thinks it should be sufficient to resend at handover. Or is the UE remembering a context in this proposal ?
 - NTT DCM wonders what the problem is with the Rel-8 eNB ? Should be solved by the inter-release discussion anyway.
- R2-100327: Proximity indication handling for handover ZTE Disc
- CATT wonders if this includes inbound mobility cases ? ZTE assumes so. So any handover.
- R2-100514: Proximity indication forwarding at handover NTT DOCOMO Disc
- NTT DCM confirms the state-mismatch problem if the RAN receives the UE indication after the handover preparation

Proximity indication Configuration

- *Forward in AS container ?*

Proximity Indication Status

1. *Repeat after every handover while in fingerprint*
2. *Repeat periodically independent of handover while in fingerprint*
 - *Leaving report can be removed ?*
3. *No repeat but transfer in the network*
 - *Problem with asynchronous indication from UE*

Discussion

- NSN thinks repetition after every handover is simplest, it also avoids the desynchronisation case. It also solves the case that the indication was no longer valid.
 - NTT DCM thought that if the source does not forward, the target will not know that certain measurements correspond to a proximity indication. QC thinks it is sufficient to have the configuration transferred.
 - Ericsson thinks the status is probably easiest repeated after every handover
 - Huawei wonder what the gain is of repeating after every handover ?
 - Panasonic points out the desynchronisation problem as indicated by ALU.
 - IDT wonders if the signalling load would not seriously increase just for a corner case ? QC thinks this depends on the fingerprint size.
 - In offline discussion, it was pointed out that conditions for triggering proximity are not clearly specified. It was also remarked that if the network receives a proximity indication during handover preparation, the source could start a new handover. Still there is the case of a crossing handover command and proximity indication.
 - Motorola thinks the probability of this loss occurring is low. NTT agrees the probability is low. NTT DCM thinks having a repetition at every handover seems to create a lot of unnecessary retransmissions.
 - Huawei points out that also inter-RAT case is FFS currently.
 - ALU thinks that many proximity indications will become invalid after macro-cell to macro-cell handover, if the macro cell is used as coverage fingerprint. Ericsson agrees to ALU. DT does not agree; UE could use other mechanisms for proximity. Certain macro cells have coverage of 30-50km.
- => Offline until Friday

Agreements:

- Proximity indication configuration is passed to the target within the network
- FFS how to handle proximity indication status at mobility

Reporting on Friday:

- Huawei reports we could sent it at handover, but there is some confusion on when it would be sent in the target if the target cell is the home cell.
- Motorola wonders if we need leaving if we have indication at all handovers ? DT thinks/hopes proximity is more precise than large macro
- Chairman wonders whether the network case is not inherently broken ? NTT DCM thinks it can be enhanced (e.g. SN from target)
- QC thinks the UE based solution was the clear winner in the offline.
- QC assumes the load is no huge problem because the UE should have a small proximity area, and if it matches a macro cell there is a leaving message saved. Panasonic agrees.
- Ericsson would prefer to close the issue now, and has preference for UE indication.

- Nokia is ok with UE solution.
- Huawei thinks one could argue that in UMTS the SRNS relocation is less frequent, and you also have the UE not involved case.

=> Will go for UE based solution: UE should only repeats the indication in the target if the target supports proximity status ind.

=> FFS if we need to specify anything for the UE entering his home cell

Show of hands:

- 1) Solution mainly relying on transporting in network [10]
- 2) Solution based on repeating indication by UE after handover [12]

Agreements (UMTS & LTE): ???

Will go for UE based solution:

- No transfer in the network;
- UE indicates proximity status if still valid after handover i.e. UE should assume after handover the target cell is not aware of previous UE indications to the network.
- UE should only repeat the indication in the target if the UE knows the target supports proximity status ind and the proximity is still valid.

=> EMAIL DISC [68b#15] up to next meeting Motorola

Proximity other

R2-100515: Prohibit timer for proximity indication NTT DOCOMO Disc

- QC wonders what it is prohibiting ? Multiple entry-leave ? NTT DCM confirms it is used to prevent multiple entry-leave for the same RAT/freq.

R2-100439: Control of Proximity Indication LG Electronics Inc. Disc

Options:

- a) Fixed timer value applied always
- b) Do nothing

Discussion

- Nokia thinks the LG proposal is optimising the switch on/off we already have today. So this is just a signalling optimisation (1msg instead of 2) ? LG agrees. DT agrees that this can already today be obtained in the network. Also DT seems many problems with having sensible fixed/configurable timer values. So DT would prefer no change to the specifications.
- NTT DCM is a bit concerned about overload due to proximity. Especially since we have no testable behaviour in this respect. DT thinks if there is really badly implemented UE's, the 1s timer will anyway not help.
- QC brings up the edge of the fingerprint case: that is not really a bad UE implementation ? DT thinks this should anyway not be a very frequent case.
- STE seems some benefits of having timer in the UE. NEC also seems some benefits to have a timer in the UE.
- Motorola thinks disabling is sufficient. A badly implemented UE will anyway have a bad inbound mobility experience. Vdf thinks that any proximity indication should anyway have a validity for some time, so not only 100ms.
- Nokia thinks the question becomes what is "bad UE implementation". Nokia thinks sending every 100ms enter/leave is a bad UE implementation. So Nokia sees no strong reason for a timer in the spec.
- Panasonic thinks the 1s timer brings no UE or network complexity, and will improve the situation.
- RIM points out that we do have examples from the past related to UE's too frequently sending messages. NTT DCM agrees. DT indicates we could not disable fast dormancy but we can disable here.
- Nokia thinks sending every 1s is not good UE implementation. DT thinks network would disable for like 1 min or so.
- LG thinks configurable timer would be nice. Vdf thinks this is not needed. DT thinks network based solution is sufficient.
- Motorola thinks anyway entering/leaving the area will have some hysteresis.

- Ericsson would really like to see a fixed timer to guide the network
- => Offline. As a result of offline, R2-100802 was provided.
- R2-100802: Prohibit timer for proximity indication
 - Nokia wonders how we determine the value ? NTT DCM proposes that interested companies can talk offline until next meeting
 - NTT DCM will also provide the UMTS CR for the next meeting
 - => CR is in principle agreed
- R2-100517: Cell identity reporting in proximity indication NTT DOCOMO Disc
 - LG wonders what happens if the PCI/PSC changes ? Maybe we do not need to include the PCI/PSC ? NTT DCM thinks anyway it is up to the network how the information is used.
 - Huawei has some sympathy for the energy saving aspects, however Huawei wonders how this can work in the IDLE mode case ? Huawei thinks CGI might be useful.
 - Motorola wonders if there is really much power saving to switch off low power transmitter like home-cell. NTT admits they have not done quantitative analysis, but in general interference reduction is preferable.
 - NSN thinks it would be strange to only switch on for handovers and not for IDLE.
 - NSN wonders how this different from autonomous home-cell reporting which we agreed not to have ? NTT DCM clarifies this is in the proximity indication based on stored information.
 - Chairman thinks this changes the nature of the proximity indication (now no longer per frequency). Also how will it work in the office case where we can have hundreds of cells in CSG group ?
 - NTT DCM thinks the UE might not have to indicate all CGI's/PCI: if the network receives an indication for a few CGI/PCI, the network could take more actions.
 - DT sees no reason for the PCI. Specific offsets for specific PCI's is possible without having the UE report this. NTT DCM points out that the network is only aware of a range of PCI's. DT thinks we should also be very careful about the size of the proximity message.
 - ZTE wonders if the CGI is never changed for a home-cell ? E.g. configuration by SON. NTT DCM assumes it is quite static.
 - QC thinks in general the motivation is not very clear. E.g. the reserved PCI/PSC's for home cells could be very limited. Also cell specific offsets is not often used.
 - DT thinks there is other mechanisms for switching on/off e.g. at application level.
 - IDT thinks that for large CSG groups, maybe reporting one GCI is sufficient
 - => Some support but not that much. Can continue offline; might come back in next meeting if more support and more clarity on proposal.

Other

- R2-100266: CR on Support of inter-RAT inbound mobility to HeNB Huawei CR 25.331
Should discuss the Stage-2 principles

Question: Inter-RAT UMTS->LTE case should use same principles ?

- QC thinks there is a number of open issues that still need to be addressed.
- Ericsson thinks we should be very careful about the ASN.1. Therefore we should try to agree already this meeting on a CR including ASN.1.

Agreement:

Inter-RAT UMTS->LTE case should use same principles as inter-freq UMTS, intra/inter-freq LTE and inter-RAT LTE->UMTS

=> Detailed proposal can be revisited in the UMTS session.

- R2-100532: CSG identity reporting in inbound handover NTT DOCOMO, Inc. Disc
- CATT supports the proposal.
 - ZTE wonders if this is related to how frequently the CSG-Id is changed ?
 - => Proposal is agreed. Will see detailed CR in the LTE session.

- R2-100448: Radio quality degradation during SI acquisition LG Electronics Inc. Disc
- Motorola wonders what the entry condition is for a CSG cell ? LG clarifies this refers to the previous measurement threshold which triggered to sent the UE report in the first place.

- NTT DCM thinks that since it is up to the serving eNB when to trigger this there might not be an threshold triggered event report before. Also it seems no real gain is achieved with stopping the reading.
 - QC thinks that during a small fade there is no reason to stop reading. Anyway at timer expiry you can report acquisition failure.
 - ZTE sees some gains for the proposal.
 - LG points out that if the timer value for reading UMTS SI is 8s, it would be better to abort. QC wonders where the 8s is coming from ?
- => Noted; Very limited support

R2-100546: Autonomous HeNB reporting Nokia Corporation, Nokia Siemens NetworksDisc

- DT wonders what formulation would use ? "if the information is already available in the UE" ? Do we need to worry about the validity of the information ? Nokia is now proposing it only for when the UE is very close to the CSG cell and can read the information. So it is very recent information
- Huawei thinks that last time we said the pre-reading could be left to UE implementation. Nokia agrees, but we should allow the reporting explicitly in the specifications.
- QC wonders what the stage-3 impact would be ? Is there a CR available ? Nokia assumes that for LTE side the impact is limited: addition optional present IE's in the measurement report and/or proximity indication. Nokia thinks for LTE it might be most logical to have it in the proximity report. Chairman points out that inclusion in the proximity indication does not seem so logical.
- STE does not see this as a big performance improvement. So maybe we can reconsider for TEI-10 ?
- Motorola has some sympathy for the proposal, but would assume it is only in the measurement report. Motorola thinks this is very close to the likely/unlikely indication. Nokia thinks it is a bit different, because it is an indication of "I'm member for sure".
- Vdf agrees we should only consider measurement report, and anyway Vdf would prefer not to re-open this discussion. E.g. otherwise we re-open validity discussions. Nokia thinks the validity issue is very similar for the explicit reading request. NTT DCM clarifies that in the explicit request we know that the SI is read after the request. NTT DCM is worried about battery drain for UE's always trying to read the SI so that they could report it. Nokia thinks it is similar to the network requesting the information all the time.

After offline

=> Not so much support for Rel-9; Can see again for Rel-10.

4.2.2 Other

=> *Including contributions related to the optionality/mandatory feature handling (result of RP-091452)*

LTE

R2-100464: Optionality of Rel-9 UE features NTT DOCOMO, INC. Disc REL-9TEI9, LTE-L23

- Ericsson wonders if we should really list mandatory features. We would focus on RAN2 features and miss features from other groups. Also we have not done this in previous releases. So is it really usefull ? Chairman points out that for Rel-8 we do indicate e.g. number of supported cells, number of supported RB's,.. Ericsson agrees.
- Chairman indicates we should try to close as much as possible the cases where there is no controversy. Ofcourse cases whith controversy can be brought to RAN.

=> Noted

R2-100465: CR to 36.306 on Optionality of Rel-9 UE features NTT DOCOMO, INC. CR 36.306 B REL-9 TEI9, LTE-L23

=> Ericsson would prefer to change the note for 4.3.4.5: the UE can only set the bit if the UE is IOT tested. NTT DCM agrees.

=> Could try to solve the FFS's on conditions offline.

=> Change name of inter-RAT parameters to show only applicabile to UTRAN

=> Will see an update in R2-100607

R2-100607: CR to 36.306 on Optionality of Rel-9 UE features NTT DOCOMO, INC. CR 36.306 C REL-9 TEI9, LTE-L23

=> CR is in principle agreed

- R2-100467: CR to 36.331 on Optionality of Rel-9 UE features NTT DOCOMO, INC. CR 36.331 B REL-9 TEI9, LTE-L23
 => Same comment as on previous document for the field description of the enhancedduallayerTDD
 - Ericsson thinks if we keep 11.3 it should at least have a disclaimer that this is not a full list.
 - Chairman wonders if this is the full list of new Rel-9 L2 features which are mandatory ?
 - NTT DCM is also not so comfortable with having this list, since it is easy to miss. NTT DCM thinks that maybe specific aspects should be covered like the IMS emergency call, or the SR mask dependency on the Rel-8 SPS FGI bit. So only the ambiguity cases.
 => Will not try to have a full list of mandatory features
 => Can see if we can reformulate this section so that the dependencies of Rel-9 features are listed (probably only IMS emergency call and SRmask).
 => Nokia wonders if we should have ellipses for all IE groups, not only for SON ? NTT DCM assumes CSG enhancements are not so likely, but anyway NTT DCM is fine. Can discuss offline.
 => Ericsson thinks "UTRAN" formulation is better than "inter-RAT" for CSG parameters
 => Should be clear that inbound mobility only concerns connected mode.
 => Category should be "C"
 => Will see update in R2-100608
- R2-100608: CR to 36.331 on Optionality of Rel-9 UE features NTT DOCOMO, INC. CR 36.331 C REL-9 TEI9, LTE-L23
 => CR is in principle agreed
- R2-100556: Handling of UE capabilities Nokia Corporation
 => Noted

UMTS

- R2-100570: Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features - Nokia, NSN
 => DT wonders whether it is sufficiently clear what inbound mobility is ? Should only concern connected mode mobility. Should be clarified
 => Ericsson thinks names and descriptions should be as much as possible aligned to LTE CR. QC agrees, even name for support for proximity".
 => Chairman wonders if autonomous reading and "proximity support" should be independent features. Ericsson/QC agrees these should be independent. DT would prefer to have the linking for this specific case. NTT DCM agrees that at this point they should be independent. For the moment independent. Can discuss linking further.
 => Can also see if R2-100270 requires further changes.
 - QC points out that intra-freq proximity is still FFS. Should reflect any decision from UMTS session on this point
 => Will see update in R2-100609
- R2-100609: Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features - Nokia, NSN
 => NTT DCM points out that a similar grouping as for LTE should be applied
 - Ericsson wonders what we are going to do with these "conditions" ? NTT DCM proposes to come back in the next meeting.
 => Will go for EMAIL DISC [68b#4] 1 week. Final version in R2-100836
- R2-100270: Discussion on UTRA UE inbound mobility capability signalling Huawei Disc
 => Noted
- R2-100569: Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features
 => Renamings from R2-100570 will also impact this CR.
 - NTT DCM wonders whether it should be BOOLEAN's ? Ericsson indicates that UMTS typically uses the used approach.
 => Ericsson would prefer that a similar grouping as used for LTE is introduced (3 and 3).
 - Huawei wonders why the last set of changes is made ? Is this for the inter-RAT case ? Can be discussed offline. Might be related to open issues.
 => Will see update in R2-100610
- R2-100610: Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features
 => Also here NTT DCM would like to see the grouping.
 => Will go for EMAIL DISC [68b#4] 1 week. Final version in R2-100837

R2-100271: Introduction of UE inbound mobility capability bits Huawei
not treated

4.3 Release 10

4.3.1 Minimisation of Drive Test (RP-091423)

(MDT_UMTSLTE-Core, leading WG: RAN2, started: Dec. 09, target: Dec. 10, WIDS: RP-091423)

R2-100469: MDT Stage 3 NTT DOCOMO Disc

- Main point from NTT DCM is that they think we should keep the requirements as identified by the SI
 - Huawei wonders if this means new measurements/measurement capabilities for UMTS as well as LTE ? NTT DCM assume there is some kind of MDT capability.
 - NTT DCM assumes we re-use the current measurements as much as possible.
 - Nokia wonders if the intention is to enable the network to choose only the UE's that support providing location information ? NTT DCM did not go in this detail.
 - TIM thinks that additional geographical scope than cell should be possible.
- => Noted

Scope

R2-100171: Use Case of Coverage Optimization Huawei Disc

- NTT DCM agrees these scenarios would be covered. NTT DCM is wondering about the TS skeleton. E.g. would we have use cases listed, or only refer to SI TR ? Would listing all these use case not bring to much details to the stage-2.
 - Ericsson would prefer to only capture normative text in the TS. QC agrees: we should maybe capture use cases if the clarify certain behaviour: e.g. UE actions or network guidance.
 - CATT wonders if pilot pollution is the same problem in LTE and UMTS ? Huawei indicates it is applicable to both.
- => Noted: Seems this is indeed the type of use cases people are considering, but not so much support to include this now in the stage-2.

R2-100073: Scope of MDT on coverage optimizationCATT Disc

- Samsung wonders what the difference if between MCCH and PCH ? CATT agrees that MTCH is the main difference.
 - LG wonders about PUCCH ? What type of UE behaviour/measurements is considered ? CATT thinks that the UE could e.g. record the times of D-SR transmission and then the network can detect if it did receive these indications.
 - DT thinks we should have simple solutions for Rel-10 MDT. So we should concentrate on the coverage optimisation we had in the SI. Nokia agrees. We should first concentrate on the use cases we have discussed as part of the SI.
- => No priority for this for now.

R2-100453: Drive testing and HeNBs Motorola Disc

- Also here DT thinks it is not a primary focus area. We should focus on "conventional macro networks", and maybe some re-use is possible. QC does not agree: Home(e)NB's bring specific issues that might have a lot of impact to coverage. And they are very interesting. Nokia agrees with DT. QC is fine to keep primary scope on "conventional networks" as long as it does not mean we exclude it today.

Agreements:

- Primary scope will be MDT for conventional macro networks e.g. not for MBMS/homeNB. We should try to establish the framework & solution for this.
- Can see later if the scope can be extended if we have addressed this primary scope.

IDLE mode

R2-100262: Configuration of UE measurements for MDT in idle mode Motorola Disc

- Huawei assumes that for DL coverage optimisation measurement collection from active mode UE's is sufficient. It might also require X2 transmissions. Motorola wonders why ?

Huawei thinks that when one RNC/eNB configures, the report could be received by another eNB/RNC. Should this result be reported to the original eNB/RNC ?

- QC thinks we have concluded during the SI that measurements from IDLE mode UE's were clearly required. E.g. pilot pollution or weak coverage is sufficient to only detect from active mode UE's.
- Ericsson thinks it is clear we shall support measurements in IDLE mode. CATT agrees.
- LG agrees measurement in IDLE should be possible. LG thinks it is still a question whether we have measurement reporting triggered in IDLE mode. QC assumes that the triggering in this document refers to logging triggering.
- Huawei wonders if this is a new capability for UMTS ? Chairman assumes so, and also for LTE. Maybe even more than 1 capability.
- NTT DCM thinks that one requirement is that the network can select which terminal participates in the MDT. So broadcast approaches might not be that obvious.

Agreement:

- Measurement logging in IDLE mode shall be supported

Model

- R2-100170: Real Time Reporting for Coverage Optimization in UTRAN Huawei Disc
- QC wonders how this fits with IDLE mode logging ? Huawei explains that this only talks about periodic reporting/event based reporting. Huawei agrees that IDLE mode might need new signalling.
 - TI wonders if it is a good approach to have different approaches for the different cases.
- R2-100172: Real Time Reporting for Coverage Optimization in E-UTRAN Huawei Disc
- So positioning support is a main difference between UMTS and LTE.
 - QC wonders if this is only related to immediate reporting. Huawei confirms.
- R2-100239: MDT Measurement Model Orange Disc
- Huawei wonders what the measurement job configuration is apart from "logging time" ? Orange assumes it mainly the logging time. DT thinks the whole configuration (when and how) the measurement should be performed. Vdf assumes we would also need a measurement timestamp configuration.
 - QC wonders if there is special value to have the timestamp for immediate reporting determined by the network ?

Discussion

- Chairman points out that we could discern 4 cases:
 - 1) Connected mode: immediate reporting
 - 2) Connected mode: logged reporting (?)
 - 3) IDLE mode: immediate reporting (??)
 - 4) IDLE mode: logged reporting
- Ericsson thinks we have 2 approaches:
 - A) Existing measurement approach and extend
 - B) New approach
- Ericsson/QC thinks IDLE mode immediate reporting is not needed
- Chairman sees two higher level issues:
 - a) do we have a separate approach for MDT independent of current measurement configuration ?
 - b) is there a link between configuration and cell/RAT where the report is sent ?
- NTT DCM anyway sees value in discussing what is part of the configuration
- Ericsson thinks that UMTS measurements are almost sufficient for MDT real time reporting. It is also true that we have no functionality for IDLE mode. Ericsson wonders if we can agree for connected mode existing measurements are used ?
- Ericsson thinks that logged reporting in IDLE and CONN might be very similar.
- Chairman wonders if we need to support logs going over different IDLE/CONN transitions.
- DT thinks we should start from something simple. E.g. we could keep a mobile in connected mode if we want long term reporting.
- Nokia wonders if we really need logged reporting in connected mode. NSN thinks we should focus on the IDLE mode logging.
- TI thinks we should look at how the new functionality would look.

- QC assumes operators should decide which of the 4 above cases should be supported. Maybe we should have some priority up to the next meeting. DT thinks 1&4 are most interesting, with 1 being most important.
 - CATT thinks we should map the 4 cases to the 6/7 measurements we have agreed during SI.
 - TI is not read to rule out case 2.
 - Ericsson wonders if we can rule out case 3) ? From Vdf point of view this is not so important. Vdf does see benefits for case 2).
- => Will support case 1 & 4

R2-100247: MDT: A2 triggered measurement Nokia Corporation, Nokia Siemens Networks Disc

R2-100246: Time stamp with CP architecture Nokia Corporation, Nokia Siemens Networks Disc

Agreements

We will support:

- 1) Connected mode: immediate reporting
- 4) IDLE mode: logged reporting

We will not support:

- 3) IDLE mode: immediate reporting

Reporting

R2-100261: Triggering of Reporting of MDT Measurements Motorola Disc

- NTT DCM wonders how the "available battery charge" would really be specified ? Motorola indicates this would be FFS.
 - Ericsson thinks for case 1), the simplest trigger is immediate
 - Ericsson thinks for case 4) the simplest trigger is when the UE enters connected mode. Vdf thinks that if the UE has something else urgent, then it might be better that the UE does not report it immediately. Ericsson agrees that there might be a priority between MDT reporting and other activity.
 - CATT assumes the simplest trigger is absolute time or on demand.
 - QC assumes maybe we should start from 2 or 3 triggers.
- => Noted

R2-100282: Triggers for measurement log reporting NEC Disc
not treated

R2-100074: Consideration on Priority of MDT Report CATT Disc

- ZTE wonders why no new SRB should be defined for real-time reports ? CATT assumes real time reports would be quite small (same as measurement report). ZTE is not sure it is always little data. QC agrees with ZTE that it would make sense to have all reports reported with lower priority.
- Nokia thinks before deciding it would be good to see how big reports really will become for real-time and non-real time. Ericsson would like to see what realistic sizes would be.
- Ericsson thinks if we re-use RRM measurements in connected mode, then we should probably use the current SRB's.
- Vdf thinks we should be open for introducing a new low priority transport solution.

Other:

R2-100456: UE battery status transmission HTC Corporation Disc
not treated

Continuation up to next meeting:

- Questions (EMAIL DISC [68b#16] up to next meeting QC):
 - 1) Do we support case 2) ?
 - 2) If we support 2), can a log survive several IDLE<->CONN transitions ?
 - 3) What cases would be build on extensions of current measurement configuration, and for which would we have a new configuration/approach
 - 4) Can the log be reported in other cell/RAT then where configured ?
 - 5) What are the simplest triggers for reporting (e.g. set of 2 or 3) ?

- Start with Stage-2 ?
 - Ericsson wonders where we capture UMTS stage-2 decisions ? Will they also be captured in 36.300 or is there a separate place ? NSN has no strong preference.
 - Ericsson proposes that for now we capture everything in one stage-2 TS. TI supports this proposal. Ericsson would prefer a new TS in 37 series.
 - => Will start 37.xxx series document
 - => Will see skeleton proposal in R2-100611
 - => Will see first contents proposal in R2-100612

R2-100611: MDT skeleton

- Ericsson would prefer to change the title to reflect the functionality addressed, e.g. radio environment measurements. Can be considered for next meeting
- => TI would prefer not to split IDLE and CONN already in section 4. Remove 4.2 and 4.3.
- => With this change the skeleton is agreed in R2-100845 v0.1.0

R2-100612: MDT first contents

- => Should remove the headings of 4.2 and 4.3
- => Agree with this change in R2-100846 v0.2.0

Not available/Too late/Withdrawn:

R2-100542 MDT: A2 triggered measurement Nokia Corporation, Nokia Siemens Networks Disc

R2-100544 MDT: Timestamp handling with CP architecture Nokia Corporation, Nokia Siemens Networks Disc
=> Both withdrawn

4.3.2 Machine type communications (SI: RP-090991)

(FS_NIMTC_RAN, leading WG: RAN2, started: Sep.09, target: June 10, SIDS: RP-090991)

Scope

R2-100202: Kickoff for Machine Type Communications Study Item Huawei Disc

=> Revised in R2-100597

R2-100597: Kickoff for Machine Type Communications Study Item Huawei Disc

- Vdf wonders in general is there is any problem with the current system ? We should identify a problem before we decide on optimisations. Nokia agrees. We should identify a problem before agreeing on solutions.
- Vdf also wonders if there are no L1 limitations (e.g. UL interference) if we get a lot more UE devices ?
- Vdf wonders why the payload would be small chunks ? Maybe also a trade-off between control-plane and user-plane might need to be made.
- TI wonders whether RAN2 needs to discuss use case prioritisation, or whether we just look at the MTC features defined in SA1. Ericsson thinks that the SA1 use cases span a huge area, and it would be good for RAN2 to see if there are some use cases that are more important than others (e.g. what in Rel-10; what later). The current SA1 work seems in practise not to give any guidance due to the wide scope.
- TI thinks we should coordinate the priorities we set since otherwise different 3GPP WG's could start to work on different (even disjunct) use cases.
- Huawei thinks only discussing features seems to "jump the gun" too much, and thinks use cases and feature should be discussed in parallel.
- Vdf thinks it might be more usefull to prioritise functionality categories, e.g. low mobility,...
- Ericsson thinks if we want to optimise, we need to know where the bottleneck is. For identifying the bottleneck it is crucial to understand the use case.
- Ericsson points out that one MTC feature is "extra low power consumption". By only looking at that feature, it is very difficult to judge whether the current DRX configurations are sufficient. It is a potential optimisation but to judge the relevance we need a use case. Also without a use case, what is the upper limit we need to support.
- TI agrees it is useful to have some reference use cases for certain MTC features. But TI thinks we should not remove use cases because we assume they are not considered "likely" by RAN2. But TI is ok to start with a small set of use cases which seem more relevant from RAN2 point of view.
- Samsung thinks since we only have a short time-frame, we need to focus on a few use cases.

- CMCC thinks it would be good to prioritise certain use cases or features. But CMCC is currently not clear yet on the prioritisation.
- => Noted; we will try to get some idea about most relevant use cases from RAN2 point of view.

R2-100203: Skeleton TR for MTC SI Huawei TR xx.xxx

- => Vdf thinks we should talk about "example use cases", to make it clear other ones are not ruled out.
- => Ericsson wonders if the introduced terms are aligned to the SA1 definitions ? Huawei's intention was to align. Ericsson asked to double check; they should be identical.
- Vdf wonders if there should not be a list of "RAN requirements" section before section 5 ? Huawei is not sure what the need would be.
- => Title of 5.1.1 should be between brackets. Should be replaced by real identified problem area in the future.
- => Current 5.1.2/5.1.3 should be subsections of 5.1.1
- => Should think about TR number to use and request MCC
- => Will see update in R2-100613

R2-100613: Skeleton TR for MTC SI Huawei TR xx.xxx

- Vdf is still not complete happy about having use cases. Vdf wonders why not start with a table for different use cases ? Huawei has serious doubts about the possibility to come to usefull use cases definitions after offline discussion. TIM thinks the use cases could be placed in an annex (informative). Ericsson thought one target for section 4 was to analyse the features of SA1 based on use cases. Otherwise if we agree no usefull enahcenemnts the TR will be very empty.
- => Might revisit the structure if we find out we can really not come up with some important use cases.
- => TR structure is agreed in R2-100847 v010
- => In the email discussion on use cases, can also discuss if there is a more appprate way forward to come to service characaterisation (and corresponding changes to section 4).
Note: After the meeting TR 36.868 was allocated for the TR.

R2-100192: Prioritization of the M2M use cases Ericsson, ST-EricssonDisc

- CMCC would prefer to see a more detailed study before saying there is no impact on RAN2. Vdf agrees. Ericsson does not see a big impact in RAN2. By prioritising certain use cases we could see if there are still some minor impacts/optimisations.
- Huawei agrees with CMCC. We should be open for potential enhancements
- Vdf thinks the proposed use cases are a too limited set.
- TI thinks the 3rd use case (consumer electronics) it seems this use case is so vague that it would be impossible to derive requirements. So is there any benefit to include this use case ?
- Ericsson thinks their main message is that all categories can be supported today. So in order to decide where optimisations would be sensible, we should try to focus on most likely use cases. We should not first optimise and then later find out what it is used for.
- QC agrees with Huawei/CMCC. QC also agrees that any enhancement needs clear motivations.
- Huawei wonders if we could already agree to "metering". Ericsson thinks it would be good if operators could come with a list of most important use cases.
- TI thinks it would be difficult to provide a list based on business arguments. TI thinks maybe use cases should be selected because of specific technical consequences.
- Vdf still thinks we should focus on MTC categories.
- CATT thinks we can anyway discuss which features related to RAN.
- Ericsson thinks they have listed MTC use cases that they assume would be likely to enter the market in Rel-10 timeframe. But this does not seem appreciated.
- Ericsson thinks it is not acceptable to come with optimisations without motivation.
- Vdf thinks we should consider the longer time frame.
- Ericsson assume the outcome of the SI is intended to be a Rel-10 WI. Thus we should try to optimise for MTC cases that we expect in that timeframe. Ericsson knows there is operator interest for the 3 indicates use cases.
- TI thinks it is not RAN2 responsibility to prioritise use cases. This should be done by SA1. However TI understands it makes sense to restrict use cases of the initial discussions. However TI is not ready at the moment to provide this list.
- Huawei thinks anyway there is a large commonality between different use cases.

- NSN thinks that for every proposed enhancement, there should be a use case referenced. Maybe that does not require a agreed set of use cases.
- => For every enhancement proposal there should be a referenced use case, and it should be shown that for that use case the current RAN is a problem.
- TI is ok to try to start a limited set of "first focus use cases". EMAILDISC [68b#17] Huawei.

R2-100287: Discussion on key issues in RAN2 for MTC Alcatel-Lucent Shanghai Bell, Alcatel-Lucent Disc

- Vdf points out that SA1 requirements are still under discussion. Vdf is wondering whether this table should be in the TR. Ericsson had a similar table and slightly different conclusions. NSN thinks we should only discuss optimisations if we have shown a problem in the current system. We should not first discuss the solution and then find the problem.

=> Noted

R2-100412: RAN Impacts of machine-type communications for UTRA and EUTRA Fujitsu Disc

R2-100537: RAN Enhancements for Machine-type Communication SamsungDisc

Traffic model

R2-100204: Traffic model for M2M service Huawei Disc

- Samsung wonders what the purpose would be of the detailed packet/session level modelling ? Huawei assumes that if we want to model traffic we need some model ? Samsung wonders if the type of information in table 1 is not sufficient ? Does Huawei assume this will be used e.g. as simulation input ? Huawei indicates that the SI-sheet indicates that RAN should start by characterising the traffic. Huawei would use the model in simulations and then find out if there are certain bottlenecks.
 - Ericsson thinks we need to agree on specific use cases to know if the model is correct/useable/sufficient.
 - Huawei thinks we need to go further then table 1 to understand really required bandwidth, density issues,....
 - Ericsson this session level modelling seems logical: periodic/exp/comb.
 - Samsung assumes that the modelling would heavily depend on the inputs and our ability to come up with realistic parameters.
 - Vdf supports the traffic modelling. However we should be carefull about characterising a use case in only one way. E.g. smart metering might have different possible characteristics.
 - DT thinks it will be difficult to agree on use case characteristics.
 - Huawei wonders if we should take table 1 and try to identify extreme cases for that for each parameter. DT thinks this could be one way but is not sure it would bring much. DT thinks it might be more usefull to look at it from a specification "limitation" angle.
 - Ericsson thinks table 1 could be usefull if this is the set of prioritised use cases.
 - QC wonders if the session model is generic enough to model overlapping sessions since the model only seems to address inter-session times. Huawei indicates they had not considered parallel sessions.
- => Can continue to work on a traffic model

MTC device

R2-100093: RAN consideration on Machine Type Communication LG Electronics Inc. Disc

Question 1:

- Vdf assumes that UE's could support specific features.
- CMCC assumes that most MTC devices would be customised for specific use case and they would not support all features.
- LG also would expect that MTC devices would be quite specific for a specific use case.

Question 2:

- CMCC thinks specific MTC devices would only support one RAT type. DT thinks there would be MTC devices supporting more than one RAT.

Question 3:

- DT assume we will not have a dedicated layer. Vdf agrees. CMCC also agrees.

Question 5:

- DT assumes not see a serious Rel-10 limitation for the AS identity space. Vdf thinks there could be a limitation. LG would assume there is no problem for Rel-10.

=> Noted

R2-100179: Discussion on MTC device functionality CATT Disc

- DT indicates that there is the trade-off between having a broadly used device and is cheap because of that, and a device that is cheap because it is simple. DT would more lean towards massive deployment of same device, and not have 20 new device categories.
 - Ericsson thinks for cheap devices, the main advantage comes from producing large numbers (billions?). So we should not tune functionality much for different use cases.
 - Samsung has some sympathy for the idea.
 - Huawei thinks maybe 1 new class is sufficient. E.g. support for 8 HARQ classes might not be required. DT thinks this will heavily depend on the use case. Ericsson agrees with DT.
 - Ericsson thinks in general we could investigate if there is e.g. 1 new category that would enable much cheaper devices. Not all MTC devices would have to use that category.
 - Panasonic sees benefits in the testing area.
 - Ericsson points out that any new category should not result in huge network impact.
 - DT thinks it is clear that any optimisation should not result in huge network impact, e.g. hardware impact is not allowed, software upgrades could be acceptable. Can think further whether/how to capture this in the TR.
- => Noted; can think further about this.

R2-100275: Consideration on MTC Device type classification ETRI Disc

- Vdf wonders what an "MTC packet" is ? Different size ? ETRI explains this is packets related to MTC services, both control and data.
- => Noted (can discuss further offline what classification is sensible)

Other

R2-100182: Access control of MTC devices CATT Disc

- LG thinks first mode of operation (IDLE/ACT) should be clarified. So whole content is a bit premature
 - DT thinks IDLE and CONN mode might be used for MTC.
 - DT thinks before discussing this type of enhancements, we should know if there is really a problem.
- => Noted; problem should be shown more clearly. Relation to use case.

R2-100331: Introduction of longer SFN length for MTC SamsungDisc

- ZTE wonders if the DRX is e.g. 100s, why keep the UE connected ? It was clarified this is for IDLE mode.
- => Noted; problem should be shown more clearly. Relation to use case.

R2-100383: MTC features, RAN enhancements and related procedures CMCC Disc

R2-100181: Consideration on MTC features CATT Disc

Continuation up to next meeting:

- Will revisit this meeting the TR skeleton
- EMAIL DISC [68b#17] on use cases (Huawei)

4.3.3 Other

No contributions.

5 LTE Release 8

(RAN2 WI: LTE-L23, REL-8, closed: Dec. 2008)

5.1 Stage-2 (36.300)

Also issues with joint relevance for Control Plane and User plane should be submitted under this agenda item.

5.2 eNB measurements (36.314)

No contributions.

5.3 MAC (36.321)

No contributions.

5.4 RLC (36.322)

No contributions.

5.5 PDCP (36.323)

No contributions.

5.6 UE capabilities (36.306)

No contributions.

5.7 Model of the physical layer (36.302)

No contributions.

5.8 RRC (36.331)

- R2-100113: Aligning the number of neighbor cells in SIB8 between Rel-8 and Rel-9 Ericsson, ST-Ericsson
- NSN thinks this was discussed before and then we thought it was not an essential change since already from the ASN.1 it was clear that it was 32 per cell.
 - Ericsson thinks since this is broadcast, it is very important that there is a very clear common understanding. Otherwise UE will ignore SIB8.
 - QC supports the CR. ALU supports the CR.
- => CR is in principle agreed

- R2-100141: Clarification on inter-frequency/ RAT measurements in DRx Panasonic
- DT thinks changes in a note are not essential. Also the wording change the default.
 - NTT DCM indicates that for CSFB we agreed that it was only capture in the minutes. Also it seems noting to do with this note: the note is about after handover.
 - Samsung thinks the main intention is to clarify that the UE does not automatically continue the gaps it had before: first it needs to know the SFN.
 - Huawei thinks current note is correct
- => Noted; no clarification considered necessary.

5.9 Cell selection & re-selection (36.304)

- R2-100426: Inter-RAT Manual CSG ID selection Qualcomm Incorporated
- DT thinks it is sufficient clear from reading both 25.304 and 36.304. You have to read both specification in parallel. Same is true for PLMN selection. HTC agrees with DT: NAS requests AS to perform manual selection and then all RAT "AS" should take the action.
 - QC indicates that for PLMN selection, the CT1 spec 23.122 indicates it shall be performed cross RAT, but this is not indicated for manual CSG selection.
- => Confirm the understanding in this proposal, but consider no AS clarification necessary. NAS clarification could be considered. (GERAN might also have to be covered)

- R2-100418: CR 36304 R8 Inter-RAT Manual CSG ID selection Qualcomm Incorporated

R2-100419: CR 36304 R9 Inter-RAT Manual CSG ID selection Qualcomm Incorporated
Both not treated

6 LTE Release 9

6.1 Positioning Support for LTE

(LCS_LTE, leading WG: RAN2, started: Dec. 08, target: March 10, WIDS: RP-091389)

6.1.1 Stage-2 (TS 36.305)

- R2-100299: Clarification on positioning procedure Huawei, Qualcomm Incorporated CR 36.305 F REL-9 LCS_LTE
- It is up to the MME when to bring the UE to IDLE. ALU thinks we cannot rule out that the MME brought the UE to IDLE after forwarding a request to the E-SMLC. So ALU assumes current specification is correct. Huawei agrees on that but it is not the main flow. QC also thinks the nominal case should be indicated. ALU thinks we should not look that if the UE is in IDLE, a network triggered service request should be used.
 - => Can discuss offline if CR is needed, and if so what best way to capture is. If update is required can be provided R2-100777
- R2-100777: Clarification on positioning procedure Huawei, Qualcomm Incorporated CR 36.305 F REL-9 LCS_LTE
- => CR is in principle agreed
- R2-100302: Clarification on E-CID parameters Huawei, CATT, Qualcomm Incorporated CR 36.305 F REL-9 LCS_LTE
- => CR is in principle agreed
- R2-100402: Stage 2 updates to align with stage 3 Ericsson, ST-Ericsson CR 36.305 F REL-9 LCS_LTE
- QC wonders about the changes to 7.1.2.4. Why is most material removed? Ericsson indicates the figure already starts wrong. Ericsson thinks the first paragraph is sufficient. Ericsson wonders if the figure brings any real gain? NTT DCM sees some value for this type of figure.
 - => Can try to have some kind of realistic call flow in figure 7.1.2
 - NSN is fine with the Ericsson CR.
 - QC thinks there are some collisions with R2-100503.
- Modelling of different procedures as in R2-100402 or R2-100503?
- Ericsson would like to stick as close as possible to stage-3.
- Other
- Huawei wonders in 8.1.3.1.2, how the UE can know what capability he should provide? QC agrees there might not be an unsolicited GNSS capability indication. Ericsson thinks this could be provided in combination with an MO-LR request? Huawei thinks such a capability procedure would only be used to provide all capabilities. Ericsson agrees 7.1.2 indicates the general flow, but the other flows indicate that they can be used for the information for a certain positioning method. It does not mean the procedure can be used to transport only information from that positioning method.
 - Chairman does not see much difference with the req/response procedures. Chairman assumes we either have the capability procedures (req/resp & ind) in section 7, or keep it as in the Ericsson proposal.
 - => Capability req/resp and Ind should only be modelled in section 7.
 - => Will see update in R2-100778
- R2-100778: Stage 2 updates to align with stage 3 Ericsson, ST-Ericsson CR 36.305 F REL-9 LCS_LTE
- NSN wonders if it is clear that the LPP provide location information indication can only be sent in the MO-LR request? Ericsson wonders if the request is to indicate this in the stage-2? NSN thinks the only use case is the piggyback.
 - => We will indicate in 7.1.2.3 (and maybe other places), that this unrequested case is only for the MO-LR piggybacking case.
 - => CR is agreed with this one change in R2-100824

- R2-100503: Updates to LPP material in stage 2 Qualcomm Incorporated CR 36.305 F REL-9
LCS_LTE
- => Some changes have to be undone because of R2-100402
 - => NSN thinks 4.3.2 can be misinterpreted that the UE would perform the position computation. Some update is required
 - => NSN assumes the note in 7.1.2.1 should not be deleted, it is more a reminder. QC thinks the note does to add any information since such a procedure is anyway not shown. Ericsson indicates that R2-100402 already handled this (moved to mandatory text).
 - Chairman wonders about 6.2.1.: QC points out we can have multiple assistance data indications, or unsolicited measurements. Chairman wonders if such multiple message are somehow grouped, or just individual transactions/procedures.
 - It seems to be clear for the req/response case, because there one transaction corresponds to one procedure. We might not have discussed this so much for the unsolicited case.
 - CSR thinks we should think a bit more about. Andrew agrees with QC. Chairman wonders if we should then not model the unsolicited procedure as potentially having multiple responses. CSR thinks it is important for the UE to know when the last assistance data is received. With accepting this CR, we acknowledge that the unsolicited assistance data case can consist of 1 transaction (only last message has end transaction), and multiple messages/procedures.
 - => ALU could not find changes 2 & 3. They seems to have been lost.
 - => NSN assumes category should be "F"
 - => NSN indicates that direction of loc request is in several cases incorrect. Probably these changes are no longer needed because we will see update of R2-100402.
 - => 6.2.1, the new paragraph, it should be clear that this is only for unsollited procedures, and we should not talk about "transaction types". For req/resp there is a 1-to-1 mapping between transaction and procedure.
 - => Should consistently talk about "procedures".
 - NSN wonders about 8.1.3.3.3. We have agreed this procedure e.g. for the MO-LR case, the UE can provide a first indication of location. Note that this text will be removed since already captured in the Ericsson CR.
 - In Samsung's understanding, there is still no possibility to piggyback LPP messages with the MO-LR request. QC thinks is was possible. Samsung indicates that there is one generic message in CT1 and it has 1 type.
 - => Will see update in R2-100779
- R2-100779: Updates to LPP material in stage 2 Qualcomm Incorporated CR 36.305 F REL-9
LCS_LTE
- NSN thinks it is still unclear in 4.3.2 that the server does the calculation. QC thinks it is sufficiently clear in other locations of the spec that UE based OTDOA is not supported.
 - ALU wonders what happened to changes 2 & 3 in the previous version. These have been removed
 - Ericsson CR already indicates the UE initiated location information reporting.
 - => Remove 8.1.3.3.3
 - => NSN indicates that ME and CN should be tricked
 - => With these changes the CR is in principle agreed in R2-100818
- R2-100466: LPP Location Information Transfer for the MO-LR case Nokia Siemens Networks, Nokia Corporation CR 36.305 F REL-9LCS_LTE
- => Noted (already covered)

Not available/Too late/Withdrawn:

- R2-100512 Inclusion of timing advance from UE for E-CID positioning Qualcomm Incorporated Disc
REL-9LCS_LTE
- => withdrawn
- R2-100513 Introduction of TA reporting for E-CID in LPP stage 2 Qualcomm Incorporated CR 36.305 B
REL-9 LCS_LTE
- => Withdrawn

6.1.2 LPP stage-3 (TS 36.355)

=> Including output reporting of email discussion [68#21] LTE : Potential SFN timestamping issue in LPP [CSR]

Email discussion outcome [68#21]

R2-100045: E-mail discussion [68#21] LTE : Potential SFN timestamping issue in LPP CSR REL-9
LCS_LTE

- CSR concludes that Rel-9 probably no changes are required as long as the UE is somewhat aware. QC thinks insufficient people were involved in the discussion. So maybe towards release-10 the issue can be more clarified.
- Chairman wonders if the problem is not a big delay, but a big delay variation. CSR agrees. So if there would be a big delay but fixed, the server would still be able to give the fine timing assistance for the correct SFN cycle.

=> Noted

R2-100048: Clarification of Network time validity in GNSS Assistance CSR CR 36.355 ? REL-9
LCS_LTE

- QC is not sure what really the UE impact is of this CR. Is there any real change for normative behaviour ? CSR thinks it would help UE implementers. QC thinks a UE not aware of this note, will just assume the message is valid when received. What do we really mean by "regarded as unambiguous". Maybe better as a note. CSR is fine with a note.
- Chairman wonders what if there was no previous UE initiating message ? CSR indicate the UE will have to make the best of it.
- QC does not see a strong need for a note on this. STE also does not see a benefit of adding a note.

=> Noted

Serving cell change

R2-100198: Serving Cell Change Indication to E-SMLC SamsungDisc

So do we want to solve this in LPP, or handle it by the MME indications ?

- NTT DCM wonders for the MME solution, the MME would have to start the location reporting over S1 for each UE ? Samsung agrees.
- Samsung thinks in lawfull intercept the MME will have to be involved. Question is if the MME could be involved in all cases of if this would e.g. be a load issue.
- NTT DCM is worried about MME load but even more about eNB load.
- QC is worried about the UP case, and wonders if the Samsung analysis is correct for a single positioning request (might be valid if there is a longer time session in SUPPL). Polaris agrees.
- Polaris sees benefits of having this in LPP, making it not dependant on intermediate nodes.
- Andrew tried to add the "update location" in CT4 but there it was heavily rejected. Andrew does not care how, but would like a Rel-9 solution.
- CSR wonders when such a session would end ? QC proposes to have a "duration" for the reporting.

=> Will add the possibility to report cell changes in LPP

R2-100510: Triggered Location Information Transfer due to Cell Change Qualcomm Incorporated CR 36.355 B REL-9 LCS_LTE

- Huawei wonders which message would be used by the UE to report the cell change ? QC indicates that the provideslocationinformation response message already includes the ECGI
- Huawei thinks we could use the assistancedata response message. QC thinks this would be strange modelling.
- NSN thinks there is a difference in reporting a precise location or only a cell id. So should we have a new procedure for this ? QC thinks we do need a procedure for the network to configure the UE in this respect.

=> Will use existing location information request procedure

- NSN wonders if / how we confine it to a session ? QC indicates this would only impact the used session id.
- We should probably think a bit more what the E-SMLC can really ask with one request (i.e. what combination of measurements). If we limit the request, the response would be clear from the transaction.

- NSN wonders if we should not first have a stage-2 description. QC thinks we should have both.
 - Samsung thinks the relation to session is needed, and Samsung also thinks we should consider to have a separate procedure. So it would be good to have more time. QC sees no benefits for a separate procedure.
 - Ericsson wonders if this is really important to have in Rel-9 ? QC understands it is important since it is also related to lawful intercept.
 - Chairman wonders why this is not part of ECID positioning. QC indicates that a UE might not support that.
 - => Allow offline discussion to progress the CR. Will see update in R2-100780
 - => Should notify CT4, SA2 should be informed in outgoing is in R2-100601
- R2-100780: Triggered Location Information Transfer due to Cell Change Qualcomm Incorporated CR 36.355 B REL-9 LCS_LTE
- ALU wonders if SA3 expresses a concern for legal intercept, would we not have the LPP solution ?
 - NTT DCM wonders how the duration would be used ? NTT DCM wonders what you do if you want to track longer than 255s ? Ericsson assumes it would be sufficient to have an on/off for the reporting. QC would be fine. It seems that maybe some more thinking is needed on how this on/off would really work.
 - => Noted (can continue for next meeting)

Reliability

- R2-100197: Need for Reliability in LPP SamsungDisc
- QC wonders if we do nothing, how we ensure in order delivery ? Samsung thinks something could be done like proposed in NTT DCM
 - CSR points out that in case of LPP over SUPPL, it is reliable. So how much difference do we want.
 - QC thought we had a clear common understanding that we need reliable and in order delivery.
 - Ericsson thinks based on Samsung paper, maybe there is no real problem.
 - QC thinks it is clear this is needed. Some assumptions in the Samsung paper are "conservative".
 - ALU thinks that even if the probability is low, still you would have to handle this in an implementation. Samsung points out that we do have fallback for req/resp
 - QC is also worried about in order delivery. NSN thinks if we have no retransmissions, we always have in order delivery ?
- After offline discussion:
- There is dependency on RAN3.
 - => Will try to develop a technically acceptable CR introducing reliability in LPP until next meeting so that we can take a final decision in the next meeting.
 - => If RAN3 indicates we cannot rely on the non-delivery indication, we will most likely go for the LPP solution
- R2-100505: LPP Reliable Transport Qualcomm Incorporated Disc
- Proposal 2/3:
- NTT DCM wonders why we need server id and session id. Why is the session id not enough ? QC indicates if the session id is allocated by the server, how can we know two different servers have no colliding session id's ? Unless SA2 decides that the session id's can be unique, QC assumes we need a server id.
 - Samsung indicates that SA2 is still discussing the session id concept. QC assumes there will be a session id.
 - NTT DCM assumes id's inside LPP are RAN2 issues. Ericsson has the same understanding: SA2 will only discuss if it is included in the generic NAS transport. Huawei wonders if it is already at the NAS layer, do we need to also include it in the LPP layer ? QC would prefer protocol layer independence.
- Do we need a session id ?
- Can the E-SMLC talk to the same UE twice without knowing ? (e.g. once with IMSI and once P-TMSI ?).
 - Huawei thinks the session id is useful for duplication detection.
 - => Noted (input to tomorrow's offline)
- R2-100527: On requirement and provisioning of reliable LPP transmission NTT DOCOMO Disc

=> Noted (input to tomorrow's offline)

R2-100506: Addition of LPP reliable transport Qualcomm Incorporated CR 36.355 B REL-9
LCS_LTE

=> Noted (input to tomorrow's offline)

OTDOA

R2-100511: Completion of OTDOA in LPP Qualcomm Incorporated CR 36.355 B REL-9 LCS_LTE
=> Ericsson wonders about the expectedrstd and expectedrstd uncertainty, RAN4 is still discussing the value range and a new LS is expected. So it is better not to include a value range now. CSR indicates rstd is indicated already TBD.
- Huawei wonders why OTDOA-refcell information needs to include antenna information and EARFCN ? QC thinks it is definitely needed if the reference cell is not the serving cell. If the reference cells is the serving cell, this can be avoided.
=> For the PRS BW, Ericsson proposes to use the #RB as values like in RRC. Also 10Mhz seems to be missing.
=> Should not talk about "willingness and capability to support". Just talk about "support"
- Huawei wonders why the frequency is included in neighbourcell information for OTDOA ? QC indicates this was not proposed by this CR. Maybe if the EARFCN is absent ? Huawei agrees that maybe 1 parameter is sufficient. QC would like to check more. Can see CR in next meeting.
=> NSN wonders when otdoaError is used in the assistance data ? Or would we typically use a separate message ? QC will check offline.
=> Category should be "F"
=> Will see update in R2-100782

R2-100782: Completion of OTDOA in LPP Qualcomm Incorporated CR 36.355 B REL-9 LCS_LTE
=> PRS BW still needs to be expressed in #RBs, and 10Mhz added
- NSN indicates we are waiting for more RAN4 input then indicated by the one note, e.g. also for rstdQuality.
- Huawei would like to know why the ECGI name is changed ? QC clarified that this was because it was supposed to work also with measurements from other RAT's. Huawei indicates that the PRS configuration is LTE specific.
=> Undo the change to ECGI in OTDOA-NCLInfoElement. Same change should be made to the OTDOAreferencecell.
=> Will see update in R2-100821

R2-100821: Completion of OTDOA in LPP Qualcomm Incorporated CR 36.355 B REL-9 LCS_LTE
=> CR is in principle agreed

R2-100112: Alignment to RAN4 decisions in ASN.1 updates in 36.355 Ericsson, ST-Ericsson CR 36.355
F REL-9 LCS_LTE
=> Noted (covered by R2-100511)

ECID

R2-100291: Discussion on UE Rx-Tx time difference reporting capability CATT Disc
- NSN thought we had agreed that capabilities inside LPP would concern inside LPP capabilities. So not RRC related capabilities.
- QC has some sympathy for including it in LPP, since the information has to go to the server.
- NSN wonders if an option would be to have an LPPa request with a preference for type 1, and if not supported, you get a type 2 response.
- Ericsson indicates that when we discussed it before, we thought there was no need for a RRC capability.
- NSN would prefer to have an indicator in RRC. CATT wonders if we need to add this capability to S1 or LPPa then and forward to E-SMLC ?
- Ericsson thinks this was discussed before and we agreed then we can couple it to the LPP capability, so option 1 as proposed in this paper. Then the eNB knows that if it gets the request over LPPa, the UE will support the RRC procedure.
=> Go for option1

R2-100292: Clarification on UE Rx-Tx time difference supporting capability CATT CR 36.355 F REL-9
LCS_LTE
=> In principle agreed

R2-100293: Introduction of UE Rx-Tx time difference supporting capability for RRC CATT CR 36.355 F REL-9 LCS_LTE
=> Noted (not relevant)

AGNSS

R2-100046: LCS for LTE: Corrections for UE Assisted LPP measurements CSR Disc
Section 4.1.2: GNSS ToD for UE assisted reports
Section 4.1.2: Cellular frame boundary and GNSSTOD

- QC wonders why this would be different for LPP than for UMTS and GERAN ? CSR indicates e.g. for the the first proposal, in GERAN there is a GNSSTOD. This seems a bit clumsy but it works. QC thinks UMTS took a conscious decision to omit it. QC left it in the GSM specific material in LPP for compatibility reasons.
- CSR sees benefits for handling the case of not knowing the GNSS TOD.
- Both the first 2 proposals relate to a case where the UE can see sattelites and not the GNSS TOD. How frequent is this case ?
- NSN wonders if the TOD would not always be provided in assistance data. CSR agrees you could do that but it is extra signalling. QC also thinks that the coarse TOD would always be provided, so this seems more an implementation issue.
- CSR thinks there are two cases when you do not know GNSS TOD: when the signal is very weak. CSR indicates that in their proposal, codepoint 126 is when the signal is very weak, and codepoint 127 is when there is only 1 satellite and the accuracy is unknown.

=> No support for investigation these enhancements for Rel-9
Section 4.3.2: Cell Timing against GNSS reference
Section 4.3.2: Neighbour cell SFNs

- Chairman wonders if this is related to the first 2 proposals since again here the CV phase is used a reference. CSR agrees that they are related and they assumed both would be fixed, but it is still somewhat separate.
- QC understands that this is a change compared to UMTS, and QC assumes nothing is broken in UMTS. CSR thinks some add measurements exist in UMTS. QC thinks they are only reported if requested. QC assumes we kept the same functionality/approach as in UMTS.
- The main benefit CSR sees would be increased accuracy for the timing reference between the reference cell and the GNSS timing, and increase accuracy of the rstd measurements
- Andrew thinks there might be some benefits in investigating this further.

=> EMAIL DISC [68b#18] CSR up to the next meeting on proposal ¾ to see if this is a significant improvement in the accuracy for hybrid positioning, and if this is worthwhile. LTE/UMTS scope.

R2-100047: Correction to GNSSTOD in UE Assisted GNSS Measurement report CSR CR 36.355 ? REL-9 LCS_LTE

R2-100049: UE timing measurement for UE assisted hybrid reporting CSR CR 36.355 ? REL-9 LCS_LTE

R2-100052: UE neighbour cell frame number in OTDOA measurements CSR CR 36.355 ? REL-9 LCS_LTE
=> All noted (related to previous doc)

R2-100475: GNSS Reference Time Nokia Siemens Networks, Nokia Corporation CR 36.355 C REL-9 LCS_LTE
Proposal 1 (baAlign):

- QC wonders what the scope of the alignment is ? NSN indicates all basestations in the PLMN would be frame aligned.
- Andrew wonders if these basetstations are thus locked in time ? NSN indicates this just indicates the frame boundaries are aligned.

=> Noted; no support (might revisit if increased support next meeting)
Proposal 2:

- The otherwise needs a "need code". Can be discussed offline.

=> Will see update only for second proposal in R2-100783

R2-100783: Provision of Frame Drift Information in Network Time Nokia Siemens Networks, Nokia Corporation CR 36.355 F REL-9 LCS_LTE

- Ericsson wonders how the E-SMLC would know the RAN is completely synchronised ?

=> The "shall" in the note shall be a "should" (network behaviour).

- CSR thinks a corresponding CR in LPPa should be considered.
- Ericsson wonders if anything is broken if a network that is synchronised to GNSS would not included the field ? So it is not really mandatory.
- => Some rewording can be discussed offline.
- => Will see update in R2-100807

R2-100807: Provision of Frame Drift Information in Network Time Nokia Siemens Networks, Nokia Corporation CR 36.355 F REL-9LCS_LTE
=> CR is in principle agreed

Other

R2-100504: LPP Transaction ID Management Qualcomm Incorporated Disc
=> Updated in R2-100585

R2-100585: LPP Transaction ID Management Qualcomm Incorporated Disc
- Polaris supports these proposals.

Proposal 1:

- Huawei wonders if the same procedure can be performed multiple times by the same endpoints ? QC assumes the protocol does not forbid it, but is not sure it is usefull. Maybe if a server has 2 sessions towards the same UE, even without knowing.
- Huawei wonders why we need to indicate direction ? QC thinks this is for avoiding race conditions. E.g. UE requests assistance data and network provides it at the same time.
- Polaris thinks keeping 8 bits might be fine.
- Chairman points out different proposals 1 are different. QC clarifies they assume the server id is outside the transaction id.

Proposal 2:

- Samsung wonders if the transaction id would not have to be unique across all outstanding transactions. QC agrees.
- There seems to be no real problem for UE capability indication, or location positioning indication. But there is a response to a positioning request. QC would prefer not to have the message id as part of the transaction id matching, so would prefer a general mechanism.
- Huawei thinks the UE cannot sent a assistance data request before the first DL message. QC disagrees. E.g. for UE based AGNSS this could be done. Huawei thinks the E-SMLC controls the positioning method, so the UE cannot take earlier action. QC assumes the UE could make a guess, e.g. in home network.
- How many messages do we want to be able to sent before the first DL LPP message ? Maybe multiple but it might not necessarily be need to piggybacked ? QC thinks it might be good to support multiple. If we use different NAS messages it might be a problem for routing (how to ensure they end up at same E-SMLC)
- Samsung sees a dependency for proposal 2/3 and SA2 decisions: e.g. if UE can allocate the session id, this is not needed. QC could agree for the session id.
- QC wonders if we can agree to have a server id in LPP ? NTT DCM still wonders if we have a session id, would the session id not be unique ? QC thinks it is unique for a particular point of endpoints.
- Huawei thinks the E-SMLC could use the correlation id as session id, the MME would have ensured uniqueness for this MME. Huawei assumes only 1 MME is serving one UE.
- So question becomes if we can agree on a session id, with FFS on server id ? Main issue with session id seems to be how both nodes determine when the session ends ?
- Huawei thinks the UE can consider the session ended when the UE sends a location information response. QC thinks the E-SMLC could ask for further measurements to compute a hybrid positioning. But QC is not sure the "open end" matters. As long as the E-SMLC can ensure there is never 2 sessions with the same id ongoing at the same time. Chairman wonders if we do not have a clear session end, how long can the UE use that session id e.g. for capability requests, positioning information,,.....
- Polaris thinks we not sure what applications are there. Probably session id's can last for a day. We could probably use a quite simple mechanism for session end. Fixed timer ?
- QC wonders if we could leave this to application layer, i.e. unspecified.
- Huawei indicates we already asked this to SA2, so we should wait.

Agreements:

- 1 No need for changes to the transaction id.
- 1' Agree that we will support the case of one UL LPP message before the first DL LPP message is received (MO-LR case)

1" Might be cases where UE wants to sent more than 1 message before first DL LPP message. Will ask CT1/CT4 to look into this. Distributing these message over multiple NAS messages might result in problems for routing.

FFS if we have session id in LPP
FFS if we have server id in LPP

=> Will see outgoing LS in R2-100784

R2-100508: Removal of FFS items in TS 36.355 Qualcomm Incorporated Disc

Proposal 4:

- Huawei points out that the parameter is optional in the ASN.1. So alternative would be to make the parameter mandatory in the ASN.1.

Proposal 5:

- NTT DCM thinks this can be in offline discussion

Proposal 7:

- NSN wonders if we should ask OMA ?

Agreements

- 1: Adopt the changes described in Section 2.2 of this document.
- 2: Delete the editor's note in section 4.1.3.
- 3: Indicate that the sender may reuse a transaction ID at any time after the final message of the previous transaction with the same ID is known to have been received.
- 4: Adopt the requirements above [in section 2.3.3 of this paper] into section 5.2.3.. ECGI will be made mandatory in the ASN.1 and no procedure text is required
- 6: Leave to target/server implementation the question of whether to restart a procedure that was aborted due to an Error message. So can remove the editors not in 5.4.4
- 7: Set the value of maxEPDU to 16.
- 8: Remove the editor's note on ECID-SignalMeasurementInformation, while keeping RSRP and RSRQ measurements in the list of positioning measurements.

=> Will see CR in R2-100785

R2-100785: Removal of FFS items in TS 36.355 Qualcomm Incorporated CR 36.355 B REL-9
LCS_LTE

- NSN wonders whether it would be possible to split out the category B changes ?

=> One week email review EMAIL DISC [68b#5] QC

R2-100509: Completion of LPP common material Qualcomm Incorporated CR 36.355 B REL-9
LCS_LTE

- Huawei wonders how the IE "accesstypes" is used ? QC clarifies it is only moved. Is e.g. used for FTA.

=> Should not talk about "willingness"

- Huawei wonders whether the serving cell in CommonIEsRequestAssistanceData could be a cell from a different RAT ? QC thinks LPP could be used in the UP towards other RAT's. Huawei was assuming SUPPL would use RRLP towards GERAN ? QC sees no reason to disallow LPP now. QC assumes e.g. for a multi-mode GSM/LTE device it would be little burden to support LPP.

- NSN would like time to review

=> Update can be provided R2-100785, which will go for email approval [68b#5] 1 week after this meeting.

R2-100468: LPP ASN.1 corrections Nokia Siemens Networks, Nokia Corporation CR 36.355 F REL-9
LCS_LTE

- QC assumes this is independent from the previous 2 documents

=> In principle agreed

R2-100471: Correction to References in LPP specification Nokia Siemens Networks, Nokia Corporation
CR 36.355 D REL-9 LCS_LTE

=> Noted (covered by previous updates)

- R2-100457: Clarification on Position location HTC Corporation CR 36.355 ? REL-9
LCS_LTE
- Capability transfer change is already covered by CR from QC. Do not need change to 5.1. Also change to 3.2 is covered
- Error handling
- QC wonders if this is resulting in 2 response messages, or only in 1 response message with some error information (and available measurements) ? HTC is not proposing any change.
- => Replace "remaining positioning methods" by "supported positioning methods"
- => Last 2 bullets should be level 3>
- => In principle agree the CR only containing the change to 5.3.3 with 2 listed corrections in R2-100786

Up to next meeting

- EMAIL DISC [68b#18] on AGNSS CSR proposal 3&4 EMAIL DISC CSR
- Activity on reliability layer, followed by EMAIL DISC QC

Open issue:

- Do we need a session Id in LPP ?
- Do we need server Id in LPP ?
- QC wonders if we want joint sessions in February ? Ericsson sees little benefit. QC thinks maybe about session id. Chairman is also a bit reluctant.
- When do we review/freeze the LPP ASN.1 ?

Outcome of offline work:

- R2-100791: Results of ad hoc on LPP reliability and ASN.1 review Qualcomm Incorporated
- ALU indicates that the comparison was not in the scope of the adhoc. ALU would prefer to strike out the comparison table from the report. QC agrees.
- => Update without comparison aspects will be provided in R2-100803 and is noted
- R2-100792: Way forward for LPP ASN.1 review Qualcomm Incorporated
- Huawei is happy to review the OTDOA+ECID part
 - Chairman wonders what we do with ASN.1 CR's in this meeting ? Will they be placed in the outcome of the ASN.1 review, or still sent separately to RAN ?
- => Update is provided in R2-100804
- R2-100804: Way forward for LPP ASN.1 review Qualcomm Incorporated
- => Agreed
- R2-100793: Addition of LPP reliable transport Qualcomm Incorporated
- Document assumes session id and server id which is still a bit open.
 - Ericsson would like to have CR for email and take final decision (LPP retrans yes/no) at next meeting.
 - QC wonders why email ? Ericsson sees no hurry to agree now. NTT DCM proposes to discuss the yes/no as part of the email discussion. Samsung wonders if we need an SA2 input ? QC thinks we should take the decision in RAN2. No need for further consultations. Vdf agrees with QC.
 - Opinions:
 - 1) Need reliability layer in LPP [6]
 - 2) Can rely on non-delivery indication between NAS and Application [4]
- => Take decision next meeting (email discussion [68b#19])

Not available/Too late/Withdrawn:

- R2-100050 Addition of SFN to GNSS assistance data requestCSR CR 36.355 ? REL-9
LCS_LTE
- => Withdrawn
- R2-100051 Timing clarification for hybrid UE-assisted measurement reportCSR CR 36.355 ? REL-9
LCS_LTE
- => Withdrawn
- R2-100516 Introduction of TA reporting for E-CID in LPP stage 3 Qualcomm Incorporated CR 36.355 B
REL-9 LCS_LTE
- => Withdrawn

6.2 Support for IMS Emergency Calls over LTE (RP-081140)

(IMS_EMER_LTE, leading WG: RAN2, started: Dec. 08; closed: Sep. 09, WIDS: RP-081140)

- R2-100307: K_ASME mismatch at IMS emergency call establishment NEC Disc
 => Noted given discussion on Monday; might be revisited later. If SA2 would decide on an AS solution, RAN2 can have a email discussion up to next meeting on what AS solution.
 (possible EMAIL DISC ALU)
 1. Bit per PLMN in BCCH
 2. 2-bit emergencySupportInd to say if 1st or 2nd PLMN supports emergency call
 3. Keep emergencySupportInd as is + 1 new bit to indicate 1st or 2nd PLMN supports emergency call
- R2-100385: SIM based access for Emergency calls in LTE Alcatel-Lucent CR 36.300 F REL-9
 IMS_EMER_LTE
 - Huawei wonders if we should really indicate this solution ? Ericsson explains that contrary to what SA3 decided, this will not be only optional.
 => Will change "should try" to "may try"
 => With this change the CR is in principle agreed in R2-100752; should inform SA3/SA in already allocated LS.
- R2-100386: Discussion on use of Emergency cause value for TAU Alcatel-Lucent Disc
 - ALU clarifies they are considering the case of a UE with an emergency bearer brought to IDLE/after RLF and performing a TAU with an emergency cause value in the RRC connection setup.
 - Huawei thinks this is somewhat related to the KASME solution. If we have an AS solution for that, the problem is solved. ALU agrees that e.g. with 1 bit per PLMN on broadcast this problem can be solved.
 - Huawei assumes that the target MME from another network might still succeed in obtain the context.
 - ALU indicates if operator B has roaming agreement with A then he could retrieve the context. But if there is no roaming agreement, the context fetch would not be possible.
 - NSN wonders if this is only for limited service mode; ALU clarifies that this is for normal emergency call back. So it could also be a normal registered UE which is using the "emergency cause".
 - DT wonders if this is only for IMS emergency call UE's ? ALU thinks it more depends on what the network supports.
 - Huawei thinks it is a corner case. Huawei thinks even if there is a roaming agreement, still the emergency TAU might fail if operator B does not support emergency calls.
 - Ericsson agrees this can happen but also thinks it is a corner case. Ericsson wonders whether proposal 2 should be investigated for Rel-9 ? ALU assumes it is not needed if proposal 1 is acceptable. ALU thinks proposal 1 can be motivated because at emergency attach there should never be a context fetch from a previous MME. It seems a kind of hack but could work.
 => Will make this part of the same email discussion [68b#20] after having received the SA2 response.
- R2-100377: Clarification on RRC connection re-establishment for emergency calls HTC Corporation Disc REL-9 TEI9, LTE-L23
 - DT indicates that in UMTS we indicate that all acceptable cells are considered suitable. Could have a similar statement in LTE Rel-9 ?
 - Huawei is ok with alternative 1.
 - ALU thinks consistency with UMTS seems interesting. Nokia agrees.
 => Can allow some offline to see what way forward is best (UMTS way or alternative 1)
 After offline discussion, it was considered best to follow UMTS approach. CR is provided in R2-100788
- R2-100788: Clarification on RRC connection re-establishment for emergency calls
 - QC wonders what "that PLMN" is ? Probably it is the "selected PLMN". HTC wonders about the eNB selection case. Can keep the UMTS text for now.
 - ZTE wonders how long a cell is "suitable" ? Is there a risk of having normal service ?
 => CR is in principle agreed

- R2-100378: Clarification on RRC connection re-establishment for emergency calls HTC Corporation CR 36.331F REL-9 TEI9, LTE-L23
- R2-100379: Clarification on RRC connection re-establishment for emergency calls HTC Corporation CR 36.331 F REL-9 TEI9, LTE-L23

6.3 MBMS over LTE (RP-091457)

(MBMS_LTE, leading WG: RAN2, started: March 09; target: March 10, WIDS: RP-091457)

Treated in LTE MBMS session, see Annex B.

6.4 Home-eNB enhancements (RP-091392)

(EHNB-RAN2, leading WG: RAN2, started: March 09, target: March 10, WIDS: RP-091392)

Covering LTE specific stage-2 aspects and LTE stage-3 aspects. Common UMTS/LTE aspects should be discussed under 4.2.1

CSG-Id in reporting

- R2-100530: CR to 36.331 on CSG identity reporting NTT DOCOMO CR 36.331 F REL-9
EHNB-RAN2
=> CR is in principle agreed
- R2-100100: Consideration of inbound handover with ANR function CATT Disc
=> Noted (covered by R2-100530)
- R2-100416: Unifying SI reading for ANR and inbound mobility Qualcomm Incorporated Disc
- NTT DCM wonders what the handling for T321 is and what information is reported ? For SON-ANR also the PLMN id list is reported, but not for si-RequestforHo. QC clarifies the UE would use the shorter timer, but still report the full SON-ANR information.
 - Nokia wonders if it is mandatory for such a UE to use the autonomous gaps ? QC indicates their intention is to have it optional. So this UE could choose to use DRX or use autonomous gaps. Nokia points out that this should be clarified in the text.
 - Nokia wonders if really the Rel-8 eNB has no problem ? QC thinks just a couple of frames lost.
 - Ericsson wonders what Rel-9 network would do ? This network would have to assume that the UE could either use DRX (so the network has to create gaps) or UE relies on autonomous gaps. However there is nothing specific for the Rel8/9 eNB to do (should ensure DRX and might see some "fading dips".
 - Panasonic thinks this proposal is attractive for the UE. Panasonic thinks anyway the ANR procedure should be rare.
 - Vdf thinks that the loss of voice frames when urgent handover is required, the loss of a few voice frames was acceptable. However ANR is not urgent so do we really want to have dropped frames ? Also Vdf sees no big complexity reduction.
 - NSN would prefer not to have the ANR procedure result in a lossy operation.
 - Ericsson has some concerns. There should be no impact on existing eNB's. Ericsson agrees that losing a few frames is no problem.
 - QC thinks anyway ANR is much less frequent than requestforHO. QC does see UE implementation gains, e.g. if the Rel-8 UE did not implement ANR.
 - Samsung wonders what happens if autonomous reporting is optional feature and SON-ANR is mandatory feature.
 - NTT DCM thinks that if this makes availability of ANR more likely, they are fine to propose this.
- => Agree on principle of optionally using autonomous gaps for SON-ANR.
- R2-100417: CR 36.331 R9 for Unifying SI reading for ANR and inbound mobility Qualcomm Incorporated CR 36.331 F REL-9EHNB-RAN2
=> Will see update of the CR, e.g. to express optionality, in R2-100753
- R2-100753: CR 36.331 R9 for Unifying SI reading for ANR and inbound mobility Qualcomm Incorporated CR 36.331 F REL-9EHNB-RAN2

- Ericsson points out that for Rel-9 we do not formally need an impact analysis.
- => Remove impact analysis
- => With this change the CR is in principle agreed in R2-100835

Proximity repetition (if not sufficiently clear from common session)

R2-100401: Proximity Indication after handover and re-establishment Alcatel-Lucent CR 36.331 F REL-9 EHNB-RAN2

- Only discuss how do we handle the proximity configuration forwarding (rest as part of Monday configuration) ?
 - 1) add the current IE to the container
 - 2) move the current IE to the dedicated radio resource IE
- After offline discussion it seems people are ok with moving the configuration to one of the top level IE's. Question is what top level IE is most suitable.
- => Moving the IE as proposed in the CR is considered acceptable. Other changes depend on Monday discussion.
- Chairman wonders about the inter-RAT case to UMTS, should we transfer the configuration ? Panasonic assumes it is not necessary. Samsung points out that the whole AS config is conditional only for intra-LTE, so the UMTS RAN would not receive this.
- => CR can be further updated if the Monday discussion is concluded. Will see update in R2-100754. It turns out that the offline does not really make progress, so it was decided that this CR would only contain the proximity indication configuration.

R2-100754: Proximity Indication Configuration at handover Alcatel-Lucent CR 36.331 F REL-9 EHNB-RAN2

- ALU clarifies that if the target does not support the proximity indication because it is of an earlier release, it will have to use the full configuration. Otherwise the target can just reconfigure
- Ericsson proposes to add to the clarification for "OtherConfig" to indicate that the target eNB is automatically informed about this configuration part at handover. Samsung explains that we already have a section "other information elements" and then this container seems logical. Also the dedicated RLF timers could have been there.
- => There is an ASN.1 error in 10.3 (comma)
- => ASN.1 is not according to latest RRC version
- => Will see update in R2-100820 (can still think about updates to the concerning sentence)

R2-100820: Proximity Indication Configuration at handover Alcatel-Lucent CR 36.331 F REL-9 EHNB-RAN2

=> In principle agreed

R2-100380: Clarification on proximity indication configuraiton in handover to E-UTRAHTC Corporation CR 36.331 F REL-9EHNB-RAN2

- Ericsson wonders if this only concerns enable/disable proximity at the inter-RAT handover.
- Nokia agrees this is just configuration.
- Panasonic indicates we apply a default configuration at inter-RAT handover. So should we have a default for this configuration ? LG indicates that there has been an action in the ASN.1 review to have clear defaults. LG is not sure the inter-RAT case was addressed.
- Ericsson assumes the CR is correct. Independantly we will have to provide a default value and the network will use this IE when it wants to change the default.
- => CR is in principle agreed

R2-100111: Clarification on proximity indication HTC Corporation Disc

R2-100376: Clarification on proximity indication in handover and RRC connection re-establishment HTC Corporation CR 36.331 F REL-9EHNB-RAN2

R2-100235: Handling of information related to proximity indication during and after handover Panasonic Disc

R2-100444: Correction for Proximity indication suppress timer LG Electronics Inc. CR 36.331 F REL-9 TEI9, LTE-L23
All 4 Tdocs not treated.

UTRAN SI reading timer

R2-100268: Discussion on remaining open issues in LTE inbound mobility Huawei Disc
Only proposal 4 (rest part of Monday discussion)

- DT thinks this should be the same value as decided for intra-UMTS reading. DT wonders where the 320ms comes from ? Nokia assumes that with 320ms SIB3 repetition, it will take more than 700ms to acquire all relevant SIB's.
 - NTT DCM wonders if RAN4 is also not discussing this ? NTT DCM assumes that anyway any value we would agree, we need to have in brackets
- => Noted: Wait for what UMTS session decides.

Other

R2-100102: Discussion on scope of proximity indication CATT, ITRI Disc
=> Postponed (deferred because of Monday discussion)

R2-100454: Clarification on the use of autonomous search for proximity detection HTC Corporation CR 36.331 ? REL-9EHNB-RAN2

- It was clarified that the only real change made was the "dark highlighting" in the note.
- DT thinks that since we do not have proximity for IDLE mode, this is already sufficiently clear.
- HTC thinks it should be made clear that the disabling of autonomous search does not related to IDLE. DT thinks 36.331 always only applies to Connected mode.
- LG supports the clarification. IDT wonders why we cannot remove the note completely.
- Samsung would prefer to not have non-essential CR's. Samsung assumes it is sufficiently clear.

=> Will add to the note in 5.3.5.7 the text "in connected mode". Will be added by the ALU in R2-100754.

R2-100455: Renaming automated searching HTC Corporation CR 36.300 ?REL-9 EHNB-RAN2

- DT thinks this is editorial and not essential

=> Noted

Not available/Too late/Withdrawn:

R2-100269: 36331_CRxxxx_(REL_9)_CR on remaining open issues in LTE inbound mobility Huawei
CR 36.331 B REL-9EHNB-RAN2
revised in R2-100584
R2-100584 was not treated

6.5 Public Warning System (PWS) (RP-090649)

(PWS-RAN, leading WG: RAN2, started: June 09, closed: Dec. 09, WIDS: RP-090649)

No contributions.

6.6 Vocoder Adaptation (RP-090978)

(LTEimp-Vocoder, leading WG: RAN2, started: June 09, closed: Sep. 09, WIDS: RP-090978)

No contributions.

6.7 Network-Based Positioning Support in LTE (RP-090354)

(LCS_LTE-NBPS, leading WG: RAN2, started: March 09, target: March 10, WIDS: RP-090354)

R2-100103: Definitions and Support for U-TDOA Method. TruePosition
not treated

6.8 TEI9

*Note: Better use "TEI9, LTE-L23" as WI code instead of "TEI9" alone for REL-9 enhancement CRs of LTE- L23.
Otherwise UTRA and LTE CRs are difficult to distinguish.*

*Note that the Technical Enhancements WI is only intended for **small enhancements**. Larger changes/enhancements should have a WI of their own*

6.8.1 Common UP/CP issues

=> Including output reporting of email discussion [68#22] LTE: "Later release functionality" handling at inter-eNB mobility [ALU]

Email discussion outcome [68#22]

R2-100392: Report of email discussion on Later release functionality handling at inter-eNB mobility Alcatel-Lucent (Rapporteur) REL-9 TEI9, LTE-L23
=> Noted

R2-100200: Comparison of solutions for HO to legacy eNBs Ericsson, ST-Ericsson Disc REL-9 TEI9, LTE-L23
- ALU thinks for solution 3 the same default configuration as for other cases can be used (e.g. inter-RAT or re-establishment). Ericsson thinks that falling back to default configuration is also a problem present in other places. NSN assumes the default for any new functionality probably needs to be "disable".

R2-100201: Protocol release indicator in HO command Ericsson, ST-Ericsson CR 36.331 B REL-9 TEI9, LTE-L23
- Ericsson indicates that probably the release indicator should be indicated in the re-establishment request in addition as well. In addition it might be necessary to specify more detailed behaviour.

R2-100294: Delta signalling across eNBs of different RRC protocol release Nokia Siemens Networks, Nokia Corporation Disc REL-9 TEI9, LTE-L23
- Vdf wonders if it is correct that the full solution will require update of the Rel-8 eNB's ? NSN confirms that the Rel-8 eNB's bordering higher release eNB's would have to be upgraded. Vdf thinks this is not acceptable.
- Samsung wonders about proposal 3 ? E.g. what if the target understands the same release ? NSN indicates then the source would have to know the target release.
- Samsung sees a lot of potential problems if we have different ways of signalling things on the radio and in the network.
- Chairman wonders if we can really exclude critical extensions to the radio reconfiguration message or the container ? Ericsson agrees we cannot prevent that. UMTS indicates that the SRNS relocation information message is critically extended for every release.
- ZTE wonders what the full configuration is ? ALU clarifies that even the RRC connection establishment is based on a default configuration. ZTE wonders what if the target is a different release. Will the default configuration be the same ? So is it default configuration of the target cell ? Or the UE release ? ALU indicates this only becomes a problem when the default configuration would differ. For now this is not the case.

R2-100391: Pseudo CR for Full configuration solution for eNB release handling Alcatel-Lucent CR 36.331 ? REL-9 TEI9, LTE-L23
- Panasonic wonders if this is only a Release-9 CR ? ALU confirms since this is only impacts Rel-9 UE's. But a release-8 eNB might want to use this.
- NSN thinks the addition should be in a Release-8 extension because a Rel-8 eNB might want to use this.
- Samsung wonders if there is a real need to have this option for the non-mobility case ? ALU points at the re-establishment case.

Discussion

- Ericsson thinks that if we have critically extended container, Ericsson assumes in solution 2 the target would reject the handover preparation if it does not support this release. Then the source could select another eNB for the handover or do a fallback to a previous release. With solution 3, the target could do a full configuration.
- We could explore with solution 2/3 when the source would know the target release, if the source could translate a Rel-10 configuration to a Rel-9 container for the target, but this seems quite tricky.
- NTT DCM thinks if something is needed, it should be the full configuration option. However they are not 100% convinced that this is necessary. NTT DCM thinks solution 1 will almost

always be ok. NTT DCM thinks it is always better to know the target release. Otherwise you can fallback to the earliest release in the network. NTT DCM thinks that since reconfiguration only takes 50ms, and considering the rarity, this seems ok. NTT DCM sees no need for new measurement configuration. Also NTT DCM does not like that the target eNB needs to be updated for the full configuration. However normally we have "source adapts to target".

- Huawei thinks solution1 as only solution is not sufficient because the extra delay. Between solution2 and 3, Huawei slightly prefers option2.
- ALU thinks their primary concern for solution 2 is how the UE implicitly knows what it should do. Ericsson is fine to clearly specify the UE behaviour.
- QC is fine to allow solution 1 in the network, especially to handle the case of target eNB is Rel-8. However they think some additional solution is needed and prefer solution 3.
- Nokia prefers solution 3 more than solution 2. Motorola agrees. Panasonic also agrees; use solution 1 for fall back to release-8, and solution 3 for future.
- Vdf wonders if solution 3 is not mainly driven by speculations on critical extensions.
- Chairman wonders whether we could agree that solution 1 should exist as a network deployment option. Ericsson thinks none of the network vendors would like to go for solution 1. QC thinks anyway it could be implemented by a network.
- NSN agrees that source adapts to target based on OAM is always possible. However in the past this type of solution was not accepted (i.e. source mandatory doing reconfiguration) e.g. when this was discussed for voice HS-DSCH to DCH reconfiguration.
- NEC supports option 1.
- DT sees no urgent need to do anything else then solution 1 for Rel9 -> Rel8, because DT assume Rel-8 will disappear quite quickly. Ericsson thinks this is a dangerous assumption.
- Ericsson is fine to accept solution 3 if that is the only solution we can take
- Vdf has still quite strong concerns on solution 3. Vdf wonders what really the concern is with solution 2 ? ALU is concerned about the UE autonomously working out what it has to do when receiving the release indicator. Vdf wonders why we cannot clearly specify this ? TI is also concerned about impact to Rel-8 eNB's. ALU thinks if this is a strong concern, we might think of alternatives like having the IE mandatory with 2 values (full reconf/delta), and in case of absence it is a delta configuration to Release-8. However this would complicate the solution. Motorola wonders if this would not mean implementing both solution 2 and solution 3 ? ALU confirms, but solution 2 only towards release 8 eNBs.
- NSN wonders why in these cases, solution 1 could not be used in case of release-8 eNB's ?

Agreement:

- Will go for solution 3, i.e. 1 bit optional flag in Rel8 container
 - if the bit is not set, UE applies normal delta configuration
 - if the bit is set, the UE applies full configuration
- Will allow solution 1 as network deployment option. RAN3 can judge how much standardisation work is required for solution 1, or whether e.g. OAM is sufficient.

Might revisit if RAN3 expresses huge concerns about solution 1.

Further discussion on R2-100391:

- Samsung thinks is CR is already optimised, and not completely starting from scratch. Samsung wonders if we should not start from the simplest approach. E.g. currently DRB's are in some cases maintained in the CR.
 - ALU explains that the main intention was to keep the full configuration transparent to NAS, and thus not release/setup DRB's. NSN agrees that the DRB's should not be released.
- => Can be further discussed offline. Will see update in R2-100755

R2-100755: Full configuration solution for eNB release handling Alcatel-Lucent CR 36.331 ? REL-9 TEI9, LTE-L23

- Points to discuss are, e.g:
 - If the IE should be in a release-8 container (like in R2-100798).
 - What is the starting point of the configuration
 - Structure of the CR (e.g. like in one place as it is now)

=> Email DISC [68b#21] up to next meeting CR, to next meeting EMAIL DISC ALU

Other

- R2-100428: Remove FFSs from RAN2 specifications Ericsson, ST-Ericsson CR 36.300 F REL-9 TEI9, LTE-L23
- Huawei thinks not whole Annex F should be removed. Ericsson thinks if there is anything important in there, there should be normative text. DT is fine to remove F.
 - ALU wonders where the MTU is indicated ? Ericsson thinks it is signalled by the MME (can check).
- => Can continue discussion offline and comeback on Thursday. Update in R2-100833
- R2-100833: Remove FFSs from RAN2 specifications Ericsson, ST-Ericsson CR 36.300 F REL-9 TEI9, LTE-L23
- => CR is in principle agreed
- R2-100314: Discussion on SIB transport block size ZTE Disc REL-9 TEI9, LTE-L23
- DT current understanding is that this is no serious limitation at the moment. Maybe it would be good to capture this restriction somewhere.
- => Noted; no strong concerns expressed at this point in time.
- R2-100229: Clarification on DRX StartOffset for TDDASUSTeK CR 36.331 F REL-9 TEI9, LTE-L23
- CATT suggested to remove the whole concerning sentence (i.e. express in subframes like for FDD). Asustek would also be fine with that. Samsung is fine with remove the concerning sentence.
- => Will go for alternative solution. Will see CR update in R2-100756 => Updated in R2-100799/R2-100800
- R2-100799: Clarification on DRX StartOffset for TDDASUSTeK CR 36.331 F REL-8, LTE-L23
- Samsung wonders why it is now a release-8 CR ? CATT considers this a "bug" and would like to also fix it for Rel-8. Huawei thinks the threshold should be quite high for Rel-8 CR's, and since nothing is broken the CR is not needed for Rel-8. Samsung agrees with Huawei.
 - CATT wonders if we could use the magic sentence ?
 - Ericsson would prefer a Rel-8 CR or no CR.
 - After offline discussion, it seems companies would like to check Rel8&9 CR's until next meeting.
- => Noted

6.8.2 Control plane related

=> Including contributions resulting from the ASN.1 review

ASN.1 review outcome

- R2-100363: REL-9 PDU specification – Review issue list Rapporteur (Samsung) Report 36.331 REL-9 TEI9, LTE-L23
- Simpler changes are implemented in R2-100366
 - More complex proposals have proposals in R2-100575
 - Some other topics need separate inputs
- General:
- Nokia wonders what the official 3GPP word version is ? Himke clarifies this is WORD 2003.
- => Will see 2003 version in R2-100760
- R2-100760: REL-9 PDU specification – Review issue list Rapporteur (Samsung) Report 36.331 REL-9 TEI9, LTE-L23

In principle agree to the following (detailed impact will have to be discussed part of R2-100575):

1. No changes are introduced as part of this review to REL-8 parts of the specification.
2. For on/ off controls, generally use an optional Enum {true} with Need OR and add a general statement that the UE value false until true is explicitly configured. No (other) specific handling is needed to clarify the initial value of extensions
3. Clarify the conditions for CQI-Mask, PMI-RI-Report and CodebookSubsetRestriction as indicated in the previous.
4. (Only) move the PMCH-InfoList-r9 and sub-fields/ IE from 6.2 to 6.3.

5. Useless optionalities should be avoided. For cases where currently there is no use, the optionality may be removed. However, it seems desirable to review the need for optionality at each level when all extensions are known (and e.g. grouping has been concluded)
6. Use double brackets instead of an optional sequence for extension addition groups i.e. for additions to a sequence including an extension marker.
7. When the field nonCriticalExtensions is actually used remove the need code. Add normative text to specify that in such cases the UE applies the need code specified for the individual extension fields at lower level(s).

=> Rest is noted (will discuss how to continue with ASN.1 review a bit later)

R2-100366: Miscellaneous correction from REL-9 ASN.1 review Rapporteur (Samsung) CR 36.331 F REL-9 TEI9, LTE-L23
=> No comments

R2-100575: Specific corrections from REL-9 ASN.1 review Rapporteur (Samsung) CR 36.331 F REL-9 TEI9, LTE-L23
Issue 1 ASN.1:
- Chairman points out that ALU has CR which moves the proximity configuration. Rapporteur assumes it could be handled by merging, Can be handled as part of merging.
=> Proposal is agreed
Issue 2 ASN.1:
- CATT wonders if there should be no clarifications of codebooksubset restrictions and in PMI-RI report w.r.t. tm8 being configured ? Rapporteur agrees that this dependency can be indicated.
=> Proposal is agreed with this change
Issue 3 ASN.1:
=> Nokia is fine with proposal but the old place does not seem to be removed. Rapporteur acknowledges that some IE's are still left in old location. Should be corrected.
=> Proposal is agreed with this change
Issue 5 ASN.1
- OSS is not sure what the real benefit is to use the square brackets if there is only 1 IE included. This will introduce an additional overhead bit. OSS acknowledges that when there is multiple IE's this serves a grouping.
- QC is worried that we would have to change while working on a release between square brackets every time we add an IE. Everytime we add the second IE we would have to remember to add the square brackets.
- Question is what we value most: completely consistent approach for extensions or 1 bit overhead.
- Samsung points out that at least compared to the previous solution with the open sequence, there is no additional overhead.
- QC would prefer to keep the consistency.
=> Proposal is accepted: keep on using square brackets.
Issue 6 ASN.1:
=> No comments
Item 3 ASN.1:
=> In principle agreed
Proposal 9:
=> Proposal is agreed
Proposal 10:
=> Proposal is agreed
Proposal 12:
=> Proposal is agreed

How to continue with the review:

- => Will merge R2-100366 and R2-100575 can be provided in R2-100764
- Rapporteur proposes that we have the second step as earlier proposed up to next meeting. So another complete review on the actual specification.
 - Also CR's for the issues that are not handled should be provided, but assumption is proposing companies provide this.
 - Also CR's accepted in this meeting with ASN.1 impact should be considered

=> Rapporteur will sent out material for the review after this meeting to same group of companies/people.

R2-100764: Miscellaneous corrections from REL-9 ASN.1 review

=> Will be used as input for the remaining part of the ASN.1 review

Corrections

R2-100479: Clarification on configuration of RLF timers and constants in handover to E-UTRA procedure ASUSTeK CR 36.331 F REL-9 TEI9, LTE-L23

- Huawei indicates that this is covered by rapporteur CR in R2-100366

=> Noted

R2-100502: UE capability for enhanced 1xRTT CS fallback Huawei CR 36.306 B REL-9 TEI9, LTE-L23

=> NSN is ok with the CR, but category should be "F" and other spec;s effected should be ticked to "no"

=> CR is agreed with the changes in R2-100761

R2-100143: Clarification of CGI reporting Panasonic Disc REL-9 TEI9, LTE-L23

General

Proposal 1:

- QC interpretes the current text to say that we always have early reporting as soon as you have the GCI. The proposal is to only have early reporting if you have acquired all information. Is this the original intention ? There seems to be consensus that the Panasonic proposal was the intention.

=> Proposal 1 is agreed

Proposal 2:

=> Proposal 2 is agreed

Proposal 3

=> Can confirm understanding

R2-100144: Clarification of CGI reporting Panasonic CR 36.331 F REL-9 TEI9, LTE-L23

- Panasonic proposes the magic sentence. Ericsson would prefer either a Rel-8 CR as well or only a Rel-9 CR without magic sentence.

- It seems with the current text you could never get the LAC/RAC. Therefore Ericsson thinks a Rel-8 CR would make sense.

=> Ericsson thinks some changes to the impact analysis is required

=> Rel-8 CR in R2-100762 (Motorola would like some time to check)

=> In principle agree to Rel-9 CR without magic sentence in R2-100763

R2-100762: Clarification of CGI reporting Panasonic CR 36.331 F REL-8 TEI8, LTE-L23

- Samsung would like some more time to consider this.

=> CR is in principle agreed.

R2-100518: Resolving state mismatch at reestablishment NTT DOCOMO Disc REL-9 TEI9, LTE-L23

- Chairman wonders if message level extension really works; how would UE know the target supports it ? Panasonic thinks we could indicate this e.g. in RAR in the future.

- Huawei wonders how this works if the same transaction id is used by the network. NTT DCM considers this the responsibility of the network.

- Panasonic is quite positive to this proposal

- Nokia is a bit worried about use the last 2 bits. Nokia wonders how often this will really happen ? Seems quite rare. NTT DCM thinks it is usefull for VOIP.

- Chairman wonders how the network would know the UE supports this ? NTT DCM thinks this could be mandatory for Rel-9 terminals. So "00" would mean really transaction id "00".

- Ericsson is also worried about using the last 2 bits.

- Ericsson wonders if it works if the eNB does not remove the DRB ? NTT DCM points out that some DRB id's cannot be included in case of DRB modification, but only in case of DRB setup.

- ALU thinks even if we use a critically extended message, we still would have the same number of bits. So we would have to give up something else.

- NTT DCM thinks solution "2b" works but it is a bit slow, which could be an issue e.g. for VOIP.

- ALU wonders how this could result in speech failure ? Would it not just delay the establishment ? NTT DCM assumes that when the UE did receive the message, and then the DRB is released, NTT DCM assumes the EPS bearer would also be released. NTT DCM is not completely sure how higher layers would handle this.

- Last flow in figure 2b would always re-establish the EPS bearer, but the question is how this is seen by application.
- NSN sees some benefits with this proposal.
- NSN wonders if the transaction id could not be handled in the response (re-establishment complete) message. NTT agrees this is also an option. It would provide the information a bit later to the network.
- Samsung is not fully convinced that we really need something. Also figure b) seems to solve it. NTT DCM repeats it depends on the application handling.
- Nokia thinks IMS application should be able to handle this. Maybe outside applications might have a problem.
- Change is needed in Rel-9 ?
 - Yes [7]
 - No [7]
- => Noted
- R2-100519: CR to 36.331 on Resolving state mismatch at reestablishment NTT DOCOMO CR 36.331 F REL-9 TEI9, LTE-L23
 - => Noted
- R2-100168: Miscellaneous correction on 36.304 Huawei CR 36.304 D REL-9 TEI9, LTE-L23
 - => Other spec's effected should be ticked
 - => Untick ME box
 - Nokia wonders what yellow highlighting without revision marks means ? Huawei points out something is removed (e.g. space or hyphen removed)
 - => CR is in principle agreed with these 2 coversheet changes in R2-100765
- R2-100180: Handling of dedicated priority without cell reselection parameters Qualcomm Incorporated CR 36.304 F REL-9TEI9, LTE-L23
 - DT thinks this is sufficiently clear.
 - Samsung thinks the current note is more clear than the proposal.
 - QC thinks one problem with the note that it is only network behaviour, no network behaviour. So should the UE store or discard ?
 - Nokia has some sympathy for the CR.
 - Infineon indicates that 36.331 already indicates in general that this information should be stored.
 - => Indicate behaviour is confirmed but considered already sufficiently clear.
- R2-100183: Correction of UE capability transfer for CDMA2000 CATT CR 36.331 F REL-9 TEI9, LTE-L23
 - ALU indicates that this was already discussed for Rel-8 and then we decided we would not support this because there was no use case for CDMA. ALU acknowledges that there is no direct impact to our specifications, but since this was discussed before, it seems more appropriate for CT1 to change.
 - CATT checked with their CT1 delegates.
 - ALU would prefer CATT brings a CR directly to CT1.
 - => Noted
- R2-100260: Corrections to SIB8 Motorola CR 36.331 F REL-9 TEI9, LTE-L23
 - NSN thinks this would mean we also pass the t-reselection values up to higher layers. NSN assumes only information processed by the CDMA stack be provided to the CDMA stack,
 - => Only the bandclasslist and NCL should be provided to higher layers
 - => Can remove one level of indirection for the cell reselectionparams
 - => Update can be provided in R2-100766
- R2-100766: Corrections to SIB8 Motorola CR 36.331 F REL-9 TEI9, LTE-L23
 - Found out that bandclass list is not required to be passed to higher layers
 - Intermediate ASN.1 level was determined to be needed.
 - => CR is in principle agreed
- R2-100304: Clarification on measurement for serving cell only Huawei CR 36.331 REL-9 TEI9, LTE-L23
 - LG agrees with the intention but is not sure the proposed correction is correct. Also QC thinks some reformulation is needed. E.g. should indicate that the reportconfig is not for

- one of these events. Samsung wonders if it is not nicer to indicate that for these cases only the source cell is applicable. I.e. 2 cases with if/else ?
=> Intention seems correct. Can discuss improved wording offline. Will see update in R2-100767
- R2-100767: Clarification on measurement for serving cell only Huawei CR 36.331 REL-9 TEI9, LTE-L23
=> CR is in principle agreed
- R2-100446: Correction on reselection from non-CSG cell to CSG inter-RAT cell LG Electronics Inc. CR 36.304 F REL-9 TEI9, LTE-L23
- DT thinks it is correct and consistent with UMTS, but probably not essential
- DT thinks in this sentence there should be a "may" instead of a "shall" ? Later DT realised the latest UMTS version includes a "shall". LG thinks it should be a "shall".
=> CR is in principle agreed
- R2-100478: Clarification on radio resource configuration in handover to E-UTRA procedure ASUSTeK CR 36.331 F REL-9 TEI9, LTE-L23
=> CR is in principle agreed.
- R2-100480: Clarification on UE maximum transmission power ASUSTeK CR 36.331 F REL-9 TEI9, LTE-L23
=> CR is in principle agreed
- R2-100487: Correction for Security key derivation Huawei CR 36.331 F REL-9 TEI9, LTE-L23
- ALU is not really sure this is needed. We already refer to the SA3 spec.
- Huawei agrees that if you look at the SA3 spec, it is clear. But in principle the description is incorrect.
- Nokia thinks existing spec is sufficiently clear.
=> Noted
- R2-100554: Correction to field descriptions of UE-EUTRA-Capability HTC Corporation CR 36.331 F REL-9 TEI9, LTE-L23
=> Chairman wonders if instead of removing 2 field descriptions, also here a renaming to supportedbandlistHRPD and supportedbandlist1xRTT should happen ?
=> There should be "-" between "inter" and "RAT"
=> With these two changes the CR is in principle agreed in R2-100769
- R2-100461: Clarifications on Access Barring HTC Corporation Disc REL-9 TEI9, LTE-L23
Proposal 1:
- Samsung wonders if the upper layer is already aware of the barring ?
- NTT DCM thinks that if T302 is running, upper layers are already aware due to 5.3.3.8
- NTT DCM clarifies that in principle the NAS should not ask for establishment when any of the timers are running, but we kept these conditions just to show the intention of the timer usage.
=> Noted
Proposal 2:
- NTT DCM thinks current mechanism is carefully drafted and ok, and we should not have unnecessary differences between Rel-8 and Rel-9.
=> Noted
- R2-100462: Clarifications on Access Barring (Proposal 1) HTC Corporation CR 36.331 REL-9 TEI9, LTE-L23
- R2-100463: Clarifications on Access Barring (Proposal 2) HTC Corporation CR 36.331 REL-9 TEI9, LTE-L23

New functionality proposals

- R2-100520: Cell reselection enhancements for Rel-9NTT DOCOMO Disc REL-9TEI9, LTE-L23
- For the threshx criteria, Nokia would prefer to stick to the RAN4 agreements, so either RSRQ or RSRP. NTT DCM clarified that all the functionality proposed by RAN4 is possible with the proposed approach. Also NTT DCM thinks that if we only want to evaluate based on one of them, anyway for suitability you have to consider both. If suitability is not met, you would anyway have to do another reselection.

- DT understands that for UMTS today for reselection we evaluate both. NTT DCM admits it is slightly different because now we talk about absolute priority. So the ranking is based on RSRP, but the threshx evaluations are proposed to be done based on both.
- Ericsson is fine the NTT DCM proposal but we could check with RAN4 what they think.
- NTT DCM clarifies that with the current modelling, if Qqualmin is set to -infinity, then RSRQ evaluations can be stopped in an implementation.
- Huawei is ok with NTT DCM proposal. If RAN4 expresses a big concern we can revisit.
- Ericsson proposes people to check offline so that we do not have to send an LS.
- Nokia repeats that they would prefer not to change RAN4 agreements. Nokia would prefer no unnecessary additional complexity. Motorola would prefer to go with the choice as indicated by RAN4. DT also prefers this.
- => For Threshx evaluation, there should be the choice between RSRQ or RSRP.
- NTT DCM wonders if the choice (RSRQ/RSRP) needs to be consistent across RATs/frequencies ? E.g. do we allow serving layer with RSRP evaluation, and RSRQ for neighbouring layer ? Nokia thinks maybe it is the same for all, but maybe we should check. Motorola reads the LS as saying one for all.
- Two options:
 - a) NTT DCM approach and ask RAN4 if this is a problem
 - b) select either RSRQ or RSRP
 - should check with RAN4 whether the setting needs to be consistent for all RATs/frequencies
- NTT DCM is worried that if RAN4 indicates it needs to be consistent, how to capture that in RRC. E.g. will it result in a lot of conditions ?
- Ericsson wonders how the consistency is ensured in UMTS ?
- Nokia thinks the mixing has not been analysed by RAN4.
- => Can allow some offline discussion, but otherwise the CR needs to indicate a choice of RSRQ and RSRP once for all threshx.
- => For the rest the proposed approaches seem acceptable
- R2-100521: CR to 36.304 on Cell reselection enhancements NTT DOCOMO CR 36.304 B REL-9 TEI9, LTE-L23
- => 5.2.4.5 might have to be updated based on discussion on Thresh quantity discussion
- => If update is needed, it can be provided in R2-100770
- R2-100522: CR to 36.331 on Cell reselection enhancements NTT DOCOMO CR 36.331 B REL-9 TEI9, LTE-L23
- => Some changes related to Threshx handling might be required
- => Huawei wonders how Release-9 UE's handle Sintrasearch. NTT DCM clarifies that they tried to capture default handling in RRC, so that 36.304 would always have a value. Intention is to have infinity value only assumed by Rel-9 UE if both Rel-8 and Rel-9 IE are not present. Can think if it is better to change "if neither IE is present, change to infinity" ?
- => Nokia wonders if in SIB5 the thresholdx-High2 and thresholdX-low2 should not always be grouped together ? NTT DCM would be ok with that. Depends on whether we want per layer configuration. Can be considered.
- Motorola would prefer to use different names from "1" and "2", something indicating the quantity. NTT DCM is worried about the length. Note that we have the same time of naming in UMTS today. Nokia would support having more clarifying names. Can rename to "P" and "Q"
- => QC indicates that Qualmin field description now talks about absence of a mandatory IE. Samsung agrees that this is somewhat new. I.e. Rapporteur was assuming that the first level in double brackets would not contain mandatory IE's. One approach would be to move this type of description to higher optional level. Can be considered.
- DT thinks we should make the same type of changes to GERAN. They should have received the RAN4 LS.
- => Will see update in R2-100771
- After offline work, 2 sets of CR's were provided
 - 1) With common evaluation in 36.304 but restriction in 36.331: R2-100770 & R2-100771
 - 2) Indicate only 1 quantity is used for Threshx in 36.304
- R2-100770: CR to 36.304 on Cell reselection enhancements NTT DOCOMO CR 36.304 B REL-9 TEI9, LTE-L23
- This CR has the approach that always both are used in 36.304, and 36.331 indicates

- R2-100771: CR to 36.331 on Cell reselection enhancements NTT DOCOMO CR 36.331 B REL-9 TEI9, LTE-L23
- R2-100830: Alternative to CR to 36.304 on Cell reselection enhancements NTT DOCOMO CR 36.304 B REL-9 TEI9, LTE-L23
- This CR has the approach that always both are used in 36.304, and 36.331 indicates
- R2-100831: Alternative to CR to 36.331 on Cell reselection enhancements NTT DOCOMO CR 36.331 B REL-9 TEI9, LTE-L23

General

- Should not use "-r9" in field description fields
 - Nokia's initial impression is that R2-100830/R2-100831 is simpler ? NTT DCM clarifies that the intention with the first approach that there is an "and" condition in 36.304, so slightly more simple but some more work in 36.331.
 - Panasonic wonders if applying different criteria for suitability and cell reselection, does that not make it more difficult to avoid ping-pong ? NTT DCM remarks that in general if we have the first set of CR's, it would be easier to adapt later.
- => EMAIL DISC to see what approach should be followed, and for reviewing the detailed CR's NTT DCM up to submission deadline.
- => NTT DCM will provide UMTS CR's also for next meeting, considered as part of the same email. discussion. TWO WEEKS; 1 Week for principle decision, 1 week for final CR's
- => For final versions:
- 25.304: R2-100838
 - 25.331: R2-100839
 - 36.304: R2-100840
 - 36.331: R2-100841

- R2-100525: Resolving open issues of SSAC NTT DOCOMO Disc REL-9 SSAC
- => Updated before presentation in R2-100592

- R2-100592: Resolving open issues of SSAC NTT DOCOMO Disc REL-9 SSAC
- #### General

- Ericsson supports the CR in general.
- Nokia wonders why "A" is not sent instead of "C", so that RRC does not have to do any manipulation of the value ? NTT DCM indicates that this is a compromise after extensive offline discussions. NTT DCM thinks AS would always be involved e.g. related to handling of classes 11-15 (UE has to judge whether in HPLMN, what access classes are applicable,...)
- NTT DCM thinks the granularity is maintained by signalling C instead of A.

Proposal 2:

- Motorola/Samsung would like some offline discussion.

Proposal 3:

- Samsung wonders if this is really necessary.
- NTT DCM thinks this is quite a separate issue. This is about concealing. If we do not conceal, we have the PLMN Id (homePLMN) and access classes stored on the SIM should be provided to the MMTEL layer. NTT DCM thinks the access classes are a C-plane concept, and MMTEL is a U-plane application.
- QC agrees that anyway the resulting proposal is simpler.
- Nokia wonders if the simplest is not just to pass everything to higher layers. DT supports the concealing. Huawei supports proposal 3.

Proposal 4/5:

- Nokia thinks proposal 4 is more logical. Normally we use the push model.
- Ericsson thinks the push model will result in much more frequent information exchange to the MMTEL layer. So Ericsson thinks impact to MMTEL is simpler with proposal 5.
- NTT DCM thinks the changes are somewhat limited in case of "pull model".
- Huawei prefers proposal 4 which is normal approach. Huawei wonders how the upper layers could decide when to ask for the information ? NTT DCM indicates that with the pull model, the MMTEL would need to require the parameters at every call initiation.
- Push model
 - AS actions on SIB2 reception and on IDLE<->CONN changes and inter-RAT handover
- Pull model
 - AS action only on higher layer request
- Nokia thinks an alternative to just provide the latest SIB2 and UE connected state to higher layers. Last aspect should already be indicated to higher layers. NTT DCM

indicates now we do not talk about the NAS layer but the MMTEL layer. NTT DCM would prefer that the MMTEL layer does not need to be aware of the RRC connected state.

- Ericsson assumes that the push model would not be acceptable to CT1. So if we want to go this way, we have to sent an LS to CT1.
- Vdf wonders if the push model would mean that you would have to pass the parameters even if you have no MMTEL application ? NTT DCM assumes then this is not required. But NTT DCM assumes that even if the network does not use SSAC, still the ACB values should be provided to a present SSAC application.

Agreements

- 1 ACB is applied to all U-plane traffic, including MMTEL-Voice/ Video calls, even when SSAC is applicable.
- 2 The value of $A = C/B$ should be provided to the MMTEL/IMS layer from the RRC layer, where C and B are the ac-BarringFactor in system information for SSAC and ACB, respectively, with restrictions $C \geq B$ and $B > 0$. If $B = 0$ then $A = 0$ should be provided, and if $C > B$ then $A = 1$ should be provided.
=> Can consider offline whether A or C should be signalled
- 3 AC 11-15 should be concealed from upper layers. That is, the RRC layer should perform the AC 11-15 check and indicate only the result, i.e., only the ac-BarringFactor and ac-BarringTime should be provided to the MMTEL/ IMS layer.
- 4 Agree to change the model to a "pull" type, then the RRC should provide the SSAC parameters when requested by the MMTEL/IMS layer.

R2-100526: CR to 36.331 on Service Specific Acces Control (SSAC)NTT DOCOMO CR 36.331 B REL-9 SSAC

=> Updated in R2-100593

R2-100593: CR to 36.331 on Service Specific Acces Control (SSAC)NTT DOCOMO CR 36.331 B REL-9 SSAC

=> Should not have changes on changes

=> Should change to pull model

=> Might need to change providing A instead C (FFS)

=> Will see update in R2-100772

=> LS to CT1 can be provided in R2-100773

R2-100772: CR to 36.331 on Service Specific Acces Control (SSAC)NTT DOCOMO CR 36.331 B REL-9 SSAC

=> CR is in principle agreed

R2-100091: Introduction of power-limited device indication in UE capability.Vodafone, Deutsche Telekom CR 36.306 B REL-9 TEI9, LTE-L23

=> Updated in R2-100757

R2-100757: Introduction of power-limited device indication in UE capability.Vodafone, Deutsche Telekom CR 36.306 B REL-9 TEI9, LTE-L23

- Nokia wonders what "permanently" means ? When can you really set the bit ? Vdf assumes it is not a dynamic capability but instead said permanently whether the UE would benefit from power operation limitations.
- Motorola wonders how to consider a laptop ? Vdf thinks it is up to the modem provider and both settings could be used.
- Nokia thinks the formulation should be changed a bit.
- Ericsson wonders if this is really needed for Rel-9 ? Ericsson sees some relation to MDT. Also Ericsson assumes it is not really used in Rel-10. Vdf thinks this could also be used for customer premises equipment.
- NSN thinks it is interesting for the network to know this and NSN is fine with a Rel-9 change.
- Chairman wonders why a device would ever say he is not interested about power issues ? Vdf thinks e.g. smaller DRX could be used and thus faster paging could be the result.
- Motorola wonders about real examples. E.g. for customer premises equipement, would the paging delay matter a lot ? Vdf thinks this could be multiple purpose.
- Ericsson thinks there is only a benefit when there is different network handling based on the bit. This is a bit network implementation aspect. But Ericsson wonders about the urgency, and Ericsson would prefer Rel-10.

- HTC thinks that shortening the DRX cycle when the UE indicates he does not care about power, this device could be "hit" when the power is unplugged.
- Chairman wonders if this would not make much more sense if it was a dynamic capability ? Vdf agrees but would like something in Rel-9. DT is fine with non-dynamic setting.
- => Should think about detailed wording, something like "network does not need to give consideration to efficient usage". Could also look at UMTS formulation.
- => Will see update in R2-100774
- R2-100774: Introduction of power-limited device indication in UE capability. Vodafone, Deutsche Telekom CR 36.306 B REL-9 TEI9, LTE-L23
- => Ericsson thinks only having the first part of the sentence is sufficient (i.e. before the "/"). Vdf thinks than we should only take the second part sentence. So keep the second part of the sentence
- => In principle agree the CR with this one change in R2-100809.
- R2-100092: Introduction of power-limited device indication in UE capability. Vodafone, Deutsche Telekom CR 36.331 B REL-9 TEI9, LTE-L23
- => Updated in R2-100758
- R2-100758: Introduction of power-limited device indication in UE capability. Vodafone, Deutsche Telekom CR 36.331 B REL-9 TEI9, LTE-L23
- => Wording needs to be change
- => ASN.1 syntax is not correct
- => Will see update R2-100775
- R2-100775: Introduction of power-limited device indication in UE capability. Vodafone, Deutsche Telekom CR 36.331 B REL-9 TEI9, LTE-L23
- Ericsson wonders if we really want to have the magic sentence ? Chairman assumes that so far we do not have cases of a Rel-8 UE including Rel-9 NCE's
- => Remove magic sentence
- => With this one change, the CR is agreed in R2-100810
- R2-100114: CR to 36.331 for 1xRTT pre-registration information in SIB8KDDI, NEC, Hitachi, Motorola, Kyocera CR 36.331 REL-9 TEI9, LTE-L23
- => Ericsson supports the principle. Some ASN.1 corrections are required
- => NSN thinks the field description should be updated to reflect that this is for CSFB or eCSFB. Can consider this change
- => ALU is ok with the CR, but wonders why the field needs to be mandatory ? KDDI is fine to have it optional. Samsung assumes that it is enough to have the field as a 1-value IE (true), with need OR.
- => NSN wonders if the last line of the powerDown field description is necessary ? KDDI is fine to remove. NSN indicates it is already in the SA2.
- => Will see update in R2-100776
- R2-100776: CR to 36.331 for 1xRTT pre-registration information in SIB8KDDI, NEC, Hitachi, Motorola, Kyocera CR 36.331 REL-9 TEI9, LTE-L23
- => The CR has revisions on revisions
- => CR is in principle agreed with this correct in R2-100808
- R2-100315: Correction on ICIC measurement report ZTE Disc REL-9 TEI9, LTE-L23
- Nokia wonders if this is exactly the same as last meeting ? ZTE confirms.
- Ericsson does see some benefits, and without this functionality Ericsson sees some ICIC management problems.
- Panasonic has some sympathy with the proposal but thinks it is not essential for Rel-9. ALU support the proposal.
- Chairman wonders if this is not a "half-solution" ? QC agrees as long as we do not change the entering part. ZTE indicates they only consider cells that have been reported before.
- Samsung thinks the easiest way is to increase the maxreportcells if this is really a problem. ZTE wonders to what level we should extend ? Motorola agrees with Samsung.
- Nokia assumes that the amount of cells that the UE can hear from one carrier is always limited. Nokia thinks it is very unlikely that the UE can see more than 3 cells.
- Nokia does not see a strong need to do anything
- NSN does not see a benefit in this for Rel-9.
- Ericsson thinks that maxreportcells increases would also increase the average measurement report size which might deteriorate handover performance. Nokia thinks

even if maxreportcells would be 200, still only in very rare cases there would be more than 3. So the size increase should not be a problem.

- Huawei agrees with Nokia that current maxcellreport of 8 is enough.
- ZTE thinks that since the threshold is lower for ICIC, ZTE thinks more than 8 is quite possible.

=> Noted; not in Rel-9

R2-100316: CR_(Rel-9)-correction on ICIC measurement report ZTECR 36.331 F REL-9 TEI9, LTE-L23

R2-100390: Introduction of GERAN cell reporting without BSIC verification Ericsson, ST-Ericsson Disc REL-9 TEI9, LTE-L23

- Nokia thinks this was also discussed in RAN4, and RAN4 considered this to only bring small gains. Ericsson indicates RAN4 is still discussing this issue, but this is an improvement. Also this is already supported in UMTS. RAN4 seems also to consider to introduce a new measurement gap pattern if this change is not agreed.
- Nokia thinks we should obviously not agree on this if RAN4 is still discussing this. Also Nokia thinks we should not do this if the gain is small.
- Samsung thought BSIC verification removal can gain several seconds. Nokia thinks that RAN4 is discussing this already; if typical implementations handle this in parallel, the gain might be small.

=> Wait for RAN4

R2-100389: Introduction of GERAN cell reporting without BSIC verification Ericsson, ST-Ericsson CR 36.331 F REL-9 TEI9, LTE-L23 postponed

R2-100528: Redirection enhancements to UTRAN NTT DOCOMO Disc REL-9 TEI9, LTE-L23

- DT wonders how the UMTS SI is provided to LTE ? NTT DCM would prefer to have a RIM approach, but this should be discussed in RAN3/CT4. DT wonders if this discussion is already started in the other groups ? DT thinks we should have a full solution. NTT DCM will contribute to other groups if this proposal is accepted in RAN2.
- NSN indicates this is kind of CCO, and it would be the first time for RRC CONN REL. Why in this procedure ?
- NTT DCM thinks the problem with CCO is that the UE has to establish PS bearers after the CCO.
- NTT DCM does not intend to limit the cell selection to the indicated cell. The UE performs a normal cell selection, and if it happens to be this cell, it can refrain from reading cell information.
- NTT DCM understands that CCO is just a mobility case and does not change RAT. That is why NTT DCM assumes the PS RAB's would have to be established. NTT DCM is not completely sure. NSN assumes this is not correct for GSM, because CSFB to GERAN would required DTM support. HTC assumes there is no need to establish a PS RAN if the UE has no data to establish. Anyway for UMTS HTC does not see a problem if the UE would have to establish a PS RAB.
- NSN wonders if the network anyway does not require the UE capability, so has to start security ? NTT DCM assumes that anyway first an extended service request needs to be received.
- NTT DCM clarifies that with CCO you have to enter the target cell (return to source RAT in case of failure), but in their proposal it is really a redirection with some additional information
- Nokia wonders if the target cell is determined based on UE measurements ? NTT DCM clarifies this is completely up to network implementation. Anyway no cell selection change is proposed. NTT DCM assumes in most cases a blind handover can be done (same location, same antenna's).
- DT wonders if it would not be simpler to speed up the SIB cycle for the required SIB's ? NTT DCM indicates they have tried everything they can, but they cannot improve beyond 1s. Sometimes it is even more than 2s. DT clarifies that in their network the typical times would be below 0.5s.
- STE has some interest in the proposal, however they are concerned about a full solution in Rel-9. STE would prefer to only have the RAN2 part in Rel-9.
- Panasonic thinks for Japanese market this is quite important issue.
- NTT DCM could agree that a reasonable end result would be to only have the RAN2 part in Rel-9, but it is more up to other groups.

- When asked how this is useful or not, there was a balanced view. NTT DCM indicates that for their network it is really important to have.
- NSN wonders why PS handover is not really acceptable. You would only have the default bearer initially.
- NSN is worried about the number of options we will have.
- NEC supports the proposal. NEC sees benefits also from dual-mode home-NB's. DT thinks home-NB's should never have a problem with the SIB cycle.

=> We allow some time for offline lobbying

After offline discussion: CR's in R2-100801

R2-100801: Redirection enhancements to UTRAN

- DT would like to see a full solution
 - NSN is also not happy about the CR: technical (do really all SIBs need to be provided, e.g. SIB7) and non-technical (we previously agreed not to do this).
 - NTT DCM pushed strongly for CCO before and then gave up for simplicity (2 years ago). However now NTT DCM is aware of new problems and thinks an enhancement is needed. NTT DCM could not think of a simpler solution.
 - Vdf has sympathy for the concerns from NTT DCM and would support the enhancements.
- => We will enhance the LTE->UMTS mobility case at the next meeting
- NSN thinks there could be alternatives, e.g. allowing SRB only handover.
 - CATT wonders if also UMTS TDD will be considered? NTT DCM clarifies the current CR does not. NTT DCM is happy to also include UMTS TDD. Can also be discussed in email
- => This is one solution on the table. Can consider if there are other simpler solutions.
- => EMAIL DISC up to submission deadline; input for next meeting. All CR's for solutions surviving the email discussion should be made fully available during the email discussion.

R2-100529: CR to 36.331 on Redirection enhancements to UTRAN NTT DOCOMO CR 36.331 B
REL-9 TEI9, LTE-L23

R2-100420: Common start time for TDD HeNB synchronization using GNSS Qualcomm Incorporated
Disc REL-9 TEI9, LTE-L23

- Samsung wonders if RAN3 is not a more proper group to discuss this. Ericsson agrees with Samsung on the MBMS case.
 - Ericsson thinks RAN2 is responsible for synchronisation over M2.
 - Ericsson thinks we could discuss the TDD case, but probably we should first wait for RAN1/3 discussion on TDD home-eNB synchronisation. QC thinks that is different solution: they sync to other basestations, and here we sync to GPS.
 - Huawei thinks the baseline for home-eNB the baseline is synchronisation over the radio, and it is questionable whether we need anything on top. For MBMS, Huawei supports the proposal but it should be discussed by RAN3.
- => RAN2 focus on the TDD case
- QC thinks the GNSS case would be the baseline, and the over the radio solution would be used for cases where there is no GNSS. Huawei assumes it is obviously easier to avoid GPS receivers in home-eNB's.
 - QC thinks in the RAN4 study, they have endorsed GNSS as one of the methods to do synchronisation. If you have GPS and GPS availability, this seems to be the more accurate solution.
 - CMCC agrees with QC and thinks it would be good to specify.
 - Huawei is fine with proposal 1 as long as it is clear that GPS is not the only solution.
 - Ericsson would prefer to see how the RAN1/3 discussion goes.
 - ZTE supports proposal 1.
 - Samsung would prefer to wait for RAN1/3.
- => Can see CR next meeting and then take final decision.

R2-100459: The methods to control load balance in LTE system HTC Corporation Disc REL-9 TEI9, LTE-L23

Proposal 1/2:

- LG thinks this is not a good solution. UE should always obey the network command.
- Chairman wonders if this is not very similar to T302 we already have today.

Proposal 3/4:

- ZTE assumes paging cannot be used since you don't know where the UE is and you might thus bar UE's very close to the cell.
- LG agrees with ZTE; LG would like to understand why current solutions are not sufficient.
- HTC thinks the current mechanisms will treat all UE's equally.

- DT thinks we already have dedicated priorities. So DT sees no value.
 - => Noted (no support for the proposals)
- R2-100460: The methods to control load balance in LTE system (Proposal 1) HTC Corporation CR 36.331 ? REL-9 TEI9, LTE-L23

6.8.3 User plane related

Treated in LTE UP session, see Annex A.

6.9 LTE-A (SI: RP-091360)

(FS_RAN_LTEA, leading WG: RAN1, started: June 08, target: March 10, WIDS: RP-091360)

6.9.1 Text proposals for 36.912, collected/coord by LTE rapporteur (NSN)

No contributions.

6.9.2 Evaluation of potential enhancements related to areas indicated as RAN2 responsibility according to RP-090288

No contributions.

6.9.3 Relays

6.9.3.1 Architecture aspects

Not much discussion expected in RAN2#68bis given the way forward agreed in RP-090958. Might have joined RAN2/3 meeting during RAN2#69.

=> Including output reporting of email discussion [68#25] LTE: Header Compression comparison on Un [NSN]

Email discussion outcome [68#25]: Header compression

R2-100303: Email discussion report on [68#25] LTE: Header Compression comparison on Un Nokia Siemens Networks Report REL-9 FS_RAN_LTEA

- Ericsson clarifies that nothing is removed from the TR, but in draft text proposals.

=> Noted

R2-100301: Text Proposal on Header overhead over Un Nokia Siemens Networks, Nokia Corporation Disc

- Ericsson would prefer a clean version to enable easy introduction in the TR.

=> Clean version can be provided in R2-100787 and is agreed to be included in the TR.

Header compression

R2-100432: Header compression issue for Alt A LG Electronics Inc. Disc REL-9 FS_RAN_LTEA

- QC thinks that "3GPP compression" can handle this, so that within 1 RB both A and B would be distinguished. LG agrees that this could be handled by 3GPP compression. But 3GPP compression will require out of band signalling to transfer the context. Also different profiles will have to be indicated and used at the same time on one RB. Also LG has doubts that 3GPP compression works for alt1 and alt3.
- QC thinks alt1 and alt3 could be handled with this.
- NSN wonders who is using "A" ? LG indicates e.g. OAM in the RN, or any traffic locally terminated in the RN. NSN assumes the main reason for HC is VOIP, i.e. only for QCI1. Other bearers would not have to use this. NSN assumes RN would not have VOIP locally terminated.
- Ericsson thinks the problem is not really there, because the traffic can be discerned based on putting the traffic on separate RB's or look at source /dest IP address. LG indicates that it might require a lot of RB's (e.g. double if we want to have different compression profiles for each QCI) ?
- Huawei agrees with LG.

- Vdf assumes that for large payloads IP segmentation might be applicable. Is compression still possible then ?

R2-100398: Header Compression for Relays Qualcomm Incorporated Disc

- Huawei wonders if this scheme could be finalised in the Rel-10 timeframe, and whether this should not be handled by IETF ? QC thinks Rel-10 timeframe is fine and this can all be done in 3GPP.
- III wonders how large payload segmentation would work in this scheme ? QC thinks e.g. in DL the DeNB could wait for all the segments to be received and sent one packet, or could sent uncompressed.
- III wonders if this scheme is only for 2-hop ? Does it also handle tunnel in tunnel ? QC sees no principle problem to use this scheme in that approach but has focussed on the 1 hop case.
- Samsung agrees this would be a possible scheme.
- LG points out that the IPdest address is not the IP address of the eNB, but of the S-GW of the UE. So does this not mean the alternative is difficult for alt1 or alt3 ? QC agrees for the UL that it is the S-GW of the UE, and TEID also is the TEID of the UE S-GW. QC agrees that it means a per GTP tunnel compression context in the DeNB even for alt1 or alt3 for each Uu RB, established once per RB setup. Samsung thinks it is quite logical to have separate contexts.
- NSN wonders if this context would not be a bit against of the principle of alt1 or alt3 ? The DeNB was supposed to be transparent. Also III wonders if this matches if this works with transparent S1 forwarding by the DeNB in alt1 and alt3. LG is also a bit afraid about the overhead that would be required.
- CATT wonders why the CID would be 2 byte, and not 1 or 3 ? QC did some calculations but this can be discussed later.
- LG thinks that if we apply normal ROHC, this is a blackbox, but now we have to start exchanging context information in 3GPP.

=> Noted

R2-100080: Efficiency analysis for various header compression schemes over the Un interface with mixed traffic models Institute for Information Industry (III), Huawei, Coiler Corporation Disc REL-9 FS_RAN_LTEA

- III would like to see this captured in an appendix of the TR.
- QC wonders how in table 2 the max overhead is computed ? III clarifies no HC. No HC for alt4 results in less overhead because there is no GTP.
- QC indicates 3GPP compression indicates 7 bytes, so why is the max difference ? This is again cause by the no compression case. QC assumes this max overhead cases would only apply in very infrequent cases.
- Vdf thinks it is good to put the compression ratios in perspective with real traffic mix. Vdf sees a lot of small and large packets in there network. So Vdf is not sure segmentation will happen rarely. Vdf thinks the segmentation might be caused by inserting the GTP header overhead (if the packet was already at the max size). GTP also assumes path discovery.
- Samsung thinks header overhead for large packets is not so important. We should focus on small packets. Samsung assumes the main message from this contribution is that the min overhead (which should be used most frequently) is not so different in table 8.
- Chairman wonders where the 1/8 and 8/9 fractions just above table 2 come from ? If both sides speak 50% then this is the ration between SID and voice frames.
- Ericsson thinks the tables show that in both alternatives roughly similar compression ratios can be achieved. Details of the compression scheme can be FFS. III indicates that the 3GPP compression has the additional "RRC overhead". So there is some RRC impact.
- Vdf indicates that not all traffic in the DeNB is going to an RN. E.g. 30% is going to an RN. Then Vdf concluded that e.g. having GTP over Un is not such a drawback because if we have a compression algorithm, similar overhead then for alt4 can be obtained. So other schemes could also be selected.
- III indicates that in RAN1, the Un link is the real bottleneck.
- Ericsson would prefer to note the paper. Ericsson sees the conclusion still as that header compression is possible in all architectures.

=> Noted

R2-100082: Header compression considerations for multi-hop scenario Institute for Information Industry (III), Huawei, Texas Instruments, Coiler Corporation Disc REL-9FS_RAN_LTEA

- III thinks it would be good to indicate which alternatives can support multihop.
 - Ericsson wonders how much value we should give to this, especially the combination of mobility and multi-hop, since we have agreed that we would consider this less important ?
 - Chairman points out that e.g. only outerheader compression should always be possible. III agrees but ofcourse that would lower the overall efficiency.
 - III thinks anyway it would be good when we make final decisions to at least keep this type of analysis into account.
 - Ericsson agrees that it is a valid comment to make something future proof, but as the paper points out, alternative 2 should be equally future proof as alternative 4. III agrees. It has main impact on the alternative choices, maybe not so much on architecture choices (A versus B).
 - LG concludes that alt2 and alt4 are equally future proof in this respect. Samsung considered the previous document more important, not so necessary to capture anything here. Samsung agrees that it seems alt2/4 seems more future proof in this respect but there seem to be other aspects that are more important.
 - Ericsson is reluctant to draw any conclusions based on this paper since both multi-hop and RN mobility are low priority scenarios.
- => Noted

Bearer mapping:

- Chairman assumes that bearer mapping situation is clear for all alternatives. Alt123 have QOS mapping, and Alt4 has 1-to-1 (Uu RB to Un RB) mapping. LG thinks lately alt4 can support both 1-to-1 and QOS based. LG agrees that for alt4 in the end a selection will have to be made. Ericsson does see some stage-3 consequences.
- NSN indicates that in RAN3 the latest status is alt4 only has the 1-to-1 mapping. Huawei points out that there is still a note in the TR, but in the matrix discussion only the 1-to-1 mapping is used.

R2-100096: Bearer Mapping in Relay Node LG Electronics Inc. Disc REL-9FS_RAN_LTEA

R2-100284: Common radio bearer configuration for Un NEC Disc REL-9FS_RAN_LTEA

R2-100285: L2 configuration for Un NEC Disc REL-9FS_RAN_LTEA

Other

- R2-100431: Discussion on Relay functionality LG Electronics Inc. Disc REL-9FS_RAN_LTEA
- Recognition of Relay
- Will probably be handled in RRC
- Access control for Relay
- Again probably RRC in all alternatives
- QOS control
- Samsung assumes it is always something new and there might not be so much difference between different alternatives. E.g. end-user control will always come from CN.
 - LG points out signalling would go via CN in alt1/3.
 - ZTE wonders if QOS is still end-to-end if there are RN's ? Chairman assumes something to be discussed.
- Admission control
- Handover control
- Samsung wonders what UE context is managed by the DeNB in the alt4 ? Main concern from LG is at RN mobility, how can you release the correct UE's ?
- Emergency call control/Prioritisation within a bearer
- Samsung wonders what the difference is ? Is Un bearer not a normal RB ? LG wonders what happens if a shortage of resources occurs on Un. How do we squeeze other Un RB's if we need more capacity for emergency Un RB's / higher priority RB's ? Problem is the same with 2.8.
 - III assumes that this flexible admission control would not really be possible in alt1 and alt3. Otherwise you would need a QCI+ARP mapping. So III assumes it would be a static mapping in alt1 & alt3.
 - NSN does not want any impact to CN. NSN thinks maybe RN can do tricks in alt1 & alt3 i.e. via the CN.
 - Ericsson it would be possible to have different ARP's on different bearers, which would not necessarily have a large impact to the CN. LG wonders if it would not mean that the DeNB would have to know the ARP for each Uu user ?
 - III agrees that this ARP handling would probably go against the transparency handling in alt1&3.

Other

- LG wonders if there is some functionality listed here that is not needed for RN operation ?
- => Noted

R2-100433: Priority issue for alt 1 and 3LG Electronics Inc. Disc REL-9FS_RAN_LTEA

- Samsung points out that ARP is per bearer, not per UE
- Samsung agrees that alt2/4 could have a finer control.
- Ericsson assumes this can be handled in alt1&3. The RN can detect based on missed GTP-SN's that packets are dropped and thus RB's for specific UE's should be dropped.
- LG wonders how the DeNB could decide which GTP packets to drop ? Ericsson could agree that the solution is optimal, but at least it is a mechanism that could be used.
- => Noted. Further work on alt1 & alt3 might be usefull.

R2-100108: Requirement on HO interruption time in RN networks Fujitsu Disc REL-9 FS_RAN_LTEA

R2-100109: Discussions on Un interface structure Fujitsu Disc REL-9FS_RAN_LTEA

Not available/Too late/Withdrawn:

R2-100081 Header compression inside the GTP-U tunnel over the Un interface Institute for Information Industry (III), Coiler Corporation Disc REL-9FS_RAN_LTEA
=> Withdrawn

6.9.3.2 Lower layer aspects

Consequences on RRC or UP protocols for supporting relays (independent from architecture). Note that HARQ timing issues are expected to be largely handled by RAN1.

Control plane impacts

R2-100256: Issues on Un and Uu link configuration during RN start up NTT DOCOMO Disc

Proposal 1:

- NEC wonders who decides the MBSFN for the Un ? RN or DeNB ? NTT DCM described both alternatives: i.e. DeNB controls or RN stores statically. But NT DCM proposal is DeNB manages.
- CATT wonders whether OAM could also be an option i.e. no control by RRC ? CMCC agrees OAM might be most interesting option, and OAM informs both DeNB and RN. NTT DCM wonders what the benefit is compared to management with RRC ? CMCC thinks the MBSFN for backhaul should be statically configured.
- NTT DCM wonders if such a static configuration would consider traffic load and number of RN's in the network ?
- Motorola wonders whether the number of RN's attached to an DeNB would change dynamically ? NTT DCM does not expect much dynamicity but thinks some flexibility in configuration is good to have. Ericsson agrees that RRC signalling would only be needed if the configuration is dynamic
- NTT DCM thinks that if we consider multi-vendor environments would benefit from RRC.
- NTT DCM assumes that anyway some kind of "Un start" procedure is needed in RRC ? I.e. at some point the RN switches from normal operation to this "Un operation". RIM asks for clarification. NTT DCM indicates the DeNB needs to know when it can start using the Un, i.e. when does the DeNB switch from Uu to Un mode (e.g. R-PDCCH) ? RIM thinks it could be linked to the DeNB configuring the MBSFN for Uu. NTT DCM agrees this could be one way, so after the concerning reconfiguration the DeNB would assume the RN is in "Un mode".
- RIM thinks dynamic setting of MBSFN could provide quite some gains in Un throughput.
- NEC wonders if we exclude the case of real MBSFN transmission on the same frequency ? Chairman thinks so far we have no excluded that.

Open issue: How is MBSFN configured ? (Semi-static) by OAM or more dynamic by RRC ?

Open issue: How much flexibility do we want/need ? E.g. reconfigurations might be quite complex.

Open issue: How/when does the RN switch from "Uu operation" to "Un operation" ?

- e.g. normal RRC reconfiguration,...

Proposal 2:

- SFN sync is somewhat different because it would have to happen over the radio.
- Is it common understanding that Un and RN-Uu would always be SFN synchronised ? Ericsson thinks if we have a 40ms MBSFN pattern this would probably be required. IDT

agrees that SFNmod4 synchronisation would be required in that case. Or Ericsson thinks maybe it would be enough to have the RN aware of the SFN's on Un, but maybe not the same SFN numbers need to be used.

- RIM is assuming always SFN synchronisation is applied. RIM does not see much difference/complexity for being SFN synchronised.
- NTT DCM wonders what the benefit would be of not SFN synchronising ? Ericsson thinks we should not unnecessarily limit the implementation flexibility.

Open issue: Should it be possible for the RN to have synchronised SFN on Uu and Un ?

Open issue: Should SFN sync on Uu and Un always be applied ?

Agreement:

We agree that in certain cases of inband relay, the DeNB needs to be aware of a restricted set of Un subframes that can be used for Un communication.

R2-100257: Access Control for RN start upNTT DOCOMO Disc

- Huawei wonders if also the CN should be informed. NTT DCM indicates that anyway the MME is informed about the cause value in the INITIAL UE MESSAGE over S1. NSN wonders why the MME would have to know ? CMCC MME needs to know (later paper).
- ALU thinks RN's would not come up very often, so it seems a very costly usage of the few remaining spare bits. LG agrees with ALU, but thinks differentiations is necessary. RIM agrees. Panasonic agrees the DeNB needs to know but we can think further about the signalling e.g. special id. Ericsson thinks DeNB needs to know but maybe it is better to inform the DeNB a bit later.
- NTT points out that the importance of the initial message is that we avoid an unnecessary connection reject message. So the DeNB would need to know very early. NTT DCM thinks that e.g. RN's might require special handling by DeNB if they are deployed in emergency situations.
- Panasonic wonders whether there is an assumption on the SIM card for a RN ? Ericsson assumes the RN is acting as a normal UE at least initially. So normal USIM should be present.
- Motorola wonders why we could not use e.g. high priority access ? NSN also assume a USIM is present, but SA3 would have to confirm.
- LG wonders whether the RN can access any eNB ? E.g. do we need to prevent that the RN even tries to connect to a Rel-8 DeNB, or a Rel-10 DeNB not supporting RN's ?
- Ericsson thinks the information could also come from the network, i.e. the DeNB would be informed about the CN that this is an RN.
- ALU thinks we could have a special access class for RN's.

Agreement:

- DeNB needs to know somehow that it is talking to an RN
- Special access control might be required for the RN (FFS)

R2-100259: System information change notification in relay operation NTT DOCOMO Disc

=> Updated in R2-100591 (main modification is section 2 indicating that MIB/SIB1 cannot be received in case of SFN synchronisation)

R2-100591: System information change notification in relay operation NTT DOCOMO Disc

- RIM wonders if the RN can not refrain from having transmissions in #0 and #5 on Uu at certain occasions to read the BCCH of the D-eNB. NTT DCM agrees that maybe the MIB can be received if the RN does not schedule any data, but the RN cannot received the PDCCH for SIB1. RIM agrees.
- CATT agrees with the analysis. Since there should typically be few RN's, CATT assumes alt1 is ok. Chairman assumes it will only concern MIB, SIB1 and SIB2. NTT DCM agrees.
- Ericsson wonders if RAN1 has excluded to have a timeshift between RN and DeNB ? Would in that case SIB1 reception not be possible ? NTT DCM agrees that this could be considered. But if you shift much, you would miss the end of the PDSCH. Ericsson wonders if retransmissions could solve this. Ericsson agree that dedicated signalling is a realistic option.
- NTT DCM points out that there should be no problem with the total overhead due to dedicated signalling (updates few times a day, 30 RN's), but maybe more related to the urgency of the update. We should in principle have several seconds.

Open issue: do we need special mechanism in RRC to handle SI change of the DeNB ?

Open issue: if so, dedicated signalling ?

- R2-100326: States definition for relay node ZTE Disc
- LG wonders if the RN could transit from RN_CONN to UE_CONN ? ZTE assumes it could be possible. LG is not sure.
 - DT assumes UE_CONN would only be a transit state. DT wonders if RN's would always be up and running, or are they switched on and off ? Huawei agrees with DT. Huawei thinks RN's are connected all the time.
 - RIM points out that the discussion is only for inband relays.
 - Panasonic wonder if the real difference between RN_CONN and UE_CONN is that the UE monitors R-PDCCH instead of PDCCH. Panasonic wonders if this is just a radio resource configuration, and no real new state.
 - Chairman wonders what happens at RLF/loose Timing Advance,... ? Ericsson wonders if we even have RLF for relays ?
 - III sees benefits from ICIC point of view. E.g. in RN_CONN state you have limited possibilities to measure and adjust. III thinks in the worst case the UE would always go via IDLE.
 - Ericsson wonders how long the RN would be in UE_CONN ? ZTE thinks very short. Ericsson thinks we might not have to define a separate state
 - CATT wonders if we should try to estimate the probability of RLF ?
 - RIM assumes there is no RLF for a fixed RN. ZTE doubts if this is really valid.
 - Samsung assumes since a RN handles many UE's, this RN will always get enough resources so no RACH need. If it anyway would loose sync or experience RLF, going via IDLE would be sufficient (frequency would be sufficiently low).
 - ZTE wonders about reaching max D-SR repetition ?
 - Panasonic assumes this is only for inband relays.
 - Ericsson wonders if we support really an IDLE-state for RN's. Maybe we only have a power on sequence. So UE is very short in IDLE (enough to perform cell selection and acquire SI) and the move to CONNECTED. Then the RN would never go back to IDLE again, i.e. never camp on a cell. Huawei agrees with this Ericsson analysis.
- Open issue: Does an RN have an IDLE state ? Or only a power on sequence and Connected state ?
- Open issue: Will RN ever perform RACH in CONN after initial startup/started R-PDCCH monitoring ? Or do we always go via IDLE/power on sequence ?
- Open issue: If the RN does perform RACH, does it temporarily gives up R-PDCCH monitoring ? If so, when/how is it turned on again ?
- Open issue: Do we need R-PDCCH monitoring with separate RRC state ?

- R2-100176: Control Plane for Un interface CATT Disc
- R2-100384: The startup procedure of relay node CMCC, CATT Disc
- R2-100258: Consideration on relay node capability NTT DOCOMO Disc
- R2-100534: Relay Control Plane Huawei Disc
- R2-100255: Minimum set of features to support relays in Release 10 NTT DOCOMO Disc
- R2-100407: RRC for Relay Nodes Fujitsu Disc
- All 6 Tdocs are not treated

User plane impacts

- R2-100175: MAC Issues on Un Interface CATT Disc
- Proposal 1&2
- Already discussed a bit based on last control plane paper
- Proposal 3:
- Huawei wonders RN would have any timing change. CATT thinks we can have clock drift and radio environment changes. Ericsson thinks UE will automatically adjust to changes in DL timing (keep DL sync). So is any timing advance change needed ? RIM thinks e.g. due to shadowing slow timing adjustment might be required. NSN points out that in Rel-8 we have agreed not to have a codepoint for "infinity" because in all cases it was expected some changes would be needed.
 - Ericsson assumes applying the current procedures will bring no harm, although Ericsson does not see a big need. Samsung has similar view.
- => Rel-8 time alignment procedures would be applicable on Un
- Proposal 4:

- NSN agrees BSR is required. NSN is not sure what optimisations would be required e.g. we already considered the max rate. CATT thinks this is related to the QOS mechanism so it is to early to say current BSR/QOS mechanism is enough.

Proposal 5:

- NSN wonders why do we need to involve RAN1 ? RIM clarifies that not all symbols are available on uplink, related to switching times/puncturing. Ericsson thought this was an open issue in RAN1. RIM confirms it is open.
- Samsung assumes we can agree that D-SR is necessary. RIM agrees it is needed.
- Panasonic wonders why RAN1 would not consider D-SR ? Ericsson has similar understanding. RAN1 will look into this without an LS.

Proposal 6:

- NSN wonders why power consumption of RN's would not be important ? Ericsson agrees with NSN. Panasonic also agrees.
- ZTE wonders why we would remove certain functionality ? To make RN simpler ?
- Huawei is not sure DRX is needed.
- Panasonic agrees that there might be differences in DRX, but anyway it is premature to exclude DRX already now.
- Samsung thinks again here Rel-8 DRX would be baseline and the rest we have to see.
- Ill agrees it is to early to exclude. If the RN is deployed in remote locations, power might be an issue.
- CATT did not see a strong reason since they assume the RN is typically not battery operated. How can the DRX work if it is only on backhaul subframes ? Samsung assumes all necessary parameters are present and we probably have sufficient flexibility. Samsung thinks we should carefully study whether the Rel-8 baseline is insufficient.
- Vdf thinks if the RN is deployed by an operator there would typically be no problem with the power. So maybe we do not have to squeeze out the last power optimisation.

Proposal 7:

- Samsung agrees.
- RIM wonders if the proposal is to have it the same as in Rel-8 ? CATT thinks currently Rel89 procedure is enough. Panasonic thinks there might be difference for Rel-10 based on RAN1 input (concurrent PUSCH and PUCCH).

Proposal 8:

- RIM thinks one could argue PDCCH is even more important since it reduces the signalling load on the backhaul. Ericsson agrees is needed if the PDCCH would turn out the bottleneck. However we first need to understand if PDCCH is the bottleneck.
- Vdf sees some benefits.
- RIM points out that the R-PDCCH capability will even be smaller than PDCCH capacity. ZTE assumes R-PDCCH can assign resource for multiple subframes. ZTE thinks this is not convential SPS. CATT shares the same understanding as ZTE. So the question is if the Rel-8 SPS is still applicable. Panasonic indicates that we only have 1TB per RN per TTl.

=> Rough assumption is that same MAC mechanisms will exist as in Rel-89; main questions around SPS, and if/how RACH is handled in connected.

R2-100430: Discussion on Un radio protocol support for S1-AP Ericsson, ST-Ericsson Disc

- Huawei indicates this paper has been discussed in RAN3 already. Ericsson pointed out that RAN3 noted the document. Ericsson clarifies they proposal is for architectures A and B.
- NSN thinks if IPSEC is needed for S1/X2, integrity protection might not be needed. QC agrees that IPSEC usage between RN and MME/DeNB is an alternative. The overhead processing for IPSEC should not be a problem. Ericson agrees that both IPSEC and PDCP are two valid options.
- NSN indicates that SA3 started now fully to be involved in the security discussion.
- LG thinks introducing this for DRB's is not that straightforward. E.g. new state variables. Ericsson indicates that they assume since for DRB's most actions already have to be taken for the ciphering, it should not be so complex.
- TI thinks implementing integrity is much more simple than IPSEC.
- Regardless of the SA3 decision, RAN2 will have to decide whether we go for an CP or UP transport.
- LG thinks it is not obvious whether introducing integrity for UP is simpler than changing the SRB model. This should be studied.

- QC assumes that in e.g. alt1, we would always go over the UP. Ericsson agrees that only for architecture B there would be a real choice. LG thinks in alt2 CP would be possible.
- Vdf wonders if SA3 is really aware of the issue ? NTT DCM thinks SA3 has sent a response LS to RAN2/3 that they are still studying the security architecture
- => Thus wait for SA3/architecture decision whether we need any PDCP adaptations (and/or SRB adaptations for architecture B).

R2-100177: Discussion on handover performance CATT Disc

Proposal 1:

- CATT clarifies that when the handover interval increases, the relative overhead for forwarding decreases.

=> Agree that benefits of smart forwarding are not obvious. At least clear optimisation which does not have to be given high attention in early discussions.

Proposal 2/3:

- Ericsson is not sure Un end marker is needed in this case. Ericsson thinks there are other possible triggers, e.g. handover request ACK. Huawei sees no need for a Un end marker.

=> Noted

R2-100425: Multiplexing on Un for Alt4 Relays Texas Instruments Disc

R2-100436: Identifying ESP bearers over Un in Alt 4 Ericsson, ST-Ericsson Disc

R2-100434: Number of MAC PDU for Un interface LG Electronics Inc., Texas Instruments Disc
All 3 Tdocs not treated.

QOS control

R2-100296: DL Flow control over Un interface for relaying system Nokia Siemens Networks, Nokia Corporation Disc

- Samsung wonders why it is a problem for the RN ? Is it not the same as for regular eNB ? NSN would like to avoid using Un radio unnecessary. Panasonic agrees with NSN that Un resources are more costly than S1 resources. Also given that we have timing restrictions on Un and Un is competing for resources with D-eNB-Uu makes this more costly.

R2-100134: Why flow control on Un is not needed Ericsson, ST-Ericsson Disc

Discussion

- NSN wonders if the TCP mechanism would not work to slow ? Ericsson indicates that in TCP congestion avoidance phase, the rate is increased only with 1 packet per RTT. The RN should drop a TCP packet when it has a queue that it can e.g. handle in 100/150ms.
- IDT assumes it is a question about how accurate you want to be. A flow control mechanism might work quicker. Ericsson response that with flow control you would not reduce the TCP rate and there would be a queue buildup in the DeNB in addition.
- Huawei wonders if this requires network node updates ? Ericsson indicates that TCP is end-to-end, so no impact on intermediate nodes.
- LG thinks Ericsson is relying on AQM which would require PDCP changes.
- Samsung assumes this flow control should not happen often. Having more buffering in DeNB will lead to increased delays.
- III assumes flow control over Un is about moving back the dropping point. III thinks e.g. in videostream scenario and UE in bad radio conditions (e.g. at handover), best place is to drop earlier.
- NSN is ok with no flow control in Rel-10, but would like to see an architecture that could support it.

Open issue: Is there a need for flow control for TCP sources ?

Open issue: Is there a need for flow control for other sources ?

R2-100097: DL Flow Control in Un interface LG Electronics Inc. Disc

R2-100232: Lower layer resource usage for Un multiplexing Panasonic

R2-100406: Relay QoS Control Fujitsu Disc

All 3 Tdocs not treated.

Other:

R2-100580: Importance of Backhaul in a Relay Handover Sharp Disc

R2-100409: Serving Cell Selection in a Type 1 Relay Network Research In Motion UK Limited Disc

R2-100579: On the Importance of Introducing STANDBY Mode for Relay Nodes Sharp Disc

- R2-100298: Discussion on Symmetry and Asymmetry SF Allocation for Backhaul Nokia Siemens Networks, Nokia Corporation Disc
 R2-100410: DL HARQ Operation over Un interface Research In Motion UK Limited Disc
 R2-100411: UL HARQ Operation over Un interface Research In Motion UK Limited Disc
 R2-100405: Multiplexing for Un Interface Fujitsu Disc
 R2-100488: HARQ operation for relay SamsungDisc
 All 8 Tdocs not treated.

Expected continuation up to next meeting

- Probably joint RAN2/3 meeting in February (confirm on Friday)
- Main input for joint meeting will be TR, HC text, and RAN3 comparison table
- Will try to make choice then (backup RAN)
- Capturing of agreements; Ericsson will provide document for next meeting collecting agreements so far. Will keep the document up to date until March, after which we include it in stage-2 (36.300).
- Next meeting: Still not handle Rel-10 WI, but only Rel-9 SI

Not available/Too late/Withdrawn:

- R2-100167: On the Importance of Introducing STANDBY Mode for Relay Nodes Sharp Disc
 => Withdrawn, as multiple versions exist, see R2-100579 instead
 R2-100169: Importance of Backhaul in a Relay Handover Sharp Disc
 => withdrawn, as multiple versions exist, see R2-100580 instead
 R2-100415: DL HARQ Operation over Un interface Research In Motion UK Limited Disc
 R2-100435: Identifying ESP bearers over Un in Alt 4 Ericsson, ST-Ericsson Disc
 Both withdrawn

6.10 Other LTE Rel-9 WIs/SIs

Self-Organizing Networks (SON):

(SON, leading WG: RAN3, started: March 09, target: March 10, WIDS: RP-090162)

- R2-100248: UE-originated RLF report for SON Nokia Siemens Networks, Nokia Corporation
- Huawei agrees that the radio measurements are usefull to discriminate coverage hole and too-late handover.
 - Samsung wonders why we would only do this for re-establishment ? Why not for the case that the re-establishment fails (i.e. going via IDLE) ? So should the reporting not be a separate procedure ?
 - LG wonders if this report is only related to SON, or is this also for MDT ? NSN indicates it is currently proposed for SON in Rel-9.
 - DT support in principle the proposal. But DT wonders whether it really needs to be sent in the re-establishment complete: we should not delay the re-establishment with increasing the complete message. NSN agrees, but wanted to start with a very simple approach. NSN also considered that serving cell id and C-RNTI are already transported in the procedure. However NSN agrees e.g. a measurement report might be better, but then repeat C-ID and C-RNTI
 - QC is ok with this type of proposal, but only if it also works if the target eNB is not prepared. NSN thinks this could be solved by UE context fetching which would be triggered by receiving the re-establishment request. QC thinks if we want to optimise hysteresis or TTT parameters, we have to inform the source cell.
 - QC indicates the have a proposal in R2-100594, where the UE does the evaluation and indicates with 1 bit in request whether it is too late handover or coverage hole.
 - Three options:
 - a) Reporting in re-establishment complete (RSRP, RSRQ)
 - a. Cannot be used in combination with re-establishment reject
 - b) 1 bit in re-establishment request indicating result of UE evaluation
 - c) Separate procedure to retrieve UE measurements after RLF
 - a. Cannot be used in combination with re-establishment reject
 - Samsung thinks measurement report might not be so usefull, e.g. what is the measurement id ?
 - NSN thinks we should start with the simplest approach

- Ericsson thinks we should keep it simple and have a simple solution with a CR available so that we avoid further ASN.1 problems.
 - NSN thinks for solution a, we could later add the same measurements in the RRC connection setup complete
 - Question is if the network should be able to control this reporting ?
 - Ericsson wonders if this is mandatory or optional functionality for the UE ? NSN indicates it is optional.
 - Panasonic wonders if this proposal is only for RLF in LTE or also for RLF in other RAT ? We only use this procedure at RLF in LTE.
 - Ericsson wonders if there would be RAN4 impact related to performance requirements ? NSN does not see separate performance requirements. Chairman wonders if we have to specify when the measurements are taken ? Nokia indicates the UE would just follow normal measurement performance requirements. Ericsson thinks that if UE's would report very different results, the measurement are not so usefull.
 - Ericsson agrees we should specify the point in time when the measurement were valid. We should e.g. specify that it is the measurements at the point RLF happens (N310 count exceeds threshold ?).
 - Huawei is concerned about option b. Huawei would prefer network judgement.
 - Ericsson prefers the Nokia solution, but would prefer to only have this in Rel-10. QC thinks it would be good to have a Rel-9 solution. QC is fine with a) if the context fetch is implemented. Otherwise they prefer b. DT would also like a Rel-9 solution. Panasonic also prefers to think more about this and have it in Rel-10. Panasonic thinks it would also be good to cover inter-RAT RLF.
 - LG is in principle fine with NSN solution but measurement should be taken at time of RLF.
 - Samsung thinks having this as part of reconfiguration after re-establishment/connection establishment. Samsung wonders how many/what neighbour cells are involved.
 - Vdf would prefer to have something in Rel-9, and is fine with NSN/Nokia solution.
 - ALU thinks proposal c) might be quite simple. Maybe we could work on this during the meeting and in first week after meeting ? Samsung assumes the message in which it is transported is not very controversial. The most controversial is what information is contained.
- => Allow offline until end of the meeting. Most likely we do something for Rel-9. Will see on later this week which message/procedure should be used.

R2-100250: CR to support UE-originated RLFreporting for MRO SON use case Nokia Siemens Networks, Nokia Corporation CR 36.331 F REL-9SON

- Ericsson indicates it should be optional for the UE. Should the network know that the UE supports it ?
 - Network should be able to provide configuration ? NSN wonders whether it is even possible to configure immediately after re-establishment.
 - Ericsson wonders why not the existing SON procedure ?
 - Ericsson wonders if really inter-RAT measurements can be provided ? Maybe even intra-freq is sufficient ? NSN thinks the UE could report from any RAT/freq with which it was configured.
 - Should at least indicate a bit more clearly what the UE should report, e.g. no SI info
 - TI indicates that when the UE performed the measurements should be indicated
 - Samsung assumes in general there are no additional measurements for this (only corresponding to configured measurements. So maybe this could be indicated.
- => Can continue offline. Can also discuss this aspect of what message to use offline. We will see update in R2-100751

R2-100751: CR to support UE-originated RLFreporting for MRO SON use case Nokia Siemens Networks, Nokia Corporation CR 36.331 F REL-9SON

- There was no offline agreements on whether the connection establishment should also have an indication. Ericsson thinks this case is also explicitly targeted by RAN3 and we should also add this in Rel-9.
- QC thinks supporting the IDLE case brings much complexity. Ericsson thinks we only talk about 1 bit in the connectionsetupcomplete. QC points out the UE has to remember the state in IDLE. Ericsson thinks it is anyway optional for the UE to report.
- QC thinks this does not really fit in the MRO framework. DT thinks it is sufficient if only the successful case is captured in Rel-9.

- Chairman wonders what typically the ratio between successful/unsuccessful re-establishments ? Ericsson points out that this largely depends on the network implementation.
- Nokia is ok with both cases.
- It seems only QC has a concern about supporting the IDLE case ?
- QC wonders if we want to break the MRO framework. NSN does not see the issue. Ericsson does not see how we can break a framework. It is up to RAN3 how to use this
- Huawei is in principle ok to only have the active mode in Rel-9.
- QC indicates they want to have the context fetch solution (X2). Ericsson thinks this is strange
- => Optional support by the UE should be more clearly indicated
- NSN proposes to agree the CR as is or sent LS to RAN3 to ask whether we support the IDLE case. Ericsson would prefer not to rush the CR and sent an LS to RAN3.
- => Will postpone the CR and sent LS to RAN3 to ask if they want both cases or only one of them in R2-100827

Not available/Too late/Withdrawn:

R2-100178 Distinguishing coverage problem and late handover cases for RLF Qualcomm Incorporated
Disc REL-9 SON
=> Withdrawn

7 LTE Release 10

7.1 Carrier aggregation (RP-091440)

(LTE_CA-Core, leading WG: RAN1, started: Dec. 09, target: Dec. 10, WIDS: RP-091440)

Proposals to capture the current status in 36.300 can be submitted under this agenda item. The LTE-A rapporteur kindly accepted to do an effort in this respect.

R2-100053: Stage 2 Description of Carrier Aggregation Nokia Siemens Networks (Rapporteur) CR
36.300 B REL-10 LTE_CA-Core
Rapporteur brings 2 questions

- 1) Group new "stuff" or distribute ?
 - Rapporteur thought that maybe it would be better to group the new Rel-10 aspects. Intel supports having as much as possible in one place. DT agrees. Ericsson is fine with alt2. Principle will be that CA-info is grouped as much as possible. Non-CA stuff can be distributed
 - => Go for approach of alternative 2
- 2) Where to capture agreements made (RLF, Measurements, SI ,...)
 - Ericsson thinks most decisions should be captured in the stage-2. Ericsson thinks that tiny stage-3 decision do not need to be captured.
 - => Should not continue with the SI TR.
 - QC also prefers to have 1 place for capturing all agreements, so if fine with an Annex. Ericsson wonders if we cannot use a separate document. Motorola thinks we have never used a living document before. Motorola would prefer to have an Annex of 36.300.
 - MCC thinks we have to take into account that we have several WI's.
 - NSN sees as a benefit of having an Annex is that changes can easily be tracked.
 - => Will only for CA create an Annex which would capture agreements that are considered not appropriate for reflecting in the body of 36.300. Annex will be removed when we have first version of the stage-3.

On alternative 2 text:

- => NEC thinks in section 6, the 4th bullet could be structure in the same way as the 5th bullet w.r.t. MIMO.
- => Will see update of the CR with first Annex in R2-100789; Later rapporteur asked for EMAIL DISC [68b#6] 1 week.

7.1.1 Multiple timing advance

Do we need to support multiple timing advance in Rel-10 ? If so, what are the implications ?

Need ?

R2-100531: Carrier aggregation deployment scenarios NTT DOCOMO Disc

- Panasonic wonders about scenario 4: Panasonic is this scenario really under CA, or is this not more COMP ? NTT DCM agrees this is a valid question. NTT DCM assumes CA should support this, but agrees it is closer to HETNET. Panasonic assumes that scenario 4 is more complex than the others.
- DT thinks scenario 1 & 2 are the most important. DT would be interested to evaluate what the consequence of 3 & 4 would be.
- NSN wonders how important scenario 4 is for Rel-10: NSN would prefer to keep the first release of CA simple. NTT DCM thinks scenario 4 is a quite likely deployment. Macro cells are probably more expensive than remote radio heads. Due to release independent addition of frequency bands it would be good to introduce this as early as possible.
- Intel thinks scenario 4 is quite different because scheduling is at 2 different places. Chairman assumes scheduling is still in one place. NTT DCM confirms.
- Ericsson wonders how this relates to the scenarios evaluated by RAN4 (in incoming LS).
- Huawei wonders what NTT DCM means at scenario 4 with "mobility is performed based on F1 coverage" ? NTT DCM wanted to indicate that coverage is guaranteed by the large coverage. But NTT DCM thinks independent mobility is required for each CC.
- Ericsson thinks that even though we have independent introduction of frequency bands, it does not mean we introduce all signalling for all future bands. E.g. independent TA support later, and then UE support a band combination for which this is needed would have to support that signalling/functionality.
- Ericsson wonders how the conclusion on multi-TA was reached based on this paper. NTT DCM refers to next paper
- NTT DCM thinks it is too early to rule out scenario 4.
- Chairman assumes scenario 3 would require independent measurements per CC, and scenario 4 will probably require additional functionality like potentially different TA.
- NTT DCM clarifies the remote radio heads are separate cells belonging to the same eNB.
- Vdf thinks only scenario 1 needs to be supported. If this scenario (without repeaters) does not require multiple TA, Vdf is fine with not having multiple TA in Rel-10.
- Vdf points out that for the 12 scenarios currently considered in RAN4, Vdf did not think multiple TA's are needed.
- QC wonders about home-eNB scenarios. Interference situation might be quite different on different CC's. Panasonic assumes this is HETNET discussion. QC does not know if this can be really separated.
- NTT DCM thinks we could start simple, but eventually we will always have to support the more complex scenarios. So would it not be good to consider these more complex scenarios immediately from the beginning.
- Ericsson thinks scenario 3 is probably also good to support. Ericsson would prefer to focus on scenario 1,2,3, and only after that consider 4 if time is left for Rel-10.
- NTT DCM thinks scenario 3 is likely when separate antenna's need to be used per CC. Then we will almost automatically end up in scenario 3. Also different number of sectors per frequency could be considered.
- ALU wonders if there is any problem with introducing scenario 3 & 4 in later releases ? NTT DCM has not identified at this moment.
- Nokia thinks we already have tools today to support scenario 3.
- NTT DCM confirms intention of blue coverage is that this has full coverage, but NTT DCM agrees that scenario 3 you need independent measurement/mobility control per CC.
- Samsung wonders if scenario 3 brings new multi-TA requirements ? Chairman assumes there is no new requirements compared to scenario 1 & 2. (might still see if we need it for scenarios 1&2). NTT DCM thinks if the direction of the beam is different in scenario 3, this might bring a more likely need for multi-TA. Ericsson indicates that the RAN4 LS did not say anything about this.
- ZTE wonders about the assumption of the backhaul for scenario 4 ? NTT DCM assumes optical fiber.
- QC thinks multi-TA and measurements are quite different aspects: i.e. related to direction/cell location, and interference.
- Intel supports having scenario 3. RAN4 can look at whether multiple TA support is needed.

- Motorola assumes scenario 3 does not required separate TA's. Motorola wonders if QC considers the measurement for interference impact the TA ? QC assumes it does not matter (only propagation difference).
- NEC wonders if also for scenario 3 we have different PCI's in different CC ? NTT DCM thinks we can have different sectorisation, so yes we would have different PCI's.
- => We support scenarios: 1,2,3. Will include these pictures in the TS [Rapp]
- => We do not rule out scenario 4 completely yet but will only work if we have finalised the rest.

R2-100472: TA maintenance for CA NTT DOCOMO Disc

- QC wonders if repeaters would be typically band selective rather than frequency specific. NTT DCM confirms this is true in their deployment typically. QC has the same understanding.
- QC wonders if in figure 3, f1 and f2 are from different bands ? NTT DCM thinks this could be further discussed.
- ZTE wonders why in scenario 1 different TA's would result due to propagation conditions. You might not be able to receive all CC's, but if you receive them the TA should roughly be the same ? NTT DCM is not to sure, but thinks maybe due to differences in propagation delay profiles they wonder if the TA might be significantly different.
- LG thinks RAN1 indicated already that scenario 2 & 3 cannot be handled with a single TA ?
- Ericsson wonders how typical scenario 2 would be given the additional complexity it will bring ? NTT DCM thinks this largely depends on operator deployment. NTT DCM sees quite frequent cases, both in rural and non-rural for indoor coverage. If we would not support scenario 2, NTT DCM thinks it would be quite difficult to use CA in existing bands where repeaters are currently used.
- Vdf thinks scenario 2 is not a very frequent scenario, and probably not relevant for CA. They are not introduced casually since the introduce a lot of interference. Vdf assumes that you would not introduce CA in this type of area.
- Motorola wonders if repeaters would work in both UL and DL direction ? NTT DCM assumes both directions. Motorola wonders if the UE cannot correct. NTT DCM explains that the propagation delays between network antenna and UE will be different for the direct communication and the remote radio head.
- RIM wonders scenario 3 could be on the same CC. NTT DCM indicates that this is not CA.
- Samsung sees some complexity for scenario 2, but also has some sympathy for the scenario. It is not that rare in asian countries.
- DT thinks in Rel-10 it is enough to have the possibility to release CC's if the TA difference is to large. So no need to support multiple TA.
- Samsung wonders whether multi-band CA already requires multi-TA ? Samsung assumes this might be needed. NSN thinks we should check with RAN1/4, but they assume it is not needed. NTT DCM thinks we should really check this with RAN1/4. NTT DCM already has different repeater deployments in different bands and thus scenario 2 is quite important to support. NTT DCM would at least like to see a complexity analysis.
- Ericsson indicates that the RAN4 LS in R2-095422 already indicates that multi-TA is not needed. Panasonic thinks that RAN1 indicated that R2-097378 indicated it would be usefull. Vdf wonders if the RAN1 conclusion was related to prioritised scenarios. Vdf assumes not. Panasonic agrees it was not related to prioritised scenarios, but a more general statement.
- CATT assumes that anyway the UE needs 2 radio chains when working on 2 bands, so CATT is not sure about significant additional complexity.
- Panasonic thinks RAN1 already indicated repeater scenario is important to be considered. Samsung shares the view of Panasonic. Samsung assumes more operators from Asia would care about this.
- Motorola thinks RAN4 already clearly indicated that multi-TA is not needed for the scenarios. CATT thinks RAN1/4 liaisons are not clear on multi-TA. Motorola thinks the RAN4 LS is really clear.
- Verizon indicates that for them inter-band scenarios are important like 700-2GHz. So it would be good to check again with RAN4 on the inter-band scenarios.

- NTT DCM wonders if we do not support the repeater case, how do we handle cases of frequencies where repeaters are already used ? NTT DCM thinks there are also illegal repeaters. Ericsson thinks we cannot really consider that.
- NTT DCM would prefer to look at complexity before making the decision.
- => Will look at RAN2 complexity aspects up to next meeting, and take decision on multi-TA support in next meeting. EMAIL DISC [68#23] on multi-TA complexity NTT DCM

R2-100057: Multiple TA in CA CATT Disc
not treated

Impact

R2-100110: Multiple Timing Advance Impact on RAN2 Huawei Disc

R2-100423: Supporting multiple timing advance groups Qualcomm Incorporated Disc
Discussion

- Panasonic wonders about proposal3: there could also be a UL refer CC, and then other UL CC's are linked to that UL CC. Could be considered
- NTT DCM wonders about handover: NTT DCM wonders if we really need to have parallel RACH on multipl RACH: would it not be enough to time align other CC's later ?
- Huawei wonders if different bands could belong to the same timing group ? QC replies this is all depending on configuration
- NSN indicates that we have already agreed in 36.912 5.2.2. that we would have at most one RACH in parallel.
- Ericsson wonders about proposal 4: is that an UL without a DL in that band ? Is that a realistic scenario ? QC agrees we can rule out the loose hanging UL's.
- LG wonders if the UE needs to be aware of the grouping ? If so, when is he informed ? QC assumes this is normal reconfiguration.
- ZTE thinks it is not necessary to link to 1 DL, but could be a group of DL's.
- ZTE would also assume that we only have RACH access at handover
- ZTE wonders why we could not have more than 1 RACH per timing group ?
- QC assumes all the ZTE questions relate to how we link RACH to DL. QC assumes we would like to limit unnecessary complexity.
- Samsung assumes that even with 1 TA, we might have different RACH's.
- Huawei thinks groups is a kind of optimisation. We only need 1 TA per UL CC. If we introduce groups we also introduce group management e.g. split one existing group in multiple.
- NTT DCM wonders for the case of 1 TA, to what DL is the UL timing linked ?

Complexity related to:

- Linking UL timing of each UL CC to 1/more DL CC's
- Would we have UL timing groups ?
- RACH initiation required per UL timing group (parallel RACH?)
- Handling at handover (parallel RACH?)
- Different TA_timer maintenance
- When does UE acquire new timing for a timing group (only on network command ?)
- Can we exclude "loose hanging UL's", e.g. only UL in a certain band, and no DL.
- => Continue by EMAIL DISC [68b#23] to get good common understanding on potential complexity. Could also discuss if we have multi-TA, what simplifications (e.g. 1 RACH per group, 1 TA per UL CC,) would be possible without losing essential functionality.

R2-100308: Impact analysis of multiple TA ZTE Disc

R2-100332: RAN2 Impacts by Multiple Timing Advance LG Electronics Inc. Disc

R2-100560: Time Alignment Timer for different TA ITRI Disc
All 3 not treated

Not available/Too late/Withdrawn

R2-100451 Carrier Aggregation - Access Motorola Disc

7.1.2 CC management

Issues related to CC management in connected mode. E.g. more details on "special cell", Handover <-> Reconfiguration, do we need to "link" UL and DL CC's e.g. for HARQ feedback ?

Special cell/anchor CC

- R2-100054: Primary Component Carrier Nokia Siemens Networks, Nokia Corporation Disc
- DT fully supports this concept since it is in line with their deployments. Intel also support the concept of anchor CC and have the special there. Intel thinks it might be interesting to optimise anchor CC changes
 - Motorola also supports this. Motorola thinks that for the change of anchor CC, the current reconfiguration might be sufficient.
 - Vdf supports the proposal. Samsung supports the concept of an anchor CC. Samsung wonders whether observation 2 is really correct. NSN indicates that this might depend on what we decide. NSN would prefer not to have a wideband measurement on all CC's.
 - LG wonders whether without anchor CC, primary CC failure would not result in RLF. NSN indicates the proposal has the same result as in Rel-8. We consider further optimisations e.g. during re-establishment.
 - LG thinks UE can survive D-SR failure. NSN could agreed. LG thinks CMAS/ETWS work fine without this. NSN agrees it could work (is probably not the strongest argument).
 - Ericsson thinks it is an attractive way forward since it would simplify the specification work considerable. Ericsson is still a bit worried about number of RLF's being increased. Also Ericsson wonders about the load on the coverage layer. This coverage layer would probably have the lowest capacity. Ericsson is also a bit worried about the RACH load on this anchor CC. However still Ericsson sees clear benefits for speeding up the specification work, but would like some more time to study this.
 - Panasonic would appreciate some clarification for observation 5 (is this a deviation from common DRX) ? NSN thinks this depends on whether we have act/deact. E.g. expiry of inactivity timer could mean UE goes back to 1 CC.
 - Panasonic wonders if the D-SR is always mapped to the anchor CC. NSN indicates that the anchor CC should not be deactivated so then it would be logical to place the D-SR there.
 - Samsung's understanding is that situation for CQI is same situation as D-SR.
 - Vdf assumes that if you have several CC's, you can give different UE's a different anchor CC. So the loading should not be a problem.
 - CATT supports anchor CC introduction, but we should discuss features one by one. E.g. anchor CC should support special cell, D-SR, CQI and SI-paging.
 - Newpostcom also supports this concept. Newpostcom would also like the SRB to go there. NSN indicates that is a contradiction to already made agreements (no awareness above MAC)
 - IDT clarifies that there is one carrier that carries PUCCH but there could be multiple PUCCH's on that CC, but still HARQ A/N handling is open.
 - RIM also introduces the concept of PCC, but has some concern on some usages, e.g. the usage for handover and the association of special cell. RIM assumes the PCC might carry quite frequently. Chairman assumes not more often than a Rel-8 cell ?
 - QC agrees we should discuss it function per function.
 - Fujitsu wonders if PCC is UE specific or cell specific ? NSN clarifies it is UE specific.
 - Huawei agrees we need to focus on functionality. Huawei wonders e.g. if this concept related to both UL and DL ? NSN clarifies it is related to both. So CA would really be an addition to Rel-8 CC's.
 - Ericsson notes that many support the concept but the details could be quite different. Ericsson would like in general like to study this further. Ericsson thinks we should not compare Rel-10 performance to Rel-8/9 mobility. We should compare to other Rel-10 performance we could potentially achieve.
 - NTT DCM in general supports the concept in general, especially w.r.t. RLF things become much simpler. As long as you choose the correct PCC, the number of RLF's should not drastically increase.
 - ZTE agrees with QC and CATT that we should look at functionality per functionality.
 - IDT thinks at least for RACH we cannot decide we have it on one UL CC.
 - Ericsson thinks ETWS/CMAS could be on the PCC. Chairman wonders why not on special cell.
 - We should not introduce unnecessary concepts. We should first understanding what functionality is grouped under special/anchor cell before discussing mobility details.
 - Ericsson supports having a PCC that is never deactivated and supports ETWS and CMAS.
 - Chairman sees also dependency on further RAN1 progress w.r.t. UL HARQ A/N handling.

- LG assumes all backward compatible CC's should provide ETWS/CMAS.
- ALU thinks we could start by having them different and then later see if we can merge them. NSN thinks we should start with only 1 concept and only split if really needed.
- Panasonic thinks Ericsson's proposal is sensible since the PCC would not be deactivated. NSN points out that we do not have an agreement that we have act/deact.
- Motorola thinks we need justification before introducing 2 concepts. So we should start with one concept.
- Panasonic thinks it would be good to have email discussion. Panasonic point out it is related to UL timing.

Open issues:

- Do we have anchor CC and anchor cell ?
- Functionality of anchor cell, e.g; ?
 - D-SR
 - CQI
 - SI paging
 - UL HARQ A/N
 - ...
- Is special cell merged into anchor cell ?

=> Will continue at next meeting

R2-100286: Upon removing the special cell Huawei Disc

- Chairman wonders if it is true that the same NAS information would be provided in all cells of an eNB ? ZTE assumes so. NTT DCM thought the TAI could be different per cell. So should the UE not always be aware of a valid TA in the cells he is using ?
 - NSN does not agree with observation 4, so does not see a need for the optimisations.
 - Intel wonders if the UE can really use a key from 1 CC for other CC's. Chairman indicates that already in accordance with current agreements. New is that we would continue to use the key even after the concerning cell is removed.
 - Samsung agrees with NSN invalidity of observation 4. LG thinks very frequent changes might be required. Chairman points out that figure 3 is not in line with agreed scenarios. RIM/QC points out that due to closed CSG cell interference, something like figure 3 could happen.
 - RIM agrees with proposals in this paper.
 - NSN does not understand why we want to optimise the intra-eNB handover. We have agreed that we would not do that at least for Rel-8.
 - Intel has security concerns about using a key from a cell that is no longer used by the UE. Intel thinks this is additional motivation for combining special cell and anchor cell. QC does not agree with this argument. After key derivation, you don't care anymore.
 - ZTE points out that at re-establishment, the source cell would be indicated at the cell from which the security was originated, so not really the source cell at handover. ALU thinks it could work if the C-RNTI is unique in the source eNB
- => It seems possible to use security input from a cell that is no longer configured to that UE, as long as the eNB does not change. Should consider details and judge benefit. Less clear for NAS information.

R2-100309: Considerations on special cell ZTE Disc

R2-100414: Component Carrier Management for Carrier Aggregation Research In Motion UK Limited Disc

R2-100399: More details on Special cell Alcatel-Lucent Disc
All 3 Tdocs not treated

Is special cell also associated with other characteristics like, or are this separate characteristics of "anchor CC":

- UL SR, UL CQI, SI-change monitoring,...

Is special cell always part of configured CC's ?

Same PCI/UE C-RNTI within all CCset ?

Special cell change

R2-100437: Reconfiguration in CA LG Electronics Inc. Disc

R2-100489: Reusing REL-8 handover procedure for special cell change Samsung Disc

R2-100061: CC management in CA CATT Disc
All 3 Tdocs not treated

UL/DL linking

R2-100573: Discussion on DL/UL CC linkage for Carrier Aggregation HT mMobile Inc. Disc

- Intel thinks associating is beneficial, but this is not related to act/deact. This type of relation is more static. HTM did not talk about act/deact, but considers configuration.
- Ericsson wonders if linkage in proposals 1,2,3 is RRC signalling, or could this be implicitly based on some L1 aspects. HTM did not go in this detail, but HTM thinks both are possible.
- Samsung thinks several different linkages might need to be defined, e.g. for scheduling, pathloss, timing,... Panasonic agrees: RAN1 has already agreed for the pathloss that the DL carrier needs to be configured. HTM agrees.
- IDT thinks there are more linkages, e.g. when you deactivate a DL, probably you deactivate the associated UL.
- Motorola/Samsung thinks the baseline could be relying on BCCH.
- IDT thinks when relying on BCCH it would mean it is the same for all UE's. It might be nice to distribute this.
- RIM wonders if there is no problems with asymmetrical configurations. LG shares same opinion.

=> Agree that for scheduling using non-cross carrier scheduling (to know what UL CC is meant when UL grant without CID is indicated), a linking between UL and DL needs to be specified.

R2-100561: DL/UL CC Linkage Relationship ITRI Disc

Other

R2-100059: Applicability of cross-carrier scheduling CATT Disc

- ZTE thinks CIF would be used for common search space or not is being discussed in RAN1 already. Samsung wonders why RAN1 would consider CIF for this. Samsung is quite fine with proposal 1.
- RIM wonders if we would agree to this, does it mean that the UE has to receive PDCCH for deactivated CC's in case of SI ? Samsung thinks we have agreed that we do not rely on PDCCH SI paging in all CC's.
- LG wonders if proposal 1 is only relevant for backward compatible carriers ? CATT proposes this for all CC's.
- Huawei is fine with the proposal from RAN2 point of view, but wonders since this is already discussed in RAN1 we should be careful. Motorola assumes we should first discuss SI handling.
- NSN supports the proposal from RAN2 point of view.
- Motorola wonders whether there is specific reason to not have the CIF for the RA-RNTI ? CATT thinks that at least it is clear that you cannot use it when one of the UE's would be a release-8 UE.
- Samsung wonders if we do not have this, how to handle legacy UE's.

=> Noted (should first discuss SI handling)

R2-100447: General issues in CC management LG Electronics Inc. Disc

R2-100060: Consideration on Component Carrier Index CATT Disc

R2-100124: Management of Component Carriers Ericsson, ST-Ericsson Disc

R2-100263: Special Cells and Carrier Management/Configuration Intel Corporation Disc
=> revised in R2-100581 as zip format could not be read

R2-100581: Special Cells and Carrier Management/Configuration Intel Corporation
All 4 Tdocs not treated

Not available/Too late/Withdrawn

R2-100088: Special vs. non-special cell CC management procedures InterDigital Disc

R2-100549: UE power saving in CA scenarios Nokia Corporation, Nokia Siemens Networks Disc

R2-100550: UE power saving in CA scenarios Nokia Corporation, Nokia Siemens Networks Disc
=> All 3 Tdocs withdrawn

R2-100474: CC management for CANTT DOCOMO Disc
withdrawn

R2-100557 Carrier aggregation considerations Pantech Disc
not treated

R2-100586: CC management for unpaired CC configuration Disc
withdrawn

7.1.3 Scheduling

E.g. will we have separate carrier activation/deactivation step ? If so how is it signalled (RRC, MAC, L1)(implicit/explicit)?

=> Including output reporting of email discussion [68#23] LTE: CC activation / deactivation [Ericsson]

Email discussion outcome [68#23]: Separate act/deact

R2-100079: Summary of the email discussion [68#23] LTE: CC activation / deactivation Ericsson, ST-Ericsson

- Panasonic indicates their reply is not captured: they see some gain for some scenarios. But it depends on what measurements the UE would have to do.

=> Noted

R2-100452: Carrier Aggregation - Activation and Measurements Motorola Disc

- IDT thinks in Rel89, you do not have CQI available immediately at handover/establishment. So IDT assumes CQI should even be less important in this case of CA activation ?
- Huawei agrees with IDT. A basic RSRP threshold would have to be met before considering Act/Deact could just be based on scheduling needs.
- NSN thinks that the only impact of not having CQI is that initially you need some conservative MCS.
- QC thought the main motivation is quick transfer after activation. If there is no urgency, why not use RRC configuration ? NSN thinks the main motivation is saving UE power. From network point of view, NSN sees no large drawback if the UE is not measuring CQI. QC thinks the power saving can also be achieved by RRC configuration/release. NSN assumes typically the scheduler does not have large interaction with RRC.
- Motorola thinks we should probably first focus on proposal 1, i.e the timeframe.
- Panasonic agrees with NSN on the CQI.
- Panasonic wonders what the actual Motorola proposal is ? Motorola first wanted to get a common understanding on when CA would be configured. Motorola assumes that when there is no data available, the UE would not be asked to do any additional measurements compared to Rel-8. Then when data arrives, how does the network select e.g. 2 out of 5 possible CC's to configure for this UE ?
- Intel thinks CA configuration can be deferred until necessary. Motorola agrees. Motorola thinks e.g. on data arrival, the network should be able to ask the UE to measure on 5 CC's, and then select 2 it is going to use.
- Samsung wonders if we do not do any measurement on a deactivated CC, would it not delay the data transport at activation ?
- Vdf wonders how long the activation would suffer if there would be no measurements on a deactivated CC. Motorola thinks if you have a data burst of 50ms, ideally the network would have measurements from the UE for this period of time. So e.g. mobility measurement or CQI with more filtering.
- Ericsson agrees with Samsung that in order to have quick activation/deactivation we need quite good measurements to be able to use the CC immediately.
- ZTE agrees with Motorola and proposes different levels of measurement activity on a deactivated CC (configurable).
- Motorola wonders if a UE with a voice call would continuously have deactivated CC's ? Ericsson assumes that this is under network control. Network could also release additional CC's.
- NSN comments that there is always 1 CC ready to transmit. So it should be no problem to start with conservative MCS. Ericsson agrees with this, especially in the same band. Not so sure for CC's in different bands. Nokia thinks that if we want efficient power saving, we should not have to frequent measurements. Nokia agrees that CQI from CC's in same band should be useable. Using CQI measurements for other bands would be very costly.

- Motorola points out that we have many CQI types in one CC now, so it is not obvious that CQI can be used from other CC in same band.

R2-100424: Considerations on Carrier Activation Qualcomm Incorporated Disc
Section 2.2

- Samsung wonders how long the disruption would be ? QC assumes something like 1ms or a couple of ms.
- QC clarifies they talk about the centre-frequency of the UE RF, not of the CC's.
- ZTE thinks it should be configurable how often the UE should measure depending on how quickly traffic is expected
- Panasonic wonders what would be a medium CQI measurement periodicity ? QC has no clear answer now.
- Panasonic assumes that for mobility measurements or CQI on deactivated CC's, the RF would have to keep open/same centre frequency (cannot tolerate interruptions at every measurement). Only the baseband could be switched off. Nokia clarifies that if the UE would use a separate RF, switching on/off would be possible.
- RIM thinks longer-term/medium term CQI reports are not so usefull because the data would anyway be obsolete at activation.
- Panasonic wonders what CQI format we are talking about ? E.g. wideband CQI would not really help the scheduler.
- Ericsson assumes there is interruptions at RF reconfigurations, but assumes they are < 1ms. Ericsson agrees that if you would have to regularly measure on a deactivated CC and every time have to reconfigure the RF, these interruptions would probably not be acceptable. So it is better to probably rely on measurements on same band, or with different RF (different band)
- Nokia assumes still there could be some gains even in same band even if you do not have to measure on a deactivated CC. So it would be nice if you could base the decisions on measurements in the activated CC.
- Huawei thinks that if only mobility measurements need to be performed over deactivated CC's, it would be ok to have a interruption for inter-band CC (probably something like 1% loss). Samsung thinks that if the interruption is only 1ms, then the UE can take the measurement whenever there is no PDCCH ?

R2-100094: Need for dynamic CC activation method LG Electronics Inc. Disc

- CMCC shares the questions/views of LG, and CMCC is still trying to understand the usefulness of the separate act/deact. CMCC sees no need for high speed/delay tolerant services. Also from overhead point of view, it largely depends on how often this operation needs to take place. From power saving, CMCC can see some benefits, but is not sure how much really is gained.
- Nokia thinks traffic patterns in IP world are bursty, and there can be big packets. If packets e.g. arrive 1s apart, it is to costly to keep multiple CC's up all the time.
- LG thinks if the traffic varies frequently, the network should keep the UE in the CA state (e.g. less than 1s). For bursty traffic, LG agrees we need to turn of the additional CC. But this bursty traffic should not be time critical.
- Motorola wonders why bursty traffic is not time critical ? LG thinks we should compare RRC reconfiguration with L1 activation.
- Ericsson thinks the quick activation is especially usefull for bursty traffic, e.g. web browsing. E.g. 50ms yes, 100ms no, 100ms yes,.... LG thinks configured state is fine

R2-100233: Need for separate component carrier activation step Panasonic Disc

- Samsung thinks mobility measurements will typically take several samples so something like 5 subframes out of 200. Panasonic agrees it depends on the implementation. If you have a large BW, 1 sample might be sufficient.
- NSN agrees RSRP is sufficient for deactivated CC's.
- QC wonders if the result would change if you would use L3 signalling for configuration/release ? Panasonic assumes the figures would change a bit due to the delay. LG assumes the results would be very similar. The comparison should be made between RRC reconfiguration and L1 activation. NSN thinks RRC is a quite heavy procedure. Panasonic assumes that when you have only RRC, you would have RRC and DRX. LG points out that if you want to activate multiple CC's, only 1 RRC msg is needed. NSN indicates that is why they propose MAC.
- NSN does not like heavy interaction between RRC and scheduler. Ericsson agrees.

- Panasonic sees no gains in certain other cases like FTP.
- Ericsson points out that the figures show a 100%/400% UE power consumption gain.
- Samsung thinks interaction between scheduler and RRC will not be so large.
- LG is still not convinced about sufficient gain.
- Chairman points out that the figures are obtained with the assumption of mobility measurements. So probably we should not have CQI.
- Vdf thinks we should have act/deact but no CQI
- Intel thinks layering is in favour of fast activation/deactivation
- NTT DCM is not really sure how much gains there would really be.
- Samsung thinks the real gain can only be achieved in the field.
- Motorola wonders what measurements there would be on deactivated CC's ? NSN assumes RSRP/RSRQ. Ericsson also assumes RRM like measurements.
- QC wonders what we do about the gap ? Is it autonomous gap from the UE ? Or ordered gap by the network ? NTT DCM wonders what measurement performance we assume ? E.g. like UE in DRX ? Nokia thinks this might depend on same band / different band. Panasonic indicates that the baseline in the email discussion was inter-frequency measurements during DRX.
- LG wonders if this is a mandatory or optional UE feature ? Can see later. LG thinks this is clearly an optimisation so we should deprioritise the discussion and should not hurt basic operation.
- Newpostcom wonders if this is only for PDCCH CC's or also for extension CC's ? NSN thinks that since this related to both PDCCH and PDSCH, it applies to all CC's.
- Ericsson thinks we could also capture that individual act/deact should be possible. Nokia would prefer to have more thinking on that.

Agreements for DL:

- 1) Will have separate activation / deactivation
- 2) FFS if activation/deactivation would be per CC or common
- 3) On a deactivated DL CC, the UE does not receive PDCCH nor PDSCH. On an activated DL CC, the UE will receive PDSCH, and PDCCH if present
- 4) Will not have CQI like measurements on deactivated CC's. Further measurement details FFS.
- 5) Will use L1 or MAC for activation [FFS]
- 6) Will use L1 or MAC or implicit for deactivation [FFS]

R2-100491: UL CC activation SamsungDisc

- Samsung assumes PUCCH is configured in an always active CC
- Panasonic wonders how SRS works ?
- NSN wonders why not link the UL activation to the DL CC ? Samsung agrees that that is also one possible option. Samsung sees unnecessary consequences for scheduling.
- Intel supports the proposal for CC's outside the PCC.
- CATT supports the proposal. CATT thinks the UL transmissions are completely controlled by the eNB. Ericsson also supports the proposal.
- QC thinks from RF point of view, the linking approach seems quite sensible. E.g. same oscillator could be used for UL and DL.
- Samsung explains that they assume we have no "deactivated state" for UL and thus the eNB can always schedule any UL.
- Panasonic indicates that in the email discussion it was almost agreed that all UL CC's are always activated.
- Ericsson assumes there is no real activation unless the UE is required to transmit.
- Panasonic sees also benefits of the linking approach for the SRS case

After offline discussion:

- Two proposals on the table
 - 1) There is no explicit activation per UL CC
 - or
 - 2) UE is required to be able to transmit PUSCH transmissions on any configured UL CC when requested to do so, without explicit activation
- Nokia wonders what the difference is between these two ?
- Motorola wonders what it really means ? E.g. could I be asked to transmit CQI on PUSCH ? IDT thinks CQI transmissions should only be related to activated DL CC's. RIM understands the agreements related to PUSCH for traffic.

- Motorola liked the first text. NTT DCM thinks the second text is clearer.

Agreements for UL:

- 1) UE is required to be able to transmit PUSCH transmissions on any configured UL CC when scheduled on PDCCH (i.e. no explicit activation)

- R2-100310: CC scheduling in short term after CC is deactivated ZTE Disc
 R2-100104: Considerations on CC activation and deactivation Potevio Disc
 R2-100490: On DL synchronization of deactivated CCs SamsungDisc
 R2-100548: UE power saving in CA scenarios Nokia Corporation, Nokia Siemens NetworksDisc
 R2-100328: Carrier Aggregation Activation/Deactivation NEC Disc
 R2-100148: Explicit carrier activation/deactivationETRI Disc
 R2-100107: Discussions on CC activation / de-activation Fujitsu Disc
 R2-100449: Considerations on activation/deactivation of component carrier Pantech Disc
 R2-100280: Analysis on carrier activation and de-activationNew Postcom Disc
 R2-100173: Discussion on the Delay of Component Carrier Activation MediaTek Disc
 R2-100264: Dynamic Carrier Activation and Deactivation Intel Corporation Disc
 => Revised in R2-100582 as zip format could not be read
 R2-100582: Dynamic Carrier Activation and Deactivation Intel Corporation Disc
 All 11 Tdoc not treated.

Other

- R2-100058: CC set model CATT Disc
 Downlink
 - Ericsson thinks we have now agreed to states A,C and D in RAN2.
 - Intel thinks RRC can configure for which CC's the UE has to monitor PDCCH ?
 - Ericsson proposes to respond to RAN1 that we have agreed on DL act/deact, and leave PDCCH monitoring set to RAN1. CATT agrees.
 - Chairman wonders if the extension CC would be a UE specific concept or a cell based concept ? Panasonic assumes cell specific. IDT thinks also UE specific concept potentially. Chairman assumes that if we have a UE specific extension CC that is almost the same as a PDCCH monitoring set. RIM thinks the extension CC would be cell specific.
 => Reply that we have agreed on DL CC act/deact and leave PDCCH monitoring set requirement to RAN1
 => Can also indicate that DRX will reduce detection possibility.
 Uplink:
 - We still need to think more about this.
 => Will indicate in the same LS that we have agreed no activation for UL, so given that we have cross carrier scheduling there could be some impact on L1 e.g. processing times.
 => Will sent LS to RAN1 in R2-100797

- R2-100055: SPS and Carrier Aggregation Nokia Siemens Networks, Nokia CorporationDisc
 General
 Proposal 1:
 - Samsung supports it.
 - LG wonders if we could agree that cross carrier is not applied to SPS. Panasonic wonders why ? E.g. we have to think about retransmissions.
 Proposal 2/3:
 - IDT wonders if this would result in an increased frequency for PCC assignment (increased handovers) ? NSN does not see why ? IDT assumes that this works best when the PCC is the best carrier. NSN thinks the PCC does not necessarily have to be the best one.
 - Panasonic thinks it is too early to discuss proposals 2/3.
 - Samsung thinks this is a logical consequence if we can agree that the PCC is never activated/deactated.

Agreements

- 1) Only 1 UL SPS grant and 1 DL SPS grant can be configured

- R2-100231: Scheduling aspects for carrier aggregation Panasonic Disc
 Only section 2.2

- ZTE points out that power control is per CC. Panasonic thinks power limitation is always per UE. CATT would assume in power limited situations, the UE would only be operating on one UL CC. Huawei thinks CC specific TTI bundling should be considered since the UE could be on the edge of one CC and not on another CC. NSN thinks the network could just remove the less performant CC.
- Ericsson agrees with the proposal.
- Motorola thinks it is simpler to have bundling on only 1 CC. Motorola thinks the UE could be power limited only on 1 CC due to max power restrictions
- NTT DCM agrees that when the UE is power limited, you should only schedule him on one CC.
- Panasonic confirms RAN1 has agreed on a per CC power limitation, and a per UE power limitation.
- IDT wonders if it would be possible for the UE to have different power limitations for different RF's it has ?
- If the UE is power limited on one CC, then it seems better to use the max power on that CC without TTI bundling, and use other power on other CC's.
- NSN thinks the delay characteristic would vary a lot if we have TTI bundling on selective CCs. This does not go nicely with services that want a low delay (we do not control which CC is used by what logical channel).
- Huawei thinks we could maybe agree that the combination of TTI bundling and CA is not possible to configure. NSN thinks we could even remove UL bundling for Rel-10.

Agreements

1) The combination of CA and UL bundling cannot be configured for a UE

- R2-100397: C-RNTI allocation in CA Alcatel-Lucent Shanghai Bell, Alcatel-Lucent Disc
- HTC wonders if the UE has multiple C-RNTI's, which C-RNTI is used at re-establishment ? ALU indicates e.g. the one from the special cell.
 - CATT thinks option 1 is simplest and low signalling overhead.
 - IDT agrees option 1 might be simplest, but option 3 is more like release-8.
 - NTT DCM thinks they could be per CC.
 - Chairman wonders how option 3 works: the CC where you sent the PDCCH determines the C-RNTI ?
 - Ericsson would be happy to go for option 1. Samsung option 3 is more in line with Rel-8 principles. Motorola would prefer option 1.
 - LG thinks that since all CC's are under the same eNB, 1 C-RNTI should be sufficient.
 - RIM is a bit concerned about option 1 reservations.
 - NSN thinks option 1 is fine.
 - QC prefers option 1.
 - NTT DCM thinks the management is more difficult with option 1.
 - NTT DCM assumes C-RNTI management would typically be done in lower layers
 - Nokia thinks having 1 C-RNTI makes life simpler for the UE. Huawei is fine with option 1.
 - NPC supports option 1.
 - NTT DCM is fine with option 1.

Agreements

1) The UE is allocated only 1 C-RNTI in case of CA.

- R2-100283: Details on DRX with carrier aggregation NEC Disc
not treated

Not available/Too late/Withdrawn

- R2-100404 Carrier Aggregation Activation/Deactivation NEC Disc
=> Withdrawn

7.1.4 System Information handling

In RAN2#68 we agreed that at CC addition, the UE is informed with dedicated signalling about the relevant "urgent" SI information. How is the UE informed about relevant SI information at SI change ?

SI-change handling

- R2-100497: System information update in CA Huawei Disc

- ZTE wonders if the proposal means that the UE acquires information for deactivated CC's ? Huawei did not address this issue in this paper but assumes the UE should acquire this as well.
- CATT wonders about the CC indication in the paging message ? Would this be eNB specific, i.e. no UE specific indication ? Huawei indicates like today it would be cell specific.
- Ericsson assumes there is a limited number of users using CA, would it not even be more efficient to inform these UE with dedicated signalling rather than paging all UE's ? So the overhead depends a lot on how many UE's are using CA ? Huawei thinks there could be many UE's using CA
- Ericsson wonders about the complexity since we already have agreed to provide the SI at CC addition ?
- Samsung wonders where the UE obtains the updated SI from in case of extension CC ?
- ZTE wonders if there is any SI for extension CC ? Motorola thinks at least the BW, Samsung mentions PDSCH related parameters.
- Intel wonders if the UE would always have to have the configuration of all configured CC's ?
- Nokia wonders what the assumption is for extension CC's ? Is part of the configuration provided by dedicated signalling, and part if provided by broadcast ? Or is everything with dedicated signalling ? Nokia assumes that for extension CC's we would handle the full configuration with dedicated signalling.

R2-100394: Handling of System Information Change in Connected Mode Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc

- ZTE wonders if the relation between an extension CC and associated CC is cell specific ? ALU assumes so.
- QC points out that today the UE can either monitor paging or check SIB1. Is the second behaviour now no longer possible with multiple CC's ? ALU proposes to not use that mechanism in case of CA.
- ZTE assume we cannot simply exclude monitor the value tag ?
- CMCC thinks we should not discuss extension CC so much.
- Ericsson wonders if proposal 1 would mean that all Rel-8 UE's would wake-up if SI information in another CC will change ? Probably. HTC thinks we could have different paging groups (different P-RNTI). NTT DCM agrees with Huawei that we could set the Rel89 indicator to off in the paging message, and then add other information for Rel-10 UE's. Ericsson agrees this would be possible but so nobody is really proposing to re-use the Rel-8 mechanism.
- Motorola wonders if this requires gaps for reading other CC system information ? ALU's proposal is for configured CC's. Motorola assumes the UE could be configured with more CC's than it can support. ALU first focuses on activated CC's. Ericsson assumes that the UE shall be aware of SI for deactivated CC's in order to allow fast activation. Motorola agrees.
- DT wonders if we see an increase of SI-change in Rel-10 ? DT does not see this.
- Chairman wonders what happens if the UE cannot read the target CC (NSN papers from last meeting). Panasonic assumes it is not so urgent for the UE to obtain this information. Panasonic thinks UE could remember that he has to read and read when return in sync, or always check when he gets insync again of that CC. NTT DCM assumes these cases are rare or should not even occur: if UE indicates to the eNB that he cannot see a CC, then the eNB should release the CC. Ericsson agrees for activated CC's but not for deactivated CC's because there might not be any better CC so the system might anyway want to keep the deactivated CC configured.
- QC thinks we should consider the case that we cannot read the PDCCH from the concerning CC, but can read PDSCH. RIM agrees this might be a problem and thinks it could be a reason for cross carrier scheduling for SI.

R2-100536: Remaining Issues in System Information Delivery SamsungDisc

- QC wonders with proposal 2, we need no notification ? Samsung confirms. The full SI information of the non-anchor CC is provided by dedicated signalling.
- QC wonders if that means that the Rel-8 mechanism is not used at all ? Samsung thinks it would be used for the special/anchor cell.

Discussion:

- ZTE wonders whether we really can assume we have only few UE's ?
 - Ericsson thinks there is one fundamental difference between SI change in Rel-8 and CA-UE's: in Rel-8 we also have to consider IDLE mode UE's. Note that the Rel-8 mechanism is still valid for Rel-10 UE's in IDLE mode.
 - Ericsson wonders if we in principle already did agree on proposals 1 & 2 for addition of a CC ? Chairman assumes this depends on whether all SI that the UE needs to know in connected is "urgent". Ericsson wonders if we would re-use the already agreed mechanism for CC addition, or would we introduce a new mechanism. Ericsson thinks we could re-use the same mechanism.
 - Chairman assumes that there is almost no/no SI left relevant for connected mode UE's if the urgent information is provided.
 - ZTE thinks there is one difference between CC addition and SI-change: at CC addition, the parameters are valid immediately, and at SI change only after SI-modification.
 - NSN agrees with Ericsson that dedicated signalling is much simpler.
 - Ericsson assumes that in general we talk about very limited number of bits (part of MIB, SIB1 and SIB2). So Ericsson does not see a big difference in the efficiency. Ericsson assumes we talk about extremely limited.
 - Panasonic thinks that in traffic load change, all CC's might have to be changed ? NSN wonders what parameters would be changed ?
 - NTT DCM would prefer Huawei proposal, i.e. a paging approach. Also if we have dedicated signalling, we need to be constraint within time.
 - How do we handle:
 - Deactivated CC's ?
 - CC's that cannot be received ?
 - Extension CC's ?
 - NSN thinks it is very unlikely that a dedicated solution would be slower than paging.
 - NTT DCM points out that a similar discussion is applicable for relays.
 - Ericsson assumes that the IDLE mode approach would take something like 320ms -> 1s for IDLE mode UE's receiving the SI. It should be possible to provide the connected mode UE's with that information during the same time.
- => Note; will try to conclude next time

- R2-100578: System Information Update during Carrier Aggregation Sony Corporation Disc REL-10
LTE_CA-Core
- R2-100413: System Information Acquisition for Carrier Aggregation Research In Motion UK Limited Disc
- R2-100311: System Information Updating for Carrier Aggregation ZTE Disc
- R2-100062: System Information Updating in Carrier Aggregation CATT Disc
- R2-100333: SI Change Notification LG Electronics Inc. Disc
- R2-100422: System information delivery under Carrier Aggregation Qualcomm Incorporated Disc
- R2-100442: System Information Overhead at CC addition LG Electronics Inc. Disc
- R2-100105: Changed SI Transmission in Carrier Aggregation Potevio Disc
- R2-100265: System Information Handling in Carrier Aggregation Intel Corporation Disc
=> revised in R2-100583 as zip format could not be read
- R2-100583: System Information Handling in Carrier Aggregation Intel Corporation Disc
All 9 Tdocs not treated

Other

- R2-100160: 'Urgent System Information' to be configured at CC addition Huawei Disc
- R2-100254: Handling of PWS on Aggregated Component Carriers LG Electronics Inc. Disc
Both not treated

7.1.5 Measurements in connected mode

e.g. How to adapt the RRC measurement model for CA ?

=> Including output reporting of email discussion [68#24] LTE: Measurements in Carrier Aggregation [ALU]

Email discussion outcome [68#24]: LTE measurements

- R2-100395: Summary of email discussion [68#24] LTE: Measurements in Carrier Aggregation Alcatel-Lucent (Rapporteur)
=> revised in R2-100590

R2-100590: Summary of email discussion [68#24] LTE: Measurements in Carrier Aggregation Alcatel-Lucent (Rapporteur) Report REL-10 LTE_CA-Core

Proposal 2:

- Ericsson wonders what the proposal really is ? Does it mean all events are applicable for a UE in CA, but we have to see how they are generalised.

Proposal 3:

- ALU clarifies that this would mean that what we have today is extended to each CC. Ericsson points out that already in Rel-8 the UE can measure on any CC.
- Ericsson assumes it might be better to discuss the triggers individually.

Agreements:

- 1) Measurements on activated CC's can be done without measurement gaps
- 2) All Rel89 measurement events are applicable for a UE configured with CA, but we have to study how they are generalised for CA.

R2-100552: Measurements in CA scenarios Nokia Corporation, Nokia Siemens Networks Disc

- Ericsson wonders if the intention is to only have 1 cell as serving cell ? Nokia confirms, only the cell on the PCC would be the serving cell.
- QC wonders if the paper is saying there is no need to measure on multiple CC's ? Nokia thinks you have to measure on all configured CC's but the performance requirements for non-PCC carriers could be less.
- CATT wonders if the intention is to always only have a handover to a single cell of the target eNB ? Nokia has assumed the Rel-8 handover procedure is applicable for the PCC, but you could add additional CC's.
- Panasonic wonders if this proposal really works in scenario 3 from the NTT DCM paper ? Ericsson agrees with Panasonic that it would not be possible to do a comparison of cells on the other CC, but you could do a absolute threshold based comparison. Ericsson thinks it is fine to start from Nokia as baseline, but thinks scenario 3 is definitely a reason to make some changes to the event definitions.
- Huawei wonders if we would do inter-freq comparison for configured non-PCC CC's ? Seems so.
- Motorola wonders if the proposal is that only measurements on the PCC are used for inter-eNB mobility. Nokia thinks you would also need to measure on other CC's if you want to be able to change the PCC at handover.
- Nokia assumes that the UE indicates how many bands it supports and how many RF's. That will detect what kind of measurements can be considered as measurements without gaps.
- Nokia indicates that the PCC does not necessarily have the best quality

R2-100421: Measurement considerations for Carrier Aggregation Qualcomm Incorporated Disc

- QC clarifies that for one measurement id there is only 1 serving cell, but for each configured CC there is a serving cell. For each measurement you configure which serving cell is applicable and what is the measurement object.
- QC confirms that the reporting configuration can be set differently per serving cell (it is configured per measurement id)
- Huawei wonders if proposal 2 means we can have 2 different measurement id's with the same reporting configuration and same measurement object but different serving cell. QC confirms (on different freq).
- Ericsson wonders what happens to the configuration in case of an inter-freq handover ? How would the swapping work ? QC has not studied these details.
- QC does not intend to change the current model
- Nokia wonders if multiple serving cell concept is easier than adding "neighbour becomes better than threshold". Chairman assumes you want to be on the best cell on that CC. NTT DCM agrees and is favouring this approach

R2-100122: Measurements for Carrier Aggregation Ericsson, ST-Ericsson Disc
General

- Ericsson confirms that the "reference cell" can change dynamically e.g. for A3.

Proposal 5

- ZTE wonders how event A1 is meant ? Is it "any of the configured CC becomes better than threshold" ? Then you start the TTT and if any of the configured CC is still better after TTT you sent the report.
- CATT wonders about A2-bis. Will this not result in a too late trigger ? Ericsson assumes the situation would be the same as in Rel-8 for one CC.
- LG wonders if the new bis triggers are used in addition, or as replacement of Rel8 triggers. Ericsson proposes A1-bis and A2-bis as additions, but A3 is a generalisation.

Proposal 9:

- Panasonic wonders whether not the worst CC should be selected ? Ericsson assumes the UE wants to be on the CC with the best quality, so as long as one of your CC's is better than another disjunct set, there is no reason to change.
- QC assumes that for CC management we should use the worst cell, and for the mobility to disjunct set we should use the best cell. Ericsson was assuming A1/A2 would be used for CC management because the configured set should be based on thresholds. But Ericsson agrees it is an interesting idea.
- Huawei wonders if the "best CC" is determined dynamically by the UE ? Ericsson confirms.
- ZTE wonders what happens when the best cell is change during the evaluation procedures ? Also how does the UE determine the best cell ? Is there a TTT ? Ericsson assumes the evaluation is instantaneous.
- Ericsson thinks providing a reference CC in the current model is a bit ugly. Motorola is worried that if the reference CC changes dynamically, the measurements would get messed up.

Discussion

- Chairman checks if we can agree to the QC proposal. QC explains that they do not intend cross intra-freq measurements to be used across frequencies.
- Chairman assumes that something like the QC proposal should be acceptable. Maybe restrict some combinations.

Different proposals:

- 1) Only 1 serving cell
- 2) Different serving cells (one per freq), but only 1 serving cell is considered in each measurement event
- 3) Different serving cells (one per freq) and there can be multiple serving cells considered in one measurement event

=> Will try offline to see if something like the QC proposal could be captured, maybe with some restrictions in flexibility => way forward provided in R2-100812

R2-100812: Way forward for measurements for Carrier Aggregation

- LG thinks of the 3 options, the first 2 fall in the category of "1 configured reference CC", and the 3rd corresponds to "UE selects one reference CC out of a multiple". LG thinks we should first discuss whether we want this UE selection. Ericsson is open for any proposal and is not sure grouping is already necessary.
 - Samsung is not sure we need "A3bis", since it might still be A3 with some additions.
 - Huawei thinks A3 can already be used inter-freq, so why do we need a new definition.
- => Agree that it should be possible to use A3 within each configured CC, i.e. comparing towards the configured cell on that CC.
- QC indicates we should be carefull about terminology, e.g. CC is not a cell.
- => Rest can be discussed as part of the email discussion EMAIL DISC [68b#24] ERIC.
Should be sure that people are not confused by unclear terminology

Agreement:

- 1) Agree that it should be possible to use A3 within each configured CC, i.e. comparing towards the configured cell on that CC.

R2-100063: Measurement in CA CATT Disc

R2-100445: Issues in Measurement for CALG Electronics Inc. Disc

R2-100106: Considerations on measurement in Carrier Aggregation Potevio Disc

All 3 Tdocs not treated

Other

R2-100196: Carrier Aggregation and the s-Measure criterion Ericsson, ST-Ericsson Disc
not treated

7.1.6 RLF

At RAN2#67bis we made some initial agreements, but details are still FFS. E.g. what are the DL / UL criteria that would trigger a re-establishment?

General

R2-100370: Radio link failure open issues Nokia Corporation, Nokia Siemens Networks Disc
not treated

DL RLF

R2-100123: Radio Link Failure for Carrier Aggregation Ericsson, ST-Ericsson Disc
R2-100193: Further considerations on RLF in CA Samsung Disc
R2-100440: DL Radio Link Failure for CA LG Electronics Inc. Disc
R2-100498: RLF in CA Huawei Disc
All 4 Tdocs not treated

UL RLF

R2-100334: UL RLF LG Electronics Inc. Disc
R2-100234: CC Failure and RLF in Carrier Aggregation Panasonic Disc
R2-100388: RLF handling for CC Alcatel-Lucent Disc
All 3 Tdocs not treated

Other:

R2-100064: Consideration on Radio Link Failure in CA CATT Disc
R2-100086: RLF Procedures for Carrier Aggregation InterDigital Disc
Both Tdocs not treated

DL:

- per CC monitoring ?
- CC failure versus RLF ?
- CCF informed to eNB (new mechanisms needed ?)

UL:

- UE MAC attempts all RACH's before indicating UL failure ?
- Relation to multi-TA?

7.1.7 Non-accessible carriers

Special considerations w.r.t. handling of non-accessible carriers.

R2-100393: Discussion of Carrier Types Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc
not treated

7.1.8 Other

R2-100369: UL scheduling with carrier aggregation Nokia Corporation, Nokia Siemens Networks Disc
not treated

RACH

R2-100335: Multiple Uplink Carriers Serving RACH LG Electronics Inc. Disc
R2-100087: RACH Procedures for Carrier Aggregation InterDigital Disc
R2-100429: Random access with carrier aggregation Ericsson, ST-Ericsson Disc
R2-100336: RACH for Carrier Aggregation LG Electronics Inc. Disc
R2-100372: RACH and carrier aggregation Nokia Corporation, Nokia Siemens Networks Disc
R2-100194: DL carrier ambiguity issue at initial RACH in asymmetric CA Samsung Disc
R2-100312: On DL Component Carrier Ambiguity in Initial Random Access Procedure ZTE Disc

All 7 Tdocs not treated

Different cases:

- Connection establishment: Rel-8 UL/DL RACH relation ?
 - Connection re-establishment: Rel-8 UL/DL RACH relation ?
 - PDCCH order: Rel-8 UL/DL RACH relation ?
 - UL data: Multi RACH available ? per TA group ? UE random selection ?
 - Handover: One or multiple RACH's in parallel ?
- Preamble retransmissions:*
- if no dedicated preamble, subsequent preamble retransmissions in one or multiple CC's ?

Log channel prioritisation

- R2-100095: Logical Channel Prioritization for Aggregated Carriers LG Electronics Inc. Disc
 R2-100492: REL-10 Logical channel prioritization Samsung Disc
 R2-100574: Discussion on Scheduling and Priority handling for Carrier Aggregation HT mMobile Inc. Disc
 All 3 Tdocs not treated.

Handover

- R2-100337: Handover Execution Using Multiple Carriers LG Electronics Inc. Disc
 R2-100329: Mobility and Carrier Aggregation Signaling NEC Disc
 Both Tdocs not treated.

Other

- R2-100072: Reuse of PCI/PSC by component carriers Sharp Corp. Disc
 not treated

Not available/Too late/Withdrawn

- R2-100408: Mobility and Carrier Aggregation Signaling NEC Disc
 => Withdrawn
 R2-100396: CA impact on logical channel prioritisation Alcatel-Lucent Shanghai Bell, Alcatel-Lucent Disc
 not treated
 R2-100438: Enhancement of D-SR in CA LG Electronics Inc. Disc
 => Revised in R2-100587
 R2-100587: Enhancement of D-SR in CA LG Electronics Inc. Disc
 withdrawn

7.2 Latency reduction (RP-091449)

“Alternatives”

- R2-100125: Impacts of contention based uplink in RAN2 Ericsson, ST-Ericsson Disc
- Huawei wonders if in step5, HARQ is used ? Ericsson thinks it could be beneficial if there are no collisions. However if we have collisions, Ericsson assumes we could not reliably detect that. So then RLC retransmissions should be used. Ericsson thinks the details can be further considered (dependant on if collision detection is reliable).
 - QC wonders what triggers step3 ? Ericsson indicates based on load the eNB could continuously do this ? QC wonders if there is only a data arrival if 3 is close to data availability. So does the eNB have to sent 3 in every TTI ? Ericsson agrees.
 - Intel wonders whether this is a new physical layer channel ? Intel wonders if it is not too aggressive to sent both BSR and data ? Intel wonders if it would not be simpler to only sent the BSR ?
 - Fujitsu wonders whether normal HARQ RTT is applied between 3 and 5 ? Ericsson confirms (4ms)
 - NSN wonders if all UE's will use the same MCS or whether blind detection at the eNB is applicable ? Ericsson assumes only 1 MCS is used. NSN wonders if this does not mean that you need a very conservative MCS ? Ericsson confirms.
 - LG wonders what the UE does when it detects the grant and it has no data ? Ericsson indicates the UE does not monitor the PDCCH.

- ZTE wonders if it is really necessary to include the BSR in msg 5 ? Ericsson thinks that would be sensible
 - LG wonders if there is any impact to the D-SR procedure ? E.g. does the UE monitor PDCCH in parallel to trying to initiate D-SR ? Ericsson thinks the UE could do either.
 - Vdf wonders whether there is really a gain for low load situations, i.e. we could just have short PUCCH cycle.
 - Huawei wonders for what type of application this would be useful ? Ericsson refers to the referenced documents.
- => Noted

R2-100373: Latency Comparison Motorola Disc

- QC wonders if there is only a 3ms difference between contention based on and 1ms SR period ? Motorola confirms but thinks it is quite a lot on 10ms. DT agrees this is significant
 - LG thinks the question is if a meaningful amount of data can be sent in this transmission ? E.g. is it enough to sent a TCP-ACK ? Motorola assumes so. LG wonders if this is really true at cell edge. E.g. at cell edge probably only 80bits is possible. Motorola agrees that it could be analysed up to what extent this would work and maybe there is limits on the cell size.
 - Vdf wonders if the 3ms gain could not be achieved by other gains, e.g. increase the processing power. Motorola thinks decreasing HARQ RTT will not be easy.
 - Motorola thinks that due to retransmission collisions not more than 0.5ms will be lost as long as the collision rate is below 20%.
- => Motorola supports the previous proposal but has some different thinking on details.

R2-100207: Sharing PUCCH-SR Huawei Disc

- IDT wonders if this really eliminates the problem of collisions on the grants. Huawei assumes that with option 2 the likelihood of PUSCH collisions is very low.
 - IDT wonders if we would not have a very bad behaviour if we have a collision on the SR ? The UE would wait for a grant that might never occur. Huawei thinks retransmissions need to be considered in any scheme
 - NSN supports the intention of option 2 to enhance the D-SR capacity, but this can be decoupled from the sharing SR scheme
 - Huawei thinks collisions on PUCCH are less costly than on PUSCH
 - QC wonders if it is correct that the grants are only in response to a request. Huawei confirms: this works in a loaded system.
 - Huawei wonders whether the SR prohibit timer would be a problem ?
 - Panasonic wonders if the PUCCH is lost then the UE will perform RACH and inform the D-eNB.
- => Noted

R2-100313: Discussion on handover performance ZTE Disc

- NSN wonders if this type of aspect was not already evaluated by RAN1 ?
- ZTE thinks the handover mobility might not have been completely realistic.
- Huawei wonders if this is in the scope of the WID, reducing UP latency. NSN assumes that this proposal is related to user plane latency.
- NTT DCM wonders when the source starts forwarding to the target and stops scheduling the UE ? ZTE sees no difference for the forwarding compared to Rel-8. It is up to implementation. The source will not stop scheduling until the handover is completed.
- LG wonders if the UE is scheduled by 2 eNB's ? Is this not against principles we have today ? LG indicates that for CA the UE is always controlled by 1 eNB.
- ZTE clarifies that after the RACH the UE would just leave the source and go listen fully to the target. NTT DCM assumes that the source will schedule the UE for some time unnecessarily. ZTE thinks from a modelling point of view this problem also exists in Rel-8.
- NSN wonders if this proposal has any RAN3 impact ? ZTE assumes no impact.
- Ericsson wonders if you stop all UL A/N to the source cell during the RACH on the target ? ZTE clarifies the UE fully operates to the source cell during the RACH procedure on the target cell.
- Vdf wonders if transmissions have to stop at CC2 before the handover ?
- NSN agrees that forwarding is left to eNB implementation, but in implementations the forwarding should start immediately when the handover command is received. NSN wonders if this is still possible in this scheme ?

- R2-100195: Delay requirement for idle to active transition Samsung
- DT thinks improvements to the C-plane latency are important and DT would propose to handle them as TEI-10. Vdf also thinks the requirement should be kept. Vdf assumes that in Rel-8 the 100ms is probably only met in low load situations. Vdf would like to see also in high load good performance.
 - => Not considered part of this WI. Might see if there is willingness for TEI-10, or new WI, or even under LTE-A SI.

- R2-100056: Latency reduction from idle mode to connected mode CATT Disc
not treated

Discussion

What proposals are considered in the scope of the WI ?

- Ericsson contention based access on PUSCH
- Huawei contention based access on PUCCH
- ZTE handover performance
- Ericsson wonders if we could agree in this meeting that there proposal is part of the WI ? Huawei thinks it is too early. NSN thinks there was a clear intention from the WI description to also study other proposals for some time.
- NSN would prefer to only accept one proposal as part of this WI.
- Ericsson would also prefer as few as possible but we can agree all necessary solutions.
- NTT DCM thinks we should seriously consider the amount of work for any alternative, and we should consider what are the most effective features for CA. NTT DCM thinks that e.g multi-TA is much more important than these delay enhancements. Huawei agrees with NTT DCM
- Huawei thinks a problem with the WID is that there is no stop.
- Nokia has the same concern. What is really necessary ? We can optimise forever. Ericsson thinks guidance can be achieved from the LTE-A SI.
- NSN thinks if we look at the LTE-A SI targets, no handover improvements are necessary. Huawei agrees: RAN1 has concluded that no need for enhancements to the handover performance seems required. Ericsson agrees.
- ZTE wonders if the current D-SR solution does not meet the LTE-A requirements ? NSN indicates that for the UP we can only have a 0.5ms margin. For the handover we have a factor 5 or 10 between what is required and target.
- Samsung thinks it is good idea to limit the scope as much as possible. So Samsung would also like to prioritise UP reductions. Samsung only wants one solution for the same problem.
- Chairman wonders who would support this handover performance type of improvements. Very limited support (2)
- => For Q1/Q2 2010, we focus on UP delay reductions not related to handover.
- => Will try to limit the number of solutions as much as possible

Detailed aspects

- R2-100126: Stage 2 description of the contention based uplink Ericsson, ST-EricssonCR 36.300 B
REL-10 LTE_LATRED-Core
- R2-100493: On contention based access SamsungDisc
- R2-100174: Discussion on the Retransmission of Contention-Based Transmission MediaTek, ITRI Disc
- R2-100215: The handling of contention based uplink transmission ETRI Disc
All 4 Tdocs not treated.

7.3 Other LTE Rel-10 WIs/SIs

No contributions.

8 UTRA Release 7 and earlier releases

REL-6 EDCH-L23:

- [R2-100218](#) Correction to handling of equal priority flows in E-TFC selection Ericsson, ST-Ericsson CR
25.321 F REL-6EDCH-L23
-Impact analysis missing
-Nokia doesn't think that the issue is significant because there are typically only 2 mac-d flows. Ericsson agrees it should say "logical channel". However the change would be agreeable in principle.
-Nokia points out the current wording should be revised.
-Samsung points out we need to capture that this will happen only when there is enough grant and also it needs to be considered per TTI.
-Principle?:
-We have a "should" statement for rel'8 (that can be covered with a magic sentence as well) and earlier and a "shall" statement for rel'9
-Qualcomm considers a "shall" statement for rel'9 cannot be acceptable with the proposed sentence as it would be difficult to define a test case.
-Qualcomm considers the sentence needs to be reworded.
-LG thinks the consequences if not approved can be reworded as SRBs shouldn't be starved.
-Ericsson didn't a test case would be needed.
-Infineon also thinks that a shall statement will not be acceptable, we need to see the sentence first.
-Ericsson will coordinate a discussion offline to come up with a sentence that can be agreeable to the group.
-We should avoid rel'6/7 CRs if a magic sentence can work.
=>This is postponed to the next meeting
- [R2-100219](#) Correction to handling of equal priority flows in E-TFC selection Ericsson, ST-Ericsson CR
25.321 A REL-7EDCH-L23
=>Postponed to the next meeting
- [R2-100220](#) Correction to handling of equal priority flows in E-TFC selection Ericsson, ST-Ericsson CR
25.321 A REL-8EDCH-L23
=>Postponed to the next meeting
- [R2-100222](#) Correction to handling of equal priority flows in E-TFC selection Ericsson, ST-Ericsson CR
25.321 A REL-9EDCH-L23
=>Postponed to the next meeting

REL-7 RANimp-CPC:

- [R2-100345](#) Clarification of MAC DTx Cycles operation when an SCCH Order De-activates DTx mode
Qualcomm Incorporated CR 25.321 F REL-7RANimp-CPC
-Nokia asks if the other types of HS-SCCH order are mentioned in MAC. Qualcomm thinks that would be the first time.
-Ericsson doesn't agree that the initial intention was as stated in CR. Qualcomm couldn't find a confirmation either way. Ericsson would like that RAN1 looks at this.
-Samsung agrees with the principle of the CR.
-Nokia doesn't think that a rel'7 CR is needed, the system won't break if it's for rel'8 or 9.
-Qualcomm would prefer a rel'7 CR because there would be some data loss.
=>This is postponed to the next meeting
- [R2-100346](#) Clarification of MAC DTx Cycles operation when an SCCH Order De-activates DTx mode
Qualcomm Incorporated CR 25.321 A REL-8RANimp-CPC
=>Postponed to the next meeting
- [R2-100347](#) Clarification of MAC DTx Cycles operation when an SCCH Order De-activates DTx mode
Qualcomm Incorporated CR 25.321 A REL-9RANimp-CPC
=>Postponed to the next meeting

REL-7 RANimp-EnhState:

- [R2-100295](#) Missing "INVALID CONFIGURATION" in case of a reconfiguration to eFACH Infineon Technologies CR 25.331 F REL-7RANimp-Enhstate
-CR date is wrong
-Nokia doesn't think the CR is needed. The inconsistency is intentional and the idea is UE will trigger a CU in case the RNTIs are missing.

- Offline discussion is needed.
- =>Offline discussion concluded the CR isn't needed.
- [R2-100297](#) Missing "INVALID CONFIGURATION" in case of a reconfiguration to eFACH Infineon Technologies CR 25.331 A REL-8RANimp-Enhstate
=>Not treated
- [R2-100300](#) Missing "INVALID CONFIGURATION" in case of a reconfiguration to eFACH Infineon Technologies CR 25.331 A REL-9RANimp-Enhstate
=>Not treated
- [R2-100305](#) Corrections to HS-DSCH reception in CELL-PCH and CELL-FACH Infineon Technologies CR 25.331 F REL-7RANimp-Enhstate
 - No shadows?
 - No summary of changes?
 - Curly brackets in text
 - Need to remove editor's notes when (and if) agreeing
 - LG indicates the "common RB info" should be added at the beginning of 8.5.21.
 - Nokia can agree to some of the changes but not to changes in 8.5.36 because it's not needed. Also in 8.5.40 the change isn't needed. Infineon considers the current state isn't clear wrt to when UE is able to configure HS reception in CELL_PCH. Nokia considers the added text is misleading.
 - Qualcomm points out in CELL_PCH, HS-SCCH isn't monitored. Samsung points out in case UE doesn't have a dedicated RNTI, UE monitor directly HS-DSCH.
 =>The CR is revised in [R2-100614](#)
- [R2-100614](#) Corrections to HS-DSCH reception in CELL-PCH and CELL-FACH Infineon Technologies CR 25.331 F REL-7RANimp-Enhstate
 - Need to verify what is done with "HS-DSCH common system information". This needs to be checked
 - Nokia explains the first change in 8.5.21 is required because the existing text with "RB mapping info" doesn't cover the case of the CR.
 - The CR will be needed starting from release 7 hence these changes need to be done on the R7 version (with shadows)
 =>The group agrees with the principle of the changes, but the CR needs to be written on R7 text.
=> The CR is postponed to the next meeting
- [R2-100538](#) On MAC-ehs reset at Treset expiry SamsungDisc REL-7RANimp-Enhstate
 - Huawei would agree but wants that all Treset timers have expired. Samsung agrees that can be taken into account. InterDigital points out there is only one Treset. Samsung points out there can still be several timer configured.
 - Ericsson asks if the flushing could mean packets are delivered to the higher layer with wrong TSN value. Ericsson considers that if MAC cannot use the packet it may as well discard them. Samsung points out the idea is to flush the HARQ buffer so the reordering queue can make use of it.
 - Interdigital would like more time to look at this problem
 - Qualcomm agrees with the CR but considers the actions related to Treset should apply to one queue only.
 - We can start from release 7.
 - We'll see a revision of the [R2-100541](#) CR taking the HW comment into account.
- [R2-100541](#) Correction to MAC-ehs reset at Treset expiry SamsungCR 25.321 F REL-7RANimp-Enhstate
=>The CR is revised in [R2-100618](#)
- [R2-100618](#) Correction to MAC-ehs reset at Treset expiry SamsungCR 25.321 F REL-7RANimp-Enhstate
=>The CR is postponed to the next meeting
- [R2-100543](#) Correction to MAC-ehs reset at Treset expiry SamsungCR 25.321 A REL-8RANimp-Enhstate
=>Not treated
- [R2-100545](#) Correction to MAC-ehs reset at Treset expiry SamsungCR 25.321 A REL-9RANimp-Enhstate
=>Not treated

- [R2-100547](#) Traffic volume measurement in CELL_PCH state SamsungCR 25.331 F REL-7
 RANImp-Enhstate
 -Ericsson agrees with the principle of the CR but would like to revise the wording (not change the indentation level)
 -Samsung
 -Nokia thinks this CR would need to be reworded to avoid impacting the periodic measurement reporting where UE shouldn't have to change states just for reporting.
 =>The CR is revised in [R2-100615](#)
- [R2-100615](#) Traffic volume measurement in CELL_PCH state SamsungCR 25.331 F REL-7
 RANImp-Enhstate
 -Rel'8/9 won't be exact shadows, as another subclause will need to be referred for the UL activity.
 =>The CR is agreed in principle
- [R2-100551](#) Traffic volume measurement in CELL_PCH state SamsungCR 25.331 A REL-8
 RANImp-Enhstate
 =>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69)
- [R2-100553](#) Traffic volume measurement in CELL_PCH state SamsungCR 25.331 A REL-9
 RANImp-Enhstate
 =>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69)

REL-7 MIMO-L23:

- [R2-100351](#) Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 C REL-7 MIMO-L23
 -Typo in reason for change
 -Categories should be C/A/A
 -Infineon asks what the "UE may apply..." mean? Is UE allowed to not do codebook restriction?
 -LG asks if in rel'8 we should add the same IE for the secondary cell MIMO parameters? That wasn't discussed. Need to discuss with RAN1 colleagues.
 -HW considers the name should be changed to PCI restrictions.
 -We agree to start from release 7.
 -We agree that this CR shall be supported if UE supports MIMO.
 -The wording will be revised to reflect that the CR is mandatorily supported (no "may" statement).
 -Ericsson points out the rel'9 version has some collisions with the r9 branches of ASN.1 MIMO parameter branches.
 -[ASN.1]
 -Infineon points out the rel'9 version isn't a real shadow and we may need additional changes regarding TxAA non MIMO and DC+MIMO. This part needs to be checked with RAN1 colleagues.
 =>The CR is revised in [R2-100616](#)
- [R2-100616](#) Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 C REL-7 MIMO-L23
 -The CR will be uploaded with a "shall" statement rather than a "may".
 -ASN.1 will need to be provided in the revision and checked in an email discussion
 -In semantic descriptions, change "shall apply" to "applies"
 -replace "TRUE means that" by "If present"
 -In coversheet, RAN1 specs impacted need to be added
 -Nokia asks if a RAN5 test will be added. This has not yet been discussed; it may be added.
 -Collision with ASN.1 review needs to be checked during email agreement.
 =>The CR is postponed to email agreement **[68b#7]** (rel'7/8/9)
 -Led by QC
 -Deadline Jan 28th.
- [R2-100352](#) Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 A REL-8 MIMO-L23
 =>The CR is revised in [R2-100644](#)
- [R2-100644](#) Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 A REL-8 MIMO-L23

Same comments as [R2-100616](#), same conclusion

-Category remains A? Can be checked.

=>The CR is postponed to email agreement **[68b#7]** (rel'7/8/9)

-Led by QC

-Deadline Jan 28th.

[R2-100353](#) Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 A REL-9 MIMO-L23

=>The CR is revised in [R2-100645](#)

[R2-100645](#) Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 A REL-9 MIMO-L23

Same comments as [R2-100616](#), same conclusion

=>The CR is postponed to email agreement **[68b#7]** (rel'7/8/9)

-Led by QC

-Deadline Jan 28th.

REL-7 RANimp-16QamUplink:

[R2-100127](#) Clarification on the report of E-DCH physical layer category extension Huawei CR 25.331 F REL-7RANimp-16QamUplink

-No rel'9 shadow because sentence is already present

-Samsung considers the change isn't needed because there is only one UE category supporting 16QAM. HW points out the extension IE is optional and would like that it's very clear that UE has to send the IE. Qualcomm also considers it's obvious UE will have to include the IE. HW considers that since the change is in release 9 we should be consistent. HW also considers it's also consistent with statements we have already added

-Infineon points out the tabular is already clear and this CR isn't needed.

=>The CR is not agreed.

[R2-100128](#) Clarification on the report of E-DCH physical layer category extension Huawei CR 25.331 A REL-8RANimp-16QamUplink

-No rel'9 shadow because sentence is already present

=>The CR is not agreed.

REL-6 TEI6:

[R2-100162](#) Clarification on the signalling connection release indication Huawei CR 25.331 F REL-6TEI6

-STE considers this subject has been discussed and it was concluded that UE is allowed to locally release the RRC connection in case of abnormal event. STE agrees with the intent but doesn't see the point of capturing this. Qualcomm agrees with STE; QC points out this CR would contradict NAS procedures.

-HW agrees with the abnormal treatment but wants to capture some other cases related to fast dormancy. HW considers that abnormal cases shouldn't be captured in the spec. QC points out this has been discussed at length.

=>The CR is not agreed.

[R2-100163](#) Clarification on the signalling connection release indication Huawei CR 25.331 A REL-7TEI6

=>The CR is not agreed.

[R2-100164](#) Clarification on the signalling connection release indication Huawei CR 25.331 A REL-8TEI6

=>The CR is not agreed.

[R2-100165](#) Clarification on the signalling connection release indication Huawei CR 25.331 A REL-9TEI6

=>The CR is not agreed.

[R2-100306](#) Clarification on Maximum allowed UL TX power Infineon Technologies CR 25.331 F REL-6TEI6

-No shadows?

-"common e-dch" shouldn't be in CRs before rel'8.

- STE agrees with the principle of the CR but would like to change the wording to reflect that UE doesn't have to receive SIB in CELL_DCH. STE would not want to change rel'6 behavior.
 - Qualcomm would like to see this CR for a later release, not rel'6.
 - STE points out we shouldn't use E-DCH in rel'6.
 - Nokia asks if this would change R99 behavior? Infineon agrees but doesn't think R99 is realistic.
 - Infineon indicates the main goal is to ensure there is a common understanding. Nokia points out there is a R99 behavior which is working and is clear. If we do a change now it will create a discontinuity. Infineon asks if it's clear that dedicated value will always overwrite the value stored in UE. NSN answers if UE stays in the same cell, then yes. If UE moves to a new cell then it will acquire new SIB values. Nokia points out the CR will change the functionality.
 - NSN indicates NW may use the dedicated parameter to optimize the RACH and this CR would remove this capability. Infineon is worried the dedicated messaging may be in appropriate in the same cell.
 - Infineon can discuss offline if this use case should be improved in later releases.
- =>The CR is not agreed

- [R2-100564](#) Compatibility of Rel-6 UE with Rel-7 and Rel-8 SIB extensions Nokia Corporation, Nokia Siemens Networks Disc REL-6 TEI6
- Qualcomm comments that the specification is already clear from release 6. Ericsson agrees with QC that this change isn't needed.
 - Nokia asks if there is requirement in rel'6 for UE to read the extension type. Qualcomm can provide this.
 - No progress since last meeting.
 - Offline discussion: agreement that current spec is not complete but correction as presented isn't agreeable
- =>Noted
- R2-100565 Correction to SIB Type extension handling Nokia Corporation, Nokia Siemens Networks CR 25.331 F REL-6TEI6
- R2-100566 Correction to SIB Type extension handling Nokia Corporation, Nokia Siemens Networks CR 25.331 F REL-7TEI7
- R2-100567 Correction to SIB Type extension handling Nokia Corporation, Nokia Siemens Networks CR 25.331 A REL-8TEI7
- R2-100568 Correction to SIB Type extension handling Nokia Corporation, Nokia Siemens Networks CR 25.331 A REL-9TEI7
- => All 4 Tdocs not treated after R2-100564 conclusion.

REL-7 TEI7:

- [R2-100364](#) Clarification to FACH measurement occasion of 1.28Mcps TDD ZTE CR 25.331 F REL-7TEI7
- CATT points out this change would also impact the inter-RAT measurement. CATT considers the measurement should apply for the whole frame. Not for TS0 only.
 - Ericsson is fine with adding a clarification but specify in which case this applies. ZTE considers that would be difficult to do.
 - CATT wants to apply this CR for LCR TDD inter-freq only. ZTE will work on a re-wording.
- =>The CR is revised in [R2-100619](#)
- [R2-100619](#) Clarification to FACH measurement occasion of 1.28Mcps TDD ZTE CR 25.331 F REL-7TEI7
- => CR is not provided and therefore withdrawn. Topic is postponed to the next meeting
- [R2-100365](#) Clarification to FACH measurement occasion of 1.28Mcps TDD ZTE CR 25.331 A REL-8 TEI7
- =>Not treated
- [R2-100367](#) Clarification to FACH measurement occasion of 1.28Mcps TDD ZTE CR 25.331 A REL-9 TEI7
- =>Not treated

9 UTRA Release 8

9.1 Improved L2 for uplink

(RAN2 WI, RANimp-UplinkL2dataRates, closed June 08)

- [R2-100350](#) RLC recovery with uplink POLL_SUFI Qualcomm Incorporated CR 25.322 F
REL-8RANimp-UplinkL2dataRates
-Nokia agrees with the principle of the CR but considers the wording can be improved.
-Ericsson isn't convinced the MAX-DAT should be incremented. There would be some impact on other timers as well.
-Nokia would like to ensure that UE is able to select VT_DAT of PDU as indicated in 11.3.2.
-Qualcomm will discuss offline how to capture these comments
-There is some support for the principle but the details need to be worked out.
=>The CR is postponed to the next meeting
- [R2-100470](#) Clarification on partially radio aware method LG Electronics Inc. CR 25.322 F
REL-8RANimp-UplinkL2dataRates
-Samsung points out if the method proposed by LG is adopted there will be issues for LC without any data.
-Ericsson considers the spec is clear as it is and the CR isn't needed. The size is determined by the grant so it can't be per LC.
-HW considers LG's understanding isn't correct
=>The CR is not agreed.
- [R2-100473](#) Clarification on partially radio aware method LG Electronics Inc. CR 25.322 A
REL-9RANimp-UplinkL2dataRates
=>Not treated.
- [R2-100476](#) MAC segmentation after ARQ delivery failure LG Electronics Inc. CR 25.321 F
REL-8RANimp-UplinkL2dataRates
-Ericsson considers this is an optimization and the use case is rare hence the CR isn't needed.
-Qualcomm agrees with the CR and would like to see this extended to the DL. NSN considers this problem may happen on UL but less on DL because there is more flexibility for NW to adapt the transmission. QC considers that for DL since NW has to serve many users there is less flexibility.
-Huawei considers this is a small optimization and the CR isn't needed. LG indicates for CsoHS is may happen. In this case HW considers the PDUs will be transmitted in consecutive TTIs.
-Nokia asks what would happen in case of A2N error. If this happens for the last transmission, UE should transmit this to upper layers.
-Samsung agrees with HW that this would be a corner case.
-LG can discuss offline if some optimizations are needed for later releases.
=>The CR is not agreed
- [R2-100477](#) MAC segmentation after HARQ delivery failure LG Electronics Inc. CR 25.321 A
REL-9RANimp-UplinkL2dataRates
=>Not treated.

9.2 CS voice service over HSPA

(RAN2 WI, RInImp8-CsHspa, closed March 08)

- [R2-100209](#) Inconsistency in expectation of received IEs with simultaneous SRNS relocation and CS transport channel type switch Alcatel-Lucent CR 25.331 F REL-8RInImp8-CsHspa
-Samsung points out the current CR doesn't apply to CsoHS only. That wasn't the intention.

- Nokia points out this CR changes R99 behavior.
- Nokia points out CsoHS is implementable from R7 hence this change would need to apply earlier. This CR is an optimization and may not be significant.
- Nokia considers the current behavior isn't a problem
- Qualcomm agrees there is some backward compatibility issue.
- ALU asks if other UE vendors are fine receiving an empty DL counter sync info?
- ALU can discuss offline if some optimization is useful for later releases
- =>The CR is not agreed.

[R2-100210](#) Inconsistency in expectation of received IEs with simultaneous SRNS relocation and CS transport channel type switch Alcatel-Lucent CR 25.331 A REL-9RANImp8-CsHspa
=>Not treated.

9.3 Enhanced Uplink for CELL_FACH State in FDD

(RAN2 WI, RANImp-UplinkEnhState, closed Dec. 08)

[R2-100075](#) Error Detection instead of error correction in Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.319 D REL-8RANImp-UplinkEnhState

=>The CR is agreed in principle

[R2-100076](#) Error Detection instead of error correction in Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.319 A REL-9RANImp-UplinkEnhState

=>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69).

[R2-100077](#) Error Detection instead of error correction in Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.321 D REL-8RANImp-UplinkEnhState

=>The CR is agreed in principle

[R2-100078](#) Error Detection instead of error correction in Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.321 A REL-9RANImp-UplinkEnhState

=>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69).

[R2-100083](#) Correction of RNTIs handling for Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.331 F REL-8RANImp-UplinkEnhState

-Ericsson asks what is implied by the first change. Nokia explains this would allow RNTI to be set through CU.

-QC considers this CR is related to a RAN3 CR. Nokia points out in the RAN3 CR, an optional IE has been added in NBAP and this CR is needed in case NW chooses not to provide the C-RNTI to NB

-CATT indicates for TDD it is mandatory for NW to include the RNTIs. The CR should be made specific to FDD.

-Nokia points out the CR corrects another issue; in current behavior, the invalid config would be detected too late, UE has already transitioned to CELL_FACH and UE cannot undo the changes.

-Samsung asks what happens if we only keep the invalid configuration change. Nokia agrees that would be ok.

-Qualcomm considers only the RAN3 CR is needed. The RAN2 change isn't required. HW considers the CR isn't dependant on the RAN3 CR.

-Interdigital agrees with Nokia that we need to address the case where UE needs to revert the configuration.

-Nokia will provide a revision with the CATT and Samsung comments. There needs to also be offline discussion on how to deal with the invalid configuration, if we can continue with the behavior agreed in rel'8 or if we need to align it to the R99 mechanism.

=>The CR is revised in [R2-100620](#)

[R2-100620](#) Correction of RNTIs handling for Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.331 F REL-8RANImp-UplinkEnhState

-Draft CR was available in draft folder.

- Qualcomm wants to capture that UE can still send invalid config if C-RNTI is missing and SRNC or frequency has changed. Samsung would like to keep the R99 behavior that UE missing C-RNTI triggers a CU. HW and Nokia agree with Samsung
- in TDD
- Instead of conditioning the invalid configuration to TDD, we simply remove the bullet on invalid configuration
- A rel'9 shadow will be provided.
- =>R2-100620 is agreed in principle

[R2-100084](#) Correction of RNTIs handling for Enhanced Uplink in CELL_FACH Nokia Corporation, Nokia Siemens Networks CR 25.331 A REL-9RANImp-UplinkEnhState
=>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69)

[R2-100621](#) Support of E-AICH power offset Qualcomm Incorporated CR 25.331 F REL-8 RANImp-UplinkEnhState
-New doc for information
-Nokia will need some time to review the CR.
-Infineon agrees with the intention of the CR and asks if RAN4 has taken into account the different power offsets? We need to check this.
-Interdigital indicates a similar CR has been seen some time ago and it was decided not to do anything
=>The CR is postponed

9.4 Enhanced CELL_FACH state in 1.28 Mcps TDD

(RAN2 WI, RANImp-EnhState1.28TDD, closed Dec. 08)

[R2-100149](#) Clarification on Scheduling Information reporting for 1.28 Mcps TDD CATT, New Postcom, Potevio, TD Tech, ZTE CR 25.321 F REL-8RANImp-EnhState1.28TDD
-remove change marks in coversheet
-What to change in 25.433? CR was submitted late in RAN3, may be treated later.
-ZTE wonders whether HARQ entities will be reset in case of state transition. CATT considers the HARQ entity shouldn't be reset.
-The CR needs to be revised to take this into account.
=>The CR is revised in [R2-100623](#)

[R2-100623](#) Clarification on Scheduling Information reporting for 1.28 Mcps TDD CATT, New Postcom, Potevio, TD Tech, ZTE CR 25.321 F REL-8RANImp-EnhState1.28TDD
=> The CR is agreed in principle

[R2-100150](#) Clarification on Scheduling Information reporting for 1.28 Mcps TDD CATT, New Postcom, Potevio, TD Tech, ZTE CR 25.321 A REL-9RANImp-EnhState1.28TDD
-remove change marks in coversheet
=>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69)

[R2-100354](#) Removal of FFSs about the support of E-FACH for 1.28Mcps TDD ZTE CR 25.308 F REL-8RANImp-EnhState1.28TDD
=>The CR is agreed in principle

[R2-100355](#) Removal of FFSs about the support of E-FACH for 1.28Mcps TDD ZTE CR 25.308 A REL-9RANImp-EnhState1.28TDD
=>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69).

[R2-100357](#) Corrections to the Treset for 1.28Mcps TDD ZTE CR 25.331 F REL-8 RANImp-EnhState1.28TDD
-CATT doesn't think the Treset should apply all the time. ZTE points out in RAN3, Treset is mandatory present hence should apply; this CR is making the specification consistent.
-CATT would like to check the RAN3 status offline.
-CATT is ok with making the specs consistent but may want to change the procedure later.
=>We agree on the CR to make the specifications consistent, further CRs on this topic are up to company contribution
=>The CR is agreed in principle

- [R2-100359](#) Corrections to the Treset for 1.28Mcps TDD ZTE CR 25.331 A REL-9
RANImp-EnhState1.28TDD
=>Not treated (note: will considered implicitly in principle agreed for RAN2 #69).
- [R2-100360](#) Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDDZTE CR
25.331 F REL-8RANImp-EnhState1.28TDD
-CATT agrees with the intention but considers the CR can be simpler, there needs to be
alignment of the terminology as well.
-NSN points out the first change would impact FDD.
-ZTE would agree to try to make the CR simpler however several cases will have to be
considered. That can be checked offline.
-TD-Tech considers the changes in 8.6.6.1 aren't necessary. ZTE indicates the changes were
made because the procedure was moved in other subclauses.
-ZTE will coordinate offline to gather all changes in 8.6.6.1
=>The CR is revised in [R2-100624](#)
- [R2-100624](#) Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDDZTE CR
25.331 F REL-8RANImp-EnhState1.28TDD
-Formatting of 8.2.2.3 is strange. To be checked.
=>The CR is agreed in principle
- [R2-100361](#) Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDDZTE CR
25.331 A REL-9RANImp-EnhState1.28TDD
=>Not treated (note: will considered implicitly in principle agreed for RAN2 #69).
- [R2-100368](#) Clarification to E-FACH measurement occasion of 1.28Mcps TDD ZTE CR 25.331
F REL-8RANImp-EnhState1.28TDD
-CATT indicates the inter-RAT measurement for TS0 is still being discussed and can't
conclude right now.
-TDTech considers that inter-rat measurements can be done in other time slots hence CR isn't
required.
=>The CR is postponed to the next meeting.
- [R2-100371](#) Clarification to E-FACH measurement occasion of 1.28Mcps TDD ZTE CR 25.331
A REL-9RANImp-EnhState1.28TDD
=>The CR is postponed to the next meeting.
- [R2-100484](#) Clarification for the BCCH transmission to CELL_FACH state UE for 1.28Mcps TDD TD Tech
CR 25.331 F REL-8RANImp-EnhState1.28TDD
-The CR isn't needed.
=>The CR is not agreed
- [R2-100485](#) Clarification for the BCCH transmission to CELL_FACH state UE for 1.28Mcps TDD TD Tech
CR 25.331 A REL-9RANImp-EnhState1.28TDD
=>The CR is not agreed
- [R2-100499](#) Correction for actions to HS_DSCH_DRX_CELL_FACH_STATUS variable for LCR TDD TD
Tech CR 25.331 F REL-8RANImp-EnhState1.28TDD
-CATT supports the intention of the CR but considers the wording is confusing
-The new conditions aren't achieving the intention of the CR.
-Companies agree on the intention of the CR but the text needs to be reworked.
=>The CR is revised in [R2-100625](#)
- [R2-100625](#) Correction for actions to HS_DSCH_DRX_CELL_FACH_STATUS variable for LCR TDD TD
Tech CR 25.331 F REL-8RANImp-EnhState1.28TDD
=>withdrawn, topic is postponed to RAN2 #69
- [R2-100500](#) Correction for actions to HS_DSCH_DRX_CELL_FACH_STATUS variable for LCR TDD TD
Tech CR 25.331 A REL-9RANImp-EnhState1.28TDD
=>Not treated, topic is postponed to RAN2 #69

9.5 Mobility between UMTS and LTE

- [R2-100317](#) Cell Selection/Reselection from UMTS to LTE ZTE CR 25.331 A REL-9LTE-L23
-Impact analysis missing
-WI code is LTE-L23, not LTE-123
-Same issue for TDD?

- =>The CR is revised in [R2-100617](#)
- [R2-100617](#) Cell Selection/Reselection from UMTS to LTE ZTE CR 25.331 F REL-8LTE-L23
=>The CR is withdrawn
- [R2-100348](#) Clarification to priority based mobility procedures Qualcomm Incorporated Disc REL-8LTE-L23
- DOCOMO considers that if a RAT priorities aren't indicated in SIB19 then legacy rules should apply.
 - Ericsson's interpretation is aligned with DOCOMO's. Ericsson considers the spec should be clear and either mechanism should apply in parallel.
 - Nokia agrees with DOCOMO that if a RAT isn't indicated then legacy rules would apply there.
 - First issue: The intention of the specification is as stated above. Companies are invited to check if further changes would be required.
 - Vdf would like to know what happens if both rules would apply simultaneously if both legacy and ranking rules apply. Nokia considers it's still unlikely that UE would face a ambiguity because there will most likely be a timing difference where those rule apply.
 - Second issue:
 - What happens in case both criteria for inter and intra pass, is it left to UE implementation what happens then?
 - Nokia considers this is left up to UE implementation.
 - HW considers the case where both criteria pass may be avoided with careful configuration.
 - VDF doesn't want to leave this up to UE implementation, there needs to be an analysis to see what the impact would be.
- Offline discussion:
- Second issue seems to be ok to be left to UE implementation
 - First issue:
 - UE supporting priority based mobility in UTRA: no importance which scheme to apply first.
 - UEs will not consider RATs which don't have priority configured.
 - UE not supporting priority based mobility in UTRA: more time is needed to converge
- =>CR will be provided tomorrow to address the agreed cases (in [R2-100626](#)).
- [R2-100349](#) Clarification to priority based mobility procedures Qualcomm Incorporated CR 25.304 F REL-8LTE-L23
- Typo in 5.2.6.1.4a (nto->not)
- =>The CR is revised in [R2-100626](#)
- [R2-100626](#) Clarification to priority based mobility procedures Qualcomm Incorporated Disc REL-8LTE-L23
- Panasonic points out "priority and threshold" need to be mentioned.
 - Samsung would like to update the wording of the last sentence to: "if criteria 1 applies to a certain set of inter-frequency utran layers and rats and criteria 2 applies to a certain set of inter-frequency utran layers and rats, then the order in which the reselection criterias is evaluated is left to UE implementation"
 - DT asks what's the understanding of a set of inter-freq/inter-rat layers. Qualcomm explains a set can contain 1 or more layers.
 - DT is concerned the sentence doesn't specify the UE behavior clearly. Qulacomm indicates the sentences above provide the context to this sentence.
- =>The CR is revised in [R2-100650](#)
- [R2-100650](#) Clarification to priority based mobility procedures Qualcomm Incorporated Disc REL-8LTE-L23
- Impact analysis is missing
 - DT asks if the behavior would change with this CR? QC's intention is to clarify the existing behavior
 - DT indicates there is still a hole to cover in the UE behavior. QC agrees that can be fixed in a future meeting as there was no agreement on the other "hole" at this meeting.
 - Ericsson indicates more time is needed to discuss this CR. Is an email discussion ok?
 - Ericsson prefers to postpone to the next meeting
- =>The CR is postponed to email agreement [68b#8]
- Led by Qualcomm
 - Deadline is Jan 28th

- [R2-100622](#) Review of absolute priority Panasonic Disc
 - Ericsson indicates statement 3 and 4 would need to be considered first to determine which algorithm to apply and then statements 1 and 2 to determine which layers are considered.
 =>Noted
- [R2-100571](#) Clarification on the use of HCS when absolute priority reselection is used Nokia Corporation, Nokia Siemens Networks CR 25.304 F REL-8LTE-L23
 -VDF doesn't think HCS should be restricted when absolute priority is applied.
 -Nokia clarifies that NW isn't precluded to configure HCS and absolute priorities, the goal is to restrict that rel'8 UEs would look at both. HW points out that in this case new and old UEs would be directed to different cells; is that the desired behavior?
 -Ericsson points out abs prio isn't used for intra frequency hence there shouldn't be a contradiction for configuring HCS there.
 -VDF would like to be able to configure different schemes depending on the RAT.
 -Offline discussion: There is a view that HCS should be usable for intra-frequency but there is offline checking whether that use case is important.
 =>The CR is postponed.
- [R2-100572](#) Clarification on the use of HCS when absolute priority reselection is used Nokia Corporation, Nokia Siemens Networks CR 25.304 A REL-9LTE-L23
 =>The CR is postponed

9.6 Support of UTRA HNB

(RAN2 WI, HNB-supp, closed: March 09, WIDS: RP-080752)

No contributions.

9.7 TEI8

- [R2-100129](#) Extend UM RLC ciphering error detection and recovery mechanism for VoIP Huawei CR 25.331 C REL-8TEI8
 -Nokia asks if this is for AM or UM RLC. HW indicates UM. Nokia considers that should be clarified in the CR.
 -HW considers that changes are not complicated so that could be useful for TEI8.
 -LG agrees with the intention of the CR however it's an enhancement so they would consider TEI9. HW considers that this doesn't impact ASN.1. Nokia states this CR has ASN.1 impact.
 -Nokia points out the SSD isn't present in the RRC interface. HW considers the information is available to RNC. Nokia clarifies UE doesn't have access to this information. This can be checked.
 -Ericsson supports the improvement but sees that the extension creates an issue with the UE support. HW thinks NW doesn't need to know about it. Nokia thinks RNC needs to know whether UE will implement this feature.
 -Chairman asks if RoHC profile 0 would carry a PDCP header in most compressed case? That can be checked. LG indicates there is a 1-byte header.
 -Which release should we start at: TEI10?
 -Nokia proposes to start with this assumption and when we have a complete feature we can look at making this in earlier release.
 =>We agree with this way forward.
 =>The CR is not agreed.
- [R2-100130](#) Extend UM RLC ciphering error detection and recovery mechanism for VoIP Huawei CR 25.331 A REL-9TEI8
 =>Not treated.
- [R2-100131](#) Discussion on the non-serving RG downHuawei Disc REL-8TEI8
 -HW considers this is a critical problem for release 8.
 -Ericsson is concerned this could create an issue if UE may end up using large grant even though they didn't use their grant for a while.

- Nokia agrees with the principle of the CR. UE could end up using the non serving RG because of H->D misdetections. Nokia would like to apply this change to any legacy UE.
- Ericsson points out the misdetection is very low. Nokia has witnessed this issue in the field.
- Samsung doesn't think it's a critical problem because UE can always send an SI.
- HW points out mis-detection is only one case, there is also the use case of sending a NS-RG to a group of UEs.
- HW agrees SI can be transmitted but that may take a long time. In this case how is a big grant useful to UE.
- Ericsson points out the issue is to be able to suppress interference in overload situation. Removing this possibility to UEs who don't transmit data will impact the interference management. There is also an issue with processing resource management.
- LG considers this is only an enhancement and not critical for rel'8.
- Nokia considers it's a serious issue because UEs won't be able to
- =>We can discuss this issue in TEI10 AI and decide the release to apply it to if anything is agreeable.
- =>Noted. The proposals are not agreed.

[R2-100132](#) Corrections to the non-serving RG downHuawei CR 25.321 F REL-8TEI8
=>Not treated.

[R2-100133](#) Corrections to the non-serving RG downHuawei CR 25.321 A REL-9TEI8
-cat should be A.
=>Not treated

[R2-100137](#) UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast domancy Panasonic CR 25.331 F REL-8TEI8
-RIM asks what is the use case of data resume at upper layer. STE doesn't think the change is needed. Panasonic considers that release the connection in the new RAT would be very strange.
-Samsung agrees with the second change but consider the first change isn't needed (that would remove the first change in the first section).
-Qualcomm doesn't see the motivation for the CR (SCRI isn't retransmitted at T323 expiry and it's not likely that PS data resumes during RLC retx). No change would be needed.
-LG agrees this removes useless SCRI retx but that's an optimization.
-The first change isn't needed.
-Panasonic points out the 2nd change is still needed.
-LG points out the second change will be very infrequent. Nokia points that even though it's rare the use case will happen and needs to be solved.
-STE considers that if the UE wants to save power, maybe it should release the signaling connection.
=>The CR is revised in [R2-100628](#)

[R2-100628](#) UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast domancy Panasonic CR 25.331 F REL-8TEI8
=> The CR is revised in [R2-100646](#)

[R2-100646](#) UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast domancy Panasonic CR 25.331 F REL-8TEI8
-highlights to be removed in final version and a shadow will be provided
=>The CR is agreed in principle

[R2-100187](#) Events 6x to trigger a TTI change Ericsson, ST-EricssonDisc REL-8TEI8
-Nokia points out the TTI switch is needed in case UE has data to transmit; in this case NW wouldn't need to configure periodic reporting... Ericsson that would improve the sample size of Sis.. Nokia would prefer an NBAP solution as it would support any legacy UE implementation.
-HW considers the new events aren't needed because the issue already exists and has been already handled. HW could discuss this in the context of R10 but then R6-9 UEs would need to be handled. Ericsson asks if it's a standardized solution? HW indicates it's implementation specific.
-Interdigital would prefer a NW solution. Interdigital points out the E-TFC isn't reliable as it changes tti per tti and depends on the power offsets.
-Nokia doesn't think a UE solution would have much impact because all UEs would need to be impacted.

-Vodafone wants to see a solution that works and has not seen a NW based solution that works. Nokia indicates that today there has to be a mechanism for TTI change hence what we are discussing is an improvement. And of course if an improvement is needed it would be difficult to accept in release 8.

=>We can discuss this issue in TEI10 AI and decide the release to apply it to if anything is agreeable.

=>Noted. Proposal is not agreed.

[R2-100188](#) New Events 6x: Event 6H and Event 6I Ericsson, ST-Ericsson CR 25.331 F REL-8 TEI8
=>Not treated

[R2-100189](#) New Events 6x: Event 6H and Event 6I Ericsson, ST-Ericsson CR 25.331 A REL-9 TEI8
=>Not treated

[R2-100276](#) Correction of DRX definition for LCR TDD New Postcom CR 25.308 F REL-8 TEI8
-RIM asks if we can change the section titles? This can be checked and modified if there is an issue
=>We agree with the CR in principle (we'll finalize the section title question at the next meeting)

[R2-100277](#) Correction of DRX definition for LCR TDD New Postcom CR 25.308 A REL-9 TEI8
=>Not treated (note: will considered implicitly in principle agreed for RAN2 #69).

[R2-100278](#) Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD New Postcom CR 25.321 F REL-8 TEI8
=>The CR is revised in [R2-100595](#)

[R2-100595](#) Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD New Postcom CR 25.321 F REL-8 TEI8
=>The CR is agreed in principle.

[R2-100279](#) Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD New Postcom CR 25.321 A REL-9 TEI8
=>revised in R2-100596

R2-100596 Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD New Postcom CR 25.321 A REL-9 TEI8
=>Not treated (note: will considered implicitly in principle agreed for RAN2 #69).

[R2-100562](#) Clarification of T323 configuration Nokia Corporation, Nokia Siemens Networks CR 25.331 F REL-8 TEI8
-RIM points out the word "variable" should not be used in ASN.1, then we should remove the "the" before.
-Qualcomm supports the CR and the method to solve the issue.
-Ericsson agrees this issue needs to be fixed. But would prefer having a note in the semantics.
-HW prefers the Ericsson proposal to have a note in the semantics description.
-RIM points out the type of issue being corrected needs to be carefully checked for future ASN.1 reviews.,
=>We agree with the method Nokia used to capture the note.
-LG points out the consequence if not approved needs to be revised. It's too weak right now.
=>With the 1st RIM comment taken into account and a revised consequence if not approved, the CR is agreed in principle.

[R2-100563](#) Clarification of T323 configuration Nokia Corporation, Nokia Siemens Networks CR 25.331 A REL-9 TEI8
=>Not treated (note: will considered implicitly in principle agreed for RAN2 #69).

[R2-100206](#) Rapporteur CR for corrections to 25.993 Alcatel-Lucent (Rapporteur) CR 25.993 F REL-8 TEI8
-LG points out the consequences if not approved aren't precise enough: change "ambiguous" to "incorrect".
=>The CR is agreed in principle

[R2-100208](#) Rapporteur CR for corrections to 25.993 Alcatel-Lucent (Rapporteur) CR 25.993 A REL-9 TEI8
=>Not treated (note: will be considered implicitly in principle agreed for RAN2 #69).

[R2-100139](#) UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast dormancy Panasonic CR 25.331 A REL-8 TEI8
=>withdrawn

9.8 Other UTRA Rel-8 WIs

Including Enhanced UE DRX, HSPA VoIP to WCDMA/GSM CS continuity, HS-DSCH Serving Cell Change Enhancements, Support for ANSS for LCS, and release 8 WIs where other WGs are the lead.

REL-8 ETWS:

[R2-100135](#) Reception of ETWS notification in limited service state Panasonic CR 25.304 F REL-8 ETWS
-STE agrees in principle with the CR but has a question on the wording. The LTE spec doesn't explicitly mention the "if supported" part. It's already clear that ETWS is optional in other specs.
-Nokia asks if ETWS is optional in LTE as well. It is the case.
-In 36.321 and 25.321 we use the term "ETWS-capable UE"
=>With this change (remove "if supported") the CR is agreed in principle

[R2-100136](#) Reception of ETWS notification in limited service state Panasonic CR 25.304 A REL-9 ETWS
=>withdrawn

REL-8 RANImp-LCRCPC (RAN1):

[R2-100153](#) Clarification on HARQ procedure for HS-DSCH SPS operation for 1.28 Mcps TDD CATT CR 25.321 F REL-8 RANImp-LCRCPC
-TD Tech wants to ensure that UE is not forced to always store the data, "UE may" place the data... CATT thinks that this would create confusion with the NB.
-ZTE asks what the first "else" means: the data in the IR buffer isn't the correct one.
-CATT wants to address the case where the first retransmission is missed (HS-SCCH decoded incorrectly) and UE receives the second retransmission but cannot locate the Virtual IR.
-CATT would like that UE tries to decode this second retransmission if it's self-decodable.
-LG points out this use case is rare and isn't a critical case to address, this is also SPS which typically means voice and 1 lost packet isn't a big deal.
=>We can discuss this issue in TEI10 AI and decide the release to apply it to if anything is agreeable.
-Even for TEI10, LG thinks this is a very small improvement
=>The CR is not agreed

[R2-100154](#) Clarification on HARQ procedure for HS-DSCH SPS operation for 1.28 Mcps TDD CATT CR 25.321 A REL-9 RANImp-LCRCPC
=>Not treated.

REL-8 RANImp-DCHSDPA (RAN1):

[R2-100155](#) Corrections to stage 2 of DC-HSDPA Huawei CR 25.308 F REL-8 RANImp-DCHSDPA
-Nokia agrees with the principle of this CR but points out for release 9 the change should be different. HW points out the DC+MIMO requirement is in a different section. That can be handled in a different CR since it's a different WI.
-Samsung considers the sentence need to capture the actual requirement which is that we have two sets with a limited set of combinations. HW will take this into account.
-We could simply point out the max nb of HS-SCCH to monitor is 6, we change it to the following sentence:
- the maximum number of HS-SCCHs as seen from the UE's point-of-view is 6 with a maximum of four HS-SCCHs per cell.
-Infineon points out for target cell preconfig we need to mention +1. HW points out this is already captured in a different section.
=>With the change of the new sentence, the CR is agreed in principle.

=>R2-100155 is in principle agreed.

[R2-100156](#) Corrections to stage 2 of DC-HSDPAHuawei CR 25.308 A REL-9RANimp-DCHSDPA
-section title copied twice.
=>Not treated (note: will considered implicitly in principle agreed for RAN2 #69).

10 UTRA Release 9

10.1 DC-HSDPA with MIMO (RP-090332)

(RANimp-DC_MIMO, leading WG: RAN1, started: March 09, closed: Dec. 09, WIDS: RP-090332)

[R2-100151](#) Corrections to TSN field extension configuration for MAC-ehs entity Huawei CR 25.331
F REL-9 RANimp-DC_MIMO
-a paragraph is repeated twice. That's because paragraph isn't there in original spec, CR is wrong.
-Samsung points out we should indicate what to do in case the tsf field extension isn't configured. We should instead indicate what happen in the opposite case.
-Nokia agrees with HW we need both changes in 8.5.33 and 8.5.57 so we configure TSN to 14 in case we have MIMO in first cell only.
-ZTE points out in the future with 4 carriers one possibility would be capture this dependency in the tabular. We need to see a proposal on this to be able to decide. HW points out this was done at the last meeting and reverted.
-Nokia proposes to have another section dedicated to TSN field extension that would refer to the primary and secondary mimo status variable.
-We also need to think of how this will be evolved when we have 4c.
=>The CR is postponed to the next meeting

[R2-100152](#) Clarification of code rates limitation for category 25/27 Huawei CR 25.306 F REL-9
RANimp-DC_MIMO
-ZTE agrees with the intention but would like to reword the CR
-Qualcomm agrees with the intention but thinks the summary of change needs to be revised
-suggestion: "only applies on the carrier" -> "applies on any of the carrier"
=>The CR is agreed in principle
Note: A revision of R2-100152 in R2-100639 was finally withdrawn.

[R2-100161](#) Consideration on CQI feedback cycle in combined DC-HSDPA and MIMO Huawei Disc
REL-9RANimp-DC_MIMO
-HW indicates this has been discussed in RAN1 and RAN1 agreed on the way forward proposed by HW.
-There may be some changes in RAN2 but that depends on RAN1 discussions. There is a possibility that ASN.1 is impacted.
=>Noted

[R2-100184](#) Correction to the activation/deactivation of secondary cell MIMO feature Ericsson, ST-Ericsson
CR 25.331 F REL-9RANimp-DC_MIMO
-Orthogonal to the ASN.1 review activity
-Qualcomm asks whether there is procedural change needed. Ericsson didn't find any.
-HW indicates the SRNC should know about the capability of the target cell capability hence the first reason for change doesn't exist. Ericsson indicates it's the same in Rel'8.
-The use case will happen if the target RNC doesn't know about the R9 syntax; in this case it won't know that MIMO on secondary is set to continue.
-HW indicates SRNC shouldn't do a relocation to a RNC that doesn't understand R9 syntax. Ericsson agrees that a good NW shouldn't do that but in multi-vendor environment we have to be careful.
-Nokia indicates that could happen even with a single vendor in case all NW isn't updated simultaneously
=>The CR is agreed in principle

10.2 DC-HSUPA (RP-090014)

(RANimp-DC_HSUPA, leading WG: RAN1, started: March 09, target: March 10, WIDS: RP-090014)

Stage 2 corrections:

[R2-100191](#) Corrections to DC-HSUPA operation Ericsson, ST-Ericsson CR 25.319 F REL-9RANimp-DC_HSUPA
=>The CR is agreed in principle

[R2-100244](#) Update of Stage 2 description for DC-HSUPA Infineon Technologies CR 25.319 F REL-9 RANimp-DC_HSUPA
-Samsung and Nokia prefer not to put too many details on the RLC behavior part. That can be discussed offline. Ericsson points out the description says "for each logical channel" which was discussed earlier and not agreed.
-Keep plural in "primary ul freq" definition.
-Ericsson points out the added text links the configuration of the SI timers to the activation of the UL frequencies. That shouldn't be the case.
-Ericsson points out added sentence in definition of activated UL freq can be re-worded.
=>The CR is revised in [R2-100640](#)

[R2-100640](#) Update of Stage 2 description for DC-HSUPA Infineon Technologies CR 25.319 F REL-9 RANimp-DC_HSUPA
-Ericsson says the reason for change needs to be updated
=>The CR is agreed in principle

Stage 3 corrections:

[R2-100146](#) Corrections for virtual active set Huawei CR 25.331 F REL-9RANimp-DC_HSUPA
-Remove change marks in coversheet
-Qualcomm asks why NW would configure inter-freq on the secondary UL freq. HW explains the intention is NW shouldn't configure infre-freq on secondary through inter-freq set update to avoid UE to maintain a virtual AS.
-Qualcomm would like that RNC keeps the flexibility to configure a virtual AS if secondary UL is deactivated. HW points out in this case UE still maintains active set on secondary and can report measurement.
-Samsung agrees with HW that UE still needs to maintain the secondary AS.
-Interdigital agrees with the CR.
-ALU asks if with the CR UE will be allowed to report 2x events for secondary cell? HW explains it won't be the case.
-Ericsson indicates the formatting is strange on the copied paragraph. That can be checked for the CR submitted at the next meeting.
=>The CR is agreed in principle

[R2-100147](#) Corrections for DC-HSUPA in 25.321 Huawei CR 25.321 F REL-9RANimp-DC_HSUPA
-Ericsson points out the TSN field extension is implicitly configured and the interface doesn't need to be updated. Samsung points out information is known at MAC and RRC hence both entities can make this decision. Interdigital points out the logic has been captured in RRC and HW is simply replicating what has been done for the DL.
-Ericsson indicates it was agreed the initial serving grant is the same on both carriers. HW points out RRC considers both initial serving grants independantly. There still are some issues there to be checked.
=>The CR is revised in [R2-100649](#)

[R2-100649](#) Corrections for DC-HSUPA in 25.321 Huawei CR 25.321 F REL-9RANimp-DC_HSUPA
-Remove change on change
-Ericsson comments they found a potential issue in DC-HSUPA RRC for initial serving grant (not related to this CR, can be seen in an independent CR)
=>The CR is agreed in principle

[R2-100242](#) Clarification of FDD DL channel combination applicability for DC-HSUPA Infineon Technologies CR 25.302 F REL-9RANimp-DC_HSUPA

- WI code should also include RANimp-MultiBand_DC_HSDPA
- Qualcomm points out the configuration 20 isn't correct for secondary UL. Infineon points out A3/A4 is for the case secondary UL is deactivated.
- For the case of DC-HSUPA is configured, only combination C applies.
- The references that DB-DC and DC-HSUPA cannot be combined is clear from other specs hence it need not be repeated here.
- Nokia proposes to add a note in the text above the table to explain the restrictions.
- Qualcomm proposes to add 21/22, 23/22 as valid combinations. 21/22 doesn't seem to be correct. Maybe some others need to be added.
- Ericsson asks if we need to add this table of combinations at all. Combinations A3 and A4 don't seem correct. That needs to be checked.
- Way forward: a new table will contain the applicability of the combinations, to replace the notes.
- =>The CR is postponed to the next meeting

Open issues: E-TFC Selection

- [R2-100145](#) open issues of E-TFC selection and happy bit evaluation for DC-HSUPA Huawei Disc REL-9 RANimp-DC_HSUPA
- The proposed HB evaluation would apply for all cases (2 new, 1 new/1 retx, 2 retx)
 - Power allocation in case of 1 retx/1new:
 - allocate needed power for retx and remainder to new transmission.
 - Ericsson asks if this scheme would be a HB evaluation per carrier as agreed?
 - HW indicates the HB is per carrier:
 - the first criteria is per carrier
 - the third criteria (on buffer size) is common
 - the second criteria would need to capture that the power to evaluate HB against is the shared power.
 - HW indicates it would then be the decision of the NW to say on which carrier the grant is increased or not.
 - Samsung doesn't see why in DC case the headroom would change faster than for SC.
 - QC thinks this changes the intention of the HB as it would now indicate the potential grant that would be reached without taking into account the power split. HW doesn't that changes the HB compared to SC. QC considers this issue is the HB doesn't reflect the situation and NW won't be able to make use of the information.
 - Interdigital is concerned this would add some procedures in the UE. HW indicates the additional step is small, UE only has to do one check on the current ETFC+32 bytes. A new NRPM would need to be defined.
 - Samsung asks if UE will report unhappy on both carriers. HW agrees.
 - =>Noted
- [R2-100190](#) E-TFC selection for DC-HSUPA Ericsson, ST-Ericsson Disc REL-9 RANimp-DC_HSUPA
- =>Not treated
- [R2-100199](#) DC-HSUPA E-TFC Power Split and Happy Bit Evaluation Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc REL-9 RANimp-DC_HSUPA
- =>Not treated
- [R2-100339](#) Power split, E-TFC Selection and Happy Bit Determination for DC-HSUPA Qualcomm Incorporated Disc REL-9 RANimp-DC_HSUPA
- Interdigital indicates since there is some unpredictability for both schemes, UE could set the bit using either schemes and the NW wouldn't be impacted.
 - Nokia points out in case of non-power limited case, this scheme wouldn't take into account some power and UE may report Happy. Whereas UE would report unhappy in interdigital.
 - Qualcomm indicates in any case, both schemes would report unhappy in this case.
- =>Noted
- [R2-100338](#) Power split, E-TFC Selection and Happy Bit Determination for DC-HSUPA Qualcomm Incorporated CR 25.321 F REL-9 RANimp-DC_HSUPA
- =>Not treated
- [R2-100507](#) Remaining open issues on DC-HSUPA E-TFC Selection InterDigital Disc REL-9 RANimp-DC_HSUPA
- Qualcomm asks what happens in case of 2 new tx? The current assumption is kept

- In case of 2 retx: this is open.
 - Qualcomm thinks the comparison table in case 2 is not accurate anymore. InterDigital agrees that now it wouldn't be an issue.
- =>Noted

- [R2-100577](#) Happy bit power evaluation criteria LG Electronics Inc. Disc REL-9RANimp-DC_HSUPA
- Ericsson asks why the secondary is evaluated first. LG indicates it's agreed data allocation starts from the secondary.
 - Samsung asks why is higher priority data allocated to secondary? LG had in mind the data not allocated to non-scheduled flows.
 - Qualcomm asks if this is proposed scheme is for all cases. LG would like to apply this for the case of 2 new tx.
 - Qualcomm considers the use case for the algorithm is not likely, it means 4 bytes can be added on 1 carrier but not second.
 - Qualcomm considers the HB evaluation should be linked to the power split on the carrier, not on the full carrier.
 - ZTE asks if this new algorithm would be applied in addition to the one agreed for 2 new tx? ZTE considers the proposal is an enhancement on top of the existing algorithm. NW would need to be informed about which scheme.
 - Qualcomm considers this is a small corner case.
 - Huawei doesn't think it's necessary to consider this use case as it's not a big problem to increase grant on both carriers.
 - Alcatel-Lucent doesn't think this scheme needs to be applied.
- =>Agreement: No need to take this algorithm into account.

Discussion related to R2-100577/R2-100507/R2-100339/R2-100145 and result of offline discussion

Offline discussion on power allocation and HB evaluation in case of 1 retx and 1 new transmission

Proposal 1: The evaluation of happy bit on each frequency shall be based on the total remaining power on both frequencies

Proposal 2: When one retransmission is ongoing in one carrier the UE shall allocate the remaining power to the other carrier and perform the legacy E-TFC selection on the other carrier, without having to perform non-scheduled power pre-allocation and power split.

Proposal 3: During a TTI with a retransmission on one carrier, say Carrier 1, and a new transmission on the other carrier, say, Carrier 2, the following algorithm is used for the power split:

- the baseline power split based on the Serving Grants is executed first;
- if the resulting power for Carrier 1, P_1 , satisfies the condition ($P_1 < P_{sg1}$ or $P_1 < P_{retr}$), where P_{sg1} is the power required for Serving Grant on Carrier 1 and P_{retr} is the power required for the retransmission, then
 - let Carrier 1 get the power required by the retransmission and the remaining power is allocated to Carrier 2.
 - In addition, the power pre-allocated to the non-scheduled flows is reset to zero.
- Else keep baseline power split based on Serving Grants

Proposal 4: Let UE do either proposals 2 or 3.

-In case of power limited case: Ericsson considers both schemes would report an inaccurate HB. Qualcomm indicates that 80% of cases would be reliable with Proposal 3 and it would be the opposite with Proposal 2 (20% accurate)

-Huawei would like to be able to get an accurate HB in all cases and that would happen if UE reports HB based on shared power.

-Qualcomm agrees that would be good but requires doing E-TFC selection twice.

-Ericsson thinks that for the non-power limited case there is a difference between both schemes.

-Samsung considers proposal 1 would be less correct.

-Samsung asks if there is a case where proposal 2 reports a correct HB when proposal 3 reports an incorrect HB.

-Qualcomm thinks this isn't the case.

=>We agree that proposal 3 is qualitatively more accurate than proposal 2 as it covers more corner case. Both proposals are not 100% accurate.

-Ericsson has no interest in proposal 4. HW indicates proposals 2 and 3 are similar if proposal 1 is agreed.

- Show of hands:
 - Proposal 1: 2 companies
 - Proposal 2: 6 companies
 - Proposal 3: 3 companies

=>We agree on proposal 2.

- Qualcomm states there isn't a different procedure for the HB evaluation and the power split evaluation.
- Should we evaluate the Happy Bit on the shared remaining power or the power allocated to each carrier?

Agreement: The HB on each carrier is evaluated according to the power allocated to that carrier.

What to do in case of two retransmissions?

Agreement: When there are two retransmissions, the power split is based on the power required for the two Serving Grants. The HB evaluation is based on the power split.

Agreement: When there are two retransmissions, each carrier is allocated its required power.

Non-scheduled flow power allocation:

Proposal 1: Pre-allocate power for the non-empty non-scheduled flows that can be multiplexed with the highest priority non-scheduled MAC-d flow.

Proposal 2: Pre-allocate power for all non-empty active non-scheduled flows, without taking into account the multiplexing restrictions.

=>This is the current text. No change is needed.

-Samsung would propose to pre-allocate power for all non-scheduled flows active in this TTI, regardless of the multiplexing restrictions.

-Nokia agrees with Samsung that the restriction based on multiplexing restriction isn't needed since there isn't a big use case.

=>Interdigital will provide a 25.321 CR at the next meeting and an LS to RAN4 (email approval [68b#12]) to capture these agreements.

Others:

[R2-100340](#) Independent configuration of Maximum UL Tx power in DC-HSUPA Qualcomm Incorporated CR 25.331 C REL-9RANimp-DC_HSUPA
-Nokia asks if the new Pmax would apply to the second carrier or for both carriers? Qualcomm indicates that would apply for both carriers. The CR would need to be corrected.
-ALU asks what an "easy band" would be. It's a band with a larger duplex gap.
-LG indicates that could also be solved with proper NW configuration.
-VDF would have a concern if there ends up being system impact because of a reactive solution.
=>We need to wait on RAN4 discussion on this. CR is postponed.

[R2-100533](#) Discussion on E-TFC selection in DC-HSUPA LG Electronics Inc. Disc REL-9RANimp-DC_HSUPA
-Qualcomm considers first proposal contradicts the current agreement.
-Qualcomm considers the second proposal won't change the result
-Samsung considers having a minimum set is for power limited case, so disabling would be a problem.
=>Noted

Not available:

[R2-100539](#) DC-HSUPA Minor Corrections to 25.321 Qualcomm Incorporated CR 25.321 F REL-9 RANimp-DC_HSUPA

[R2-100540](#) DC-HSUPA Minor Corrections to 25.319 Qualcomm Incorporated CR 25.319 F REL-9 RANimp-DC_HSUPA
Both are withdrawn.

10.3 Home-NB enhancements (RP-091392)

(EHNB-RAN2, leading WG: RAN2, started: March 09, target: March 10, WIDS: RP-091392)

Covering LTE specific stage-2 aspects and LTE stage-3 aspects. Common UMTS/LTE aspects should be discussed under 4.2.1

Stage 2/3 corrections:

[R2-100205](#) Reading neighbour HNB system Information Block 3 Alcatel-Lucent CR 25.331 F REL-9 EHNB-RAN2

-Nokia points out the CR makes this a general requirement. ALU's intention is that is for HNB only. A note could be added to link the UE capability.

-Cat should be F

=>The CR is revised in [R2-100641](#)

[R2-100641](#) Reading neighbour HNB system Information Block 3 Alcatel-Lucent CR 25.331 F REL-9 EHNB-RAN2

=>The CR is postponed to the next meeting

[R2-100330](#) Correction on CSG Proximity Indication InterDigital CR 25.331 F REL-9EHNB-RAN2

=>Treat with [R2-100213](#)

-HW agrees with the CR

-LG agrees as well.

-DT indicates we need to be careful not to collide with this CR when finding a good sentence to prevent repeated proximity (issue in a different CR but same section)

=>The CR is agreed in principle.

[R2-100481](#) 25.331: Applying periodic measurements to CSG cells Qualcomm Incorporated CR 25.331 F REL-9EHNB-RAN2

-Remove change marks in coversheet.

-Where is ASN.1?

-HW agrees with the intention but considers the functionality is already supported hence CR isn't needed. Qualcomm indicates using the existing mechanism would lead to a large amount of report.

-Nokia asks if the change would introduce the functionality for intra and inter-RAT. Qualcomm agrees that would apply. Nokia points out there may be procedural text impact, and ASN.1.

-Nokia agrees with the principle, LG as well.

-Qualcomm agrees ASN.1 would need to be provided.

-DT asks if currently it wouldn't be possible to configure a specific measurement after proximity indication? QC indicates for inter-frequency there is no mechanism to restrict the measurement to CSG cells.

-STE agrees with the principle but would like some mention of this in the procedural text and ASN.1 is missing.

-Samsung asks how it applies to hybrid. QC indicates the range applies to both hybrid and CSG.

-HW doesn't see a need in the CR.

=>There is some support for the principle

=>The CR is revised in [R2-100642](#)

[R2-100642](#) 25.331: Applying periodic measurements to CSG cells Qualcomm Incorporated CR 25.331 F REL-9EHNB-RAN2

=>Postponed to email agreement [68b#9]

-If the full procedural text isn't agreeable, the group should still try to agree on the Tabular/ASN.1 part

-Led by Qualcomm

-Deadline Jan 28th

[R2-100482](#) 25.331: Fix for CSG measurements without SI report Qualcomm Incorporated CR 25.331 F REL-9EHNB-RAN2

- STE doesn't see the need for the CR, the NW could be configured correctly. Instead the variable could be cleared. Qualcomm considered that approach but saw there was more changes and ASN.1 impact.
- Nokia is fine with the CR, considers also the measurement could be removed. Instead when this IE is not received, UE could clear the variable. Qualcomm considers both CRs would achieve the same goal
- =>The CR is agreed in principle

- [R2-100494](#) Clarification to Manual CSG ID Selection and correction to the reference of inbound mobility to CSG CelHTC Corporation CR 25.367 F REL-9EHNB-RAN2
- STE states CT1 spec indicate UE doesn't update list for hybrid cell. HTC indicates the CR is only about allowed UE to register.
 - STE wants to check with CT1 but if the reason for LR is to update the list; that isn't allowed for hybrid cells. The allowed triggers are already covered in CT1 specs. HTC would also agree to remove the list.
 - NEC agrees with STE that the CR isn't needed.
 - DT indicates the same section already indicates the UE performs CSG-Id selection on hybrid cells.
 - Qualcomm doesn't see the value added by the CR. DT considers the CR makes the text more complicated.
 - =>The CR is not agreed.

- [R2-100555](#) Aligning inbound handover procedure in UMTS with LTE SamsungDisc REL-9EHNB-RAN2
- =>Move to 4.2.1?
 - Samsung indicates most of the concerns have already been addressed but they would like to clarify that event based reporting isn't allowed for SI reporting. Samsung wants to ensure the SI reading is done only like a request-report mechanism.
 - Agreement: we won't link the SI reporting to event triggered reports for inter-freq/inter-RAT.
 - Qualcomm states event triggered reports (such as 1x triggers) are already agreed for intra-freq case.
 - =>Samsung will bring a CR at the next meeting to capture this. STE would like to see a CR as soon as possible.
 - NEC asks if the NW will then have to set the reporting period to a value sufficient for the UE to report SI. NEC finds this is similar to an SI reading timer from the NW.
 - Nokia agrees that this would be a framework for a NW configurable timer. Qualcomm states this isn't an agreement yet.
 - DT indicates there are other ways to use the periodic measurement.
 - =>Noted.

Open issues:

- [R2-100266](#) 25331_CRxxxx_(REL-9)_Support of inter-RAT inbound mobility to HeNB Huawei CR 25.331 B REL-9EHNB-RAN2
- Treat principle in 4.2.1 but stage 3 details and agreement on CR in 10.3
 - Common session agreement:
Inter-RAT UMTS->LTE case should use the same principle as inter-freq UMTS, intra/inter-freq LTE and inter-RAT LTE->UMTS

=>The CR is revised in [R2-100627](#)

- [R2-100627](#) 25331_CRxxxx_(REL-9)_Support of inter-RAT inbound mobility to HeNB Huawei CR 25.331 B REL-9EHNB-RAN2
- Collision with ASN.1?
 - We will not agree on the CR directly. We will capture comments and start an email discussion to check the ASN.1. If there are many collisions with ASN.1 review activity, we may need to merge the CR; if not, we can keep the CR separate from the ASN.1 review CR.
 - Nokia points out ASN.1 doesn't show eutraFrequencyRemoval as optional. That should be checked.
 - Typo: Cell->Cells (both for UTRA and E-UTRA).
 - Change in 8.6.7.3d should be removed.
 - =>There will be an email discussion but we first need to decide if we want to merge other HNB changes.

- Email discussion [68b#13] led by Huawei
- Goal of discussion is to verify integration of agreements
- Deadline for email discussion: Feb 4th.

- [R2-100441](#) PSC selection for reporting SI LG Electronics Inc. Disc REL-9EHNB-RAN2
=>Noted
- [R2-100443](#) Correction of PSC selection for SI reporting LG Electronics Inc. CR 25.331 F REL-9TEI9
-Wrong WI; should be EHNB-RAN2
(moved from 10.4)
=>Not treated. We treat the proposal with the other open issues and will capture the agreements in one CR (see R2-100627)
- [R2-100212](#) Discussion on need for a prohibit timer mechanism for CSG proximity indication Alcatel-Lucent Disc REL-9EHNB-RAN2
=>Noted
- [R2-100213](#) Clarification of the proximity indication reporting Alcatel-Lucent CR 25.331 F REL-9EHNB-RAN2
-DT agrees with the intention but doesn't think the CR will prevent the repetition of proximity indication.
-STE agrees the CR won't achieve the goal
-Samsung proposes to simply state that one report only will be sent.
=>This can be discussed offline to come up with a good sentence for the next meeting
=>The CR is postponed to the next meeting.
- [R2-100267](#) Discussion on proximity indication for UMTS intra-frequency inbound mobility Huawei Disc REL-9EHNB-RAN2
=>Noted
- [R2-100272](#) Discussion on remaining open issues in UMTS inbound mobility Huawei Disc REL-9EHNB-RAN2
=>Noted
- [R2-100273](#) 25331_CRxxxx_(REL-9)_Clarification for UMTS inbound mobility Huawei CR 25.331 F REL-9EHNB-RAN2
=>Not treated. We treat the proposal with the other open issues and will capture the agreements in one CR (see R2-100627)
- [R2-100483](#) CR capturing HNB inbound mobility agreements Qualcomm Incorporated CR 25.367 F REL-9EHNB-RAN2
=>Moved to 4.2.1

Discussion related to [R2-100212/R2-100267/R2-100272/R2-100443](#) Offline discussion:
Which 1x events shall be applicable to intra-frequency mobility and what is the triggering condition?
-This will have ASN.1 impact and collision with issue 7008.
-Samsung considers that shouldn't apply to triggering condition 3. Qualcomm points out the mechanism is already in place and would like to see an alternative before removing this.
-HW indicate they could use other existing mechanisms for reporting the event.

Agreement: All 1x events for intra-frequency mobility should be applicable for triggering condition 3.
--

=>This can be merged in the CR capturing HNB agreements in the revision of [R2-100627](#)

Do we support proximity indication for intra frequency?
-STE sees a purpose to this mechanism to allow reducing the UE reporting.
-LG would like to have this mechanism available.
-NSN agrees to have the mechanism.

Agreement: Proximity indication applies to intra-frequency
--

=>This can be merged in the CR capturing HNB agreements in the revision of [R2-100627](#)

Shall UE report strongest cell or strongest member cell: most support for strongest cell reported.

- LG wants to know why report the strongest cell? QC indicates it's simpler and for example applies to hybrid cells as well.
- NSN would prefer to report the strongest member for CSG. Vodafone would prefer to report the strongest cell.
- DT indicates reporting strongest cell is more inline with common session to leave HO decision to NW. NEC agrees with DT that this in line with LTE.
- LG indicates that reporting member cell won't restrict UE behavior.
- STE also prefer strongest cell.

Agreement: UE shall report SI info of strongest cell in case of intra-freq report

=>This can be merged in the CR capturing HNB agreements in the revision of [R2-100627](#)

Should SI reading timer be NW configurable or fixed?

- DT would agree to have a fixed value for simplicity but would like to see a value. HW indicates there is already a fixed value for intra-LTE. DT indicates the situation is different in LTE.
- STE agrees with the comment and indicates RAN4 is studying the issue.
- VDF agrees to a fixed value for ease of configuration.
- Nokia indicates RAN4 will provide a value that's valid for a certain set of conditions but would prefer to keep the flexibility from the NW side to be able to optimize in the future. This could depend on NW deployments and future evolution. STE considers that if RAN4 is coming up with a number this then it wouldn't make much sense to make it NW configurable. Nokia indicates the issue is forward compatibility. VDF doesn't see that as a problem since when UE improve then UE will report faster. Nokia understands that UE will have to try until the timer expires. Qualcomm doesn't think reducing the value will make the system faster, that will depend on UE implementation and requirement.
- HW doesn't think this value will be easy to optimize. -NEC indicates the RAN4 value will put a requirement on the UE
- Nokia thinks coming up with a configurable value is more difficult than coming up with a fixed value. -
- Nokia considers a compromise could be to have a default value. ALU supports this view. Nokia indicates that would allow NWs who don't want to use this value to not use it. Vodafone indicates having a fixed value isn't final
- STE would be fine with a configurable value with a default parameter.
- Samsung doesn't see any gain in changing the value

Show of hands:

Proposal 1: We have a fixed value defined by RAN4: 7 companies

Proposal 2: We have a configurable value with a default parameter (defined by RAN4): 7 companies

=>No decision

VDF would agree that to a configurable value depending on radio conditions. Nokia thinks those are different things. VDF would like RAN4 to be providing those values so the configurable number will be an educated setting. Qualcomm doesn't agree with this way forward.

-One possibility is to define an empty list of values but we still need to define how many values we'll have.

Next Steps:

If we have a configurable value (with a default); how many different values do we need, where do we signal this?

-We need to see a CR on this tomorrow (Fri) in [R2-100647](#)

If we have a fixed value, how to capture this?

-We need to see a CR on this tomorrow in [R2-100648](#)

[R2-100647](#) UTRA Home Node B SI reading timer Nokia, Nokia Siemens Networks CR 25.331 C
REL-9EHNB-RAN2

-The value set is an example of what this would look like in the tabular/ASN.1

-DT asks if we should link the SI reading time and the period of the reporting? Nokia indicates both would be different. DT thinks the SI reading time limit has no meaning if UE is anyways mandated to come back before the expiry. ALU indicates the same comment would apply to the fixed time as well. DT agrees. QC thinks the new IE isn't necessary, the existing IE could be reused. Nokia wanted to capture the max time for use in failure case. Samsung thought the idea was to address the success case, why do we need to now address the failure case?

-DT indicates we still need to clarify that UE may send the report before the period expires if it has been able to read it. The same applies to both CRs.

- Qualcomm proposes that a compromise would be to have a configurable timer but the difference with the Nokia CR is the fact that existing mechanism is used instead of introducing a new IE.
- Nokia understands the max SI reading timer would then be the reporting interval.
- We would need to indicate the UE is allowed to report the SI before the period expires
- HW wants to know what happens in case NW uses event trigger measurement. DT indicates more changes would be needed to the event trigger if we were to use it.
- Samsung doesn't see why we should question this old agreement.

=>We agree to have a configurable timer but the difference with the Nokia CR is the fact that existing mechanism is used instead of introducing a new IE

- We would need to indicate the UE is allowed to report the SI before the period expires if reading was completed
- Whether the reporting interval range is modified depends on RAN4 outcome

=>The CR is not agreed

[R2-100648](#) Fixed SI reading timer for HNB Qualcomm CR 25.331 F REL-9EHNB-RAN2
=>Not treated, obsoleted by agreement above.

Final open issue:

- Should we have a Prohibit timer for inter-freq proximity indication?
 - this is for the common session to decide.
 - NEC indicates the proposed value is 5s as of now.

Others:

[R2-100458](#) Intra-frequency CSG inbound handover for UMTSLG Electronics Inc.Disc REL-9EHNB-RAN2
-This is linked to the CR that Samsung will provide.
=>Noted

Release 9 UE capabilities:

[R2-100271](#) 25331_CRxxxx_(REL-9)_Introduction of UE inbound mobility capability signalling Huawei CR 25.331 B REL-9EHNB-RAN2
=>Move to 4.2.2

[R2-100569](#) Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features Nokia Corporation, Nokia Siemens Networks CR 25.331 C REL-9EHNB-RAN2
=>Move to 4.2.2

[R2-100570](#) Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features Nokia Corporation, Nokia Siemens Networks CR 25.306 C REL-9EHNB-RAN2
=>Move to 4.2.2

10.4 TEI9

Measurement occasions when TS0 is used

[R2-100157](#) Modification on measurement occasion calculation in 1.28 Mcps TDD CATT CR 25.331 C REL-9TEI9
=>Not treated

[R2-100356](#) Introduction of measurement occasion in CELL_DCH state for 1.28Mcps TDD ZTE CR 25.331 F REL-9TEI9
=>Not treated

[R2-100375](#) Modification of measurement occasion for 1.28Mcps TDD TD Tech CR 25.331 C REL-9 TEI9
=>Not treated

Discussion on way forward for this TEI9 item (Modification of measurement occasion for 1.28Mcps TDD):

-offline discussions are still happening for those 3 CRs.

=>Email discussion **[68b#14]** will happen to converge the views on this topic.

-CATT is the rapporteur

-February 4th is the deadline for the email discussion.

-Final RRC CR with complete ASN.1 needs to be provided at (or before) the discussion deadline

- [R2-100158](#) Modification of special default midamble allocation scheme for 1.28 Mcps TDD CATT CR 25.331 C REL-9TEI9
-RAN1 has not finalized the solution, it has been postponed to the next meeting
-Companies are urged to continue discussion offline and ensure that ASN.1 impact of the CR is not colliding with ASN.1 review CR. If it does, it needs to be clearly documented in the CR coversheet.
=>Document is postponed to the next meeting.
- [R2-100185](#) Status update of ASN.1 review for Rel-9Ericsson, ST-Ericsson Disc REL-9TEI9
=>Moved to 10.6
- [R2-100374](#) handling of inactivity threshold for DRX Motorola CR 25.321 F REL-9TEI9
-LG asks how the MAC knows the packet is a SID. Motorola agrees this would need to be discussed and a possibility would be that upper layers indicate it.
-Samsung asks if the assumption is there is a fixed time difference between SIDs? Samsung indicates SID updates may be with a fixed time but SID-first are sent at different times. Motorola indicates NW may want to schedule the SID packets at regular intervals.
-HW is concerned that UE can ignore HS-SCCH. This should be considered carefully.
-QC indicates the DRX procedure is in 25.214 hence that's where it should be treated.
-Nokia asks how UE and NB would synchronize the transmission of SID? Motorola observed that just after reception of SID, UE never receives anything and they would like to exploit this fact.
-Nokia indicates there are other conditions under which UE shouldn't go to DRX, for example if a transmission is on-going.
-NSN is concerned there are a number of technical concerns to implement this in the NW. NB would have to be told about the SID packet tx.
-NSN thinks the error cases (N2A) would have to be handled to ensure we don't have too much loss of sync. Qualcomm considers N2A isn't an issue.
-QC considers that wouldn't applied with a mix of traffic (voice+data)
=>The CR is not agreed
- [R2-100443](#) Correction of PSC selection for SI reporting LG Electronics Inc. CR 25.331 F REL-9TEI9
=>Moved to 10.3
- [R2-100523](#) CR to 25.304 on Cell reselection enhancements NTT DOCOMO CR 25.304 B REL-9TEI9, LTE-L23
-NTT DOCOMO indicates this is still being discussed in RAN4 LTE session and the result may impact this CR.
=>We postpone this CR to email discussion [68b#10]. In case RAN4 comes to a conclusion, the email discussion will focus on capturing agreement in RAN2 specs.
-Lead is NTT DOCOMO
-Deadline: Jan 28th.
- [R2-100524](#) CR to 25.331 on Cell reselection enhancements NTT DOCOMO CR 25.331 B REL-9TEI9, LTE-L23
-NTT DOCOMO indicates the RAN4 discussion won't impact the number of parameters but only the values. The CR can contain the values as FFS but the number of values needs to be determined.
-NTT DOCOMO checked and no collisions were found with ASN.1 review activity. We should be able to keep the CR separate from ASN.1 review CR.
=>We postpone this CR to email discussion [68b#10]. In case RAN4 comes to a conclusion, the email discussion will focus on capturing agreement in RAN2 specs.
-Lead is NTT DOCOMO
-Deadline: Jan 28th.

10.5 Other UTRA Rel-9 WIs

10.5.1 TxAA extension for non-MIMO UEs

(RANimp-TxAA_nonMIMO; leading WG: RAN1, started: March 08, closed: Dec. 09, WIDS: RP-090013)

- [R2-100341](#) Clarification of UE Categories for TxAA-Non-MIMO Qualcomm Incorporated CR 25.306
F REL-9RANimp-TxAA_nonMIMO
-Nokia thinks there is RRC impact, the procedural text would need to be updated.
-Qualcomm considers there would be some clarification needed.
-Nokia considers another way would be for NW to configure explicitly TxAA for this case.
-Qualcomm asks if for MIMO UEs we need to explicitly say what to do with this flag, it's not very clear what UE would really need to do?
-Nokia asks if there's a use case for NW vendors that cat 15-16 and 17-18 have these different behaviors.
-Qualcomm indicates today there is a possibility that NW configures TxAA-non-MIMO with 64QAM for a cat 17/18 UE. And that contradicts cat17/18 definitions.
-Nokia is concerned with the scenario created with this possibility. Nokia would prefer having a clear separation of used modulation and supported category.
-HW considers there is a use case for this.
-Nokia would be fine with this CR but would like to ensure that RRC is inline with this behavior.
=>The CR is revised in [R2-100643](#)
- [R2-100643](#) Clarification of UE Categories for TxAA-Non-MIMO Qualcomm Incorporated CR 25.306
F REL-9RANimp-TxAA_nonMIMO
=>The CR is agreed in principle

10.5.2 Support for different bands for Dual-Cell HSDPA

(RANimp-MultiBand_DC_HSDPA; leading WG: RAN4, started: March 08, closed: Dec. 09, WIDS: RP-090973)

- [R2-100344](#) Independent configuration of DRX in Dual Band DC-HSDPA Qualcomm Incorporated Disc
REL-9RANimp-MultiBand_DC_HSDPA
-RAN1 discussion was not conclusive.
=>Not available in time, not treated

10.5.3 Extended UMTS/LTE 800 MHz

(RInImp9-UMTSLTE800; leading WG: RAN4, started: Dec. 08, closed: Sep. 09, WIDS: RP-080884)

- [R2-100236](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, Ericsson CR
25.331 B REL-9RInImp9-UMTSLTE800
=>The CR is revised to [R2-100632](#)
- [R2-100632](#) Introduction of bands XX (800 MHz) ST-Ericsson, Ericsson CR 25.331 B REL-9RInImp9-UMTSLTE800
=>The CR is agreed in principle
- [R2-100237](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, Ericsson CR
25.307 B REL-4RInImp9-UMTSLTE800
-typo? 900MHz->800MHz
=>The CR is revised to [R2-100633](#)
- [R2-100633](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, Ericsson CR
25.307 B REL-4RInImp9-UMTSLTE800
-Summary of change: "two new" ->"a new"
=>With the change the CR is agreed in principle
- [R2-100238](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, Ericsson CR
25.307 B REL-5RInImp9-UMTSLTE800
=>The CR is revised to [R2-100634](#)
- [R2-100634](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, Ericsson CR
25.307 B REL-5RInImp9-UMTSLTE800
-Summary of change: "two new" ->"a new"
=>With the change the CR is agreed in principle
- [R2-100240](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, Ericsson CR
25.307 B REL-6RInImp9-UMTSLTE800

- =>The CR is revised to [R2-100635](#)
- [R2-100635](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-6RInImp9-UMTSLTE800
-Summary of change: "two new" ->"a new"
=>With the change the CR is agreed in principle
- [R2-100241](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-7RInImp9-UMTSLTE800
=>The CR is revised to [R2-100636](#)
- [R2-100636](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-7RInImp9-UMTSLTE800
-Summary of change: "two new" ->"a new"
=>With the change the CR is agreed in principle
- [R2-100243](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-8RInImp9-UMTSLTE800
=>The CR is revised to [R2-100637](#)
- [R2-100637](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-8RInImp9-UMTSLTE800
-Summary of change: "two new" ->"a new"
=>With the change the CR is agreed in principle
- [R2-100245](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-9RInImp9-UMTSLTE800
=>The CR is revised to [R2-100638](#)
- [R2-100638](#) Introduction of bands XX (900 MHz) and XXII (3500 MHz) ST-Ericsson, EricssonCR
25.307 B REL-9RInImp9-UMTSLTE800
=>The CR is agreed in principle

10.6 UTRA Release 9 ASN.1 review activity

(moved from 10.4)

- [R2-100185](#) Status update of ASN.1 review for Rel-9Ericsson, ST-EricssonDisc REL-9TEI9
-Minutes of the session are taken in [R2-100629](#)
- [R2-100629](#) ASN.1 UMTS review result for Rel-9 RAN2 Vice-Chairman Disc REL-9TEI9
=>Noted
- R2-100630 25.331 v9.1.0 ASN.a with hyperlinks Ericsson (rapporteur) Info 25.331 REL-
9 TEI9
noted
- R2-100631 sections 10 and 14.12 of 25.331 v9.1.0 with hyperlinks Ericsson (rapporteur) Info 25.331
REL-9TEI9
noted

11 UTRA Release 10

11.1 LCR TDD MC-HSUPA (RP-090990)

(TDD_MC_HSUPA; leading WG: RAN1, started: Sep. 09, target: Dec. 10, WIDS: RP-090990)

- [R2-100159](#) Consideration on MAC structure of Multi-Carrier HSUPACATT Disc
=>Noted
- [R2-100281](#) Analysis of MC-HSUPA for LCR TDD New Postcom Disc
-CATT asks what is meant by "combination" in proposal 1? NewPT indicates it's the re-assembly.
-NewPT indicates TSN is set per UE, across carriers. CATT agrees with that proposal.

- Proposal 6: ZTE asks if UE is mandated to support sharing of power across carriers? NewPT wanted to be able to share. ZTE considers different categories of UEs that can share or not. That would create some impact on the scheduling
 - Proposal 5: TD Tech considers that may be redundant information. NewPT wants to consider the case where different neighboring relationships can be considered. CATT considers RAN1 should be deciding on this. NewPT disagrees.
 - A number of agreements from RAN1 are RAN2 specific. This is not the right forum for discussing those topics.
 - Up to 6 carriers are supported. This is captured in the WID.
 - CATT asks what proposals 2/3/4 mean for the reporting? NewPT indicate the content is based on common information across both carriers
 - ZTE asks if the active carrier subset content can be changed through RRC or NB? NewPT wants to have the possibility to configure this by RRC but doesn't exclude NB configuration.
- =>Noted

[R2-100495](#) L2 architecture for 1.28M TDD MC-HSUPA operation TD Tech Disc
 -CATT asks if MAC-c flow are for all carriers or only one? TD Tech indicates it's for 1 carrier.
 -CATT asks what the "combination" means? TD Tech indicates it's the same as for SC
 -CATT indicates the different E-DCHs shouldn't be connected.
 -CATT asks where the RUCCH and PUCCH should be sent. TD Tech leaves this to further discussion.
 =>Noted

We have an email discussion [68b#25] until the next meeting to list a set of common views on the L2 architecture and MAC structure of MC-HSUPA.
 -Email discussion is led by CATT
 -Deadline is Feb 12th.
 -Report should contain list of agreements and open issues for discussion

[R2-100486](#) SI content of MC-HSUAP for 1.28 Mcps TDD TD Tech Disc
 =>Not treated

[R2-100501](#) Frequency control of MC-HSUPA for 1.28Mcps TDD TD Tech Disc
 =>Not treated

[R2-100496](#) L2 architecture for 1.28M TDD MC-HSUPA operation TD Tech Disc
 withdrawn

11.2 4C-HSDPA (RP-091438)

(4C_HSDPA-Core; leading WG: RAN1, started: Dec. 09, target: Dec. 10, WIDS: RP-091438)

[R2-100085](#) 4C-HSDPA: Mobility based on Anchor Carrier Alcatel-Lucent, Alcatel-Lucent Shanghai Bell
 Disc REL-10 4C_HSDPA-Core
 =>Not treated

[R2-100138](#) Considerations for 4-Carrier HSDPA operation Huawei Disc REL-10 4C_HSDPA-Core
 =>Not treated

[R2-100140](#) Consideration on UE categories for 4C-HSDPA Huawei Disc REL-10 4C_HSDPA-Core
 =>Not treated

[R2-100186](#) Protocol aspects of 4-carrier HSDPA Ericsson, ST-Ericsson Disc REL-10 4C_HSDPA-Core
 =>Not treated

We have an email discussion [68b#26] until the next meeting to list a set of common views on the L2 architecture and MAC structure of 4C-HSDPA.
 -Email discussion is led by Qualcomm
 -Deadline is Feb 12th.
 -Report should contain list of agreements and open issues for discussion

[R2-100342](#) 4C impact on RAN2 Qualcomm Incorporated Disc REL-10 4C_HSDPA-Core
Not treated (too late)

11.3 RF pattern matching in UMTS (RP-091427)

(LCS_UMTS_RFPMT-Core; leading WG: RAN2, started: Dec. 09, target: Dec. 10, WIDS: RP-091427)

R2-100427 CR-Stage 2 Definition of RF Pattern Matching LCS Technology Polaris Wireless
(Rapporteur) CR 25.305 B REL-10 LCS_UMTS_RFPMT-Core
=> Postponed to RAN2 #69. This will be treated in San Francisco. Companies are invited to
check [R2-100427](#).

11.4 Other UTRA Rel-10 WIs

[R2-100343](#) A new event trigger for UEs configured with an E-DCH Qualcomm Incorporated Disc REL-
10 TEI10
=>Not treated

12 Outgoing LS and email discussions for UTRA

12.1 Agreed outgoing LS for UTRA

No contributions.

12.2 Email discussions for UTRA

1. Email approval on LS to RAN4 to report RAN2 agreement on power split for DC-HSUPA
 - Led by InterDigital
 - Deadline: Feb 4th
 - Outcome: final version of LS
2. Email agreement for revision of [R2-100616](#)
 - Led by Qualcomm
 - Deadline: Jan 28th
 - Outcome: Rel'7/8/9 CRs
3. Email agreement for revision of [R2-100650](#)
 - Led by Qualcomm
 - Deadline: Jan 28th
 - Outcome: Rel'8/9 CRs
4. Email agreement for revision of [R2-100642](#)
 - Led by Qualcomm
 - Deadline: Jan 28th
 - Outcome: Rel'9 CR. If the full procedural text isn't agreeable, the group should try to agree on the tabular/ASN.1 part.
5. Email agreement for revision of [R2-100627](#)
 - Led by Huawei
 - Deadline: Feb 4th
 - Outcome: Rel'9 CR. The goal is to integrate the agreements from the session and verify ASN.1
6. Email agreement for revision of [R2-100157/R2-100356/R2-100375](#)
 - Led by CATT
 - Deadline: Feb 4th
 - Outcome: Rel'9 CRs. Complete ASN.1 needs to be provided. Special care must be taken to verify collision with rel'9 ASN.1 review CR.
7. Email agreement for revision of [R2-100523/R2-100524](#)
 - Led by NTT DOCOMO
 - Deadline: Jan 28th

- Outcome: Rel'9 CRs on 25.331/25.304. Dependant on RAN4 agreement, if RAN4 comes to a conclusion by this meeting, RAN2 will capture the agreements.
- 8. Email discussion for 1.28Mcps MC-HSUPA WI
 - Led by CATT
 - Deadline: Feb 12th
 - Outcome: Report containing list of baseline agreements and open issues for discussion
- 9. Email discussion for 4C-HSUPA WI
 - Led by Qualcomm
 - Deadline: Feb 12th
 - Outcome: Report containing list of baseline agreements and open issues for discussion

13 Left-overs

13.1 Joint UMTS/LTE

No contributions.

13.2 LTE User plane

[R2-100588](#) Report of LTE User plane session Nokia Siemens Networks (vice-chairman)Report
=> Agreed

CRs

R2-100712 Correction to RLC entity ASUSTeK CR 36.322 F REL-9 TEI9, LTE-L23
 - DT wonders if we use colours in figures ? It was already there
 => WI codes should be change MBMS
 => RAN should be ticked
 => With these changes the CR is in principle agreed in R2-100811

Issues

BSR and SR interaction: is proposal 1 of the following TDoc needed.

R2-100224 Interaction between BSR and SR (Discussion) ASUSTeK Disc REL-9 TEI9, LTE-L23
 - After offline discussion it seems that all companies can agree to a clarification in the minutes.
 => W.r.t. proposal 1, we confirm that: "Events that lead to the triggering of a BSR after a point in time that a BSR can be included in a MAC PDU shall be handled as if they have occurred after BSR cancellation associated to the inclusion of the BSR included in the MAC PDU."
 => No need for a CR.

Investigate if something is really required regarding counters to avoid issues at re-establishment

R2-100223 Aligning the treatment of RLC state variables and counters Nokia Corporation, Nokia Siemens Networks CR 36.322 F REL-9TEI9, LTE-L23
 - Offline indication was that if the change would probably be acceptable if it was introduced from Rel-8. CR's available in R2-100795/R2-100796

R2-100795 Aligning the treatment of RLC state variables and counters Nokia Corporation, Nokia Siemens Networks CR 36.322 F REL-8, LTE-L23
 - Ericsson wonders if this is really necessary considering this a minor issue ? Ericsson also does not want a Rel-9 CR since the issue is quite small.
 - Samsung is ok with only for Rel-9. Samsung does not want a Rel-8 CR.
 - Motorola would like Rel8+9, or no CR. LG agrees with Motorola
 - ALU wonders if there is any network impact ? NSN thinks the network impact might be related to the "normative" sentence in the beginning of 7.1
 - Motorola wonders what it really means that a variable is normative ?

- Samsung thinks the CR is only clarification. Can it be a Rel-9 editorial CR ? If there is no "inbetween" solution, Samsung would prefer not to have any CR.
 - NSN wonders if it would be acceptable to minute that the intention of the CR's is correct ?
 - Huawei thinks the intention is correct and probably most UE's are doing this. Huawei is not in favour of a Rel-8 CR but would like to clarify.
 - Motorola agrees that the intention is correct.
- => Confirm that the intention of the CR is correct, but no CR is considered necessary.
- R2-100796: Aligning the treatment of RLC state variables and counters Nokia Corporation, Nokia Siemens Networks CR 36.322 F REL-9TEI9, LTE-L23
- => Noted

13.3 LTE MBMS

[R2-100589](#) Report of LTE MBMS session Nokia Siemens Networks (vice-chairman) Report
=> Agreed

CRs

- R2-100718: Corrections on eNB muting MBSFN transmission Nokia Corporation, Nokia Siemens Networks
CR 36.300 F REL-9MBMS_LTE
=> CR is in principle agreed
- R2-100717: Corrections to TS 36.300 on MBMS Huawei CR 36.300 F REL-9 MBMS_LTE
=> CR is in principle agreed
- R2-100720: Position of MCCH notifications Huawei CR 36.331 F REL-8 MBMS_LTE
- Huawei points out that there is collisions with the ASN.1 review CR.
=> CR is in principle agreed; can discuss offline how to best handle the collision with the ASN.1 review outcome
- R2-100722: Corrections to TS 36.321 on MBMS Huawei CR 36.321 F REL-9 MBMS_LTE
=> CR is in principle agreed

Issues

The TDoc could not be discussed due to wrong Word format but since it affects ASN-1, a revision is provided to allow for discussion

- R2-100721: MBMS clarifications on notification and on MBMS allocation patterns
Proposal 4 is only proposal remaining:
- Some offline discussion already took place about increasing the offset, and additional consequences were identified. E.g. MCCH offset needs to be changed. So some more thinking is required. Samsung proposes to only bring it back if there is more support offline, and the issues are resolved.
- => Noted

How the significance is defined should be checked offline to see if the CR is needed

- R2-100221: Specifying the exact mapping of notification Indicator in SIB13 to PDCCH bits Nokia Corporation, Nokia Siemens Networks CR 36.331 F REL-9MBMS_LTE
=> Updated in R2-100794
- R2-100794: Specifying the exact mapping of notification Indicator in SIB13 to PDCCH bits Nokia Corporation, Nokia Siemens Networks CR 36.331 F REL-9MBMS_LTE
=> CR is agreed in principle

Next meeting

Error Handling for MBMS PDUs: should this be addressed in MAC?
UE Capabilities: do we need to capture anything in 36.306?

13.4 UMTS

No contributions.

14 Outgoing LS and output to other groups for LTE

R2-100065: [Draft] Reply LS on PDCCH monitoring set for carrier aggregation in LTE-Advanced CATT
LSout reply LS to R1-095056 = R2-097377 REL-10 LTE_CA-Core

R2-100249: Draft Reply LS on UE-originated RLF report for SON Nokia Siemens Networks, Nokia Corporation

R2-100387: [Draft] Response LS on emergency attach in a shared LTE network Alcatel-Lucent LSout
reply LS to C1-095744 = R2-100009 REL-9TEI9, LTE-L23

To: SA3; CC: SA

R2-100599: SIM based handover restriction
=> LS is approved in R2-100834

To: CT1; Cc: SA2, CT

R2-100600: Emergency call TAU

- ALU indicates that SA2 CR has not arrived yet, so ALU proposes to only respond from the next RAN2 meeting. It seems SA2 will ask us to remove the eNB selection. We might need to add something on the broadcast. Email will discuss the solutions on the table for the AS solution
- ALU proposes only to sent a response LS from next meeting.

=> Noted. EMAIL DISC will start when SA2 LS is received, and can discuss solutions on the table and if possible make common proposal.

To: SA2, SA3; Cc: RAN3, CT4

R2-100601: Serving cell indication from MME or inside LPP/LPPa

- ALU wonders if LPPa is not a possible solution for lawful intercept ? QC thinks it is not within our scope. ALU thinks MME is also not in our scope.

=> Should indicated that alternatives could exist based on MME involvement or LPPa

- NSN wonders if we should agree on a CR in RAN2

=> Should indicate that we are working on a version of the CR.

- QC assumes that if SA2 thinks LPP is fine we just have a CR. If SA3 is not fine, there need to be a discussion whether LPPa solution or MME solution, and we would not have the LPP solution. Can ask SA2 is a UE solution is possible in addition to a non-UE solution e.g. for SUPL reasons. Or should the LS even go OMA ?

=> Will see update in R2-100816

R2-100816: Serving cell indication from MME or inside LPP/LPPa

=> LS is approved in R2-100823

To: SA2; CC: CT1, CT4

R2-100602: Reply LS on feasibility of reliable transmission of LPP message from SA WG2 (R2-100029, S2-097527)

- NSN wonders if we really need to sent this to SA2, if we are going to make a decision in the next meeting ? ALU has the same thinking. QC agrees.

=> Postponed; expect to sent indication from next meeting.

To: CT1, CT4

R2-100784: UL LPP messages before DL LPP message

- NSN wonders what the location information would contain ? QC indicates the protocol does not limit, and QC assumes it could be measurements or a positioning estimate.

=> LS is approved in R2-100806

To: CT1

R2-100603: P-TMSI provided to lower layers

- Panasonic points out that the UE identity is also used in the RRC Connection Request. The upper layer provides some derivation from the P-TMSI. Panasonic wonders whether that identity is also used in RRC CON REQ (in addition to in the IDT) ? Vdf would assume that the trigger for the RRC connection is that the NAS message is passed down, so then there should only be 1 P-TMSI. Panasonic wonders that maybe we should anyway clarify anyway that the identity should be the same in UMTS RRC (next meeting). Nokia agrees there is ambiguity about that and it would be good to clarify.
- => LS is approved in R2-100843

To: GERAN2

R2-100604: Handover of dedicated priorities at cell selection

=> LS is approved in R2-100829

To: CT1

R2-100773: LS on SSAC agreements

=> LS is approved in R2-100822

To: RAN1

R2-100797: CA Act/Deact & PDCCH mon set

- LG wonders whether we have really agreed any PDCCH false detection schemes ? Nokia thinks it is achievable with act/deact
- => Remove “, which may reduce the probability of false PDCCH detection”
- => Bullet 1: remove “when UE is not in active data transmission.”
- => Should mention that the UE does not perform CQI measurements on deactivated CC's
- => Rephrase second bullet to “2) RAN2 has also decided not to introduce a separate explicit activation/deactivation procedure for UL component carriers, i.e. UE is required to be able to transmit PUSCH transmissions on any configured UL CC when scheduled on PDCCH.”
- => Should mention we have a common DRX
- => Chairmain proposes to rephrase the last sentence to: “RAN2 kindly requests has decided to let RAN1 to determine whether a decide if PDCCH monitoring set should be introduced”.
- => Will agree by email 2 days EMAIL DISC

To: SA3

R2-100817: Draft response LS on key invalidation following SR-VCC failure

=> LS is approved in R2-100832

To: RAN3

R2-100827: SON-ANR

- Huawei wonders if it is usefull to include an indicator in the re-establishment complete message ?

Should rephrase the last part of the LS to:

However, it should be noted that the mechanism succeeds only if the accessed cell is prepared, i.e. concerns a cell of the source eNB or of another eNB towards which handover preparation has been performed.

In addition RAN2 could consider to introduce an indicator in the RRCConnectionSetup similar to in the RRCConnectionReestablishmentComplete, after which the network could again use the same procedure to retrieve the measured results. RAN2 would like to verify with RAN3 whether RAN3 sees a benefit/need for this type of additional mechanism or whether RAN3 prefers other network based mechanisms?

2. Actions:

To RAN3 group:

RAN WG2 kindly asks RAN WG3 to reply to the above question.

=> With these changes, the LS is agreed in R2-100842

To: RAN4; Cc: RAN1

- R2-100813: [DRAFT] LS on multiple timing advances for Inter-band carrier aggregation
- Verizon assumes that “absence of RRU” makes it clear that we do not support scenario 4.
 - => Will include the pictures of the 3 scenarios (scenario 1,2,3 from NTT DCM R2-100531) and indicate that RAN2 has agreed to prioritise these deployment scenarios. Maybe other clarifications needed on the scenarios
 - => EMAIL DISC 3 days; Final version in R2-100848

15 Any other business

- Etienne Chaponniere not able to chair UMTS session in RAN2#69.
 - Arrangements are being finalized for the replacement.
 - RAN2 management will inform of the final organization at the beginning of February.
- Next meeting might have all Rel-9 WIs/SIs handled in parallel to LTE positioning.
No objections received.

Meeting schedule 2009/2010/2011:

MEETING	DATES	LOCATION	HOST	CO-LOCATION
RAN2 #68bis	18 Jan – 22 Jan 2010	Valencia, Spain	EF3	RAN 1/2/3
RAN2 #69	22 Feb – 26 Feb 2010	San Francisco, USA	NAF3	RAN1/2/3/4/5 ++
RAN #47	16 March – 19 March 2010	Vienna, Austria	EF3	
RAN2 #69bis	12 April – 16 April 2010	Beijing, China	Huawei	RAN1/2/5
RAN2 #70	10 May – 14 May 2010	?, Canada	RIM	RAN 1/2/3/4/5
RAN #48	1 June – 4 June 2010	?, Korea		
RAN2 #70bis	28 June – 2 July 2010	?, Sweden	Ericsson	RAN 2
RAN2 #71	23 Aug. – 27 Aug. 2010	Madrid, Spain	EF3	RAN 1/2/3/4/5
RAN #49	14 Sep. – 17 Sep. 2010	San Antonio, USA	NAF3	
RAN2 #71bis	11 Oct. – 15 Oct. 2010	?, China	ZTE	RAN 1/2/3
RAN2 #72	15 Nov. – 19 Nov. 2010	?, USA	NAF3	RAN1/2/3/4/5 ++
RAN #50	7 Dec. – 10 Dec. 2010	?, Europe	EF3	
RAN2 #72bis	17 Jan – 21 Jan 2011	?, Europe	EF3	RAN1/2/3
RAN2 #73	21 Feb – 25 Feb 2011	Taipei, Taiwan	HTC	RAN 1/2/3/4/5
RAN #51	15 March – 18 March 2011	?, USA		
RAN2 #73bis	4 April – 8 April 2011			RAN 2/4
RAN2 #74	9 May – 13 May 2011	?, Japan	JF3?	RAN 1/2/3/4/5
RAN #52	31 May – 3 June 2011	?, Europe	EF3	
RAN2 #74bis	27 June – 1 July 2011			RAN2
RAN2 #75	22 Aug. – 26 Aug. 2011	?, Europe	EF3	RAN 1/2/3/4/5
RAN #53	13 Sep. – 16 Sep. 2011			
RAN2 #75bis	10 Oct. – 14 Oct. 2011	?, China	CATT	RAN1/2/3/4
RAN2 #76	14 Nov. – 18 Nov. 2011			RAN 1/2/3/4/5
RAN #54	6 Dec. – 9 Dec. 2011	?, Europe		

EF3: European Friends of 3GPP
 NAF3: North American Friends of 3GPP
 JF3: Japanese Friends of 3GPP

++: SA1, SA2, CT1, CT3, CT4, CT6 also co-located

16 Closing of the meeting

The TSG RAN WG2 chairman Gert-Jan van Lieshout thanked the delegates for participating and contributing to RAN WG2 meeting #68bis. He thanked the European Friends of 3GPP for hosting this meeting and closed the meeting on Friday January 22nd, 2010 at about 17:00 o'clock.

Annex A: Report of LTE user plane session

For convenience the summary R2-100588 of the LTE user plane session (agenda items 6.8.3) is copied into this annex.

Note: The report of this parallel session was already agreed separately under agenda item 13.2.

Additional information is added in *italics*.

6.8.3 User plane related

MAC

- [R2-100224](#) Interaction between BSR and SR (Discussion) ASUSTeK Disc REL-9TEI9, LTE-L23
- Proposal 1
- All triggered BSRs shall be cancelled when a BSR which contains buffer status up to (and including) the last event is included in a MAC PDU for transmission*
- LGE thinks proposal 1 addresses the issue when there is not enough time to include BSR2 but thinks that the next transmission without BSR will reflect the new data anyway and the CR is therefore not required.
 - InterDigital believes that it is a possible scenario and was already discussed previously (RAN2#67bis) but was assessed as something that could be left to UE implementation.
 - Samsung agrees that this is not a typical case but would support the change nonetheless.
 - Motorola thinks this should be left to UE implementation as it depends on how the UE builds the uplink PDUs and how it considers the triggers. From the specification, the intention should be clear.
 - ASUSTeK points out that proposal 1 only aligns BSR behaviour to SR behaviour.
 - Samsung points out that with the current specification, a BSR maybe cancelled but not the related SR.
 - InterDigital thinks the intention of the specification should be clear and would prefer not to repeat the discussion we already had at RAN2#67bis.
 - ZTE thinks that in some cases the UE may have enough time to reflect the high priority data in the first BSR and the CR is therefore not required.
 - Samsung would prefer to align BSR behaviour to SR one.
 - Motorola does not see the need to align the two and nothing is broken. NSN, Qualcomm and Ericsson agree.
 - Proposal 1 is not agreed.
- Proposal 2
- Re-consider the proposal of R2-095840 (Huawei) to reset SR_COUNTER if there are pending SRs after a BSR is included in a MAC PDU.*
- LGE thinks there is no issue with the current text and could even be considered as better.
 - Panasonic agrees with the analysis from ASUSTeK but points out that the proposed solution only delays the problem.
 - Motorola thinks that the described scenario cannot occur.
 - ASUSTeK clarifies that they want to reset the counter to delay the release.
 - Samsung does not see any serious issue with the existing text.
 - Docomo would prefer not to release the resources too early and therefore supports the proposal 1. Panasonic agrees.
 - Samsung sees enough risk for confusion to justify the change related to proposal 1.
- ⇒ Since proposal 1 reduces the need for proposal 2, check offline if proposal 1 is needed
[CB Friday]
- [R2-100225](#) Interaction between BSR and SR ASUSTeK CR 36.321 F REL-9TEI9, LTE-L23
- ⇒ not agreed (update may be provided depending on offline discussions – see discussions related to [R2-100224](#))

- [R2-100226](#) DRX retransmission missing for TDD (Discussion) ASUSTeK Disc REL-9 TEI9, LTE-L23
- Motorola asks if the eNB should be aware?
 - ASUSTeK answers that the eNB should be aware of the situation.
 - LGE points out that the HARQ process is unknown when a grant is missed.
 - Motorola agrees and wonders how “corresponding” would be interpreted in the existing text as it does not refer to the process identified in the grant.
 - ASUSTeK clarifies that they would like to start all timers.
 - CATT understands the intention but believes it addresses a rare case. RIM agrees.
 - Motorola thinks the eNB is aware and does not see the need for this optimisation.
- ⇒ noted (no support)
- [R2-100227](#) DRX retransmission missing for TDDASUSTeK CR 36.321 F REL-9TEI9, LTE-L23
- ⇒ not agreed considering the previous discussion.
- [R2-100228](#) Minor corrections to MAC ASUSTeK CR 36.321 F REL-9TEI9, LTE-L23
- Proposal 1
- Chairman does not see the need to optimise the specification. Motorola agrees, this can be done in implementation.
- ⇒ not agreed (no support)
- Proposal 2
- LGE thinks the current text is correct. NSN agrees.
- ⇒ not agreed (no support)
- Proposal 3
- Huawei, Samsung and LGE support the change.
- ⇒ agreed
- ⇒ revised in [R2-100711](#) to include proposal 3 only
- ⇒ later agreed (in MBMS session) to be part of [R2-100722](#), [R2-100711](#) is therefore withdrawn.
- [R2-100288](#) DRX Operation with SR Prohibit Timer VIA Telecom Disc REL-9TEI9, LTE-L23
- Hitachi would prefer to keep the UE monitoring the PDCCH.
 - Huawei and Panasonic do not see any gain in typical scenarios.
- ⇒ noted (no support).
- [R2-100289](#) CR to 36.321 for DRX Operation with SR Prohibit Timer VIA Telecom CR 36.321 C REL-9TEI9, LTE-L23
- ⇒ not agreed.
- [R2-100290](#) CR to 36.331 for DRX Operation with SR Prohibit Timer VIA Telecom CR 36.331 C REL-9TEI9, LTE-L23
- ⇒ not agreed.

RLC

- [R2-100223](#) Aligning the treatment of RLC state variables and counters Nokia Corporation, Nokia Siemens Networks CR 36.322 F REL-9TEI9, LTE-L23
- Motorola thinks other sections may have to be updated as well (e.g. 4.2.1.2.3).
 - ZTE asks if the counters would be set to their initial value after reset?
 - LGE thinks that counters should be part of state variables and when looking at the details of the procedures, all counters should be correctly initialised. Nokia disagrees for re-establishment (counter related to polling).
 - Docomo agrees with Nokia and supports the CR.
 - LGE worries about introducing a difference between Rel-8 and 9. Motorola agrees.
 - Samsung asks if there is a risk that counters are not reset at re-establishment. Nokia believes there is (counter related to polling). Samsung therefore supports the CR.
 - LGE would be happy with a note in 7.1 saying that state variables include counters.
 - InterDigital thinks such a note would not improve the readability.
 - LGE suggests to avoid using counters all together.

⇒ Discuss offline if something is required and how to fix it **[CB Friday]**

- [R2-100230](#) Correction to RLC entity ASUSTeK CR 36.322 F REL-9TEI9, LTE-L23
- Nokia wonders what happens with MTCH.
 - Ericsson would prefer generalising the text to avoid mentioning the details.
 - Huawei proposes to delete the details
- ⇒ Text should read “*An RLC entity receives/delivers RLC SDUs from/to upper layer and sends/receives RLC PDUs to/from its peer RLC entity via lower layers.*”, figure should be fixed and similar changes should be captured in 4.3.1 in [R2-100712](#) **[CB Friday]**

Come Backs

CRs

- [R2-100712](#) Correction to RLC entity ASUSTeK CR 36.322 F REL-9TEI9, LTE-L23

Issues

BSR and SR interaction: is proposal 1 of the following TDoc needed.

- [R2-100224](#) Interaction between BSR and SR (Discussion) ASUSTeK Disc REL-9TEI9, LTE-L23

Investigate if something is really required regarding counters to avoid issues at re-establishment

- [R2-100223](#) Aligning the treatment of RLC state variables and counters Nokia Corporation, Nokia Siemens Networks CR 36.322 F REL-9TEI9, LTE-L23

Annex B:

Report of LTE MBMS session

For convenience the summary R2-100589 of the LTE MBMS session (agenda items 6.3) is copied into this annex.

Note: The report of this parallel session was already agreed separately under agenda item 13.3.

Additional information is added in *italics*.

6.3 MBMS over LTE (RP-091457)

(MBMS_LTE, leading WG: RAN2, started: March 09; target: March 10, WIDS: RP-091457)

6.3.1 Stage-2

Terminology

- [R2-100115](#) Terminology regarding MBMS scheduling Ericsson, ST-EricssonDisc
- Huawei thinks that the exception sheet does not cover such aspects.
 - Samsung and LGE support the proposal.
 - Huawei wonders how RAN3 will be made aware?
 - Ericsson comments that RAN3 must align the terminology anyway.

Agreements

- 1) introduce MCH scheduling information (MSI) to replace dynamic scheduling information (DSI)
- 2) Introduce MCH scheduling period (MSP) to replace MSAP occasion
- 3) Introduce the concept of common subframe allocation for all MCHs in the MBSFN area to replace MSAP. Clarify the relationship between MCH and CSA pattern + CSA period.

- [R2-100116](#) Correction to MBMS scheduling terminology Ericsson, ST-EricssonCR 36.300 F
REL-9MBMS_LTE
⇒ agreed in principle.
- [R2-100117](#) Correction to MBMS scheduling terminology Ericsson, ST-EricssonCR 36.321 F
REL-9MBMS_LTE
⇒ agreed in principle.
- [R2-100118](#) Correction to MBMS scheduling terminology Ericsson, ST-EricssonCR 36.331 F
REL-9MBMS_LTE
- Samsung point out that one of the change was already agreed in the ASN.1 review but it will be removed and this CR can stay as it is.
- ⇒ agreed in principle.

Corrections

- [R2-100068](#) Corrections to TS 36.300 on MBMS Huawei CR 36.300 F REL-9MBMS_LTE
- LGE asks why the RLC boxes are empty for MTCH and MCHH.
 - Huawei agrees and the boxes should show segmentation.
 - Nokia wonders if the SAP at PDCP for MTCH and MCCH are valid?
- ⇒ Will update the figure to remove the PDCP SAP for MTCH and MCCH, fix RLC, scheduling and MTCH and MCCH location in [R2-100717](#) [CB Friday]
- [R2-100211](#) Uncaptured agreements on muting the DSI Nokia Corporation, Nokia Siemens NetworksDisc
- CMCC agrees with the intention but believes the existing text in 36.300 is correct.

- Nokia believes that the last sentence should not apply regardless of what happens with Type-3.
 - LGE wonders how likely it is to loose Type-0 and Type-3 while receiving others?
 - Nokia believes it can happen in case of buffer overflow. M1 is not lossless.
 - LGE thinks the transport should prioritise Type-0 and Type-3.
 - Nokia does not see how this could be ensured.
 - Samsung agrees with the intention but would prefer a more generic text "has to mute certain subframes if synch cannot be ensured"
 - Nokia would be fine with removing item 10 altogether and keep item 8 only.
- ⇒ will work the details offline and see a CR in [R2-100718](#) (either remove item 10 or fix it)

[R2-100214](#) Corrections on eNB muting MBSFN transmission Nokia Corporation, Nokia Siemens Networks
CR 36.300 F REL-9MBMS_LTE
⇒ update in [R2-100718](#) [CB Friday]

[R2-100358](#) Correction regarding support of multiple MBSFN areas Samsung CR 36.331 F
REL-9MBMS_LTE
⇒ updated before presentation in [R2-100716](#)

[R2-100716](#) Correction regarding support of multiple MBSFN areas Samsung CR 36.331 F
REL-9MBMS_LTE

- Huawei and ZTE support the CR
- LGE wonders if this is a category F, not C.
- Samsung thinks it reflects what we already have defined in RRC.
- Nokia points out some editorial errors in the added sentence.

⇒ will be updated in [R2-100719](#) to correct the editorial mistakes
⇒ [R2-100719](#) is agreed in principle.

Others

[R2-100121](#) MBMS activity bit for unicast mobility Ericsson, ST-Ericsson Disc

- Huawei and CATT think this is for Rel-10.
- Deutsche Telekom supports the idea but wonders if one bit is enough (e.g. when the UE is interested in more than one service in several MCHs). LGE agrees.
- Orange is fine with the proposal but would also like to see idle mode behaviour addressed.
- Samsung would like to see a more thorough analysis of all cases (including idle mode).
- Chairman wonders how dynamic the bit(s) need(s) to be and what happens at HO.
- KDDI thinks this is out of scope for Rel-9.
- Deutsche Telekom would be happy to see this in Rel-10.

⇒ some interest in the proposal, can be discussed in Rel-10 in a possible MBMS WI.

[R2-100251](#) Proposed CR to 36.300 on Enabling MBMS operation in HeNBLG Electronics Inc. CR 36.300
F REL-9MBMS_LTE

- Deutsche Telekom wonders if the HeNB is assumed to be part of the MBSFN area
- LGE assumes that it will not be part.
- Deutsche Telekom then wonders what benefit there is?
- LGE thinks it could easily be provided on HeNB.
- Chairman believes there are RAN3 impacts.
- CMCC thinks this is too premature and there are issues to be investigated (e.g. MCE to HeNB-GW interface).

⇒ not agreed for Rel-9.

6.3.2 Control Plane

Corrections

[R2-100252](#) Proposed CR to 36.304 on Addition of missing abbreviations related with MBMS LG Electronics Inc. CR 36.304 F REL-9MBMS_LTE
⇒ agreed in principle.

- [R2-100098](#) CR to 36.331 on corrections for MBMS ASUSTeK CR 36.331 F REL-9
MBMS_LTE
- Huawei supports the CR.
⇒ agreed in principle.
- [R2-100099](#) Clarification on MCCH information acquisition procedureASUSTeK CR 36.331 F
REL-9MBMS_LTE
- Huawei does not understand why the “power on” part needs to be deleted but think
- Ericsson believes this is already captured in 8.2.2. ASUSTeK disagrees.
- ZTE thinks that in the added sentence or should be replaced by and.
- Motorola thinks the existing text is enough.
⇒ not agreed.
- [R2-100221](#) Specifying the exact mapping of notificationIndicator in SIB13 to PDCCH bits Nokia
Corporation, Nokia Siemens Networks CR 36.331 F REL-9MBMS_LTE
- Huawei thinks that in addition, we need to say what the value mean.
- Check offline how the significance is defined **[CB Friday]**
- [R2-100253](#) Proposed CR to 36.331 on missing MBMS UE actions LG Electronics Inc. CR 36.331
F REL-9MBMS_LTE
- ZTE wonders if the proposed text applies to UEs not interested in MBMS
- Samsung agrees and wonders to what extent the exact condition needs to be specified.
- Samsung points out that in the ASN.1 review, generic place holders were added and that
could be enough.
⇒ not agreed (can come back at the next meeting if what is now agreed as part of the ASN.1
review is not enough).
- [R2-100318](#) Missing agreement in MCCH change notification. ZTE CR 36.331 ~~F~~ REL-9
MBMS_LTE
- Huawei thinks that it should be clear from the IEs.
- ZTE agrees but would prefer to make it clearer.
- Samsung thinks it well fits to the purpose of this generic subclause.
- Motorola, CMCC, Ericsson support the CR as it clarifies the MCCH mapping.
- Nokia points out that the Stage 2 already captures this.
⇒ agreed in principle.
- [R2-100321](#) Clarification on MBMS notificationZTE Disc
⇒ revised before presentation in [R2-100715](#)
- [R2-100715](#) Clarification on MBMS notificationZTE Disc
- Samsung wonders why is there anything to be specified.
- ZTE thinks it helps the UE.
- Huawei points out that the question is whether the all-zeroes is allowed or not. The value
could be reserved in Rel-9.
- Motorola asks if this would be a mandatory behaviour for the network.
- ZTE answers that it would be optional.
- Huawei believes the UE behaviour is clear.
⇒ not agreed as the specification does not restrict the use of all-zeroes and there is no need for
additional clarification.
- [R2-100322](#) CR for clarification on MBMS notification ZTE CR 36.331 F REL-9MBMS_LTE
⇒ updated before presentation in [R2-100714](#)
- [R2-100714](#) CR for clarification on MBMS notification ZTE CR 36.331 F REL-9MBMS_LTE
⇒ not agreed.
- [R2-100381](#) Clarification on MCCH change notification CMCC CR 36.331 F REL-9
MBMS_LTE
- ZTE supports the CR.

⇒ agreed in principle.

Notification

- [R2-100066](#) Position of MCCH notifications Huawei Disc
- Nokia asks if proposal 1 depends on proposal 2 (value 3 does not seem to work in the current framework).
 - Huawei agrees that value 3 may not work with all configurations.
 - ZTE thinks value 3 is not appropriate.
 - Samsung wonders if there is an open issue related to providing more notification than possibly received by the UE. Huawei clarifies that this is not an open issue but is worth remembering.
- [R2-100119](#) Notification occasion signaling for MBMS Ericsson, ST-Ericsson Disc
- Huawei asks why avoiding notification in subframes re-used for unicast.
 - Ericsson would like to reduce the PDCCH load.
 - Motorola wonders what is the benefit of using the pointer towards MCCH?
 - Ericsson believes it simplifies.
- [R2-100319](#) Implicit Signalling for MBMS Notification Occasion ZTE Disc
- Samsung asks if the proposal is restricted to grouping the notifications towards the end of the MP (as proposed by e.g. Huawei)?
 - ZTE prefers not to group the notification and proposal 3 is defined in that spirit.
 - Huawei thinks the other proposals are compatible with grouping.
 - Huawei asks if the reliability provided is not too high considering the impact on the battery-life.
- [R2-100558](#) MCCH Information Change Notification Motorola Disc
- Huawei asks if there is any reason why the last "blue" frame is not used on Figure 2.
 - Motorola there is no reason and you could also start from the last and count backward.
 - Samsung wonders how the UE knows which MBSFN subframes are used as it cannot rely on SIB2 only.
 - Motorola thinks it comes from SIB13.

Discussion

1) Notification on MCCH subframes?

- Samsung thinks the overhead is not an argument (~10 bits ever few 100ms).
 - Huawei does not see the need for the flexibility.
 - ZTE would prefer limiting notification to MCCH subframes.
 - Samsung thinks that one drawback is that it increases buffering.
 - Nokia clarifies that the notification refers to future MCCH so this should not be an issue.
 - Motorola thinks that if notification increases in size, it may not fit together with MCCH.
 - LGE does not see the benefits in having such a restriction.
 - CMCC thinks the benefits only comes from reduced overhead.
 - Samsung thinks this is a tiny optimisation.
- ⇒ not agreed (i.e. existing SIB13 is left as it is).

2) Notification towards the end of the MP?

- LGE thinks this is an optimisation that does not match the assumptions we have had so far (no services requiring such short delays). Hitachi and Nokia agree.
 - ZTE believes there is no large gain in grouping notification towards the end of the MP.
- ⇒ not agreed.

3) value range {2, 4}

- Samsung supports a max value of 4.
- ⇒ agreed.

- [R2-100067](#) Position of MCCH notifications Huawei CR 36.331 F REL-9 MBMS_LTE
- ⇒ agreed with only two changes 1) "Within this bitmap, the bit at position *notificationIndicator* indicates changes for that area and "1" denotes that the corresponding MCCH will be changed.", and the agreed value range for the notification repetition with enumerated.
- ⇒ update in [R2-100720](#) [CB Friday]

- [R2-100120](#) Notification occasion signaling for MBMS Ericsson, ST-Ericsson CR 36.331 F
REL-9MBMS_LTE
⇒ not agreed.
- [R2-100320](#) CR for implicit Signalling of MBMS Notification Occasion ZTE CR 36.331 F REL-9 MBMS_LTE
⇒ not agreed.
- [R2-100382](#) Value range of notification related parameters in SIB13 CMCC Disc
Proposal 2
- Ericsson does not think spare values are required.
- Samsung points out that in general, there is no spare on BCCH.
⇒ value range 0..10 (integer) is agreed and will be reflected in [R2-100720](#).
- [R2-100559](#) MCCH Information Change Notification CR Motorola CR 36.331 F REL-9 MBMS_LTE
⇒ not agreed.

Value Ranges

- [R2-100071](#) mbsfn-Areald Value range Huawei Disc
- Deutsche Telekom thinks the proposed range is a bit low as there can be cases where more than 16 cells can be seen.
⇒ {0..255} agreed for mbsfn-Areald and will be reflected in [R2-100720](#)
- [R2-100216](#) Finalizing the open value ranges in SIB13 Nokia Corporation, Nokia Siemens Networks Disc
⇒ noted considering previous discussion.
- [R2-100217](#) Specification of remaining value ranges in SIB13 Nokia Corporation, Nokia Siemens Networks CR 36.331 C REL-9MBMS_LTE
⇒ not agreed (all changes already covered in other agreed CRs).
- [R2-100362](#) MBMS clarifications on notification and on MBMS allocation patterns Samsung Disc
- Motorola and Huawei support the change
- Nokia wonders how this really works.
⇒ update in [R2-100721](#) (should be word 2003 compatible) [CB Friday]

Others

- [R2-100323](#) Further clarification on MCCH information acquisition by the UE ZTE Disc
- Samsung asks what ESG stands for?
- Electronic Service Guide (out of 3GPP scope).
- Huawei and LGE thinks the current text is sufficiently clear and do not see the need for going into more details
- Ericsson understands proposal 2 as an optimisation.
⇒ noted.
- [R2-100324](#) CR for future clarification on MCCH information acquisition by the UE ZTE CR 36.331 F REL-9MBMS_LTE
⇒ Updated before presentation in [R2-100713](#).
- [R2-100713](#) CR for further clarification on MCCH information acquisition by the UE ZTE, ASUSTeK CR 36.331 F REL-9MBMS_LTE
⇒ not agreed.

Withdrawn

- [R2-100325](#) CR for correction on MSAP-OccasionPeriod ZTE CR 36.331 F REL-9 MBMS_LTE

6.3.3 User Plane

MAC

- [R2-100069](#) Corrections to TS 36.321 on MBMS Huawei CR 36.321 F REL-9MBMS_LTE
- LGE would like to see several MCCHs on the figure and prefers reserving one value. Huawei agrees.
 - Motorola would also like to keep reserved values.
 - ETRI supports the CR
 - "or variable-sized MAC control element." already captured in [R2-100711](#) so 711 should be withdrawn
- ⇒ one reserved value kept, figure updated to include more than one MCH
- ⇒ update in [R2-100722](#) [CB Friday]
- [R2-100101](#) CR to 36.321 on error handling for MBMS ASUSTeK CR 36.321 F REL-9MBMS_LTE
- LGE thinks 5.11 only addresses dedicated channels and wonders if common channels really need to be included.
 - ASUSTeK believes we should as reserved values have been defined.
- ⇒ study the issue for the next meeting.
- [R2-100274](#) Correction to 36.321 on MAC header description ETRI CR 36.321 F REL-9MBMS_LTE
- ⇒ noted, already covered in previous discussions.

UE Capabilities

- [R2-100070](#) CR to TS36.306 on MBMS Huawei CR 36.306 F REL-9MBMS_LTE
- CATT wonders if notification should also be listed
 - Samsung asks why a new subclause
 - Huawei believes that RAN agreed not to have any MBMS capability signalled.
- ⇒ noted (may come back at the next meeting).

In principle agreed CRs

- [R2-100116](#) Correction to MBMS scheduling terminology Ericsson, ST-Ericsson CR 36.300 F REL-9MBMS_LTE
- [R2-100117](#) Correction to MBMS scheduling terminology Ericsson, ST-Ericsson CR 36.321 F REL-9MBMS_LTE
- [R2-100118](#) Correction to MBMS scheduling terminology Ericsson, ST-Ericsson CR 36.331 F REL-9MBMS_LTE
- [R2-100719](#) Correction regarding support of multiple MBSFN areas Samsung CR 36.331 F REL-9MBMS_LTE
- [R2-100252](#) Proposed CR to 36.304 on Addition of missing abbreviations related with MBMS LG Electronics Inc. CR 36.304 F REL-9MBMS_LTE
- [R2-100098](#) CR to 36.331 on corrections for MBMS ASUSTeK CR 36.331 F REL-9MBMS_LTE
- [R2-100318](#) Missing agreement in MCCH change notification. ZTE CR 36.331 B REL-9MBMS_LTE
- [R2-100381](#) Clarification on MCCH change notification CMCC CR 36.331 F REL-9MBMS_LTE

Come Backs

CRs

- [R2-100717](#) Corrections to TS 36.300 on MBMS Huawei CR 36.300 F REL-9MBMS_LTE

[R2-100718](#) Corrections on eNB muting MBSFN transmission Nokia Corporation, Nokia Siemens Networks
CR 36.300 F REL-9MBMS_LTE
[R2-100720](#) Position of MCCH notifications Huawei CR 36.331 F REL-9MBMS_LTE
[R2-100722](#) Corrections to TS 36.321 on MBMS Huawei CR 36.321 F REL-9MBMS_LTE

Issues

The TDoc could not be discussed due to wrong Word format but since it affects ASN-1, a revision is provided to allow for discussion

[R2-100721](#) MBMS clarifications on notification and on MBMS allocation patterns

How the significance is defined should be checked offline to see if the CR is needed

[R2-100221](#) Specifying the exact mapping of notificationIndicator in SIB13 to PDCCH bits Nokia Corporation, Nokia Siemens Networks CR 36.331 F REL-9MBMS_LTE

Next meeting

Error Handling for MBMS PDUs: should this be addressed in MAC?
UE Capabilities: do we need to capture anything in 36.306?

Annex C: List of participants

The list of participants of this RAN WG2 meeting #68bis is attached to this report.

Total number of participants: 181 (registered before the meeting: 207)

Annex D: List of Tdocs

The list of Tdocs of this RAN WG2 meeting #68bis is attached to this report.

Total number of Tdocs: x (R2-100001 - R2-100848) of which x Tdocs are not available, i.e. x Tdocs available.

Annex E: Incoming liaison statements for TSG RAN WG2 #68bis

RAN2 Tdoc	title (incoming LS, to, from, contact)	source	WI	RAN2 action requested	status	final LS answer	additional comments
R2-100004	Reply LS to R2-096257 on use cases for cell change indication from MME to E-SMLC (C4-094007; to: RAN2; cc: SA2, CT1, RAN3; contact: Andrew)	CT4	LCS_LTE	not explicitly	noted	no	was not treated at RAN2 #68
R2-100005	Reply LS to R2-096257 on Use cases for cell change indication from MME to E-SMLC (C1-095299; to: RAN2, SA2, CT4; cc: -; contact: Qualcomm)	CT1	LCS_LTE	not explicitly	noted	no	
R2-100006	Reply LS to R2-096253 on segmentation and reassembly for LPP (C1-095710; to: RAN2; cc: -; contact: Ericsson)	CT1	LCS_LTE	not explicitly	noted	no	
R2-100007	Reply LS to R2-095331 on Relay Architecture Aspects (C1-095731; to: RAN2, RAN3; cc: SA2; contact: NSN)	CT1	FS_RAN_LT EA	not explicitly	noted	no	
R2-100008	Response LS to R2-096277 on CS Inter-PLMN Handover (C1-095733; to: RAN2, SA2, RAN3; cc: CT4, SA1, SA3; contact: Ericsson)	CT1	LTE-L23	not explicitly	noted	no	

RAN2 Tdoc	title (incoming LS, to, from, contact)	source	WI	RAN2 action requested	status	final LS answer	additional comments
R2-100009	Reply LS to S2-096386 = R2-096318 on emergency attach in a shared LTE network (C1-095744; to: RAN2, RAN3, SA2, SA3; cc: -; contact: NSN)	CT1	TEI9, LTE-L23	yes	noted	no	LS answer drafted in R2-100387; finally no LS answer sent (will wait for SA2 reply)
R2-100010	LS on Network sharing and stand alone Authentication procedure (C1-095748; to: SA3; cc: RAN2; contact: Motorola)	CT1	LTE-L23	no	noted	no	
R2-100011	LS on ECGI in the Location Request message (C4-094013; to: SA2, CT1; cc: RAN2, RAN3; contact: Huawei)	CT4	LCS_LTE	no	noted	no	
R2-100012	Reply LS to R2-097372 on feasibility of reliable transmission of LPP message (C4-094207; to: RAN2; cc: RAN3, CT1, SA2; contact: NTT DOCOMO)	CT4	LCS_LTE	-	withdrawn	-	withdrawn as already treated at RAN2 #68
R2-100013	LS on use of emergency cause value for TAU (CP-091060; to: RAN2, CT1; cc: SA2; contact: Alcatel-Lucent)	CT	IMS_EMER_LTE	yes	noted	postponed	LS answer postponed to RAN2 #69
R2-100014	LS on indication of support of priority-based cell reselection from GERAN to UTRAN (GP-092439; to: CT1, SA2; cc: RAN2; contact: NSN)	GERAN2	GELTE	no	noted	no	
R2-100015	Reply LS to C1-094773 = R2-096302 on Emergency Call Support Indication on BCCH (R3-093339; to: CT1; cc: RAN2, SA2; contact: Alcatel-Lucent)	RAN3	IMS_EMER_LTE	no	noted	no	
R2-100016	LS on support for inbound mobility to CSG and hybrid cells (R3-093377; to: RAN2, SA2; cc: -; contact: Qualcomm)	RAN3	EHNB-RAN2	yes	noted	no	further RAN2 work needed
R2-100017	LS on Transparent Routing of LPPa PDUs over S1 interface (R3-093382; to: SA2; cc: RAN2, CT4; contact: Alcatel-Lucent)	RAN3	LCS_LTE	no	noted	no	
R2-100018	Reply LS to R2-096277 on Inter-PLMN Handover (R3-093403; to: CT1, SA2, RAN2; cc: SA3, CT4; contact: NEC)	RAN3	LTE-L23	not explicitly	noted	no	
R2-100019	LS on Un interface security for Relay Architecture in LTE-Advanced (R3-093404; to: SA3; cc: SA2, RAN2; contact: NTT DOCOMO)	RAN3	FS_RAN_LT_EA	no	noted	no	
R2-100020	LS Response to R5-096343 = R2-096322 on DCCH TTI and Cell Timing Change Requirements (R4-095029; to: RAN5, RAN2; cc: -; contact: Ericsson)	RAN4	LTE-L23	yes	noted	no	already addressed last time (see R2-097446)
R2-100021	Reply LS to R1-084707, R1-094415 = R2-096309 on Support for wider bandwidths in LTE-Advanced (R4-095035; to: RAN1; cc: RAN2; contact: NTT DOCOMO)	RAN4	FS_RAN_LT_EA	no	noted	no	note: R1-084707 was not sent to RAN2
R2-100022	LS on Minimization of drive tests for E-UTRAN and UTRAN (RP-091421; to: OMA DM; cc: RAN2, SA5; contact: O2)	RAN	FS_NGN_min_drive-tests	no	noted	no	
R2-100023	LS on providing backhaul signalling in support of time and frequency synchronization using network listening (RP-091447; to: RAN3, RAN4; cc: RAN2; contact: Qualcomm)	RAN	HeNB-RF_TDD	no	noted	no	
R2-100024	Reply LS to S2-096387 = R2-096319 on inter PLMNs handover (S1-094130; to: SA2, CT1, SA3, RAN2; cc: RAN3; contact: Ericsson)	SA1	LTE-L23	not explicitly	noted	no	

RAN2 Tdoc	title (incoming LS, to, from, contact)	source	WI	RAN2 action requested	status	final LS answer	additional comments
R2-100025	Reply LS to C1-093961 = R2-095407, R2-097493 on SSAC (S1-094339; to: CT1, RAN2; cc: -; contact: NTT DOCOMO)	SA1	SSAC	not explicitly	noted	no	SSAC: Service Specific Access Control
R2-100026	Reply LS to C1-094472 = R2-096214, R2-096338 on Transport and storage of capabilities for UE positioning (S2-097327; to: CT1, CT4, RAN2; cc: -; contact: Motorola)	SA2	LCS_LTE	not explicitly	noted	no	
R2-100027	Reply LS to R2-096257 on Use cases for cell change indication from MME to E-SMLC (S2-097525; to: RAN2, RAN3, CT4; cc: CT1; contact: Alcatel-Lucent)	SA2	LCS_LTE	yes	noted	R2-100823	
R2-100028	Reply LS to C4-094013 = R2-100011 on ECGI in the Location Request message (S2-097526; to: CT4; cc: CT1, RAN2, RAN3; contact: Huawei)	SA2	LCS_LTE	no	noted	no	
R2-100029	Reply LS to R2-097372 on feasibility of reliable transmission of LPP message (S2-097527; to: RAN2; cc: CT1, CT4; contact: NTT DOCOMO)	SA2	LCS_LTE	not explicitly	noted	postponed	LS answer drafted by Samsung in R2-100602 but finally LS answer postponed to RAN2 #69
R2-100030	LS Response to R2-095331 on Relay Architecture Aspects (S2-097544; to: RAN2, RAN3; cc: CT1, SA5; contact: Motorola)	SA2	FS_RAN_LT EA	not explicitly	noted	no	
R2-100031	Reply LS to C1-094652 = R2-096231, R2-096277, S2-096387 = R2-096319, C1-095733 = R2-100008, R3-093403 = R2-100018, C1-095748 = R2-100010, S2-096386 = R2-096318, R2-097461, C1-095744 = R2-100009, R3-093339 = R2-100015, R2-096278 on PLMN confusion during EPS-AKA (S3-092168; to: CT1, SA2, RAN2; cc: CT4, RAN3; contact: Qualcomm)	SA3	LTE-L23	yes	noted	postponed	we will wait for SA2 LS reply
R2-100032	Reply LS to R2-096245 on preventing UTRA to EUTRA handover for USIM-less UE (S3-092180; to: RAN2; cc: -; contact: Ericsson)	SA3	TEI9, LTE-L23	not explicitly	noted	R2-100834	
R2-100033	Reply LS to R2-097508 on key invalidation following SR-VCC failure (S3-092193; to: RAN2; cc: CT4; contact: Nokia)	SA3	LTE-L23	yes	noted	R2-100832	
R2-100034	Reply LS to R3-093404 = R2-100019 on Un interface security for Relay Architecture in LTE-Advanced (S3-092195; to: RAN3; cc: SA2, RAN2; contact: Huawei)	SA3	FS_RAN_LT EA	not explicitly	noted	no	
R2-100035	LS on H(e)NB emergency handling security requirement (S3-092205; to: RAN2, SA1; cc: SA2; contact: Huawei)	SA3	FS_HNB_sec	yes	noted	no	Huawei will inform RAN3 chairman that RAN3 should take a look at it as it is not RAN2 area
R2-100036	LS on preventing UTRA to EUTRA handover for USIM-less UE (SP-090893; to: RAN2; cc: SA3; contact: Huawei)	SA	TEI9, LTE-L23	yes	noted	R2-100834	
R2-100037	LS Response to R1-093727 = R2-095415 on RSTD Measurement Applicability (R4-094990; to: RAN1, RAN2; cc: RAN3; contact: Ericsson)	RAN4	LCS_LTE	not explicitly	noted	no	n

RAN2 Tdoc	title (incoming LS, to, from, contact)	source	WI	RAN2 action requested	status	final LS answer	additional comments
R2-100038	LS Response to R2-096295 on the capability of search on the secondary carrier (R4-094996; to: RAN2; cc: RAN3; contact: Qualcomm)	RAN4	RANimp-MultiBand_D C_HSDPA	not explicitly	noted	no	
R2-100039	LS Response to R1-093729 = R2-095416 on Assistance Information for OTDOA Positioning Support for LTE (R4-095038; to: RAN1, RAN2, RAN3; cc: -; contact: Ericsson)	RAN4	LCS_LTE	not explicitly	noted	no	CRs available
R2-100040	Reply LS to R2-107372 on feasibility of reliable transmission of LPP message (R3-100515; to: RAN2; cc: CT1, SA2, CT4; contact: NTT DOCOMO)	RAN3	LCS_LTE	not explicitly	noted	no	received during RAN2 #68bis
R2-100041	Response LS to RAN1 R1-094414 = R2-096308 on UTDOA (R3-100518; to: RAN1, RAN2, CT4, SA2; cc: -; contact: TruePosition)	RAN3	LCS_LTE-NBPS	no	not treated	?	received during RAN2 #68bis
R2-100814	LS on Location Updating Improvements for CS FallBack (S2-100936; to: RAN2, RAN3, CT1; cc: SA5, GERAN2; contact: Vodafone)	SA2	SAES-CSFB	yes	not treated	?	received during RAN2 #68bis
R2-100815	LS on E-UTRAN to GSM Redirection Improvements for CS FallBack (S2-100937; to: GERAN1, GERAN2, RAN 2; cc: -; contact: Vodafone)	SA2	SAES-CSFB	not explicitly	not treated	?	received during RAN2 #68bis

no: Although RAN2 action was requested, no LS answer was sent.

postponed: LS answer was postponed to next RAN2 meeting (note: incoming LS will not be presented again at the next meeting and involved parties are requested to submit proposal for draft outgoing LS answer to next meeting).

Summary:

- In total: 40 LSs received for RAN2 #68bis: 28 related to LTE/E-UTRA, 2 related to UTRA, 10 related to joint aspects
- 1 resubmission from RAN2 #68
 - R2-100004 = R2-097501 = C4-094007
- 37 incoming LSs noted and 3 incoming LSs were not treated:
 - R2-100041 = R3-100518
 - R2-100814 = S2-100936
 - R2-100815 = S2-100937
- 4 of the 40 incoming LSs were received during the RAN2 #68bis meeting:
 - R2-100040 = R3-100515
 - R2-100041 = R3-100518
 - R2-100814 = S2-100936
 - R2-100815 = S2-100937

Incoming LSs for which the LS answer was postponed so far:

RAN2 #68bis:

R2-100013 LS on use of emergency cause value for TAU (CP-091060; to: RAN2, CT1; cc: SA2; contact: Alcatel-Lucent) CT
 R2-100029 Reply LS to R2-097372 on feasibility of reliable transmission of LPP message (S2-097527; to: RAN2; cc: CT1, CT4; contact: NTT DOCOMO) SA2
 R2-100031 Reply LS to C1-094652 = R2-096231, R2-096277, S2-096387 = R2-096319, C1-095733 = R2-100008, R3-093403 = R2-100018, C1-095748 = R2-100010, S2-096386 = R2-096318, R2-097461, C1-095744 = R2-100009, R3-093339 = R2-100015, R2-096278 on PLMN confusion during EPS-AKA (S3-092168; to: CT1, SA2, RAN2; cc: CT4, RAN3; contact: Qualcomm) SA3

RAN2 #68:

R2-096344 LS on Request to enable UE-originated RLF reports (R3-092656; to: RAN2; cc: -; contact: NSN) RAN3
 R2-097377 LS on PDCCCH monitoring set for carrier aggregation in LTE-Advanced (R1-095056; to: RAN2; cc: -; contact: CATT) RAN1

Now answered:

R2-096314 (R3-092656): answered in R2-100842

RAN2 #67bis:

R2-096212 Reply LS to R2-094096 on H(e)NB Inbound Mobility (R4-094030; to: RAN2; cc: -; contact: Qualcomm) RAN4

RAN2 #66bis:

R2-093627 LS on unavoidability of PCI Collision in the presence of HeNBs (R3-091399; to: RAN2, RAN1; cc: RAN4; contact: Qualcomm) RAN3
 R2-093628 LS on Network Based Solutions for Active Mode Inbound Mobility to H(e)NB Cells (R3-091460; to: RAN2; cc: -; contact: Qualcomm) RAN3

RAN2 #65bis:

R2-091988 Reply LS to R2-091142 on possible AS impacts from UE mode operation (C1-091198; to: RAN2, GERANI; cc: SA2; contact: NEC) CT1
 R2-092002 Coordination of work for response to ITU-R WP 5D Request for Information on Femtocells (RP-090358; to: SA, RAN1, RAN2, RAN3, RAN4; cc: -; contact: AT&T) RAN
 R2-092682 LS on on CSG Access Control during inbound handover (R3-091004; to: RAN2; cc: -; contact: Qualcomm) RAN3

RAN2 #65:

R2-091891 LS on UE support of CSG in Rel-8 (R3-090588; to: RAN2; cc: -; contact: NSN) RAN3

RAN2 #63bis:

R2-084976 Response LS to R2-084823 on HSPA Rel-8 Feature Dependencies (RP-080748; to: RAN2; cc: -; contact: Nokia) RAN

RAN2 #63:

R2-083821 LS reply to R2-082899 on CSG cell identification (R1-082762; to: RAN2, RAN4; cc: -; contact: Qualcomm) RAN1
 R2-084612 LS on connected mode mobility support for 3G Home NodeBs (R3-082244; to: RAN2; cc: -; contact: Qualcomm) RAN3

RAN2 #62bis:

R2-083065 Reply LS to C1-081422 = R2-082064 and R2-082041 on E-UTRAN Identifiers (R3-081534; to: RAN2, CT1, CT4, SA2; cc: -; contact: NSN) RAN3
 R2-083072 LS reply to R2-081368 on Load balancing signalling on QCI (R3-081607; to: RAN2, SA2; cc: -; contact: Ericsson) RAN3

RAN2 #62:

R2-082063 Reply LS to S3-080229 = R2-081918 and R2-082036 on outstanding NAS messages (C1-081386; to: SA3, RAN2; cc: -; contact: NSN) CT1
 R2-082086 Reply LS to R2-081380 on inter-MME load balancing, Attach/TAU/Service Request procedures and corresponding RRC/SI connection establishment procedures (S2-083171; to: RAN2; cc: RAN3, CT1, SA3; contact: NSN) SA2
 R2-082088 LS Request for Evaluation Framework Link Level Data (S4-080256; to: RAN1, RAN2; cc: -; contact: Qualcomm) SA4
 R2-082096 LS on AS and NAS message protection (S3-080502; to: RAN2; cc: CT1; contact: NSN) SA3
 R2-082099 Reply LS on "outstanding NAS messages from RAN2 (R2-082036) and CT1 (C1-081386=R2-082063) (S3-080525; to: RAN2, CT1; cc: -; contact: NSN) SA3

RAN2 #61bis:

R2-081404 LS on Decision of MBMS and LCS in SAE Rel8 Scope Discussions (SP-080223; to: SA2, RAN1, RAN2, RAN3; cc: SA1, GERAN2; contact: NTT) SA
 R2-081413 Reply LS to R2-075478 on CSG related mobility (stage 2 text) (GP-080417; to: SA1, RAN2; cc: SA2, RAN3, RAN4, RAN1; contact: NSN) GERAN
 R2-081428 LS on Measurements for self optimisation of cell selection/reselection parameters (R3-080565; to: RAN2; cc: -; contact: NEC) RAN3
 R2-081921 LS on CS Fallback (S2-081993; to: RAN2, RAN3, CT1, CT4; cc: -; contact: NTT) SA2
 R2-082024 Reply LS to R3-080543 = GP-080283 on applicability of "subscriber type" indication for UTRAN & GERAN (G2-080228; to: SA2, RAN3, RAN2; cc: GERAN, CT1; contact: Ericsson) GERAN2

RAN2 #61:

R2-080649 (R1-075105) Reply to RAN2 LS on signaling for DL data arrival (LS was actually already presented at #60bis)
 R2-080655 (R3-072408) LS on feasibility of using RLF recovery to aid neighbour discovery (LS was actually already presented at #60bis)
 R2-080673 (R3-072403) LS on Inter-RAT/frequency Automatic Neighbour Relation Function (LS was actually already presented at #60bis)
 R2-081326 (R1-081103) Reply LS to R2-075467 on Uplink Coverage for LTE

Annex F: Outgoing liaison statements of TSG RAN WG2 #68bis

Only final outgoing LSs are listed here.

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
R2-100806	Transport of multiple LPP messages with MO-LR trigger	CT1, CT4	SA2, RAN3	Qualcomm	-	REL-9	LCS_LTE	drafted in connection with R2-100585
R2-100822	Service Specific Access Control (SSAC) agreements	CT1	-	NTT DOCOMO	-	REL-9	SSAC	drafted in connection with R2-100772
R2-100823	Use cases for cell change indication from MME to E-SMLC	SA2, SA3	RAN3, CT4	Qualcomm	S2-097525 = R2-100027	REL-9	LCS_LTE	
R2-100829	Dedicated cell reselection handling at inter-RAT cell selection	GERAN, GERAN2	-	Deutsche Telekom	-	REL-8	LTE-L23	drafted in connection with R2-100403
R2-100832	Key invalidation following SR-VCC failure	SA3	-	Huawei	S3-092193 = R2-100033	REL-8	LTE-L23	
R2-100834	Preventing UTRA to EUTRA handover for USIM-less UE	SA3	SA	Huawei	SP-090893 = R2-100036, S3-092180 = R2-100032	REL-9	IMS_EMER_LTE	
R2-100842	Request to enable UE-originated RLF reports	RAN3	-	Nokia Siemens Networks	R3-092656 = R2-096314	REL-9	SON	R3-092656 = R2-096314 was received at RAN2 #68
R2-100843	P-TMSI selection for Correct Derivation of Intra Domain NAS Node Selector and routing basis in Access Stratum	CT1	-	Vodafone	-	REL-8	LTE-L23	drafted in connection with R2-100089
R2-100848	Multiple timing advances for inter-band carrier aggregation	RAN4	-	Verizon	-	REL-10	LTE_CA-Core	drafted in connection with R2-100472; email approval [68b#2]
R2-100849	PDCCH monitoring set for carrier aggregation in LTE-Advanced	RAN1	-	CATT	R1-095056 = R2-097377	REL-10	LTE_CA-Core	draft LSout in R2-100797; email approval [68b#1]
R2-100851	Questions for clarification to 3GPP on LTE Advanced	Wireless World Initiative New Radio (Winner+)	-	Nokia Siemens Networks	Questionnaire	REL-9	FS_RAN_LTEA	note: This LS answers questions related to LTE-Advanced Evaluation of ITU-R. This LS will be also provided to RAN #47 for information in RP-100003.
R2-100860	Power split agreements for DC-HSUPA (to: RAN4; cc: RAN1; contact: Interdigital)	RAN4	RAN1	Interdigital	-	REL-9	RANimp-DC_HSUPA	drafted in connection with R2-100xxx; email approval [68b#2]

Summary:

In total 8+4 outgoing LSs of RAN2 #68bis (including 4 agreed by email):
9 related to LTE/E-UTRA, 1 related to UTRA, 2 related to joint aspects.

Annex G:

List of in principle agreed CRs of RAN2 #68bis

In total 109 CRs (incl. cat.A; 56 for UTRA specs, 53 for LTE specs) will be resubmitted to RAN2 #69 from RAN2 #68bis as in principle agreed:

The following table includes already RAN2 #69 Tdoc numbers and CR numbers allocated for RAN2 #69 for all in principle agreed CRs that will be submitted to RAN2 #69.

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/WI	RAN2 #68bis Tdoc
R2-100900	Clarification to priority based mobility	Qualcomm	25.304	0233	-	F	REL-8	LTE-L23	R2-100858
R2-100901	Clarification to priority based mobility	Qualcomm	25.304	0234	-	A	REL-9	LTE-L23	R2-100859
R2-100902	Reception of ETWS notification in limited service state	Panasonic	25.304	0235	-	F	REL-8	ETWS	R2-100135
R2-100903	Reception of ETWS notification in limited service state	Panasonic	25.304	0236	-	A	REL-9	ETWS	R2-100135
R2-100904	Clarification of code rates limitation for category 25/27	Huawei	25.306	0256	-	F	REL-9	RANimp-DC_MIMO	R2-100152
R2-100905	Clarification of UE Categories for TxAA-Non-MIMO	Qualcomm Incorporated	25.306	0257	-	F	REL-9	RANimp-TxAA_nonMIMO	R2-100643
R2-100906	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	25.306	0258	-	C	REL-9	EHNB-RAN2	R2-100836
R2-100907	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.307	0101	-	B	REL-4	RInImp9-UMTSLTE800	R2-100633
R2-100908	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.307	0102	-	B	REL-5	RInImp9-UMTSLTE800	R2-100634
R2-100909	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.307	0103	-	B	REL-6	RInImp9-UMTSLTE800	R2-100635
R2-100910	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.307	0104	-	B	REL-7	RInImp9-UMTSLTE800	R2-100636
R2-100911	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.307	0105	-	B	REL-8	RInImp9-UMTSLTE800	R2-100637
R2-100912	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.307	0106	-	B	REL-9	RInImp9-UMTSLTE800	R2-100638
R2-100913	Correction of DRX definition for LCR TDD	New Postcom	25.308	0079	-	F	REL-8	TEI8	R2-100276

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/MI	RAN2 #68bis Tdoc
R2-100914	Correction of DRX definition for LCR TDD	New Postcom	25.308	0080	-	A	REL-9	TEI8	R2-100277
R2-100915	Corrections to stage 2 of DC-HSDPA	Huawei	25.308	0081	-	F	REL-8	RANimp-DCHSDPA	R2-100155
R2-100916	Corrections to stage 2 of DC-HSDPA	Huawei	25.308	0082	-	A	REL-9	RANimp-DCHSDPA	R2-100156
R2-100917	Removal of FFSs about the support of E-FACH for 1.28Mcps TDD	ZTE	25.308	0083	-	F	REL-8	RANimp-EnhState1.28TDD	R2-100354
R2-100918	Removal of FFSs about the support of E-FACH for 1.28Mcps TDD	ZTE	25.308	0084	-	A	REL-9	RANimp-EnhState1.28TDD	R2-100355
R2-100919	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	25.319	0058	-	D	REL-8	RANImp-UplinkEnhState	R2-100075
R2-100920	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	25.319	0059	-	A	REL-9	RANImp-UplinkEnhState	R2-100076
R2-100921	Corrections to DC-HSUPA operation	Ericsson, ST-Ericsson, Samsung	25.319	0060	-	F	REL-9	RANimp-DC_HSUPA	R2-100191
R2-100922	Update of Stage 2 description for DC-HSUPA	Infineon Technologies	25.319	0061	-	F	REL-9	RANimp-DC_HSUPA	R2-100640
R2-100923	Clarification on Scheduling Information reporting for 1.28 Mcps TDD	CATT, New Postcom, Potevio, TD Tech, ZTE	25.321	0614	-	F	REL-8	RANimp-EnhState1.28TDD	R2-100623
R2-100924	Clarification on Scheduling Information reporting for 1.28 Mcps TDD	CATT, New Postcom, Potevio, TD Tech, ZTE	25.321	0615	-	A	REL-9	RANimp-EnhState1.28TDD	R2-100150
R2-100925	Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD	New Postcom	25.321	0616	-	F	REL-8	TEI8	R2-100595
R2-100926	Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD	New Postcom	25.321	0617	-	A	REL-9	TEI8	R2-100596
R2-100927	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	25.321	0618	-	D	REL-8	RANImp-UplinkEnhState	R2-100077

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/MI	RAN2 #68bis Tdoc
R2-100928	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	25.321	0619	-	A	REL-9	RANImp-UplinkEnhState	R2-100078
R2-100929	Corrections for DC-HSUPA in 25.321	Huawei	25.321	0620	-	F	REL-9	RANImp-DC HSUPA	R2-100649
R2-100930	Indication of MIMO codebook restriction	Qualcomm Europe, Ericsson, ST-Ericsson	25.331	4008	-	F	REL-7	MIMO-L23	R2-100855
R2-100931	Indication of MIMO codebook restriction	Qualcomm Europe, Ericsson, ST-Ericsson	25.331	4009	-	A	REL-8	MIMO-L23	R2-100856
R2-100932	Indication of MIMO codebook restriction	Qualcomm Europe, Ericsson, ST-Ericsson	25.331	4010	-	A	REL-9	MIMO-L23	R2-100857
R2-100933	Traffic volume measurement in CELL_PCH state	Samsung	25.331	4011	-	F	REL-7	RANImp-Enhstate	R2-100615
R2-100934	Traffic volume measurement in CELL_PCH state	Samsung	25.331	4012	-	A	REL-8	RANImp-Enhstate	R2-100551
R2-100935	Traffic volume measurement in CELL_PCH state	Samsung	25.331	4013	-	A	REL-9	RANImp-Enhstate	R2-100553
R2-100936	Clarification of T323 configuration	Nokia Corporation, Nokia Siemens Networks	25.331	4014	-	F	REL-8	TEI8	R2-100562
R2-100937	Clarification of T323 configuration	Nokia Corporation, Nokia Siemens Networks	25.331	4015	-	A	REL-9	TEI8	R2-100563
R2-100938	Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDD	ZTE	25.331	4016	-	F	REL-8	RANImp-EnhState1.28TDD	R2-100624
R2-100939	Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDD	ZTE	25.331	4017	-	A	REL-9	RANImp-EnhState1.28TDD	R2-100361

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/MI	RAN2 #68bis Tdoc
R2-100940	Correction of RNTIs handling for Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	25.331	4018	-	F	REL-8	RANImp-UplinkEnhState	R2-100620, R2-101323
R2-100941	Correction of RNTIs handling for Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	25.331	4019	-	A	REL-9	RANImp-UplinkEnhState	R2-100084, R2-101324
R2-100942	Corrections to the Treset for 1.28Mcps TDD	ZTE	25.331	4020	-	F	REL-8	RANImp-EnhState1.28TDD	R2-100357
R2-100943	Corrections to the Treset for 1.28Mcps TDD	ZTE	25.331	4021	-	A	REL-9	RANImp-EnhState1.28TDD	R2-100359
R2-100944	Correction on CSG Proximity Indication	InterDigital	25.331	4022	-	F	REL-9	EHNB-RAN2	R2-100330
R2-100945	Correction to the activation/deactivation of secondary cell MIMO feature	Ericsson, ST-Ericsson	25.331	4023	-	F	REL-9	RANImp-DC MIMO	R2-100184
R2-100946	Corrections for virtual active set	Huawei	25.331	4024	-	F	REL-9	RANImp-DC HSUPA	R2-100146
R2-100947	25.331: Fix for CSG measurements without SI report	Qualcomm Incorporated	25.331	4025	-	F	REL-9	EHNB-RAN2	R2-100482
R2-100948	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	25.331	4026	-	B	REL-9	RANImp9-UMTS LTE800	R2-100632
R2-100949	Introduction of CELL_DCH measurement occasion calculation for 1.28Mcps TDD	TD Tech, CATT	25.331	4027	-	F	REL-9	TEI9	R2-100861
R2-100950	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	25.331	4028	-	C	REL-9	EHNB-RAN2	R2-100837
R2-100951	UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast domancy	Panasonic	25.331	4029	-	F	REL-8	TEI8	R2-100646
R2-100952	UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast domancy	Panasonic	25.331	4030	-	A	REL-8	TEI8	R2-100646
R2-100953	CR capturing HNB inbound mobility agreements	Qualcomm Incorporated	25.367	0017	-	F	REL-9	EHNB-RAN2	R2-100844
R2-100954	Rapporteur CR for corrections to 25.993	Alcatel-Lucent (Rapporteur)	25.993	0116	-	F	REL-8	TEI8	R2-100206

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/WI	RAN2 #68bis Tdoc
R2-100955	Rapporteur CR for corrections to 25.993	Alcatel-Lucent (Rapporteur)	25.993	0117	-	A	REL-9	TEI8	R2-100208
R2-100956	Correction regarding support of multiple MBSFN areas	Samsung	36.300	0183	-	F	REL-9	MBMS_LTE	R2-100719
R2-100957	Correction to MBMS terminology	Ericsson, ST-Ericsson	36.300	0184	-	F	REL-9	MBMS_LTE	R2-100116
R2-100958	Corrections on eNB muting MBSFN transmission	Nokia Corporation, Nokia Siemens Networks, Huawei, ZTE	36.300	0185	-	F	REL-9	MBMS_LTE	R2-100718
R2-100959	Corrections to TS 36.300 on MBMS	Huawei	36.300	0186	-	F	REL-9	MBMS_LTE	R2-100717
R2-100960	CR capturing HeNB inbound mobility agreements	Motorola, Qualcomm, NTT DoCoMo	36.300	0187	-	F	REL-9	EHNB-RAN2	R2-100828
R2-100961	Remove FFSs from RAN2 specifications	Ericsson, ST-Ericsson	36.300	0188	-	F	REL-9	TEI9, LTE-L23	R2-100833
R2-100962	SIM based access for Emergency calls in LTE	Alcatel-Lucent	36.300	0189	-	F	REL-9	IMS_EMER_LTE	R2-100752
R2-100963	Stage 2 Description of Carrier Aggregation	Nokia Siemens Networks (Rapporteur)	36.300	0190	-	B	REL-10	LTE_CA-Core	R2-100789
R2-100964	Clarification on RRC connection re-establishment for emergency calls	HTC Corporation	36.304	0122	-	F	REL-9	IMS_EMER_LTE	R2-100788
R2-101583	Correction on reselection from non-CSG cell to CSG inter-RAT cell	LG Electronics Inc.	36.304	0123	1	F	REL-9	TEI9, LTE-L23	R2-100446
R2-100966	Miscellaneous correction on 36.304	Huawei	36.304	0124	-	D	REL-9	TEI9, LTE-L23	R2-100765
R2-100967	Proposed CR to 36.304 on Addition of missing abbreviations related with MBMS	LG Electronics Inc.	36.304	0125	-	F	REL-9	MBMS_LTE	R2-100252
R2-100968	Clarification on E-CID parameters	Huawei, CATT, Qualcomm Incorporated	36.305	0006	-	F	REL-9	LCS_LTE	R2-100302
R2-100969	Clarification on positioning procedure	Huawei, Qualcomm Incorporated	36.305	0007	-	F	REL-9	LCS_LTE	R2-100777
R2-100970	Stage 2 updates to align with stage 3	Ericsson, ST-Ericsson	36.305	0008	-	F	REL-9	LCS_LTE	R2-100824

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/WI	RAN2 #68bis Tdoc
R2-100971	Updates to LPP material in stage 2	Qualcomm Incorporated	36.305	0009	-	F	REL-9	LCS_LTE	R2-100818
R2-101008	Updates to LPPa material in stage 2	RAN3 (contact: Qualcomm)	36.305	0010	-	F	REL-9	LCS_LTE	R3-100513
R2-101593	CR to 36.306 on Optionality of Rel-9 UE features	NTT DOCOMO, INC.	36.306	0024	1	C	REL-9	TEI9, LTE-L23	R2-100607
R2-100973	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	36.306	0025	-	B	REL-9	TEI9, LTE-L23	R2-100809
R2-100974	UE capability for enhanced 1xRTT CS fallback	Huawei	36.306	0026	-	F	REL-9	TEI9, LTE-L23	R2-100761
R2-100975	Correction to MBMS scheduling terminology	Ericsson, ST-Ericsson	36.321	0414	-	F	REL-9	MBMS_LTE	R2-100117
R2-100976	Corrections to TS 36.321 on MBMS	Huawei	36.321	0415	-	F	REL-9	MBMS_LTE	R2-100722
R2-100977	Correction to RLC entity	ASUSTeK	36.322	0089	-	F	REL-9	MBMS_LTE	R2-100811
R2-100978	Aligning the number of neighbor cells in SIB8 between Rel-8 and Rel-9	Ericsson, ST-Ericsson	36.331	0328	-	F	REL-8	LTE-L23	R2-100113
R2-100979	Aligning the number of neighbor cells in SIB8 between Rel-8 and Rel-9	Ericsson, ST-Ericsson	36.331	0329	-	A	REL-9	LTE-L23	R2-100113
R2-100980	Clarification of CGI reporting	Panasonic	36.331	0330	-	F	REL-8	LTE-L23	R2-100762
R2-100981	Clarification of CGI reporting	Panasonic	36.331	0331	-	A	REL-9	LTE-L23	R2-100763
R2-100982	Clarification on MCCCH change notification	CMCC	36.331	0332	-	F	REL-9	MBMS_LTE	R2-100381
R2-100983	Clarification on measurement for serving cell only	Huawei	36.331	0333	-	F	REL-9	TEI9, LTE-L23	R2-100767
R2-100984	Clarification on proximity indication configuration in handover to E-UTRA	HTC Corporation	36.331	0334	-	F	REL-9	EHNB-RAN2	R2-100380
R2-100985	Clarification on radio resource configuration in handover to E-UTRA procedure	ASUSTeK	36.331	0335	-	F	REL-9	TEI9, LTE-L23	R2-100478
R2-100986	Clarification on UE maximum transmission power	ASUSTeK	36.331	0336	-	F	REL-9	TEI9, LTE-L23	R2-100480
R2-100987	Correction to field descriptions of UE-EUTRA-Capability	HTC Corporation	36.331	0337	-	F	REL-9	TEI9, LTE-L23	R2-100769
R2-100988	Correction to MBMS scheduling terminology	Ericsson, ST-Ericsson	36.331	0338	-	F	REL-9	MBMS_LTE	R2-100118
R2-100989	Corrections to SIB8	Motorola	36.331	0339	-	F	REL-9	TEI9, LTE-L23	R2-100766
R2-100990	CR 36.331 R9 for Unifying SI reading for ANR and inbound mobility	Qualcomm Incorporated	36.331	0340	-	F	REL-9	EHNB-RAN2	R2-100835

RAN2 #69 Tdoc	Title	Source	Spec	CR #	rev	cat	Release	SI/MI	RAN2 #68bis Tdoc
R2-100991	CR to 36.331 for 1xRTT pre-registration information in SIB8	KDDI, NEC, Hitachi, Motorola, Kyocera	36.331	0341	-	C	REL-9	TEI9, LTE-L23	R2-100808
R2-100992	CR to 36.331 on corrections for MBMS	ASUSTeK	36.331	0342	-	F	REL-9	MBMS_LTE	R2-100098
R2-100993	CR to 36.331 on CSG identity reporting	NTT DOCOMO, Nokia Siemens Networks	36.331	0343	-	F	REL-9	EHNB-RAN2	R2-100530, R2-101531
R2-101532	CR to 36.331 on Optionality of Rel-9 UE features	NTT DOCOMO, INC.	36.331	0344	1	C	REL-9	TEI9, LTE-L23	R2-100608
R2-101532	CR to 36.331 on Service Specific Access Control (SSAC)	NTT DOCOMO	36.331	0345	1	B	REL-9	SSAC	R2-100772
R2-100996	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	36.331	0346	-	B	REL-9	TEI9, LTE-L23	R2-100810
R2-100997	Missing agreement in MCCH change notification.	ZTE	36.331	0347	-	F	REL-9	MBMS_LTE	R2-100318
R2-100998	Position of MCCH notifications	Huawei	36.331	0348	-	F	REL-9	MBMS_LTE	R2-100720
R2-100999	Prohibit timer for proximity indication	NTT DOCOMO	36.331	0349	-	F	REL-9	EHNB-RAN2	R2-100802
R2-101585	Proximity Indication after handover and re-establishment	Alcatel-Lucent	36.331	0350	1	F	REL-9	EHNB-RAN2	R2-100820
R2-101001	Specifying the exact mapping of notificationIndicator in SIB13 to PDCCH bits	Nokia Corporation, Nokia Siemens Networks	36.331	0351	-	F	REL-9	MBMS_LTE	R2-100794
R2-101002	Clarification on Position location	HTC Corporation	36.355	0001	-	F	REL-9	LCS_LTE	R2-100786
R2-101003	Clarification on UE Rx-Tx time difference supporting capability	CATT	36.355	0002	-	F	REL-9	LCS_LTE	R2-100292
R2-101576	Completion of LPP common material	Qualcomm	36.355	0003	1	B	REL-9	LCS_LTE	R2-100854
R2-101577	Completion of OTDOA in LPP	Qualcomm Incorporated	36.355	0004	1	F	REL-9	LCS_LTE	R2-100821
R2-101006	LPP ASN.1 corrections	Nokia Siemens Networks, Nokia Corporation	36.355	0005	-	F	REL-9	LCS_LTE	R2-100468
R2-101007	Provision of Frame Drift Information in Network Time	Nokia Siemens Networks, Nokia Corporation	36.355	0006	-	F	REL-9	LCS_LTE	R2-100807

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109 CRs are listed above (56 for UTRA specs, 53 for LTE specs).

Note: R2-100979: finally CR not needed as cat.F CR aligns REL-8 with REL-9

Annex H: RAN WG2 meeting #68bis post processing

Email discussions/approvals

Rapporteur companies are requested to kick-off email discussions as soon as possible via the RAN2 email reflector. Important: In the beginning of the subject of each email the corresponding identifier [...] of the email discussion has to be used in order to allow sorting of the different email discussions.

Email discussions with finalisation date Fri 29.01.2010 midnight Pacific time:

identifier: **[68b#1]**
topic: **LTE: Outgoing LS on act/deact and PDCCH monitoring set**
WI: REL-10 WI LTE_CA-Core
related to: R2-100797 Draft Reply LS to R1-095056 = R2-097377 on PDCCH monitoring set for carrier aggregation in LTE-Advanced (to: RAN1; cc: -; contact: CATT) CATT LSout REL-10 LTE_CA-Core
rapporteur: CATT
output: R2-100849 Reply LS to R1-095056 = R2-097377 on PDCCH monitoring set for carrier aggregation in LTE-Advanced (to: RAN1; cc: RAN4; contact: CATT) RAN2 LSout REL-10 LTE_CA-Core
conclusion: Email discussion was kicked off by Xu Fangli (CATT) on 22.01.2010. LSout **R2-100849** was agreed on 02.02.2010. Email discussion is closed.

identifier: **[68b#2]**
topic: **LTE: Outgoing LS on Multiple timing advance for inter-band CA**
WI: REL-10 WI LTE_CA-Core
related to: R2-100813 Draft LS on multiple timing advances for inter-band carrier aggregation (to: RAN4; cc: -; contact: Verizon) Verizon LSout REL-10 LTE_CA-Core
rapporteur: Verizon
output: R2-100848 LS on multiple timing advances for inter-band carrier aggregation (to: RAN4; cc: RAN1; contact: Verizon) RAN2 LSout REL-10 LTE_CA-Core
conclusion: Email discussion was kicked off by Pingping Zong (Verizon) on 25.01.2010. LSout **R2-100848** was agreed on 01.02.2010. Email discussion is closed.

identifier: **[68b#3]**
topic: **UMTS: HNB inbound mobility Stage-2:**
- Discussion is limited to the call flow figure in R2-100606
WI: REL-9 WI EHNB-RAN2
related to: R2-100606 CR capturing HNB inbound mobility agreementsQualcomm Incorporated CR 25.367 F REL-9EHNB-RAN2
rapporteur: Huawei
output: R2-100844 CR capturing HNB inbound mobility agreementsQualcomm Incorporated CR 25.367 F REL-9 EHNB-RAN2
conclusion: Email discussion was kicked off by Yang Xudong (Huawei) on 25.01.2010. CR **R2-100844** was in principle agreed on 01.02.2010. Email discussion is closed.

identifier: **[68b#4]**
topic: **UMTS: UE capabilities related to HNB**
- Update of R2-100609/R2-100610; (capability grouping was missing)
WI: REL-9 WI EHNB-RAN2
related to: R2-100609 Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features Nokia Corporation, Nokia Siemens NetworksCR 25.306 C REL-9EHNB-RAN2
R2-100610 Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features Nokia Corporation, Nokia Siemens NetworksCR 25.331 C REL-9 EHNB-RAN2

rapporteur: Nokia
 output: R2-100836 Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features Nokia Corporation, Nokia Siemens Networks CR 25.306 C REL-9 EHNB-RAN2
 R2-100837 Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features Nokia Corporation, Nokia Siemens Networks CR 25.331 C REL-9 EHNB-RAN2
 conclusion: Email discussion was kicked off by Brian Martin (Nokia) on 25.01.2010. CRs R2-100836 and R2-100837 were in principle agreed on 02.02.2010. Email discussion is closed.

identifier: [68b#5]
 topic: **LTE: Positioning Stage-3 corrections:**
 - Attempt to in principle agree R2-100785
 WI: REL-9 WI LCS_LTE
 related to: R2-100785 CR to 36.355 on removal of FFS items Qualcomm Incorporated CR 36.355 B REL-9 LCS_LTE
 rapporteur: Qualcomm
 output: R2-100854 Completion of LPP common material Qualcomm CR 36.355 B REL-9 LCS_LTE
 conclusion: Email discussion was kicked off by Nathan Tenny (Qualcomm) on 24.01.2010. CR R2-100854 was in principle agreed on 01.02.2010. Email discussion is closed.

identifier: [68b#6]
 topic: **LTE: Carrier aggregation capturing agreements in Stage-2:**
 - Update of R2-100053, also capturing agreements of RAN2#68b.
 - Should also include an appendix with agreements considered too detailed for stage-2.
 WI: REL-10 WI LTE_CA-Core
 related to: R2-100053 Stage 2 Description of Carrier Aggregation Nokia Siemens Networks CR 36.300 B REL-10 LTE_CA-Core
 rapporteur: NSN
 output: R2-100789 Stage 2 Description of Carrier Aggregation Nokia Siemens Networks CR 36.300 B REL-10 LTE_CA-Core
 conclusion: Email discussion was kicked off by Benoist Sebire (NSN) on 26.01.2010. CR R2-100789 was in principle agreed on 29.01.2010. Email discussion is closed.

identifier: [68b#7]
 topic: **UMTS: Email agreement for revision of R2-100616 => Outcome: Rel'7/8/9 CRs**
 WI: REL-7 WI MIMO-L23
 related to: R2-100616 Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 C REL-7MIMO-L23
 R2-100644 Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 A REL-8 MIMO-L23
 R2-100645 Indication of MIMO codebook restriction Qualcomm Incorporated CR 25.331 A REL-9 MIMO-L23
 rapporteur: Qualcomm
 output: R2-100855 Indication of MIMO codebook restriction Qualcomm Europe, Ericsson, ST-Ericsson CR 25.331 F REL-7 MIMO-L23
 R2-100856 Indication of MIMO codebook restriction Qualcomm Europe, Ericsson, ST-Ericsson CR 25.331 A REL-8 MIMO-L23
 R2-100857 Indication of MIMO codebook restriction Qualcomm Europe, Ericsson, ST-Ericsson CR 25.331 A REL-9 MIMO-L23
 conclusion: Email discussion was kicked off by Ozcan Ozturk (Qualcomm) on 28.01.2010. CRs R2-100855, R2-100856 and R2-100857 were in principle agreed on 03.02.2010. Email discussion is closed.

identifier: [68b#8]
 topic: **UMTS: Email agreement for revision of R2-100650 => Outcome: Rel'8/9 CRs**
 WI: REL-8 WI LTE-L23
 related to: R2-100650 Clarification to priority based mobility procedures Qualcomm Incorporated CR 25.304 F REL-8LTE-L23
 rapporteur: Qualcomm

output: R2-100858 Clarification to priority based mobility Qualcomm CR 25.304 F REL-8
LTE-L23
R2-100859 Clarification to priority based mobility Qualcomm CR 25.304 A REL-9
LTE-L23

conclusion: Email discussion was kicked off by Aziz Gholmieh (Qualcomm) on 27.01.2010.
CRs R2-100858 and R2-100859 were in principle agreed on 04.02.2010.
Email discussion is closed.

identifier: [68b#9]
topic: UMTS: Email agreement for revision of R2-100642 => Outcome: Rel'9 CR
- If the full procedural text isn't agreeable, the group should try to agree on the
tabular/ASN.1 part.

WI: REL-9 WI EHNB-RAN2
related to: R2-100642 25.331: Applying periodic measurements to CSG cells Qualcomm Incorporated
CR 25.331 F REL-9 EHNB-RAN2

rapporteur: Qualcomm
output: REL-9 CR to 25.331
conclusion: Email discussion was kicked off by Damanjit Singh (Qualcomm) on 27.01.2010.
Concerns were raised by Huawei, LG, Ericsson, ST-Ericsson e.g. on whether CR is needed.
Therefore no consensus was achieved by the deadline.
R2-100642 is not agreed on 09.02.10. Email discussion is closed.
However, proponents of the CR can try to further convince other companies under [68b#9]
and if found useful provide a CR to RAN2 #69 (however: impact on REL-9 25.331 ASN.1
review might reduce willingness to agree on late changes)..

identifier: [68b#10]
topic: UMTS: Email agreement for revision of R2-100523/R2-100524
=> Outcome: Rel'9 CRs on 25.331/25.304.
- Dependant on RAN4 agreement, if RAN4 comes to a conclusion by this meeting, RAN2
will capture the agreements.

WI: REL-9 WI TEI9, LTE-L23
related to: R2-100523 CR to 25.304 on Cell reselection enhancementsNTT DOCOMO CR 25.304
B REL-9 TEI9, LTE-L23
R2-100524 CR to 25.331 on Cell reselection enhancementsNTT DOCOMO CR 25.331
B REL-9TEI9, LTE-L23

rapporteur: NTT DOCOMO
output: 25.331 REL-9 CR, 25.304 REL-9 CR
conclusion: Email discussion was not kicked off but cancelled as covered by email discussion [68b#10].

Email discussions with finalisation date Fri 05.02.2010 midnight Pacific time:

(Note: Original deadline was 04.02.2010 in UTRA session.)

identifier: [68b#11]
topic: UMTS/LTE: LTE cell reselection enhancements:
- Come to acceptable/complete CRs for the introduction of the LTE cell reselection
enhancements (See R2-100770, R2-100771, R2-100830, R2-100831)
- Deadline 29.01.2010: which approach (770/771 or 830/831) should be selected
- Final CRs should be made available by 05.02.2010
=> 25.304: R2-100838, 25.331: R2-100839, 36.304: R2-100840, 36.331: R2-100841

WI: REL-9 WI TEI9, LTE-L23
related to: R2-100770 CR to 36.304 on Cell reselection enhancementsNTT DOCOMO CR 36.304
B REL-9 TEI9, LTE-L23
R2-100771 CR to 36.331 on Cell reselection enhancementsNTT DOCOMO CR 36.331
B REL-9 TEI9, LTE-L23
alternative:
R2-100830 Alternative to CR to 36.304 on Cell reselection enhancements NTT DOCOMO
CR 36.304 B REL-9 TEI9, LTE-L23
R2-100831 Alternative to CR to 36.331 on Cell reselection enhancements NTT DOCOMO
CR 36.331 B REL-9 TEI9, LTE-L23

rapporteur: NTT DOCOMO

output: R2-100838 CR to 25.304 on Cell reselection enhancementsNTT DOCOMO CR 25.304
B REL-9 TEI9, LTE-L23
R2-100839 CR to 25.331 on Cell reselection enhancementsNTT DOCOMO CR 25.331
B REL-9 TEI9, LTE-L23
R2-100840 CR to 36.304 on Cell reselection enhancementsNTT DOCOMO CR 36.304
B REL-9 TEI9, LTE-L23
R2-100841 CR to 36.331 on Cell reselection enhancementsNTT DOCOMO CR 36.331
B REL-9 TEI9, LTE-L23

conclusion: Email discussion was kicked off by Mikio Iwamura (NTT DOCOMO) on 25.01.2010.
Final CRs were not available on 09.02.2010. Therefore all 4 CRs R2-100838 - R2-100841 are withdrawn and email discussion is closed.
Proponents can still try to convince other companies under [68b#11] and if needed submit CRs to RAN2 #69.

identifier: **[68b#12]**
topic: **UMTS: Email approval LS to RAN4 on RAN2 DC-HSUPA power split agreements**
WI: REL-9 WI RANimp-DC_HSUPA
related to: R2-100507 Remaining open issues on DC-HSUPA E-TFC Selection InterDigital Disc
REL-9 RANimp-DC_HSUPA
rapporteur: Interdigital
output: R2-100860 LS on power split agreements for DC-HSUPA (to: RAN4; cc: RAN1; contact: Interdigital) RAN2 LSout REL-9RANimp-DC_HSUPA
conclusion: Email discussion was kicked off by Diana Pani (Interdigital) on 02.02.2010.
LSout **R2-100860** was agreed on 09.02.2010.
Email discussion is closed.

identifier: **[68b#13]**
topic: **UMTS: inter-RAT inbound mobility to HeNB: Email agreement for revision of R2-100627**
The goal is to integrate the agreements from the session and verify ASN.1
WI: REL-9 WI EHNb-RAN2
related to: R2-100627 Support of inter-RAT inbound mobility to HeNB Huawei CR 25.331
B REL-9 EHNb-RAN2
rapporteur: Huawei
output: Updated REL-9 25.331 CR
conclusion: Email discussion was kicked off by Yang Xudong (Huawei) on 29.01.2010.
As no final CR version was available by 09.02.10 and discussion was ongoing, the R2-100627CR is postponed.
Email discussion is closed. Further discussion can take place and submission of a CR to RAN2 #69 is possible (but not as in principle agreed CR).

identifier: **[68b#14]**
topic: **UMTS: Email agreement for revision of R2-100157/R2-100356/R2-100375**
Converge to one 25.331 REL-9 CR.
Complete ASN.1 needs to be provided. Special care must be taken to verify collision with REL-9 ASN.1 review CR.
WI: REL-9 TEI9
related to: R2-100157 Modification on measurement occasion calculation in 1.28 Mcps TDD CATT CR 25.331 C REL-9 TEI9
R2-100356 Introduction of measurement occasion in CELL_DCH state for 1.28Mcps TDD ZTE CR 25.331 F REL-9 TEI9
R2-100375 Modification of measurement occasion for 1.28Mcps TDD TD Tech CR 25.331 C REL-9 TEI9
rapporteur: CATT
output: R2-100861 Introduction of CELL_DCH measurement occasion calculation for 1.28Mcps TDD TD Tech, CATT CR 25.331 F REL-9 TEI9
conclusion: Email discussion was kicked off by Yan Gao (CATT) on 26.01.2010.
CR **R2-100861** was in principle agreed on 09.02.2010.
Email discussion is closed.

Email discussions with finalisation date RAN2#69 submission deadline (Mon 15.02.2010 midnight Pacific time):

identifier: **[68b#15]**
 topic: **UMTS/LTE: Proximity status indication handling at mobility**

- Should discuss intra-UMTS, intra-LTE and inter-RAT, preferably one solution for all cases
- Two main solutions on the table:
 1. Status indication repetition by UE after handover
 - Details to be worked out (e.g. when does UE send indication again, any rules/restrictions for the repetition after handover)
 2. Status indication transfer in network
 - Should the problem of crossing handover & status indication be addressed (probably yes) ? If so how ?

WI: REL-9 WI EHNB-RAN2
 related to: R2-100327 Proximity indication handling for handover ZTE Disc
 R2-100400 Handling of proximity indications after handover and reestablishment Alcatel-Lucent Disc
 R2-100514 Proximity indication forwarding at handover NTT DOCOMO Disc
 R2-100535 Remaining issues in the proximity report procedure SamsungDisc

rapporteur: Motorola
 output: Email discussion summary to be provided to RAN2 #69.
 conclusion: Email discussion was kicked off by Murali Narasimha (Motorola) on 01.02.2010.
 Email discussion summary is provided to RAN2 #69 in R2-101401.

identifier: **[68b#16]**
 topic: **UMTS/LTE: MDT**

Try to address several high level questions related to MDT:

1. Do we support case "2)", i.e. connected mode logged reporting?
2. If we support 2), can a log survive several IDLE<->CONN transitions?
3. What cases would be build on extensions of current measurement configuration, and for which would we have a new configuration/approach?
4. Can the log be reported in other cell/RAT then where configured?
5. What are the simplest triggers for reporting (e.g. set of 2 or 3)?

WI: REL-10 WI MDT_UMTSLTE-Core
 related to: Agenda item 4.3.1
 rapporteur: Qualcomm
 output: Email discussion summary to be provided to RAN2 #69.
 conclusion: Email discussion was kicked off by Masato Kitazoe (Qualcomm) on 28.01.2010.
 Email discussion summary is provided to RAN2 #69 in R2-101519.

identifier: **[68b#17]**
 topic: **UMTS/LTE: M2M characterisation**

- Try to come to a characterisation of M2M traffic
- Would be good if we could come to a list of some key use cases that would require first focus of RAN2 in the M2M SI.
- If this is not possible, can discuss if there is a more appropriate way to come to a realistic M2M traffic characterisation.

WI: REL-10 SI FS_NIMTC_RAN
 related to: Agenda item 4.3.2
 rapporteur: Huawei
 output: Email discussion summary to be provided to RAN2 #69.
 conclusion: Email discussion was kicked off by Arnaud Meylan (Huawei) on 05.02.2010.
 Email discussion summary is provided to RAN2 #69 in R2-101242.

identifier: **[68b#18]**
 topic: **UMTS/LTE: Positioning enhancements**

Further discussion on the enhancements 3 & 4 proposed in R2-100046 to come to a common understanding of the potential benefit. Note that if these enhancements are really considered important, they could also be impacting UMTS.

WI: REL-9 WI LCS_LTE
 related to: R2-100046 LCS for LTE: Corrections for UE Assisted LPP measurements CSR Disc
 REL-9 LCS_LTE
 rapporteur: CSR
 output: Email discussion summary to be provided to RAN2 #69.

- conclusion: Email discussion was kicked off by Ian Blair (CSR) on 25.01.2010.
Email discussion summary is provided to RAN2 #69 in R2-101212.
- identifier: **[68b#19]**
topic: **LTE: Positioning Reliability layer**
- Discuss details of R2-100793 in order to have a technically acceptable CR ready for approval at RAN2#69 if we want a retransmission layer in LPP
 - Can also discuss what is the best solution between the 2 options currently on the table (LPP retransmission layer / non-delivery indication) in order to prepare final decision at next meeting.
- WI: REL-9 WI LCS_LTE
related to: R2-100793 Addition of LPP reliable transport Qualcomm Incorporated CR 36.355
B REL-9 LCS_LTE
- rapporteur: Qualcomm
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Nathan Tenny (Qualcomm) on 01.02.2010.
Instead of an email discussion summary R2-101570 a 36.355 REL-9 CR is provided in R2-101571 to RAN2 #69.
- identifier: **[68b#20]**
topic: **LTE: Rel-9 K_ASME mismatch**
- Discuss based on an expected SA2 LS on this issue, whether RAN2 needs to take any action for the K_ASME mismatch at inter-RAT handover / emergency call establishment
 - If SA2 asks for AS solutions for specific problems, the best solution for such a problem should also be discussed.
 - The email discussion should also address whether there is anything to solve for the "emergency TAU case" (see R2-100386)
- WI: REL-9 WI IMS_EMER_LTE
related to: R2-100013 LS on use of emergency cause value for TAU (CP-091060; to: RAN2, CT1; cc: SA2; contact: Alcatel-Lucent) CTLSin REL-9 IMS_EMER_LTE
R2-100386 Discussion on use of Emergency cause value for TAU Alcatel-Lucent Disc REL-9IMS_EMER_LTE
- rapporteur: Alcatel-Lucent
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Sudeep Palat (Alcatel-Lucent) on 28.01.2010.
Email discussion summary is provided to RAN2 #69 in R2-101377.
- identifier: **[68b#21]**
topic: **LTE: 36.331 CR for "full configuration"**
- Discuss required updates to R2-100755 to come to a complete acceptable simple CR for this issue
- WI: REL-9 WI TEI9, LTE-L23
related to: R2-100755 Full configuration solution for eNB release handling Alcatel-Lucent CR 36.331 B REL-9 TEI9, LTE-L23
- rapporteur: Alcatel-Lucent
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Sudeep Palat (Alcatel-Lucent) on 27.01.2010.
Email discussion summary is provided to RAN2 #69 in R2-101376.
- identifier: **[68b#22]**
topic: **UMTS/LTE: CSFB enhancement for LTE->UMTS**
- Can discuss the detailed CR of the solution in R2-100801 and whether there are easier solutions that would achieve similar gains. All proposed solutions should have complete CRs made available during the email discussion
- WI: REL-9 WI TEI9, LTE-L23
related to: R2-100801 CR to 36.331 on Redirection enhancements to UTRAN NTT DOCOMO, Telefonica, Panasonic, NEC, Fujitsu CR 36.331 B REL-9 TEI9, LTE-L23
- rapporteur: NTT DOCOMO
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Mikio Iwamura (NTT DOCOMO) on 29.01.2010.
Email discussion summary is provided to RAN2 #69 in R2-101549.

identifier: **[68b#23]**
topic: **LTE: CA support for multi-TA**
- Email discussion should attempt to establish a common understanding of the complexity involved in supporting multiple timing advance
- Could also discuss if we have multi-TA, what simplifications (e.g. 1 RACH per group, 1 TA per UL CC,) would be possible without losing essential functionality
- This in order to prepare a decision of whether we will support this functionality in Rel-10
WI: REL-10 WI LTE_CA-Core
related to: R2-100472 TA maintenance for CA NTT DOCOMO Disc
rapporteur: NTT DOCOMO
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Anil Umesh (NTT DOCOMO) on 28.01.2010.
Email discussion summary is provided to RAN2 #69 in R2-101567.

identifier: **[68b#24]**
topic: **LTE: CA measurements**
Continue discussions on further potential event adaptations for CA
WI: REL-10 WI LTE_CA-Core
related to: R2-100812 Way forward for measurements for Carrier Aggregation Ericsson Report
REL-10 LTE_CA-Core
rapporteur: Ericsson
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Janne Peisa (Ericsson) on 02.02.2010.
Email discussion summary is provided to RAN2 #69 in R2-101423.

identifier: **[68b#25]**
topic: **UMTS: Email discussion for 1.28Mcps MC-HSUPA WI**
Goal: Report containing list of baseline agreements and open issues for discussion
WI: REL-9 WI TDD_MC_HSUPA
related to: Agenda item 11.1
rapporteur: CATT
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by Yan Gao (CATT) on 02.02.2010.
Email discussion summary is provided to RAN2 #69 in R2-101237.

identifier: **[68b#26]**
topic: **UMTS: Email discussion for 4C-HSUPA WI**
Goal: Report containing list of baseline agreements and open issues for discussion
WI: REL-10 WI 4C_HSDPA-Core
related to: Agenda item 11.2
rapporteur: Qualcomm
output: Email discussion summary to be provided to RAN2 #69.
conclusion: Email discussion was kicked off by x (Qualcomm) on .01.2010.
Email discussion summary is provided to RAN2 #69 in R2-101339.

Annex I: History

Document history		
Date	TSG RAN WG2 Tdoc	Subject
03.01.2010	-	Skeleton report for RAN WG2 #68bis provided before the meeting (only preallocated Tdocs).
12.01.2010		First update of skeleton report for RAN WG2 #68bis provided before the meeting.
12.01.2010		Second update of skeleton report for RAN WG2 #68bis provided before the meeting.
14.01.2010	-	Third update of skeleton report for RAN WG2 #68bis provided before the meeting.
18.01.2010	-	Final and fourth update of skeleton report for RAN WG2 #68bis provided before the meeting.
25.01.2010	-	Draft report v0.1 after RAN2 #68bis
18.02.2010	R2-100871	Draft report of RAN2 #68bis (v1.0) with revision marks relative to v0.1, provided as input for RAN2 #69
26.02.2010	R2-101881	Final report of RAN2 #68bis as agreed in RAN2 meeting #69.
<p>Author: Dr. Joern Krause (3GPP TSG RAN WG2 MCC Support)</p> <p>ETSI Mobile Competence Centre (MCC) Tel. +33-492-94 4261 email: Joern.Krause@etsi.org</p>		

Appendix D

Agenda item	Uploaded	Status	Late	Tdoc	Title	Source	Type:
-	Yes, No	withdrawn, not treated, noted, revised, 12.01. 10 revised, 10 agreed, 18:30 postponed CET	submitted R2-10xxxx after 12.01. 10		-	-	Agenda, Report, LSin, LSout, CR, TP (text proposals), TR (technical report), TS (technical specifica- tion), Disc (for discussion/ decision), Info, WIDS (WI descriptio n sheet)
02.1 General: Proposed	Yes	agreed		R2-100001	Proposed agenda for RAN2 #68bis, Valencia, Spain, 18.01.-22.01.2010	Samsung (RAN2 chairman)	Agenda
02.2 General: Minutes of	Yes	revised		R2-100002	Draft report of RAN2 #68, Jeju, Korea, 9.11.-13.11.2009	ETSI MCC	Report
02.4 General: Other	Yes	noted		R2-100003	RAN WG2 compendium v6.0	ETSI MCC	Info
03.2: LSin: LTE relevant	Yes	noted		R2-100004	Reply LS to R2-096257 on use cases for cell change indication from MME to E-SMLC (C4-094007; to: RAN2; cc: SA2, CT1, RAN3; contact: Andrew)	CT4	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100005	Reply LS to R2-096257 on Use cases for cell change indication from MME to E-SMLC (C1-095299; to: RAN2; SA2, CT4; cc: -; contact: Quaborm)	CT1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100006	Reply LS to R2-096253 on segmentation and reassembly for LPP (C1-095710; to: RAN2; cc: -; contact: Ericsson)	CT1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100007	Reply LS to R2-095331 on Relay Architecture Aspects (C1-095731; to: RAN2, RAN3; cc: SA2; contact: NSN)	CT1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100008	Response LS to R2-096277 on CS Inter-PLMN Handover (C1-095733; to: RAN2, SA2, RAN3; cc: CT4, SA1, SA3; contact: Ericsson)	CT1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100009	Reply LS to S2-096386 = R2-096318 on emergency attach in a shared LTE network (C1-095744; to: RAN2, RAN3, SA2, SA3; cc: -; contact: NSN)	CT1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100010	LS on Network sharing and stand alone Authentication procedure (C1-095748; to: SA3; cc: RAN2; contact: Motorola)	CT1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100011	LS on ECGI in the Location Request message (C4-094013; to: SA2, CT1; cc: RAN2, RAN3; contact: Huawei)	CT4	LSin
03.2: LSin: LTE relevant	Yes	withdrawn		R2-100012	Reply LS to R2-097372 on feasibility of reliable transmission of LPP message (C4-094207; to: RAN2; cc: RAN3, CT1, SA2; contact: NTT DOCOMO)	CT4	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100013	LS on use of emergency cause value for TAU (CP-091060; to: RAN2, CT1; cc: SA2; contact: Alcatel-Lucent)	CT	LSin
03.3: LSin: UMTS relevant	Yes	noted		R2-100014	LS on indication of support of priority-based cell reselection from GERAN to UTRAN (GP-092439; to: CT1, SA2; cc: RAN2; contact: NSN)	GERAN2	LSin

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
03.2: LSin: LTE relevant	Yes	noted		R2-100015	Reply LS to C1-094773 = R2-096302 on Emergency Call Support Indication on BCCH (R3-093339; to: CT1; cc: RAN2, SA2; contact: Alcatel-Lucent)	RAN3	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100016	LS on support for inbound mobility to CSG and hybrid cells (R3-093377; to: RAN2, SA2; cc: -; contact: Qualcomm)	RAN3	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100017	LS on Transparent Routing of LPPa PDUs over S1 interface (R3-093382; to: SA2; cc: RAN2, CT4; contact: Alcatel-Lucent)	RAN3	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100018	Reply LS to R2-096277 on Inter-PLMN Handover (R3-093403; to: CT1, SA2, RAN2; cc: SA3, CT4; contact: NEC)	RAN3	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100019	LS on Un interface security for Relay Architecture in LTE-Advanced (R3-093404; to: SA3; cc: SA2, RAN2; contact: NTT DOCOMO)	RAN3	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100020	LS Response to R5-096343 = R2-096322 on DCCH TTI and Cell Timing Change Requirements (R4-095029; to: RAN5, RAN2; cc: -; contact: Ericsson)	RAN4	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100021	Reply LS to R1-084707, R1-094415 = R2-096309 on Support for wider bandwidths in LTE-Advanced (R4-095035; to: RAN1; cc: RAN2; contact: NTT DOCOMO)	RAN4	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100022	LS on Minimization of drive tests for E-UTRAN and UTRAN (RP-091421; to: OMA DM; cc: RAN2, SA5; contact: O2)	RAN	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100023	LS on providing backhaul signaling in support of time and frequency synchronization using network listening (RP-091447; to: RAN3, RAN4; cc: RAN2; contact: Qualcomm)	RAN	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100024	Reply LS to S2-096387 = R2-096319 on inter PLMNs handover (S1-094130; to: SA2, CT1, SA3, RAN2; cc: RAN3; contact: Ericsson)	SA1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100025	Reply LS to C1-093961 = R2-095407, R2-097493 on SSAC (S1-094339; to: CT1, RAN2; cc: -; contact: NTT DOCOMO)	SA1	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100026	Reply LS to C1-094472 = R2-096214, R2-095338 on Transport and storage of capabilities for UE positioning (S2-097327; to: CT1, CT4, RAN2; cc: -; contact: Motorola)	SA2	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100027	Reply LS to R2-096257 on Use cases for cell change indication from MME to E-SMLC (S2-097525; to: RAN2, RAN3, CT4; cc: CT1; contact: Alcatel-Lucent)	SA2	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100028	Reply LS to C4-094013 = R2-100011 on ECGI in the Location Request message (S2-097526; to: CT4; cc: CT1, RAN2, RAN3; contact: Huawei)	SA2	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100029	Reply LS to R2-097372 on feasibility of reliable transmission of LPP message (S2-097527; to: RAN2; cc: CT1, CT4; contact: NTT DOCOMO)	SA2	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100030	LS Response to R2-095331 on Relay Architecture Aspects (S2-097544; to: RAN2, RAN3; cc: CT1, SA5; contact: Motorola)	SA2	LSin

Agenda item	Uploaded	Status	Late	Tdoc	Title	Source	Type:
03.2: LSin: LTE relevant	Yes	noted		R2-100031	Reply LS to C1-094652 = R2-096231, R2-096277, S2-096387 = R2-096319, C1-095733 = R2-100008, R3-093403 = R2-100018, C1-095748 = R2-100010, S2-096386 = R2-096318, R2-097461, C1-095744 = R2-100009, R3-093339 = R2-100015, R2-096278 on PLMN confusion during EPS-AKA (S3-092168; to: CT1, SA2, RAN2; cc: CT4, RAN3; contact: Qualcomm)	SA3	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100032	Reply LS to R2-096245 on preventing UTRA to EUTRA handover for USIM-less UE (S3-092180; to: RAN2; cc: -, contact: Ericsson)	SA3	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100033	SR-VCC failure (S3-092193; to: RAN2; cc: CT4; contact: Nokia)	SA3	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100034	Reply LS to R3-093404 = R2-100019 on Un interface security for Relay Architecture in LTE-Advanced (S3-092195; to: RAN3; cc: SA2, RAN2; contact: Huawei)	SA3	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100035	LS on H(e)NB emergency handling security requirement (S3-092205; to: RAN2, SA1; cc: SA2; contact: Huawei)	SA3	LSin
03.1 LSin: Joint UMTS/L	Yes	noted		R2-100036	LS on preventing UTRA to EUTRA handover for USIM-less UE (SP-090893; to: RAN2; cc: SA3; contact: Huawei)	SA	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100037	LS Response to R1-093727 = R2-095415 on RSTD Measurement Applicability (R4-094990; to: RAN1, RAN2; cc: RAN3; contact: Ericsson)	RAN4	LSin
03.3: LSin: UMTS relevant	Yes	noted		R2-100038	LS Response to R2-096295 on the capability of search on the secondary carrier (R4-094996; to: RAN2; cc: RAN3; contact: Qualcomm)	RAN4	LSin
03.2: LSin: LTE relevant	Yes	noted		R2-100039	LS Response to R1-093729 = R2-095416 on Assistance Information for OTDOA Positioning Support for LTE (R4-095038; to: RAN1, RAN2, RAN3; cc: -, contact: Ericsson)	RAN4	LSin
03.2: LSin: LTE relevant	Yes	noted	Late	R2-100040	Reply LS to R2-107372 on feasibility of reliable transmission of LPP message (R3-100515; to: RAN2; cc: CT1, SA2, CT4; contact: NTT DOCOMO)	RAN3	LSin
03.2: LSin: LTE relevant	Yes	not treated	Late	R2-100041	Response LS to RAN1 R1-094414 = R2-095308 on UTDOA (R3-100518; to: RAN1, RAN2, CT4, SA2; cc: -, contact: TruePosition)	RAN3	LSin
-	No	withdrawn		R2-100042	Void	-	-
-	No	withdrawn		R2-100043	Void	-	-
-	No	withdrawn		R2-100044	Void	-	-
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100045	E-mail discussion [68#21] LTE : Potential SFN time stamping issue in LPP	CSR	Report
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100046	LCS for LTE: Corrections for UE Assisted LPP measurements	CSR	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	not treated		R2-100047	Correction to GNSS TOD in UE Assisted GNSS Measurement report	CSR	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	rejected		R2-100048	Clarification of Network time validity in GNSS Assistance	CSR	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	not treated		R2-100049	UE timing measurement for UE assisted hybrid reporting	CSR	CR

Agenda item	Uploaded	status	Date	Tdoc	Title	Source	Type:
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	No	withdrawn		R2-100050	Addition of SFN to GNSS assistance data request	CSR	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	No	withdrawn		R2-100051	Timing clarification for hybrid UE-assisted measurement report	CSR	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	not treated		R2-100052	UE neighbour cell frame number in OTDOA measurements	CSR	CR
07.1: LTE REL-10: CA (RP-091440)	Yes	revised		R2-100053	Stage 2 Description of Carrier Aggregation	Nokia Siemens Networks (Rapporteur)	CR
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted		R2-100054	Primary Component Carrier	Nokia Siemens Networks, Nokia Corporation	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100055	SPS and Carrier Aggregation	Nokia Siemens Networks, Nokia Corporation	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	not treated		R2-100056	Latency reduction from idle mode to connected mode	CATT	Disc
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	not treated		R2-100057	Multiple TA in CA	CATT	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted		R2-100058	CC set model	CATT	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted		R2-100059	Applicability of cross-carrier scheduling	CATT	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100060	Consideration on Component Carrier Index	CATT	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100061	CC management in CA	CATT	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	not treated		R2-100062	System Information Updating in Carrier Aggregation	CATT	Disc
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	not treated		R2-100063	Measurement in CA	CATT	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100064	Consideration on Radio Link Failure in CA	CATT	Disc
14: LSout and output to other groups for LTE	Yes	revised		R2-100065	[Draft] Reply LS on PDCCH monitoring set for carrier aggregation in LTE-Advanced	CATT	LSout
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100066	Position of MCCH notifications	Huawei	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	revised		R2-100067	Position of MCCH notifications	Huawei	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	revised		R2-100068	Corrections to TS 36.300 on MBMS	Huawei	CR
06.3.3: LTE REL-9: MBMS User Plane	Yes	revised		R2-100069	Corrections to TS 36.321 on MBMS	Huawei	CR
06.3.3: LTE REL-9: MBMS User Plane	Yes	postponed		R2-100070	CR to TS36.306 on MBMS	Huawei	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100071	mbmsfn-Arealid Value range	Huawei	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100072	Reuse of PCI/PSC by component carriers	Sharp Corp.	Disc

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100073	Scope of MDT on coverage optimization	CATT	Disc
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100074	Consideration on Priority of MDT Report	CATT	Disc
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	in principle agreed		R2-100075	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	in principle agreed		R2-100076	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	in principle agreed		R2-100077	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	in principle agreed		R2-100078	Error Detection instead of error correction in Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100079	Summary of the email discussion [68#23] LTE-CC activation / deactivation	Ericsson, ST-Ericsson	Report
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	noted		R2-100080	Efficiency analysis for various header compression schemes over the Un interface with mixed traffic models	Institute for Information Industry (III), Huawei, Coler Corporation	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	No	withdrawn	Late	R2-100081	Header compression inside the GTP-U tunnel over the Un interface	Institute for Information Industry (III), Coler Corporation	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	noted		R2-100082	Header compression considerations for multi-hop scenario	Institute for Information Industry (III), Huawei, Texas Instruments, Coler Corporation	Disc
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	revised		R2-100083	Correction of RNTI's handling for Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	in principle agreed		R2-100084	Correction of RNTI's handling for Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	Yes	not treated		R2-100085	4C-HSDPA: Mobility based on Anchor Carrier	Alcatel-Lucent, Alcatel-Lucent Shanghai Bell	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100086	RLF Procedures for Carrier Aggregation	InterDigital	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100087	RACH Procedures for Carrier Aggregation	InterDigital	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC	No	withdrawn		R2-100088	Special vs. non-special cell CC management procedures	InterDigital	Disc
04.1: UMTS/LTE joint REL-8	Yes	rejected		R2-100089	Clarification on Intra-Domain NAS Node Selector-REL8	Vodafone	CR

Agenda item	Uploaded	status	Date	Tdoc	Title	Source	Type:
04.1: UMTS/LTE joint REL-8	Yes	rejected		R2-100090	Clarification on Intra-Domain NAS Node Selector-REL9	Vodafone	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100091	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100092	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
04.3.2: UMTS/LTE joint REL-10: Machine Type communications (SI: RP-090991)	Yes	noted		R2-100093	RAN consideration on Machine Type Communication	LG Electronics Inc.	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100094	Need for dynamic CC activation method	LG Electronics Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100095	Logical Channel Prioritization for Aggregated Carriers	LG Electronics Inc.	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	not treated		R2-100096	Bearer Mapping in Relay Node	LG Electronics Inc.	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100097	DL Flow Control in Un interface	LG Electronics Inc.	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	in principle agreed		R2-100098	CR to 36.331 on conditions for MBMS	ASUSTeK	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100099	Clarification on MCH information acquisition procedure	ASUSTeK	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	not treated		R2-100100	Consideration of inbound handover with ANR function	CATT	Disc
06.3.3: LTE REL-9: MBMS User Plane	Yes	postponed		R2-100101	CR to 36.321 on error handling for MBMS	ASUSTeK	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	postponed		R2-100102	Discussion on scope of proximity indication	CATT, ITRI	Disc
06.7: LTE REL-9: Network-Based Positioning Support in LTE (RP-090354)	Yes	not treated		R2-100103	Definitions and Support for U-TDOA Method.	TruePosition	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100104	Considerations on CC activation and deactivation	Potevio	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	not treated		R2-100105	Changed SI Transmission in Carrier Aggregation	Potevio	Disc
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	not treated		R2-100106	Considerations on measurement in Carrier Aggregation	Potevio	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100107	Discussions on CC activation / deactivation	Fujitsu	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	not treated		R2-100108	Requirement on HO interruption time in RN networks	Fujitsu	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	not treated		R2-100109	Discussions on Un interface structure	Fujitsu	Disc
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	noted		R2-100110	Multiple Timing Advance Impact on RAN2	Huawei	Disc

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	not treated		R2-100111	Clarification on proximity indication	HTC Corporation	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	not treated		R2-100112	Alignment to RAN4 decisions in ASN.1 updates in 36.355	Ericsson, ST-Ericsson	CR
05.8: LTE REL-8: RRC (36.331)	Yes	in principle agreed		R2-100113	Aligning the number of neighbor cells in SIB8 between Rel-8 and Rel-9	Ericsson, ST-Ericsson	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100114	CR to 36.331 for 1xRTT pre-registration information in SIB8	KDDI, NEC, Hitachi, Motorola, Kyocera	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	noted		R2-100115	Terminology regarding MBMS scheduling	Ericsson, ST-Ericsson	Disc
06.3.1: LTE REL-9: MBMS Stage-2	Yes	in principle agreed		R2-100116	Correction to MBMS scheduling terminology	Ericsson, ST-Ericsson	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	in principle agreed		R2-100117	Correction to MBMS scheduling terminology	Ericsson, ST-Ericsson	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	in principle agreed		R2-100118	Correction to MBMS scheduling terminology	Ericsson, ST-Ericsson	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100119	Notification occasion signaling for MBMS	Ericsson, ST-Ericsson	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100120	Notification occasion signaling for MBMS	Ericsson, ST-Ericsson	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	noted		R2-100121	MBMS activity bit for unicast mobility	Ericsson, ST-Ericsson	Disc
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	noted		R2-100122	Measurements for Carrier Aggregation	Ericsson, ST-Ericsson	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100123	Radio Link Failure for Carrier Aggregation	Ericsson, ST-Ericsson	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100124	Management of Component Carriers	Ericsson, ST-Ericsson	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	noted		R2-100125	Impacts of contention based uplink in RAN2	Ericsson, ST-Ericsson	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	not treated		R2-100126	Stage 2 description of the contention based uplink	Ericsson, ST-Ericsson	CR
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100127	Clarification on the report of E-DCH physical layer category extension	Huawei	CR
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100128	Clarification on the report of E-DCH physical layer category extension	Huawei	CR
09.7: UTRA REL-8: TEI8	Yes	rejected		R2-100129	Extend UM RLC ciphering error detection and recovery mechanism for VoIP	Huawei	CR
09.7: UTRA REL-8: TEI8	Yes	not treated		R2-100130	Extend UM RLC ciphering error detection and recovery mechanism for VoIP	Huawei	CR
09.7: UTRA REL-8: TEI8	Yes	noted		R2-100131	Discussion on the non-serving RG down	Huawei	Disc
09.7: UTRA REL-8: TEI8	Yes	not treated		R2-100132	Corrections to the non-serving RG down	Huawei	CR
09.7: UTRA REL-8: TEI8	Yes	not treated		R2-100133	Corrections to the non-serving RG down	Huawei	CR
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100134	Why flow control on Un is not needed	Ericsson, ST-Ericsson	Disc
09.8: UTRA REL-8: Other	Yes	in principle agreed		R2-100135	Reception of ETWS notification in limited service state	Panasonic	CR
09.8: UTRA REL-8: Other	No	withdrawn		R2-100136	Reception of ETWS notification in limited service state	Panasonic	CR
09.7: UTRA REL-8: TEI8	Yes	revised		R2-100137	UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRT for fast dormancy	Panasonic	CR

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	Yes	not treated		R2-100138	Considerations for 4-Carrier HSDPA operation	Huawei	Disc
09.7: UTRA REL-8: TEI8	No	withdrawn		R2-100139	UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast dormancy	Panasonic	CR
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	Yes	not treated		R2-100140	Consideration on UE categories for 4C-HSDPA	Huawei	Disc
05.8: LTE REL-8: RRC (36.331)	Yes	rejected		R2-100141	Clarification on inter-frequency/ RAT measurements in DRx	Panasonic	CR
05.8: LTE REL-8: RRC (36.331)	No	withdrawn		R2-100142	Clarification on inter-frequency/ RAT measurements in DRx	Panasonic	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100143	Clarification of CGI reporting	Panasonic	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100144	Clarification of CGI reporting	Panasonic	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	noted		R2-100145	open issues of E-TFC selection and happy bit evaluation for DC-HSUPA	Huawei	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	in principle agreed		R2-100146	Corrections for virtual active set	Huawei	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	revised		R2-100147	Corrections for DC-HSUPA in 25.321	Huawei	CR
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100148	Explicit carrier activation/deactivation	ETRI	Disc
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	revised		R2-100149	Clarification on Scheduling Information reporting for 1.28 Mcps TDD	CATT, New Postcom, Potevo, TD Tech, ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100150	Clarification on Scheduling Information reporting for 1.28 Mcps TDD	CATT, New Postcom, Potevo, TD Tech, ZTE	CR
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	Yes	postponed		R2-100151	Corrections to TSN field extension configuration for MAC-ehs entity	Huawei	CR
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	Yes	in principle agreed		R2-100152	Clarification of code rates limitation for category 25/27	Huawei	CR
09.8: UTRA REL-8: Other	Yes	rejected		R2-100153	Clarification on HARQ procedure for HS-DSCH SPS operation for 1.28 Mcps TDD	CATT	CR
09.8: UTRA REL-8: Other	Yes	not treated		R2-100154	Clarification on HARQ procedure for HS-DSCH SPS operation for 1.28 Mcps TDD	CATT	CR
09.8: UTRA REL-8: Other	Yes	in principle agreed		R2-100155	Corrections to stage 2 of DC-HSDPA	Huawei	CR
09.8: UTRA REL-8: Other	Yes	in principle agreed		R2-100156	Corrections to stage 2 of DC-HSDPA	Huawei	CR
10.4: UTRA REL-9: TEI9	Yes	revised		R2-100157	Modification on measurement occasion calculation in 1.28 Mcps TDD	CATT	CR
10.4: UTRA REL-9: TEI9	Yes	postponed		R2-100158	Modification of special default midamble allocation scheme for 1.28 Mcps TDD	CATT	CR
11.1: UTRA REL-10: LCR TDD MC-HSUPA (RP-090990)	Yes	noted		R2-100159	Consideration on MAC structure of Multi-Carrier HSUPA	CATT	Disc

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	not treated		R2-100160	'Urgent System Information' to be configured at CC addition	Huawei	Disc
10.1. UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	Yes	noted		R2-100161	Consideration on CQI feedback cycle in combined DC-HSDPA and MIMO	Huawei	Disc
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100162	Clarification on the signalling connection release indication	Huawei	CR
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100163	Clarification on the signalling connection release indication	Huawei	CR
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100164	Clarification on the signalling connection release indication	Huawei	CR
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100165	Clarification on the signalling connection release indication	Huawei	CR
04.1: UMTS/LTE joint	Yes	postponed		R2-100166	Security issue raised by PLMN changing	Huawei	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	withdrawn		R2-100167	On the Importance of Introducing STANDBY Mode for Relay Nodes	Sharp	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100168	Miscellaneous correction on 36.304	Huawei	CR
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	withdrawn		R2-100169	Importance of Backhaul in a Relay Handover	Sharp	Disc
04.3.1: UMTS/LTE joint	Yes	noted		R2-100170	Real Time Reporting for Coverage Optimization in UTRAN	Huawei	Disc
04.3.1: UMTS/LTE joint	Yes	noted		R2-100171	Use Case of Coverage Optimization	Huawei	Disc
04.3.1: UMTS/LTE joint	Yes	noted		R2-100172	Real Time Reporting for Coverage Optimization in E-UTRAN	Huawei	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100173	Discussion on the Delay of Component Carrier Activation	MediaTek	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	not treated		R2-100174	Discussion on the Retransmission of Contention-Based Transmission	MediaTek, ITRI	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100175	MAC Issues on Un Interface	CATT	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100176	Control Plane for Un interface	CATT	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100177	Discussion on handover performance	CATT	Disc
06.10: LTE REL-9: Other	Yes	withdrawn		R2-100178	Distinguishing coverage problem and late handover cases for RLF	Qualcomm Incorporated	Disc
04.3.2: UMTS/LTE joint	Yes	noted		R2-100179	Discussion on MTC device functionality	CATT	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	rejected		R2-100180	Handling of dedicated priority without cell reselection parameters	Qualcomm Incorporated	CR
04.3.2: UMTS/LTE joint	Yes	not treated		R2-100181	Consideration on MTC features	CATT	Disc

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100182	Access control of MTC devices	CATT	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	rejected		R2-100183	Correction of UE capability transfer for CDMA2000	CATT	CR
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	Yes	in principle agreed		R2-100184	Correction to the activation/deactivation of secondary cell MIMO feature	Ericsson, ST-Ericsson	CR
10.6: UTRA Release 9 ASN.1 review activity	Yes	revised		R2-100185	Status update of ASN.1 review for Rel9	Ericsson, ST-Ericsson	Disc
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	Yes	not treated		R2-100186	Protocol aspects of 4-carrier HSDPA	Ericsson, ST-Ericsson	Disc
09.7: UTRA REL-8: TEI8	Yes	noted		R2-100187	Events 6x to trigger a TTI change	Ericsson, ST-Ericsson	Disc
09.7: UTRA REL-8: TEI8	Yes	not treated		R2-100188	New Events 6x: Event 6H and Event 6I	Ericsson, ST-Ericsson	CR
09.7: UTRA REL-8: TEI8	Yes	not treated		R2-100189	New Events 6x: Event 6H and Event 6I	Ericsson, ST-Ericsson	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	not treated		R2-100190	E-TFC selection for DC-HSUPA	Ericsson, ST-Ericsson	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	in principle agreed		R2-100191	Corrections to DC-HSUPA operation	Ericsson, ST-Ericsson	CR
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100192	Prioritization of the M2M use cases	Ericsson, ST-Ericsson	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100193	Further considerations on RLF in CA	Samsung	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100194	DL carrier ambiguity issue at Initial RACH in asymmetric CA	Samsung	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	noted		R2-100195	Delay requirement for idle to active transition	Samsung	Disc
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	not treated		R2-100196	Carrier Aggregation and the s-Measure criterion	Ericsson, ST-Ericsson	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100197	Need for Reliability in LPP	Samsung	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100198	Serving Cell Change Indication to E-SMLC	Samsung	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	not treated		R2-100199	DC-HSUPA E-TFC Power Split and Happy Bit Evaluation	AlcatelLucent, AlcatelLucent Shanghai Bell	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	noted		R2-100200	Comparison of solutions for HO to legacy eNBs	Ericsson, ST-Ericsson	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	rejected		R2-100201	Protocol release indicator in HO command	Ericsson, ST-Ericsson	CR
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	revised		R2-100202	Kickoff for Machine Type Communications Study Item	Huawei	Disc
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	revised		R2-100203	Skeleton TR for MTC SI	Huawei	TR

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100204	Traffic model for M2M service	Huawei	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	revised		R2-100205	Reading neighbour HNB system information Block 3	Alcatel-Lucent	CR
09.7: UTRA REL-8: TE18	Yes	in principle agreed		R2-100206	Rapporteur CR for corrections to 25.993	Alcatel-Lucent (Rapporteur)	CR
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	noted		R2-100207	Sharing PUCCH-SR	Huawei	Disc
09.7: UTRA REL-8: TE18	Yes	in principle agreed		R2-100208	Rapporteur CR for corrections to 25.993	Alcatel-Lucent (Rapporteur)	CR
09.2: UTRA REL-8: CS voice service over HSPA	Yes	rejected		R2-100209	Inconsistency in expectation of received IEs with simultaneous SRNS relocation and CS transport channel type switch	Alcatel-Lucent	CR
09.2: UTRA REL-8: CS voice service over HSPA	Yes	not treated		R2-100210	Inconsistency in expectation of received IEs with simultaneous SRNS relocation and CS transport channel type switch	Alcatel-Lucent	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	noted		R2-100211	Uncaptured agreements on muting the DSI	Nokia Corporation, Nokia Siemens Networks	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	noted		R2-100212	Discussion on need for a prohibit timer mechanism for CSG proximity indication	Alcatel-Lucent	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	postponed		R2-100213	Clarification of the proximity indication reporting	Alcatel-Lucent	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	revised		R2-100214	Corrections on eNB muting MBSFN transmission	Nokia Corporation, Nokia Siemens Networks	CR
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	not treated		R2-100215	The handling of contention based uplink transmission	ETRI	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	not treated		R2-100216	Finalizing the open value ranges in SIB13	Nokia Corporation, Nokia Siemens Networks	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100217	Specification of remaining value ranges in SIB13	Nokia Corporation, Nokia Siemens Networks	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100218	Correction to handling of equal priority flows in E-TFC selection	Ericsson, ST-Ericsson	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100219	Correction to handling of equal priority flows in E-TFC selection	Ericsson, ST-Ericsson	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100220	Correction to handling of equal priority flows in E-TFC selection	Ericsson, ST-Ericsson	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	revised		R2-100221	Specifying the exact mapping of notification indicator in SIB13 to PDCCH bits	Nokia Corporation, Nokia Siemens Networks	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100222	Correction to handling of equal priority flows in E-TFC selection	Ericsson, ST-Ericsson	CR
06.8.3: LTE REL-9: TE19: User plane related	Yes	revised		R2-100223	Aligning the treatment of RLC state variables and counters	Nokia Corporation, Nokia Siemens Networks	CR

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
06.8.3: LTE REL-9: TEI9: User plane related	Yes	noted		R2-100224	Interaction between BSR and SR (Discussion)	ASUSTeK	Disc
06.8.3: LTE REL-9: TEI9: User plane related	Yes	rejected		R2-100225	Interaction between BSR and SR	ASUSTeK	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	noted		R2-100226	DRX retransmission missing for TDD (Discussion)	ASUSTeK	Disc
06.8.3: LTE REL-9: TEI9: User plane related	Yes	rejected		R2-100227	DRX retransmission missing for TDD	ASUSTeK	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	revised		R2-100228	Minor corrections to MAC	ASUSTeK	CR
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	revised		R2-100229	Clarification on DRX StartOffset for TDD	ASUSTeK	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	revised		R2-100230	Correction to RLC entity	ASUSTeK	CR
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100231	Scheduling aspects for carrier aggregation	Panasonic	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100232	Lower layer resource usage for Un multiplexing	Panasonic	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100233	Need for separate component carrier activation step	Panasonic	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100234	CC Failure and RLF in Carrier Aggregation	Panasonic	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	not treated		R2-100235	Handling of information related to proximity indication during and after handover	Panasonic	Disc
10.5.3: UTRA REL-9: Other Rel9 Wis: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100236	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 Wis: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100237	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 Wis: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100238	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100239	MDT Measurement Model	Orange	Disc
10.5.3: UTRA REL-9: Other Rel9 Wis: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100240	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 Wis: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100241	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	postponed		R2-100242	Clarification of FDD DL channel combination applicability for DC-HSUPA	Infineon Technologies	CR
10.5.3: UTRA REL-9: Other Rel9 Wis: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100243	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
10.2. UTRA REL-9; DC-HSUPA (RP-090014)	Yes	revised		R2-100244	Update of Stage 2 description for DC-HSUPA	Infineon Technologies	CR
10.5.3: UTRA REL-9; Other Rel-9 WIs: Extended UMTS/LTE 800 MHz	Yes	revised		R2-100245	Introduction of bands XX (900 MHz) and XXII (3500 MHz)	ST-Ericsson, Ericsson	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	not treated		R2-100246	Time stamp with CP architecture	Nokia Corporation, Nokia Siemens Networks	Disc
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	not treated		R2-100247	MDT: A2 triggered measurement	Nokia Corporation, Nokia Siemens Networks	Disc
06.10: LTE REL-9; Other	Yes	noted		R2-100248	UE-originated RLF report for SON	Nokia Siemens Networks, Nokia Corporation	Disc
06.10: LTE REL-9; Other	Yes	revised		R2-100249	Draft Reply LS on UE-originated RLF report for SON	Nokia Siemens Networks, Nokia Corporation	L.Sout
06.10: LTE REL-9; Other	Yes	revised		R2-100250	CR to support UE-originated RLF reporting for MRO SON use case	Nokia Siemens Networks, Nokia Corporation	CR
06.3.1: LTE REL-9; MBMS Stage-2	Yes	rejected		R2-100251	Proposed CR to 36.300 on Enabling MBMS operation in HeNB	LG Electronics Inc.	CR
06.3.2: LTE REL-9; MBMS Control Plane	Yes	in principle agreed		R2-100252	Proposed CR to 36.304 on Addition of missing abbreviations related with MBMS	LG Electronics Inc.	CR
06.3.2: LTE REL-9; MBMS Control Plane	Yes	rejected		R2-100253	Proposed CR to 36.331 on missing MBMS UE actions	LG Electronics Inc.	CR
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	not treated		R2-100254	Handling of PWS on Aggregated Component Carriers	LG Electronics Inc.	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100255	Minimum set of features to support relays in Release 10	NTT DOCOMO	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100256	Issues on Un and Uu link configuration during RN start up	NTT DOCOMO	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100257	Access Control for RN start up	NTT DOCOMO	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100258	Consideration on relay node capability	NTT DOCOMO	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	revised		R2-100259	System Information change notification in relay operation	NTT DOCOMO	Disc
06.8.2: LTE REL-9; TEI9: Control plane related	Yes	revised		R2-100260	Corrections to SIB8	Motorola	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100261	Triggering of Reporting of MDT Measurements	Motorola	Disc
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100262	Configuration of UE measurements for MDT in idle mode	Motorola	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	revised		R2-100263	Special Cells and Carrier Management/Configuration	Intel Corporation	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	revised		R2-100264	Dynamic Carrier Activation and Deactivation	Intel Corporation	Disc

Agenda item	Uploaded	status	Date	Tdoc	Title	Source	Type:
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	revised		R2-100265	System Information Handling in Carrier Aggregation	Intel Corporation	Disc
04.2.1: UMTS/LTE joint REL-9: Home-eNB (RP-091392)	Yes	revised		R2-100266	25331_CRxxxx_(REL-9)_Support of inter-RAT inbound mobility to HeNB	Huawei	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	noted		R2-100267	Discussion on proximity indication for UMTS intra-frequency inbound mobility	Huawei	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	noted		R2-100268	Discussion on remaining open issues in LTE inbound mobility	Huawei	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	revised		R2-100269	36331_CRxxxx_(REL-9)_CR on remaining open issues in LTE inbound mobility	Huawei	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	not treated		R2-100270	Discussion on UTRA UE inbound mobility capability signalling	Huawei	Disc
04.2.2: UMTS/LTE joint REL-9: Other	Yes	not treated		R2-100271	25331_CRxxxx_(REL-9)_Introduction of UE inbound mobility capability signalling	Huawei	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	noted		R2-100272	Discussion on remaining open issues in UMTS inbound mobility	Huawei	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	not treated		R2-100273	25331_CRxxxx_(REL-9)_Clarification for UMTS inbound mobility	Huawei	CR
06.3.3: LTE REL-9: MBMS User Plane	Yes	not treated		R2-100274	Correction to 36.321 on MAC header description	ETRI	CR
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100275	Consideration on MTC Device type classification	ETRI	Disc
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100276	Correction of DRX definition for LCR TDD	New Postcom	CR
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100277	Correction of DRX definition for LCR TDD	New Postcom	CR
09.7: UTRA REL-8: TEI8	Yes	revised		R2-100278	Correction of HS-SCCH Type 3 usage with MAC-e-hs for LCR TDD	New Postcom	CR
09.7: UTRA REL-8: TEI8	Yes	revised		R2-100279	Correction of HS-SCCH Type 3 usage with MAC-e-hs for LCR TDD	New Postcom	CR
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100280	Analysis on carrier activation and de-activation	New Postcom	Disc
11.1: UTRA REL-10: LCR TDD MCHS-UPA (RP-090990)	Yes	noted		R2-100281	Analysis of MCHS-UPA for LCR TDD	New Postcom	Disc
04.3.1: UMTS/LTE joint REL-10: W1 Minimisation of Drive Test (RP-091423)	Yes	not treated		R2-100282	Triggers for measurement log reporting	NEC	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100283	Details on DRX with carrier aggregation	NEC	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	not treated		R2-100284	Common radio bearer configuration for Un	NEC	Disc

Agenda item	Uploaded	Status	Late	Tdoc	Title	Source	Type:
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	not treated		R2-100285	L2 configuration for Un	NEC	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted		R2-100286	Upon removing the special cell	Huawei	Disc
04.3.2: UMTS/LTE Joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100287	Discussion on key issues in RAN2 for MTC	Alcatel-Lucent Shanghai Bell, Alcatel-Lucent	Disc
06.8.3: LTE REL-9: TEI9: User plane related	Yes	noted		R2-100288	DRX Operation with SR Prohibit Timer	VIA Telecom	Disc
06.8.3: LTE REL-9: TEI9: User plane related	Yes	rejected		R2-100289	CR to 36.321 for DRX Operation with SR Prohibit Timer	VIA Telecom	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	rejected		R2-100290	CR to 36.331 for DRX Operation with SR Prohibit Timer	VIA Telecom	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100291	Discussion on UE Rx-Tx time difference reporting capability	CATT	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	in principle agreed		R2-100292	Clarification on UE Rx-Tx time difference supporting capability	CATT	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	not treated		R2-100293	Introduction of UE Rx-Tx time difference supporting capability for RRC	CATT	CR
06.8.1: LTE REL-9: TEI9: Common U/CP issues	Yes	noted		R2-100294	Delta signaling across eNBs of different RRC protocol release	Nokia Siemens Networks, Nokia Corporation	Disc
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100295	Missing "INVALID CONFIGURATION" in case of a reconfiguration to eFACH	Infineon Technologies	CR
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100296	DL Flow control over Un interface for relaying system	Nokia Siemens Networks, Nokia Corporation	Disc
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100297	Missing "INVALID CONFIGURATION" in case of a reconfiguration to eFACH	Infineon Technologies	CR
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100298	Discussion on Symmetry and Asymmetry SF Allocation for Backhaul	Nokia Siemens Networks, Nokia Corporation	Disc
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	revised		R2-100299	Clarification on positioning procedure	Huawei, Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100300	Missing "INVALID CONFIGURATION" in case of a reconfiguration to eFACH	Infineon Technologies	CR
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	revised	Late	R2-100301	Text Proposal on Header overhead over Un	Nokia Siemens Networks, Nokia Corporation	TP
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	in principle agreed		R2-100302	Clarification on E-CID parameters	Huawei, CATT, Qualcomm Incorporated	CR
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	noted	Late	R2-100303	Email discussion report on [68#25] LTE: Header Compression comparison on Un	Nokia Siemens Networks	Report
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100304	Clarification on measurement for serving cell only	Huawei	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100305	Corrections to HS-DSCH reception in CELL-PCH and CELL-FACH	Infineon Technologies	CR
08: UTRA REL-7 and earlier releases	Yes	rejected		R2-100306	Clarification on Maximum allowed UL TX power	Infineon Technologies	CR
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	not treated		R2-100307	K_ASME mismatch at IMS emergency call establishment	NEC	Disc

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	not treated		R2-100308	Impact analysis of multiple TA	ZTE	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100309	Considerations on speical cell	ZTE	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100310	CC scheduling in short term after CC is deactivated	ZTE	Disc
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	not treated		R2-100311	System Information Updating for Carrier Aggregation	ZTE	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100312	On DL Component Carrier Ambiguity in Initial Random Access Procedure	ZTE	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	noted		R2-100313	Discussion on handover performance	ZTE	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	noted		R2-100314	Discussion on SIB transport block size	ZTE	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100315	Correction on ICIC measurement report	ZTE	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	not treated		R2-100316	CR_(Rel-9) correction on ICIC measurement report	ZTE	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	revised		R2-100317	Cell Selection/Reselection from UMTS to LTE	ZTE	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	in principle agreed		R2-100318	Missing agreement in MCCH change notification.	ZTE	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100319	Implicit Signalling for MBMS Notification Occasion	ZTE	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100320	CR for implicit Signalling of MBMS Notification Occasion	ZTE	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	revised		R2-100321	Clarification on MBMS notification	ZTE	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	revised		R2-100322	CR for clarification on MBMS notification	ZTE	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100323	Further clarification on MCCH information acquisition by the UE	ZTE	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	revised		R2-100324	CR for future clarification on MCCH information acquisition by the UE	ZTE	CR
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	withdrawn		R2-100325	CR for correction on MSAP-OccasionPeriod	ZTE	CR
04.2.1: UMTS/LTE joint REL-9: Home(e)NB (RP-091392)	Yes	noted		R2-100326	States definition for relay node	ZTE	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100327	Proximity indication handling for handover	ZTE	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100328	Carrier Aggregation Activation/Deactivation	NEC	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	in principle agreed		R2-100329	Mobility and Carrier Aggregation Signaling	NEC	Disc
				R2-100330	Correction on CSG Proximity Indication	InterDigital	CR

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100331	Introduction of longer SFN length for MTC	Samsung	Disc
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	not treated		R2-100332	RAN2 Impacts by Multiple Timing Advance	LG Electronics Inc.	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	not treated		R2-100333	SI Change Notification	LG Electronics Inc.	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100334	UL RLF	LG Electronics Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100335	Multiple Uplink Carriers Serving RACH	LG Electronics Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100336	RACH for Carrier Aggregation	LG Electronics Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100337	Handover Execution Using Multiple Carriers	LG Electronics Inc.	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	not treated		R2-100338	Power split, E-TFC Selection and Happy Bit Determination for DC-HSUPA	Qualcomm Incorporated	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	noted		R2-100339	Power split, E-TFC Selection and Happy Bit Determination for DC-HSUPA	Qualcomm Incorporated	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	postponed		R2-100340	Independent configuration of Maximum UL Tx power in DC-HSUPA	Qualcomm Incorporated	CR
10.5.1: UTRA REL-9: Other Rel9 Wis: TxAA extension for non-MIMO UEs	Yes	revised		R2-100341	Clarification of UE Categories for TxAA-Non-MIMO	Qualcomm Incorporated	CR
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	Yes	not treated	Late	R2-100342	4C impact on RAN2	Qualcomm Incorporated	Disc
11.4: UTRA REL-10: Other	Yes	not treated	Late	R2-100343	A new event trigger for UEs configured with an E-DCH	Qualcomm Incorporated	Disc
10.5.2: UTRA REL-9: Other Rel9 Wis: Support for different bands for Dual-Cell HSDPA	Yes	not treated	Late	R2-100344	Independent configuration of DRX in Dual Band DC-HSDPA	Qualcomm Incorporated	Disc
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100345	Clarification of MAC DTx Cycles operation when an SCCH Order De-activates DTx mode	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100346	Clarification of MAC DTx Cycles operation when an SCCH Order De-activates DTx mode	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100347	Clarification of MAC DTx Cycles operation when an SCCH Order De-activates DTx mode	Qualcomm Incorporated	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	noted		R2-100348	Clarification to priority based mobility procedures	Qualcomm Incorporated	Disc
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	revised		R2-100349	Clarification to priority based mobility procedures	Qualcomm Incorporated	CR
09.1: UTRA REL-8: Improved L2 for UL	Yes	postponed		R2-100350	RLC recovery with uplink POLL_SUFI	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100351	Indication of MIMO codebook restriction	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100352	Indication of MIMO codebook restriction	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100353	Indication of MIMO codebook restriction	Qualcomm Incorporated	CR

Agenda item	Uploaded	status	Late	Tdoc	Title	Source	Type:
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100354	Removal of FFSs about the support of E-FACH for 1.28Mcps TDD	ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100355	Removal of FFSs about the support of E-FACH for 1.28Mcps TDD	ZTE	CR
10.4: UTRA REL-9: TEI9	Yes	revised		R2-100356	Introduction of measurement occasion in CELL_DCH state for 1.28Mcps TDD	ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100357	Corrections to the Treset for 1.28Mcps TDD	ZTE	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	revised		R2-100358	Correction regarding support of multiple MBMSFN areas	Samsung	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100359	Corrections to the Treset for 1.28Mcps TDD	ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	revised		R2-100360	Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDD	ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100361	Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDD	ZTE	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	revised		R2-100362	MBMS clarifications on notification and on MBMS allocation patterns	Samsung	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised	Late	R2-100363	REL-9 PDU specification – Review issue list	Rapporteur (Samsung)	Report
06: UTRA REL-7 and earlier releases	Yes	revised		R2-100364	Clarification to FACH measurement occasion of 1.28mcps TDD	ZTE	CR
06: UTRA REL-7 and earlier releases	Yes	not treated		R2-100365	Clarification to FACH measurement occasion of 1.28Mcps TDD	ZTE	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised	Late	R2-100366	Miscellaneous correction from REL-9 ASN.1 review	Rapporteur (Samsung)	CR
06: UTRA REL-7 and earlier releases	Yes	not treated		R2-100367	Clarification to FACH measurement occasion of 1.28Mcps TDD	ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	postponed		R2-100368	Clarification to E-FACH measurement occasion of 1.28Mcps TDD	ZTE	CR
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100369	UL scheduling with carrier aggregation	Nokia Corporation, Nokia Siemens Networks	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100370	Radio link failure open issues	Nokia Corporation, Nokia Siemens Networks	Disc
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	postponed		R2-100371	Clarification to E-FACH measurement occasion of 1.28Mcps TDD	ZTE	CR
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100372	RACH and carrier aggregation	Nokia Corporation, Nokia Siemens Networks	Disc
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	noted		R2-100373	Latency Comparison	Motorola	Disc

Agenda item	Uploaded	Status	Late	Tdoc	Title	Source	Type:
10.4: UTRA REL-9: TEI9	Yes	rejected		R2-100374	handling of inactivity threshold for DRX	Motorola	CR
10.4: UTRA REL-9: TEI9	Yes	revised		R2-100375	Modification of measurement occasion for 1.28Mbps TDD	TD Tech	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	not treated		R2-100376	Clarification on proximity indication in handover and RRC connection re-establishment	HTC Corporation	CR
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	noted		R2-100377	Clarification on RRC connection re-establishment for emergency calls	HTC Corporation	Disc
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	not treated		R2-100378	Clarification on RRC connection re-establishment for emergency calls	HTC Corporation	CR
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	not treated		R2-100379	Clarification on RRC connection re-establishment for emergency calls	HTC Corporation	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	in principle agreed		R2-100380	Clarification on proximity indication configuration in handover to E-UTRA	HTC Corporation	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	in principle agreed		R2-100381	Clarification on MCH change notification	CMCC	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100382	Value range of notification related parameters in SIB13	CMCC	Disc
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	not treated		R2-100383	MTC features, RAN enhancements and related procedures	CMCC	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100384	The startup procedure of relay node	CMCC, CATT	Disc
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	revised		R2-100385	SIM based access for Emergency calls in LTE	Alcatel-Lucent	CR
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	noted		R2-100386	Discussion on use of Emergency cause value for TAU	Alcatel-Lucent	Disc
14: L-Sout and output to other groups for LTE	Yes	postponed		R2-100387	Draft Response LS C1-095744 = R2-100009 on emergency attach in a shared LTE network (to: CT1, SA2; cc: RAN3, SA3; contact: Alcatel-Lucent)	Alcatel-Lucent	L-Sout
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100388	RLF handling for CC	Alcatel-Lucent	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	postponed		R2-100389	Introduction of GERAN cell reporting without BSIC verification	Ericsson, ST-Ericsson	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100390	Introduction of GERAN cell reporting without BSIC verification	Ericsson, ST-Ericsson	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	revised		R2-100391	Pseudo CR for Full configuration solution for eNB release handling	Alcatel-Lucent	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	noted	Late	R2-100392	Report of email discussion on Later release functionality handling at inter-eNB mobility	Alcatel-Lucent (Rapporteur)	Report
07.1.7: LTE REL-10: CA (RP-091440): Non-accessible carriers	Yes	not treated		R2-100393	Discussion of Carrier Types	Alcatel-Lucent, Alcatel-Lucent Shanghai Bell	Disc

Agenda item	Uploaded	status	Lat	Tdoc	Title	Source	Type:
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	noted		R2-100394	Handling of System Information Change in Connected Mode	Alcatel-Lucent, Shanghai Bell	Disc
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	revised		R2-100395	Summary of email discussion [68#24] LTE: Measurements in Carrier Aggregation	Alcatel-Lucent (Rapporteur)	Report
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100396	CA Impact on logical channel prioritisation	Alcatel-Lucent Shanghai Bell, Alcatel-Lucent	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100397	C-RNTI allocation in CA	Alcatel-Lucent Shanghai Bell, Alcatel-Lucent	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays. Architecture aspects	Yes	noted		R2-100398	Header Compression for Relays	Qualcomm Incorporated	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100399	More details on Special cell	Alcatel-Lucent	Disc
04.2.1: UMTS/LTE joint REL-9: Home-eNB (RP-091392)	Yes	noted		R2-100400	Handling of proximity indications after handover and reestablishment	Alcatel-Lucent	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	revised		R2-100401	Proximity Indication after handover and re-establishment	Alcatel-Lucent	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	revised		R2-100402	Stage 2 updates to align with stage 3	Ericsson, ST-Ericsson	CR
04.1: UMTS/LTE joint REL-8	Yes	noted		R2-100403	Inheritance of the dedicated priorities for cell reselection	Infineon Technologies	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	No	withdrawn		R2-100404	Carrier Aggregation Activation/Deactivation	NEC	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100405	Multiplexing for Un Interface	Fujitsu	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100406	Relay QoS Control	Fujitsu	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100407	RRC for Relay Nodes	Fujitsu	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	No	withdrawn		R2-100408	Mobility and Carrier Aggregation Signaling	NEC	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100409	Serving Cell Selection in a Type 1 Relay Network	Research In Motion UK Limited	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100410	DL HARQ Operation over Un interface	Research In Motion UK Limited	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100411	UL HARQ Operation over Un interface	Research In Motion UK Limited	Disc

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	not treated		R2-100412	RAN impacts of machine-type communications for UTRA and EUTRA	Fujitsu	Disc
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	not treated		R2-100413	System Information Acquisition for Carrier Aggregation	Research In Motion UK Limited	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100414	Component Carrier Management for Carrier Aggregation	Research In Motion UK Limited	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	No	withdrawn		R2-100415	DL HARQ Operation over Un interface	Research In Motion UK Limited	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	noted		R2-100416	Unifying SI reading for ANR and inbound mobility	Qualcomm Incorporated	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	revised		R2-100417	CR 36.331 R9 for Unifying SI reading for ANR and inbound mobility	Qualcomm Incorporated	CR
05.9: LTE REL-8: Cell selection & re-selection (36.304)	Yes	not treated		R2-100418	CR 36.304 R8 Inter-RAT Manual CSG ID selection	Qualcomm Incorporated	CR
05.9: LTE REL-8: Cell selection & re-selection (36.304)	Yes	not treated		R2-100419	CR 36.304 R9 Inter-RAT Manual CSG ID selection	Qualcomm Incorporated	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100420	Common start time for TDD HeNB synchronization using GNSS	Qualcomm Incorporated	Disc
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	noted		R2-100421	Measurement considerations for Carrier Aggregation	Qualcomm Incorporated	Disc
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	not treated		R2-100422	System information delivery under Carrier Aggregation	Qualcomm Incorporated	Disc
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	noted		R2-100423	Supporting multiple timing advance groups	Qualcomm Incorporated	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100424	Considerations on Carrier Activation	Qualcomm Incorporated	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100425	Multiplexing on Un for Alt4 Relays	Texas Instruments	Disc
05.9: LTE REL-8: Cell selection & re-selection (36.304)	Yes	rejected		R2-100426	Inter-RAT Manual CSG ID selection	Qualcomm Incorporated	Disc
11.3: UTRA REL-10: RF pattern matching in UMTS (RP-091427)	Yes	postponed		R2-100427	CR-Stage 2 Definition of RF Pattern Matching LCS Technology	Polaris Wireless (Rapporteur)	CR
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	revised		R2-100428	Remove FFSs from RAN2 specifications	Ericsson, ST-Ericsson	CR
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100429	Random access with carrier aggregation	Ericsson, ST-Ericsson	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100430	Discussion on Un radio protocol support for S1-AP	Ericsson, ST-Ericsson	Disc

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	noted		R2-100431	Discussion on Relay functionality	LG Electronics Inc.	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	noted		R2-100432	Header compression issue for Alt A	LG Electronics Inc.	Disc
06.9.3.1: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	noted		R2-100433	Priority issue for alt 1 and 3	LG Electronics Inc.	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Architecture aspects	Yes	not treated		R2-100434	Number of MAC PDU for Un interface	LG Electronics Inc., Texas Instruments	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	No	withdrawn		R2-100435	Identifying ESP bearers over Un in Alt 4	Ericsson, ST-Ericsson	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100436	Identifying ESP bearers over Un in Alt 4	Ericsson, ST-Ericsson	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated	Late	R2-100437	Reconfiguration in CA	LG Electronics Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	revised		R2-100438	Enhancement of D-SR in CA	LG Electronics Inc.	Disc
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100439	Control of Proximity Indication	LG Electronics Inc.	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100440	DL Radio Link Failure for CA	LG Electronics Inc.	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	noted		R2-100441	PSC selection for reporting SI	LG Electronics Inc.	Disc
07.1.4: LTE REL-10: CA (RP-091440): System information handling	Yes	not treated		R2-100442	System Information Overhead at CG addition	LG Electronics Inc.	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	not treated		R2-100443	Correction of PSC selection for SI reporting	LG Electronics Inc.	CR
06.4: LTE REL-9: Home-e)NB enhancements (RP-091392)	Yes	not treated		R2-100444	Correction for Proximity indication suppress timer	LG Electronics Inc.	CR
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	not treated		R2-100445	Issues in Measurement for CA	LG Electronics Inc.	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100446	Correction on reselection from non-CSG cell to CSG inter-RAT cell	LG Electronics Inc.	CR
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100447	General issues in CC management	LG Electronics Inc.	Disc
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100448	Radio quality degradation during SI acquisition	LG Electronics Inc.	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100449	Considerations on activation/deactivation of component carrier	Pantech	Disc
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	revised		R2-100450	CR capturing HeNB inbound mobility agreements	Motorola, Qualcomm, NTT DoCoMo	CR

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	No	withdrawn	Late	R2-100451	Carrier Aggregation - Access	Motorola	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100452	Carrier Aggregation - Activation and Measurements	Motorola	Disc
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100453	Drive testing and HeNBs	Motorola	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	revised		R2-100454	Clarification on the use of autonomous search for proximity detection	HTC Corporation	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	rejected		R2-100455	Renaming automated searching	HTC Corporation	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	not treated		R2-100456	UE battery status transmission	HTC Corporation	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100457	Clarification on Position location	HTC Corporation	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	noted		R2-100458	Intra-frequency CSG Inbound handover for UMTS	LG Electronics Inc.	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100459	The methods to control load balance in LTE system	HTC Corporation	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	not treated		R2-100460	The methods to control load balance in LTE system (Proposal 1)	HTC Corporation	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100461	Clarifications on Access Barring	HTC Corporation	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	not treated		R2-100462	Clarifications on Access Barring (Proposal 1)	HTC Corporation	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	not treated		R2-100463	Clarifications on Access Barring (Proposal 2)	HTC Corporation	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	noted		R2-100464	Optionality of Rel-9 UE features	NTT DOCOMO, INC.	Disc
04.2.2: UMTS/LTE joint REL-9: Other	Yes	revised		R2-100465	OR to 36.306 on Optionality of Rel-9 UE features	NTT DOCOMO, INC.	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	not treated		R2-100466	LPP Location Information Transfer for the MOLR case	Nokia Siemens Networks, Nokia Corporation	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	revised		R2-100467	CR to 36.331 on Optionality of Rel-9 UE features	NTT DOCOMO, INC.	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	in principle agreed		R2-100468	LPP ASN.1 corrections	Nokia Siemens Networks, Nokia Corporation	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	noted		R2-100469	MDT Stage 3	NTT DOCOMO	Disc
09.1: UTRA REL-8: Improved L2 for UL	Yes	rejected		R2-100470	Clarification on partially radio aware method	LG Electronics Inc.	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	not treated		R2-100471	Correction to References in LPP specification	Nokia Siemens Networks, Nokia Corporation	CR

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	noted		R2-100472	TA maintenance for CA	NTT DOCOMO	Disc
09.1: UTRA REL-8: Improved L2 for UL	Yes	not treated		R2-100473	Clarification on partially radio aware method	LG Electronics Inc.	CR
07.1.2: LTE REL-10: CA (RP-091440): CC management	No	withdrawn	Late	R2-100474	CC management for CA	NTT DOCOMO	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100475	GNSS Reference Time	Nokia Siemens Networks, Nokia Corporation	CR
09.1: UTRA REL-8: Improved L2 for UL	Yes	rejected		R2-100476	MAC segmentation after HARQ delivery failure	LG Electronics Inc.	CR
09.1: UTRA REL-8: Improved L2 for UL	Yes	not treated		R2-100477	MAC segmentation after HARQ delivery failure	LG Electronics Inc.	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100478	Clarification on radio resource configuration in handover to E-UTRA procedure	ASUSTeK	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	withdrawn		R2-100479	Clarification on configuration of RLF timers and constants in handover to E-UTRA procedure	ASUSTeK	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100480	Clarification on UE maximum transmission power	ASUSTeK	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	revised		R2-100481	25.33.1: Applying periodic measurements to CSG cells	Qualcomm Incorporated	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	in principle agreed		R2-100482	25.33.1: Fk for CSG measurements without SI report	Qualcomm Incorporated	CR
04.2.1: UITS/LTE joint REL-9: Home-e NB (RP-091392)	Yes	revised	Late	R2-100483	CR capturing HNB inbound mobility agreements	Qualcomm Incorporated	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	rejected		R2-100484	Clarification for the BCCH transmission to CELL_FACH state UE for 1.28Mcps TDD	TD Tech	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	rejected		R2-100485	Clarification for the BCCH transmission to CELL_FACH state UE for 1.28Mcps TDD	TD Tech	CR
11.1: UTRA REL-10: LCR TDD MC-HSUPA (RP-090990)	Yes	not treated		R2-100486	SI content of MC-HSUPA for 1.28 Mcps TDD	TD Tech	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	rejected		R2-100487	Correction for Security key derivation	Huawei	CR
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated		R2-100488	HARQ operation for relay	Samsung	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100489	Reusing REL-8 handover procedure for special cell change	Samsung	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100490	On DL synchronization of deactivated CCs	Samsung	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	noted		R2-100491	UL CC activation	Samsung	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100492	REL-10 Logical channel prioritization	Samsung	Disc

Agenda item	Uploaded	status	Late	Tdoc	Title	Source	Type:
07.2: LTE REL-10: Latency reduction (RP-091449)	Yes	not treated		R2-100493	On contention based access	Samsung	Disc
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	rejected		R2-100494	Clarification to Manual CSG ID Selection and correction to the reference of inbound mobility to CSG Cel	HTC Corporation	CR
11.1: UTRA REL-10: LCR TDD MC-HSUPA (RP-090990)	Yes	noted		R2-100495	L2 architecture for 1.28M TDD MC-HSUPA operation	TD Tech	Disc
11.1: UTRA REL-10: LCR TDD MC-HSUPA (RP-090990)	No	withdrawn		R2-100496	L2 architecture for 1.28M TDD MC-HSUPA operation	TD Tech	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	noted		R2-100497	System information update in CA	Huawei	Disc
07.1.6: LTE REL-10: CA (RP-091440): RLF	Yes	not treated		R2-100498	RLF in CA	Huawei	Disc
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	revised		R2-100499	Correction for actions to HS_DSCH_DRX_CELL_FACH_STATUS variable for LCR TDD	TD Tech	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	not treated		R2-100500	Correction for actions to HS_DSCH_DRX_CELL_FACH_STATUS variable for LCR TDD	TD Tech	CR
11.1: UTRA REL-10: LCR TDD MC-HSUPA (RP-090990)	Yes	not treated		R2-100501	Frequency control of MC-HSUPA for 1.28Mcps TDD	TD Tech	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100502	UE capability for enhanced 1xRTT CS fallback	Huawei	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	revised		R2-100503	Updates to LPP material in stage 2	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100504	LPP Transaction ID Management	Qualcomm Incorporated	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100505	LPP Reliable Transport	Qualcomm Incorporated	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100506	Addition of LPP reliable transport	Qualcomm Incorporated	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	noted	Late	R2-100507	Remaining open issues on DC-HSUPA E-TFC Selection	InterDigital	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100508	Removal of FFS items in TS 36.355	Qualcomm Incorporated	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100509	Completion of LPP common material	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100510	Triggered Location Information Transfer due to Cell Change	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100511	Completion of OTDOA in LPP	Qualcomm Incorporated	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	No	withdrawn		R2-100512	Inclusion of timing advance from UE for E-CID positioning	Qualcomm Incorporated	Disc
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	No	withdrawn		R2-100513	Introduction of TA reporting for E-CID in LPP stage 2	Qualcomm Incorporated	CR

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100514	Proximity indication forwarding at handover	NTT DOCOMO	Disc
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100515	Prohibit timer for proximity indication	NTT DOCOMO	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	No	withdrawn		R2-100516	Introduction of TA reporting for E-CID in LPP stage 3	Qualcomm Incorporated	CR
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100517	Cell identity reporting in proximity indication	NTT DOCOMO	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	noted		R2-100518	Resolving state mismatch at reestablishment	NTT DOCOMO	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	not treated		R2-100519	CR to 36.331 on Resolving state mismatch at reestablishment	NTT DOCOMO	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	noted		R2-100520	Cell reselection enhancements for Rel-9	NTT DOCOMO	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100521	CR to 36.304 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100522	CR to 36.331 on Cell reselection enhancements	NTT DOCOMO	CR
10.4: UTRA REL-9: TEI9	Yes	withdrawn		R2-100523	CR to 25.304 on Cell reselection enhancements	NTT DOCOMO	CR
10.4: UTRA REL-9: TEI9	Yes	withdrawn		R2-100524	CR to 25.331 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100525	Resolving open issues of SSAC	NTT DOCOMO	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100526	CR to 36.331 on Service Specific Access Control (SSAC)	NTT DOCOMO	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100527	On requirement and provisioning of reliable LPP transmission	NTT DOCOMO	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100528	Redirection enhancements to UTRAN	NTT DOCOMO	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100529	CR to 36.331 on Redirection enhancements to UTRAN	NTT DOCOMO	CR
06.4: LTE REL-9: Home-e)NB enhancements (RP-091392)	Yes	in principle agreed		R2-100530	CR to 36.331 on CSG identity reporting	NTT DOCOMO	CR
07.1.1: LTE REL-10: CA (RP-091440); Multiple timing advance	Yes	noted		R2-100531	Carrier aggregation deployment scenarios	NTT DOCOMO	Disc
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100532	CSG identity reporting in inbound handover	NTT DOCOMO, Inc.	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	noted		R2-100533	Discussion on E-TFC selection in DC-HSUPA	LG Electronics Inc.	Disc
06.9.3.2: LTE-A SI (RP-091360); Relays: Lower layer aspects	Yes	not treated		R2-100534	Relay Control Plane	Huawei	Disc

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100535	Remaining issues in the proximity report procedure	Samsung	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	noted		R2-100536	Remaining issues in System Information Delivery	Samsung	Disc
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	not treated		R2-100537	RAN Enhancements for Machine-type Communication	Samsung	Disc
06: UTRA REL-7 and earlier releases	Yes	noted		R2-100538	On MAC-e-hs reset at Treset expiry	Samsung	Disc
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	No	withdrawn	Late	R2-100539	DC-HSUPA Minor Corrections to 25.321	Qualcomm Incorporated	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	No	withdrawn	Late	R2-100540	DC-HSUPA Minor Corrections to 25.319	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100541	Correction to MAC-e-hs reset at Treset expiry	Samsung	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	No	withdrawn		R2-100542	MDT: A2 triggered measurement	Nokia Corporation, Nokia Siemens Networks	Disc
06: UTRA REL-7 and earlier releases	Yes	not treated		R2-100543	Correction to MAC-e-hs reset at Treset expiry	Samsung	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	No	withdrawn		R2-100544	MDT: Timestamp handling with CP architecture	Nokia Corporation, Nokia Siemens Networks	Disc
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100545	Correction to MAC-e-hs reset at Treset expiry	Samsung	CR
04.2.1: UMTS/LTE joint REL-9: Home-e)NB (RP-091392)	Yes	noted		R2-100546	Autonomous HeNB reporting	Nokia Corporation, Nokia Siemens Networks	Disc
06: UTRA REL-7 and earlier releases	Yes	revised		R2-100547	Traffic volume measurement in CELL_PCH state	Samsung	CR
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100548	UE power saving in CA scenarios	Nokia Corporation, Nokia Siemens Networks	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	No	withdrawn		R2-100549	UE power saving in CA scenarios	Nokia Corporation, Nokia Siemens Networks	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	No	withdrawn		R2-100550	UE power saving in CA scenarios	Nokia Corporation, Nokia Siemens Networks	Disc
08: UTRA REL-7 and earlier releases	Yes	in principle agreed		R2-100551	Traffic volume measurement in CELL_PCH state	Samsung	CR
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	noted		R2-100552	Measurements in CA scenarios	Nokia Corporation, Nokia Siemens Networks	Disc
08: UTRA REL-7 and earlier releases	Yes	in principle agreed		R2-100553	Traffic volume measurement in CELL_PCH state	Samsung	CR

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100554	Correction to field descriptions of UE-UTRA-Capability	HTC Corporation	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	noted		R2-100555	Aligning inbound handover procedure in UMTS with LTE	Samsung	Disc
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	not treated		R2-100556	Handling of UE capabilities	Nokia Corporation	CR
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated	Late	R2-100557	carrier aggregation considerations	Pantech	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100558	MCCH Information Change Notification	Motorola	Disc
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100559	MCCH Information Change Notification CR	Motorola	CR
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	Yes	not treated		R2-100560	Time Alignment Timer for different TA	ITRI	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted		R2-100561	DL/UL CC Linkage Relationship	ITRI	Disc
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100562	Clarification of T323 configuration	Nokia Corporation, Nokia Siemens Networks	CR
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100563	Clarification of T323 configuration	Nokia Corporation, Nokia Siemens Networks	CR
08: UTRA REL-7 and earlier releases	Yes	noted		R2-100564	Compatibility of Rel-6 UE with Rel-7 and Rel-8 SIB extensions	Nokia Corporation, Nokia Siemens Networks	Disc
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100565	Correction to SIB Type extension handling	Nokia Corporation, Nokia Siemens Networks	CR
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100566	Correction to SIB Type extension handling	Nokia Corporation, Nokia Siemens Networks	CR
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100567	Correction to SIB Type extension handling	Nokia Corporation, Nokia Siemens Networks	CR
08: UTRA REL-7 and earlier releases	Yes	not treated		R2-100568	Correction to SIB Type extension handling	Nokia Corporation, Nokia Siemens Networks	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	revised		R2-100569	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	revised		R2-100570	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	postponed		R2-100571	Clarification on the use of HCS when absolute priority reselection is used	Nokia Corporation, Nokia Siemens Networks	CR

Agenda item	Uploaded	status	late	Tdoc	Title	Source	Type:
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	postponed		R2-100572	Clarification on the use of HCS when absolute priority reselection is used	Nokia Corporation, Nokia Siemens Networks	CR
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	noted	Late	R2-100573	Discussion on DU/LUL CC linkage for Carrier Aggregation	HT mMobile Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	Yes	not treated		R2-100574	Discussion on Scheduling and Priority handling for Carrier Aggregation	HT mMobile Inc.	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised	Late	R2-100575	Specific corrections from REL-9 ASN.1 review	Rapporteur (Samsung)	CR
02.3: General: Reporting from other meeting	Yes	revised	Late	R2-100576	Report from LTE Advanced Evaluation Workshop	Ericsson	Report
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	noted	Late	R2-100577	Happy bit power evaluation criteria	LG Electronics Inc.	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	not treated		R2-100578	System Information Update during Carrier Aggregation	Sony Corporation	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated	Late	R2-100579	On the Importance of Introducing STANDBY Mode for Relay Nodes	Sharp	Disc
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	not treated	Late	R2-100580	How does any source node get to know the backhaul link information of a possible target relay node prior to a Handover	Sharp	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	Yes	not treated		R2-100581	Special Cells and Carrier Management/Configuration	Intel Corporation	Disc
07.1.3: LTE REL-10: CA (RP-091440): Scheduling	Yes	not treated		R2-100582	Dynamic Carrier Activation and Deactivation	Intel Corporation	Disc
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	Yes	not treated		R2-100583	System Information Handling in Carrier Aggregation	Intel Corporation	Disc
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	not treated	Late	R2-100584	36331_CRxxxx_(REL_9)_CR on remaining open issues in LTE inbound mobility	Huawei	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100585	LPP Transaction ID Management	Qualcomm Incorporated	Disc
07.1.2: LTE REL-10: CA (RP-091440): CC management	No	withdrawn	Late	R2-100586	CC management for unpaired CC configuration	LG Electronics Inc.	Disc
07.1.8: LTE REL-10: CA (RP-091440): Other	No	withdrawn	Late	R2-100587	Enhancement of D-SR in CA	LG Electronics Inc.	Disc
13.2: LTE User plane	Yes	agreed		R2-100588	Report of LTE User plane session	Nokia Siemens Networks (vice-chairman)	Report
13.3: LTE MBMS	Yes	agreed		R2-100589	Report of LTE MBMS session	Nokia Siemens Networks (vice-chairman)	Report
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	noted		R2-100590	Summary of email discussion [68#24] LTE: Measurements in Carrier Aggregation	Alcatel-Lucent (Rapporteur)	Report
06.9.3.2: LTE-A SI (RP-091360): Relays: Lower layer aspects	Yes	noted		R2-100591	System information change notification in relay operation	NTT DOCOMO	Disc

Agenda item	Uploaded	Status	Lat	Tdoc	Title	Source	Type:
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100592	Resolving open issues of SSAC	NTT DOCOMO	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100593	GR to 36.331 on Service Specific Access Control (SSAC)	NTT DOCOMO	CR
06.10: LTE REL-9: Other	Yes	not treated	Late	R2-100594	Distinguishing coverage problem and late handover cases for RLF	Qualcomm Incorporated	Disc
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100595	Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD	New Postcom	CR
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100596	Correction of HS-SCCH Type 3 usage with MAC-ehs for LCR TDD	New Postcom	CR
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	noted		R2-100597	Kickoff for Machine Type Communications Study Item	Huawei, CMCC, China Unicom, CATR	Disc
02.3: General: Reporting from other meeting	Yes	noted	Late	R2-100598	Report from LTE Advanced Evaluation Workshop	Ericsson	Report
14 : LSout and output to other groups for LTE	Yes	revised		R2-100599	Draft LS reply to SP-090893 = R2-100036 on preventing UTRA to EUTRA handover for USIM-Hess UE (contact: Huawei)	Huawei	LSout
14 : LSout and output to other groups for LTE	No	withdrawn		R2-100600	Draft LS reply to CP-090160 = R2-100013 on emergency cause value for TAU (to: CT1; cc: SA2, CT1; contact: ALU)	Alcatel-Lucent	LSout
14 : LSout and output to other groups for LTE	Yes	revised		R2-100601	Draft LS reply to R2-100004, R2-100005, R2-100027 on Use cases for cell change indication from MME to E-UTRAN (contact: Qualcomm)	Qualcomm Incorporated	LSout
14 : LSout and output to other groups for LTE	Yes	postponed		R2-100602	Draft LS reply to S2-097527 = R2-100029 on feasibility of reliable transmission of LPP message (to: SA2; cc: CT1, CT4; contact: Samsung)	Samsung	LSout
14 : LSout and output to other groups for LTE	Yes	revised		R2-100603	Draft LS on P-TMSI selection for Correct Derivation of Intra Domain NAS Node Selector and routing basis in Access Stratum (to: CT1; cc: -; contact: Vodafone)	Vodafone	LSout
14 : LSout and output to other groups for LTE	Yes	revised		R2-100604	Draft LS to GERAN on inheritance of the dedicated priorities for cell reselection (contact: Deutsche Telekom)	Deutsche Telekom	LSout
04.2.1: UMTS/LTE joint REL-9: Home-4e JNB (RP-091392)	Yes	revised		R2-100605	CR capturing HeNB inbound mobility agreements	Motorola, Qualcomm, NTT DoCoMo	CR
04.2.1: UMTS/LTE joint REL-9: Home-4e JNB (RP-091392)	Yes	revised		R2-100606	CR capturing HNB inbound mobility agreements	Qualcomm Incorporated	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	in principle agreed		R2-100607	CR to 36.306 on Optionality of Rel-9 UE features	NTT DOCOMO, INC.	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	in principle agreed		R2-100608	CR to 36.331 on Optionality of Rel-9 UE features	NTT DOCOMO, INC.	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	revised		R2-100609	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	revised		R2-100610	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	revised		R2-100611	TS 37.xxx skeleton proposal on MDT	Nokia Siemens Networks	TS
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	revised		R2-100612	First TP to TS 37.xxx on MDT	Nokia Siemens Networks	TP

Agenda item	Uploaded	status	Late	Tdoc	Title	Source	Type:
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	revised		R2-100613	Skeleton TR for MTC SI	Huawei	TR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100614	Corrections to HS-DSCH reception in CELL_PCH and CELL_FACH	Infineon Technologies	CR
08: UTRA REL-7 and earlier releases	Yes	in principle agreed		R2-100615	Traffic volume measurement in CELL_PCH state	Samsung	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100616	Indication of MIMO codebook restriction	Qualcomm Incorporated	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	No	withdrawn		R2-100617	Cell Selection/Reselection from UMTS to LTE	ZTE	CR
08: UTRA REL-7 and earlier releases	Yes	postponed		R2-100618	Correction to MAC-e-hs reset at Treset expiry	Samsung	CR
08: UTRA REL-7 and earlier releases	No	withdrawn		R2-100619	Clarification to FACH measurement occasion of 1.28Mcps TDD	ZTE	CR
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	in principle agreed		R2-100620	Correction of RNTIs handling for Enhanced Uplink in CELL_FACH	Nokia Corporation, Nokia Siemens Networks	CR
09.3: UTRA REL-8: Enhanced Uplink for CELL_FACH State in FDD	Yes	postponed	Late	R2-100621	Support of E-AICH power offset	Qualcomm Incorporated	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	noted		R2-100622	Review of the condition to apply priority based reselection	Panasonic	Disc
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100623	Clarification on Scheduling Information reporting for 1.28 Mcps TDD	CATT, New Postcom, Potevo, TD Tech, ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	Yes	in principle agreed		R2-100624	Clarification to the frequency selection operation for E-FACH of 1.28Mcps TDD	ZTE	CR
09.4: UTRA REL-8: Enhanced CELL_FACH state in 1.28 Mcps TDD	No	withdrawn		R2-100625	Correction for actions to HS_DSCH_DRX_CELL_FACH_STATUS variable for LCR TDD	TD Tech	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	revised		R2-100626	Clarification to priority based mobility procedures	Qualcomm Incorporated	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	postponed		R2-100627	25331_ORxxxx_(REL-9)_Support of Inter-RAT inbound mobility to HeNB	Huawei	CR
09.7: UTRA REL-8: TEI8	Yes	revised		R2-100628	UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast domancy	Panasonic	CR
10.6: UTRA Release 9 ASN.1 review activity	Yes	noted		R2-100629	Status update of ASN.1 review for Rel9	Ericsson, ST-Ericsson	Disc
10.6: UTRA Release 9 ASN.1 review activity	Yes	noted		R2-100630	25.331 v9.1.0 ASN.1 with hyperlinks (rapporteur)	Ericsson	Info
10.6: UTRA Release 9 ASN.1 review activity	Yes	noted		R2-100631	sections 10 and 14.12 of 25.331 v9.1.0 with hyperlinks (rapporteur)	Ericsson	Info
10.5.3: UTRA REL-9: Other Rel-9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100632	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
10.5.3: UTRA REL-9: Other Rel9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100633	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100634	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100635	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100636	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100637	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR
10.5.3: UTRA REL-9: Other Rel9 WIs: Extended UMTS/LTE 800 MHz	Yes	in principle agreed		R2-100638	Introduction of band XX (800 MHz)	ST-Ericsson, Ericsson	CR
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	No	withdrawn		R2-100639	Clarification of code rates limitation for category 25/27	Huawei	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	in principle agreed		R2-100640	Update of Stage 2 description for DC-HSUPA	Infineon Technologies	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	postponed		R2-100641	Reading neighbour HNB system Information Block 3	Alcatel-Lucent	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	rejected		R2-100642	25.331: Applying periodic measurements to CSG cells	Qualcomm Incorporated	CR
10.5.1: UTRA REL-9: Other Rel9 WIs: TxA extension for non-MIMO UEs	Yes	in principle agreed		R2-100643	Clarification of UE Categories for TxA-Non-MIMO	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100644	Indication of MIMO codebook restriction	Qualcomm Incorporated	CR
08: UTRA REL-7 and earlier releases	Yes	revised		R2-100645	Indication of MIMO codebook restriction	Qualcomm Incorporated	CR
09.7: UTRA REL-8: TEI8	Yes	in principle agreed		R2-100646	UE behaviour upon RLC re-establishment or inter-RAT change before successful delivery of SCRI for fast dormancy	Panasonic	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	rejected		R2-100647	UTRA Node-B SI reading Timer	Nokia	CR
10.3: UTRA REL-9: Home-NB enhancements (RP-091392)	Yes	not treated		R2-100648	Fixed SI reading timer for HNBs	Qualcomm Incorporated	CR
10.2: UTRA REL-9: DC-HSUPA (RP-090014)	Yes	in principle agreed		R2-100649	Corrections for DC-HSUPA in 25.321	Huawei	CR
09.5: UTRA REL-8: Mobility between UMTS and LTE	Yes	revised		R2-100650	Clarification to priority based mobility procedures	Qualcomm Incorporated	CR
-	No	withdrawn		R2-100651	Void	-	-
-	No	withdrawn		R2-100652	Void	-	-
-	No	withdrawn		R2-100653	Void	-	-
-	No	withdrawn		R2-100654	Void	-	-

Agenda item	Uploaded	Status	Late	Tdoc	Title	Source	Type:
-	No	withdrawn		R2-100655	Void	-	-
-	No	withdrawn		R2-100656	Void	-	-
-	No	withdrawn		R2-100657	Void	-	-
-	No	withdrawn		R2-100658	Void	-	-
-	No	withdrawn		R2-100659	Void	-	-
-	No	withdrawn		R2-100660	Void	-	-
-	No	withdrawn		R2-100661	Void	-	-
-	No	withdrawn		R2-100662	Void	-	-
-	No	withdrawn		R2-100663	Void	-	-
-	No	withdrawn		R2-100664	Void	-	-
-	No	withdrawn		R2-100665	Void	-	-
-	No	withdrawn		R2-100666	Void	-	-
-	No	withdrawn		R2-100667	Void	-	-
-	No	withdrawn		R2-100668	Void	-	-
-	No	withdrawn		R2-100669	Void	-	-
-	No	withdrawn		R2-100670	Void	-	-
-	No	withdrawn		R2-100671	Void	-	-
-	No	withdrawn		R2-100672	Void	-	-
-	No	withdrawn		R2-100673	Void	-	-
-	No	withdrawn		R2-100674	Void	-	-
-	No	withdrawn		R2-100675	Void	-	-
-	No	withdrawn		R2-100676	Void	-	-
-	No	withdrawn		R2-100677	Void	-	-
-	No	withdrawn		R2-100678	Void	-	-
-	No	withdrawn		R2-100679	Void	-	-
-	No	withdrawn		R2-100680	Void	-	-
-	No	withdrawn		R2-100681	Void	-	-
-	No	withdrawn		R2-100682	Void	-	-
-	No	withdrawn		R2-100683	Void	-	-
-	No	withdrawn		R2-100684	Void	-	-
-	No	withdrawn		R2-100685	Void	-	-
-	No	withdrawn		R2-100686	Void	-	-
-	No	withdrawn		R2-100687	Void	-	-
-	No	withdrawn		R2-100688	Void	-	-
-	No	withdrawn		R2-100689	Void	-	-
-	No	withdrawn		R2-100690	Void	-	-
-	No	withdrawn		R2-100691	Void	-	-
-	No	withdrawn		R2-100692	Void	-	-
-	No	withdrawn		R2-100693	Void	-	-
-	No	withdrawn		R2-100694	Void	-	-
-	No	withdrawn		R2-100695	Void	-	-
-	No	withdrawn		R2-100696	Void	-	-
-	No	withdrawn		R2-100697	Void	-	-
-	No	withdrawn		R2-100698	Void	-	-
-	No	withdrawn		R2-100699	Void	-	-
-	No	withdrawn		R2-100700	Void	-	-
-	No	withdrawn		R2-100701	Void	-	-
-	No	withdrawn		R2-100702	Void	-	-
-	No	withdrawn		R2-100703	Void	-	-
-	No	withdrawn		R2-100704	Void	-	-
-	No	withdrawn		R2-100705	Void	-	-
-	No	withdrawn		R2-100706	Void	-	-
-	No	withdrawn		R2-100707	Void	-	-
-	No	withdrawn		R2-100708	Void	-	-
-	No	withdrawn		R2-100709	Void	-	-
-	No	withdrawn		R2-100710	Void	-	-
06.8.3: LTE REL-9: TEI9: User plane related	No	withdrawn		R2-100711	Minor corrections to MAC	ASUSTeK	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	revised		R2-100712	Correction to RLC entity	ASUSTeK	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100713	CR for future clarification on MCH information acquisition by the UE	ZTE, ASUSTeK	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	rejected		R2-100714	CR for clarification on MBMS notification	ZTE	CR

Agenda item	Uploaded	status	Lat	Tdoc	Title	Source	Type:
06.3.2: LTE REL-9: MBMS Control Plane	Yes	noted		R2-100715	Clarification on MBMS notification	ZTE	Disc
06.3.1: LTE REL-9: MBMS Stage-2	Yes	revised		R2-100716	Correction regarding support of multiple MBSFN areas	Samsung	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	in principle agreed		R2-100717	Corrections to TS 36.300 on MBMS	Huawei	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	in principle agreed		R2-100718	Corrections on eNB muting MBSFN transmission	Nokia Corporation, Nokia Siemens Networks, Huawei, ZTE	CR
06.3.1: LTE REL-9: MBMS Stage-2	Yes	in principle agreed		R2-100719	Correction regarding support of multiple MBSFN areas	Samsung	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	in principle agreed		R2-100720	Position of MCH notifications	Huawei	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	postponed		R2-100721	MBMS clarifications on notification and on MBMS allocation patterns	Samsung	Disc
06.3.1: LTE REL-9: MBMS User Plane	Yes	in principle agreed		R2-100722	Corrections to TS 36.321 on MBMS	Huawei	CR
-	No	withdrawn		R2-100723	Void	-	-
-	No	withdrawn		R2-100724	Void	-	-
-	No	withdrawn		R2-100725	Void	-	-
-	No	withdrawn		R2-100726	Void	-	-
-	No	withdrawn		R2-100727	Void	-	-
-	No	withdrawn		R2-100728	Void	-	-
-	No	withdrawn		R2-100729	Void	-	-
-	No	withdrawn		R2-100730	Void	-	-
-	No	withdrawn		R2-100731	Void	-	-
-	No	withdrawn		R2-100732	Void	-	-
-	No	withdrawn		R2-100733	Void	-	-
-	No	withdrawn		R2-100734	Void	-	-
-	No	withdrawn		R2-100735	Void	-	-
-	No	withdrawn		R2-100736	Void	-	-
-	No	withdrawn		R2-100737	Void	-	-
-	No	withdrawn		R2-100738	Void	-	-
-	No	withdrawn		R2-100739	Void	-	-
-	No	withdrawn		R2-100740	Void	-	-
-	No	withdrawn		R2-100741	Void	-	-
-	No	withdrawn		R2-100742	Void	-	-
-	No	withdrawn		R2-100743	Void	-	-
-	No	withdrawn		R2-100744	Void	-	-
-	No	withdrawn		R2-100745	Void	-	-
-	No	withdrawn		R2-100746	Void	-	-
-	No	withdrawn		R2-100747	Void	-	-
-	No	withdrawn		R2-100748	Void	-	-
-	No	withdrawn		R2-100749	Void	-	-
-	No	withdrawn		R2-100750	Void	-	-
06.10: LTE REL-9: Other	Yes	postponed		R2-100751	GR to support UE-originated RLF reporting for MRO SON use case	Nokia Siemens Networks, Nokia Corporation	CR
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	in principle agreed		R2-100752	SIM based access for Emergency calls in LTE	Alcatel-Lucent	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	revised		R2-100753	CR 36.331 R9 for Unifying SI reading for ANR and inbound mobility	Qualcomm Incorporated	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	revised		R2-100754	Proximity indication after handover and re-establishment	Alcatel-Lucent	CR

Agenda item	Uploaded	status	Late	Tdoc	Title	Source	Type:
06.8.1: LTE REL-9: TEI9: Common U/CP issues	Yes	postponed		R2-100755	Full configuration solution for eNB release handling	Alcatel-Lucent	CR
06.8.1: LTE REL-9: TEI9: Common U/CP issues	Yes	revised		R2-100756	Clarification on DRX StartOffset for TDD	ASUSTek	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100757	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100758	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
06.8.2: LTE REL-9: TEI9: Control plane related	No	withdrawn	Late	R2-100759	Unintentional SR suppression	Ericsson, ST Ericsson	Disc
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	noted		R2-100760	REL-9 PDU specification – Review issue list	Rapporteur (Samsung)	Report
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100761	UE capability for enhanced 1xRTT CS fallback	Huawei	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100762	Clarification of CGI reporting	Panasonic	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100763	Clarification of CGI reporting	Panasonic	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	postponed		R2-100764	Corrections from REL-9 ASN.1 review	Rapporteur (Samsung)	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100765	Miscellaneous correction on 36.304	Huawei	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100766	Corrections to SIBs	Motorola	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100767	Clarification on measurement for serving cell only	Huawei	CR
06.8.2: LTE REL-9: TEI9: Control plane related	No	withdrawn		R2-100768	Correction on reselection from non-CSG cell to CSG inter-RAT cell	LG Electronics Inc.	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100769	Correction to field descriptions of UE-EUTRA-Capability	HTC Corporation	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100770	CR to 36.304 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100771	CR to 36.331 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100772	CR to 36.331 on Service Specific Access Control (SSAC)	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100773	Draft LS on Service Specific Access Control (SSAC) (to CT1; contact: NTT DOCOMO)	NTT DOCOMO	LSout
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100774	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100775	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100776	CR to 36.331 for 1xRTT pre-registration information in SIB8	KDDI, NEC, Hitachi, Motorola, Kyocera	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	in principle agreed		R2-100777	Clarification on positioning procedure	Huawei, Qualcomm Incorporated	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	revised		R2-100778	Stage 2 updates to align with stage 3	Ericsson, ST-Ericsson	CR
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	revised		R2-100779	Updates to LPP material in stage 2	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	postponed		R2-100780	Triggered Location Information Transfer due to Cell Change	Qualcomm Incorporated	CR
14 : LSout and output to other groups for LTE	No	withdrawn		R2-100781	Draft LS on serving cell change handling for LCS for LTE (to CT4, SA2; contact: Qualcomm)	Qualcomm Incorporated	LSout
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100782	Completion of OTDOA in LPP	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100783	Provision of Frame Drift Information in Network Time	Nokia Siemens Networks, Nokia Corporation	CR
14 : LSout and output to other groups for LTE	Yes	revised		R2-100784	Draft LS regarding multiple messages in LPP (to: CT1, CT4; contact: Qualcomm)	Qualcomm Incorporated	LSout
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100785	CR to 36.355 on removal of FFS items	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	in principle agreed		R2-100786	Clarification on Position location	HTC Corporation	CR
06.9.3.1: LTE-A SI (RP-091360): Relays. Architecture aspects	Yes	agreed	Late	R2-100787	Text Proposal on Header overhead over Un	Nokia Siemens Networks, Nokia Corporation	TP
06.2: LTE REL-9: Support for IMS Emergency Calls over LTE (RP-081140)	Yes	in principle agreed		R2-100788	Clarification on RRC connection re-establishment for emergency calls	HTC Corporation	CR
07.1: LTE REL-10: CA (RP-091440)	Yes	in principle agreed		R2-100789	Stage 2 Description of Carrier Aggregation	Nokia Siemens Networks (Rapporteur)	CR
14 : LSout and output to other groups for LTE	Yes	postponed		R2-100790	Draft reply LS on PDCCH monitoring set for carrier aggregation in LTE-Advanced (to: RAN1; cc: -; contact: CATT)	CATT	LSout
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100791	Results of ad hoc on LPP reliability and ASN.1 review	Qualcomm Incorporated	Report
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100792	Way forward for LPP ASN.1 review	Qualcomm Incorporated	Disc
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	postponed		R2-100793	Addition of LPP reliable transport	Qualcomm Incorporated	CR
06.3.2: LTE REL-9: MBMS Control Plane	Yes	in principle agreed		R2-100794	Specifying the exact mapping of notification indicator in SIB13 to PDCCH bits	Nokia Corporation, Nokia Siemens Networks	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	rejected		R2-100795	Aligning the treatment of RLC state variables and counters	Nokia Corporation, Nokia Siemens Networks	CR

Agenda item	Uploaded	status	Date	Tdoc	Title	Source	Type:
06.8.3: LTE REL-9: TEI9: User plane related	Yes	rejected		R2-100796	Aligning the treatment of RLC state variables and counters	Nokia Corporation, Nokia Siemens Networks	CR
14: LSout and output to other groups for LTE	Yes	revised		R2-100797	Draft Reply LS to R1-095056 = R2-097377 on PDCCH monitoring set for carrier aggregation in LTE-Advanced (to: RAN1; cc: -; contact: CATT)	CATT	LSout
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	postponed		R2-100798	Full configuration solution for Rel-9 eNB release handling	AlcatelLucent	CR
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	postponed		R2-100799	Clarification on DRX StartOffset for TDD	ASUSTeK	CR
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	postponed		R2-100800	Clarification on DRX StartOffset for TDD	ASUSTeK	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	postponed		R2-100801	GR to 36.331 on Redirection enhancements to UTRAN	NTT DOCOMO, Telefonica, Panasonic, NEC, Fujitsu	CR
04.2.1: UMTS/LTE joint REL-9: Home-eNB (RP-091392)	Yes	in principle agreed		R2-100802	Prohibit timer for proximity indication	NTT DOCOMO	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100803	Results of ad hoc on LPP reliability and ASN.1 review	Qualcomm Incorporated	Report
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	noted		R2-100804	Way forward for LPP ASN.1 review	Qualcomm Incorporated	Disc
06.10: LTE REL-9: Other	Yes	revised		R2-100805	Draft Reply LS on UE-originated RLF report for SON	Nokia Siemens Networks, Nokia Corporation	LSout
14: LSout and output to other groups for LTE	Yes	agreed		R2-100806	LS on Transport of multiple LPP messages with MO-LR trigger (to: CT1, CT4; cc: SA2, RAN3; contact: Qualcomm)	RAN2	LSout
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	in principle agreed		R2-100807	Provision of Frame Drift Information in Network Time	Nokia Siemens Networks, Nokia Corporation	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100808	GR to 36.331 for 1xRTT pre-registration information in SIB8	KDDI, NEC, Hitachi, Motorola, Kyocera	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100809	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	in principle agreed		R2-100810	Introduction of power-limited device indication in UE capability.	Vodafone, Deutsche Telekom	CR
06.8.3: LTE REL-9: TEI9: User plane related	Yes	in principle agreed		R2-100811	Correction to RLC entity	ASUSTeK	CR
07.1.5: LTE REL-10: CA (RP-091440): Measurements in connected mode	Yes	noted		R2-100812	Way forward for measurements for Carrier Aggregation	Ericsson	Report
14: LSout and output to other groups for LTE	Yes	revised		R2-100813	Draft LS on multiple timing advances for inter-band carrier aggregation (to: RAN4; cc: -; contact: Verizon)	Verizon	LSout
03.1 LSin: Joint UMTS/L	Yes	not treated		R2-100814	LS on Location Updating Improvements for CS FallBack (S2-100936; to: RAN2, RAN3, CT1; cc: SA5, GERAN2; contact: Vodafone)	SA2	LSin
03.1 LSin: Joint UMTS/L	Yes	not treated		R2-100815	LS on E-UTRAN to GSM Redirection Improvements for CS FallBack (S2-100937; to: GERAN1, GERAN2, RAN2; cc: -; contact: Vodafone)	SA2	LSin

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
14 : LSout and output to other groups for LTE	Yes	revised		R2-100816	Draft LS reply to R2-100004, R2-100005, R2-100027 on Use cases for cell change indication from MME to E-SMLC (contact: Qualcomm)	Qualcomm Incorporated	LSout
14 : LSout and output to other groups for LTE	Yes	revised		R2-100817	Draft response LS to S3-092193 = R2-100033 on key invalidation following SR-VCC failure (to: SA3; cc: -; contact: Huawei)	Huawei	LSout
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	in principle agreed		R2-100818	Updates to LPP material in stage 2	Qualcomm Incorporated	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	revised		R2-100819	Completion of OTDOA in LPP	Qualcomm Incorporated	CR
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	in principle agreed		R2-100820	Proximity Indication after handover and re-establishment	Alcatel-Lucent	CR
06.1.2: LTE REL-9: LCS LPP stage-3 (TS 36.355)	Yes	in principle agreed		R2-100821	Completion of OTDOA in LPP	Qualcomm Incorporated	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	agreed		R2-100822	LS on Service Specific Access Control (SSAC) agreements (to: CT1; cc: -; contact: NTT DOCOMO)	RAN2	LSout
14 : LSout and output to other groups for LTE	Yes	agreed		R2-100823	Reply LS to S2-097525 = R2-100027 on Use cases for cell change indication from MME to E-SMLC (to: SA2, SA3; cc: RAN3, C14; contact: Qualcomm)	RAN2	LSout
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	Yes	in principle agreed		R2-100824	Stage 2 updates to align with stage 3	Ericsson, ST-Ericsson	CR
06.10: LTE REL-9: Other	No	withdrawn		R2-100825	Draft Reply LS on UE-originated RLF report for SON	Nokia Siemens Networks, Nokia Corporation	LSout
02.2 General: Minutes of	Yes	agreed		R2-100826	Report of RAN2 #68, Jeju, Korea, 9.11.-13.11.2009	ETSI MCC	Report
14 : LSout and output to other groups for LTE	Yes	revised		R2-100827	Draft LS on support UE-originated RLF reporting for MRO SON use case (to: RAN3; cc: -; contact: NSN)	Nokia Siemens Networks	LSout
04.2.1: UMTS/LTE joint REL-9: Home-eNB (RP-091392)	Yes	in principle agreed		R2-100828	CR capturing HeNB inbound mobility agreements	Motorola, Qualcomm, NTT DoCoMo	CR
14 : LSout and output to other groups for LTE	Yes	agreed		R2-100829	LS on dedicated cell reselection handling at inter-RAT cell selection (to: GERAN, GERAN2; cc: -; contact: Deutsche Telekom)	RAN2	LSout
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100830	Alternative to CR to 36.304 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	Yes	revised		R2-100831	Alternative to CR to 36.331 on Cell reselection enhancements	NTT DOCOMO	CR
14 : LSout and output to other groups for LTE	Yes	agreed		R2-100832	Response LS to S3-092193 = R2-100033 on key invalidation following SR-VCC failure (to: SA3; cc: -; contact: Huawei)	RAN2	LSout
06.8.1: LTE REL-9: TEI9: Common UP/CP issues	Yes	in principle agreed		R2-100833	Remove FFSs from RAN2 specifications	Ericsson, ST-Ericsson	CR
14 : LSout and output to other groups for LTE	Yes	agreed		R2-100834	Reply LS to SP-090893 = R2-100036 and S3-092180 = R2-100032 on preventing UTRA to EUTRA handover for USIM-less UE (to: SA3; cc: SA; contact: RAN2)	RAN2	LSout

Agenda item	Uploaded	Status	Date	Tdoc	Title	Source	Type:
06.4: LTE REL-9: Home-eNB enhancements (RP-091392)	Yes	in principle agreed		R2-100835	CR 36.331 R9 for Unifying SI reading for ANR and Inbound mobility	Qualcomm Incorporated	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	in principle agreed		R2-100836	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	CR
04.2.2: UMTS/LTE joint REL-9: Other	Yes	in principle agreed		R2-100837	Release 9 UE Capability: UTRA Home Node B Inbound Mobility related features	Nokia Corporation, Nokia Siemens Networks	CR
06.8.2: LTE REL-9: TEI9: Control plane related	No	withdrawn		R2-100838	CR to 25.304 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	No	withdrawn		R2-100839	CR to 25.331 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	No	withdrawn		R2-100840	CR to 36.304 on Cell reselection enhancements	NTT DOCOMO	CR
06.8.2: LTE REL-9: TEI9: Control plane related	No	withdrawn		R2-100841	CR to 36.331 on Cell reselection enhancements	NTT DOCOMO	CR
14: LScout and output to other groups for LTE	Yes	agreed		R2-100842	Reply LS to R3-092656 = R2-096314 on Request to enable UE-originated RLF reports (to: RAN3; cc: -; contact: Nokia Siemens Networks)	RAN2	LScout
14: LScout and output to other groups for LTE	Yes	agreed		R2-100843	LS on P-TMSI selection for Core Derivation of Intra Domain NAS Node Selector and routing basis in Access Stratum (to: CT1; cc: -; contact: Vodafone)	RAN2	LScout
04.2.1: UMTS/LTE joint REL-9: Home-eNB (RP-091392)	Yes	in principle agreed		R2-100844	CR capturing HNB inbound mobility agreements	Qualcomm Incorporated	CR
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	agreed		R2-100845	TS 37.xxx v0.1.0 on MDT	Nokia Siemens Networks	TS
04.3.1: UMTS/LTE joint REL-10: WI Minimisation of Drive Test (RP-091423)	Yes	agreed		R2-100846	TS 37.xxx v0.2.0 on MDT	Nokia Siemens Networks	TS
04.3.2: UMTS/LTE joint REL-10: Machine type communications (SI: RP-090991)	Yes	agreed		R2-100847	TR 37.868 v0.1.0 on MTC SI	Huawei	TR
14: LScout and output to other groups for LTE	Yes	agreed		R2-100848	LS on multiple timing advances for inter-band carrier aggregation (to: RAN4; cc: RAN1; contact: Verizon)	RAN2	LScout
14: LScout and output to other groups for LTE	Yes	agreed		R2-100849	Reply LS to R1-095056 = R2-097377 on PDCCH monitoring set for carrier aggregation in LTE-Advanced (to: RAN1; cc: RAN4; contact: CATT)	RAN2	LScout
14: LScout and output to other groups for LTE	Yes	revised		R2-100850	[DRAFT] Reply LS on Questions for clarification to 3GPP	Nokia Siemens Networks	LScout
14: LScout and output to other groups for LTE	Yes	agreed		R2-100851	Reply LS on Questions for clarification to 3GPP on LTE Advanced (from: RAN2; to: Wireless World Initiative New Radio (Winner+); cc: -; contact: NSN)	RAN2	LScout
-	No	withdrawn		R2-100852	Void	-	-
-	No	withdrawn		R2-100853	Void	-	-

[illegible]

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Appendix E

LISTSERV

Subscriber Options

LISTSERV Archives

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Subscriptions

Preferences

Change Password

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3CPP_TSC_RAN_WG2 Archives

January 2010

New in LISTSERV 170

3CPP_TSC_RAN_WG2@LIST.ETSI.ORG

Options:

Use Proportional Font

Show Text by Default

Show All Mail Headers

Message:

<< First

< Prev

Next >

Last >>

Topic:

<< First

< Prev

Next >

Last >>

Author:

<< First

< Prev

Next >

Last >>

Subject:

[RAN2#68bis] Huawei contributions

From:

Arnaud Meylan <arnaud.meylan@HUAWEI.COM>

Reply To:

Arnaud Meylan <arnaud.meylan@HUAWEI.COM>

Date:

Tue, 12 Jan 2010 10:30:56 +0100

Content-Type:

text/html

Parts/Attachments:

text/html (822 lines)

Dear all,

Please find below the list of Huawei contributions uploaded for RAN2#68bis.

Best regards - Arnaud

04.1: UMTS/LTE joint REL-8	R2-100166	Security issue raised by PLMN changing	Huawei
04.2.1: UMTS/LTE joint REL-8	R2-100270	Discussion on UTRA UE inbound mobility capability signalling	Huawei
04.3.1: UMTS/LTE joint REL-10: W1	R2-100170	Real Time Reporting for Coverage Optimization in UTRAN	Huawei
04.3.1.1: UMTS/LTE joint REL-10: W1	R2-100171	Use Case of Coverage Optimization	Huawei
04.3.1.2: UMTS/LTE joint REL-10: W1	R2-100172	Real Time Reporting for Coverage Optimization in E-UTRAN	Huawei
04.3.2: UMTS/LTE joint REL-10: communications (SI: RP-090991)	R2-100202	Kickoff for Machine Type Communications Study Item	Huawei
04.3.2.1: UMTS/LTE joint REL-10: communications (SI: RP-090991)	R2-100203	Skeleton TR for MTC SI	Huawei
04.3.2.2: UMTS/LTE joint REL-10: communications (SI: RP-090991)	R2-100204	Traffic model for M2M service	Huawei
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	R2-100302	Clarification on E-CID parameters	Huawei, CAI Quocmin Incorporated
06.1.1: LTE REL-9: LCS Stage-2 (TS 36.305)	R2-100299	Clarification on positioning procedure	Huawei, Qu Incorporated
06.3.1: LTE REL-9: MBMS Stage-2	R2-100068	Corrections to TS 36.300 on MBMS	Huawei
06.3.2: LTE REL-9: MBMS Control Plane	R2-100066	Position of MCCH notifications	Huawei
06.3.2: LTE REL-9: MBMS Control Plane	R2-100067	Position of MCCH notifications	Huawei
06.3.2: LTE REL-9: MBMS Control Plane	R2-100071	mbfn-Arc4d Value range	Huawei
06.3.3: LTE REL-9: MBMS User Plane	R2-100069	Corrections to TS 36.321 on MBMS	Huawei
06.3.3: LTE REL-9: MBMS User Plane	R2-100070	CR to TS36-306 on MBMS	Huawei
06.4: LTE REL-9: Home-eNB enhancements (RP-100268)	R2-100268	Discussion on remaining open issues in LTE inbound mobility	Huawei
06.4: LTE REL-9: Home-eNB enhancements (RP-100269)	R2-100269	36331_CRxxxx_(REL-9)_CR on remaining open issues in LTE inbound mobility	Huawei
06.8.2: LTE REL-9: TERS Control plane related	R2-100168	Miscellaneous correction on 36.304	Huawei
06.8.2: LTE REL-9: TERS Control plane related	R2-100304	Clarification on measurement for serving cell only	Huawei
06.8.2: LTE REL-9: TERS Control plane related	R2-100487	Correction for Security key derivation	Huawei
06.8.2: LTE REL-9: TERS Control plane related	R2-100502	UE capability for enhanced 1xRTT CS fallback	Huawei
07.1.1: LTE REL-10: CA (RP-091440): Multiple timing advance	R2-100310	Multiple Timing Advance Impact on RAN2	Huawei
07.1.2: LTE REL-10: CA (RP-091440): CC management	R2-100286	Upon removing the special cell	Huawei
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	R2-100160	'Urgent System Information' to be configured at CC addition	Huawei
07.1.4: LTE REL-10: CA (RP-091440): System Information handling	R2-100497	System information update in CA	Huawei
07.1.6: LTE REL-10: CA (RP-091440): RLF	R2-100498	RLF in CA	Huawei
07.2: LTE REL-10: Latency reduction (RP-091449)	R2-100207	Sharing PUCCH-SR	Huawei
07.3: LTE REL-10: Other	R2-100534	Relay Control Plane	Huawei
08: UTRA REL-7 and earlier releases	R2-100127	Clarification on the report of E-DCH physical layer category extension	Huawei
08: UTRA REL-7 and earlier releases	R2-100128	Clarification on the report of E-DCH physical layer category extension	Huawei
08: UTRA REL-7 and earlier releases	R2-100162	Clarification on the signalling connection release indication	Huawei
08: UTRA REL-7 and earlier releases	R2-100163	Clarification on the signalling connection release indication	Huawei
08: UTRA REL-7 and earlier releases	R2-100164	Clarification on the signalling connection release indication	Huawei
08: UTRA REL-7 and earlier releases	R2-100165	Clarification on the signalling connection release indication	Huawei
09: UTRA REL-8	R2-100129	Extend UM RLC ciphering error detection and recovery mechanism for VoIP	Huawei
09: UTRA REL-8	R2-100130	Extend UM RLC ciphering error detection and recovery mechanism for VoIP	Huawei
09: UTRA REL-8	R2-100131	Discussion on the non-serving RG down	Huawei
09: UTRA REL-8	R2-100132	Corrections to the non-serving RG down	Huawei
09: UTRA REL-8	R2-100133	Corrections to the non-serving RG down	Huawei
09: UTRA REL-8	R2-100155	Corrections to stage 2 of DC-HSDPA	Huawei
09: UTRA REL-8	R2-100156	Corrections to stage 2 of DC-HSDPA	Huawei
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	R2-100151	Corrections to TSN field extension configuration for MAC-ehs entity	Huawei
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	R2-100152	Clarification of code rates limitation for category 25/27	Huawei
10.1: UTRA REL-9: DC-HSDPA with MIMO (RP-090332)	R2-100161	Consideration on CQI feedback cycle in combined DC-HSDPA and MIMO	Huawei
10.2: UTRA REL-9: DC-HS-PA (RP-090014)	R2-100145	open issues of E-TFC selection and happy bit evaluation for DC-HS-PA	Huawei
10.2: UTRA REL-9: DC-HS-PA (RP-090014)	R2-100146	Corrections for virtual active set	Huawei
10.2: UTRA REL-9: DC-HS-PA (RP-090014)	R2-100147	Corrections for DC-HS-PA in 25.321	Huawei
10.2: UTRA REL-9: Home-NB enhancements (RP-100266)	R2-100266	25331_CRxxxx_(REL-9)_Support of inter-RAT inbound mobility enhancements to HeNB	Huawei
10.3: UTRA REL-9: Home-NB enhancements (RP-100267)	R2-100267	Discussion on proximity indication for UMTS intra-frequency inbound mobility	Huawei
10.3: UTRA REL-9: Home-NB enhancements (RP-100271)	R2-100271	25331_CRxxxx_(REL-9)_Introduction of UE inbound mobility capability signalling	Huawei
10.3: UTRA REL-9: Home-NB enhancements (RP-100272)	R2-100272	Discussion on remaining open issues in UMTS inbound mobility	Huawei
10.3: UTRA REL-9: Home-NB enhancements (RP-100273)	R2-100273	25331_CRxxxx_(REL-9)_Clarification for UMTS inbound mobility	Huawei
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	R2-100138	Considerations for 4-Carrier HSDPA operation	Huawei
11.2: UTRA REL-10: 4C-HSDPA (RP-091438)	R2-100140	Consideration on UE categories for 4C-HSDPA	Huawei

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Appendix F

Date		Time		Location		Activity		Remarks	

Appendix G

