

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ericsson Inc.

Petitioner

v.

Electronics and Telecommunications Research Institute

Patent Owner

U.S. Patent No. 9,155,066

Filing Date: May 13, 2014

Issue Date: October 6, 2015

Title: METHOD FOR PAGING INFORMATION IN CELLULAR SYSTEM

*Inter Partes* Review No. IPR2019-00252

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**PETITION FOR *INTER PARTES* REVIEW**

**DECLARATION OF CRAIG BISHOP  
UNDER 37 C.F.R. § 1.68**

## I. INTRODUCTION

I, Craig Bishop, declare the following:

1. I have been retained as an independent expert witness on behalf of Ericsson Inc. (“Petitioner”), related to the *Inter Partes* Review (“IPR”) of U.S. Patent No. 9,155,066 (“the ’066 Patent”).

2. I am being compensated for my work in this matter at my normal consulting hourly rate. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the results of my study, the substance of my opinions, or the outcome of this matter.

3. I have no financial interest in the ’066 Patent and have had no contact with the named inventors of said patent. Neither have I reviewed the ’066 Patent in detail, nor do I have any personal interest in the outcome of this IPR.

4. In the preparation of this declaration, I have reviewed the referenced materials below, each of which is the sort of material that experts in my field would reasonably rely upon when forming their opinions:

- I. R2-060988, PCH mapping and Paging control, CATT, contribution to 3GPP TSG RAN WG2 #52 (**Ericsson Exhibit 1007**).
- II. R1-060572, LTE physical-layer models, Ericsson, contribution to 3GPP TSG RAN WG1 #44 (**Ericsson Exhibit 1008**).

- III. 3GPP TS 25.814 V1.2.2 (2006-03) Technical Specification, 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Layer Aspects for Evolved UTRA (Release 7), (**Ericsson Exhibit 1009**).
- IV. R2-060429, Evolved Paging for LTE, Philips, contribution to 3GPP TSG RAN WG2 #51 (**Ericsson Exhibit 1010**).
- V. R1-060576, Paging for LTE, Ericsson, contribution to 3GPP TSG RAN WG1 #44 (**Ericsson Exhibit 1011**).
- VI. R1-060187, OFDMA Downlink Physical channel mapping – text proposal, Nokia, contribution to 3GPP TSG RAN WG1 LTE Ad Hoc meeting January 2006 (**Ericsson Exhibit 1012**).
- VII. Craig Bishop, Curriculum Vitae (**Appendix A**).
- VIII. 3GPP PCG 20/23, available at:  
[https://www.3gpp.org/ftp/PCG/PCG\\_20/DOCS/](https://www.3gpp.org/ftp/PCG/PCG_20/DOCS/) (**Appendix B**).
- IX. Participants list for RAN1 #44, available at:  
<https://portal.3gpp.org/Meetings.aspx#/meeting?MtgId=25406>  
(**Appendix C**).
- X. Application form for 3GPP membership, Feb 2006, available at:  
<https://web.archive.org/web/20060214081626/http://www.3gpp.org/membership/membership.htm> (**Appendix D**).

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- XI. 3GPP FAQs, available at: <http://www.3gpp.org/about-3gpp/3gpp-faqs> (**Appendix E**).
  
- XII. Archive of 3GPP FAQs, March 2006, available at:  
[https://web.archive.org/web/20060317160133/http://www.3gpp.org:80/faq/faq\\_2005\\_2.htm](https://web.archive.org/web/20060317160133/http://www.3gpp.org:80/faq/faq_2005_2.htm) (**Appendix F**).
  
- XIII. 3GPP email lists archive, February 2006, available at:  
<https://web.archive.org/web/20060222060855/http://list.3gpp.org:80/> (**Appendix G**).
  
- XIV. Archive of 3GPP meeting calendar webpage from February 2006, available at:  
<https://web.archive.org/web/20060215175823/http://www.3gpp.org/Meetings/meetings.htm> (**Appendix H**).
  
- XV. 3GPP RAN WG1 documents archive listing, January 2006, available at:  
[https://web.archive.org/web/20060115003704/http://www.3gpp.org:80/ftp/tsg\\_ran/WG1\\_RL1/](https://web.archive.org/web/20060115003704/http://www.3gpp.org:80/ftp/tsg_ran/WG1_RL1/) (**Appendix I**).
  
- XVI. Email attaching invitation to RAN1 #44, available at:  
[https://list.etsi.org/scripts/wa.exe?A2=ind0511&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=85658](https://list.etsi.org/scripts/wa.exe?A2=ind0511&L=3GPP_TSG_RAN_WG1&O=D&P=85658) (**Appendix J**).
  
- XVII. Invitation to RAN1 #44, available to download from:

[https://list.etsi.org/scripts/wa.exe?A2=ind0511&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=85658](https://list.etsi.org/scripts/wa.exe?A2=ind0511&L=3GPP_TSG_RAN_WG1&O=D&P=85658) (**Appendix K**).

XVIII. 3GPP RAN1 email listing, February 2006 week1, available at:

[https://list.etsi.org/scripts/wa.exe?A1=ind0602A&L=3GPP\\_TSG\\_RAN\\_WG1](https://list.etsi.org/scripts/wa.exe?A1=ind0602A&L=3GPP_TSG_RAN_WG1) (**Appendix L**).

XIX. Pre-meeting TDoc list for 3GPP RAN1 LTE Ad Hoc January 2006, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=44163](https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP_TSG_RAN_WG1&O=D&P=44163) (**Appendix M**).

XX. Draft report of RAN1 LTE Ad Hoc January 2006, available to download at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=50014](https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP_TSG_RAN_WG1&O=D&P=50014) (**Appendix N**).

XXI. Pre-meeting TDoc list for 3GPP RAN1 #44, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=55552](https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP_TSG_RAN_WG1&O=D&P=55552) (**Appendix O**).

XXII. Draft report 3GPP RAN1 #44, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602C&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=8500](https://list.etsi.org/scripts/wa.exe?A2=ind0602C&L=3GPP_TSG_RAN_WG1&O=D&P=8500) (**Appendix P**).

XXIII. Pre-meeting TDoc list for 3GPP RAN2 #51, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP\\_TSG\\_RAN\\_WG2&O=A&P=69573](https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP_TSG_RAN_WG2&O=A&P=69573) (**Appendix Q**).

XXIV. Draft report 3GPP RAN2 #51, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP\\_TSG\\_RAN\\_WG2&O=A&P=73164](https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP_TSG_RAN_WG2&O=A&P=73164) (**Appendix R**).

XXV. Pre-meeting TDoc list for 3GPP RAN2 #52, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP\\_TSG\\_RAN\\_WG2&O=A&P=74325](https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP_TSG_RAN_WG2&O=A&P=74325) (**Appendix S**).

XXVI. Draft report of the joint RAN1/RAN2 session held at RAN2 #52, downloadable at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP\\_TSG\\_RAN\\_WG2&O=D&P=80686](https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP_TSG_RAN_WG2&O=D&P=80686) (**Appendix T**).

5. In forming the opinions expressed in this declaration, I have considered: the documents listed above; the reference materials cited herein; and my own academic background and professional experiences as outlined below.

## II. QUALIFICATIONS

6. My complete qualifications and professional experience are described in my *curriculum vitae*, a copy of which is attached as **Appendix A**. The following is a summary of my relevant qualifications and professional experience.

7. I earned my Bachelor of Electronic Engineering degree with Honours

from Polytechnic of Central London in 1989. In 2005, I earned my MSC in Computer Science with Distinction from the University of Kent.

8. After graduating with my first degree, I worked as an operations engineer at the British Broadcasting Corporation (BBC) for 4 years, then as a civil servant at the UK Radiocommunications Agency until 1996, during which time I became involved in telecommunications standardization in the European Telecommunication Standards Institute (ETSI), working in Technical Committee Radio Equipment and Systems group 2 (TC RES 2) concerned with the standardization of Private Mobile Radio (PMR). From 1994 through 1996, I acted as rapporteur for voice and data related PMR standards, including ETS 300 113, ETS 300 219 and ETS 300 341. During this time period between 1994 and 1996, I participated as the only TC RES 2 delegate on behalf of the UK Radiocommunications Agency, generating proposals in support of UK administration and business requirements, downloading and reviewing other meeting input documents, and proposing changes as necessary to ensure input documents and the resulting specifications were in line with said requirements.

9. In 1996, I joined Samsung Electronic Research Institute as a Senior Standards Engineer where I worked for 16 years, eventually becoming Director of Standards and Industry Affairs in 2011. My work at Samsung mainly focused on the standardization of the service requirements, architectures, protocols, and radio

transmission technologies for the GSM/GPRS, UMTS, and LTE/EPS mobile telecommunications systems. Initially, I participated in ETSI Special Mobile Group (SMG) committees SMG1, SMG2, SMG4, SMG5, SMG9 and relevant UMTS related sub-committees until 1999, working on the air interface radio access network protocols, services, and terminal aspects of UMTS and GSM/GPRS. I was specifically involved in the ETSI SMG2 meetings leading up to selection of WCDMA as the radio access technology for the Frequency Division Duplex mode of UMTS.

10. From 1998, I worked as a Principal Standards Engineer on the 3<sup>rd</sup> Generation Partnership Project (3GPP) on UMTS, attending Radio Access Network committees RAN1 and RAN2, SA1 (Services Aspects), T2 (Terminals), and other working groups and Technical Specification Group (TSG) plenary meetings covering similar technical aspects as in my previous work in ETSI. As part of my work in 3GPP committees, I would prepare meeting contributions in support of Samsung's research and development activities. Also, by way of preparation for each meeting, I would download all contributions and review those of interest to Samsung, and where necessary, prepare additional input to the meeting based on said review.

11. From 2000, I acted as project manager and then as manager of the Systems Engineering group providing technical requirements for the team working



on Samsung's UMTS modem development. This involved scrutiny of ongoing standardization work, particularly that of 3GPP RAN2 and 3GPP Core Networks Working Group 1 (CN1 – responsible for layer 3 Non-Access Stratum signalling between the terminal and the core network of the mobile communications system) from which I would download and assess the impact of meeting contributions on the protocol stack of the development project, ensuring that the development team was kept informed about the latest developments as layers 2 and 3 of the UMTS standard were stabilized.

12. During the period 1998 through 2004, in addition to authoring and presenting technical contributions for the 3GPP standard, and producing technical requirements for the radio modem, I acted as rapporteur for 3GPP Technical Reports covering User Equipment (“UE”) capability requirements (3GPP TR 21.904) from 1999-2000, and the Evolution of the 3GPP System (3GPP TR 21.902) in 2003 (the first Study Item to consider the 3GPP system beyond UMTS towards LTE/EPS).

13. In 2005, I became Head of Advanced Technologies, Standards and Regulation (ATSR) at Samsung. In addition to my managerial duties which included, but were not limited to, responsibility for three standards engineers attending RAN2, and CT1 working groups, I continued to work on directly 3GPP technical standardization and to cooperate / coordinate with members of other

Samsung standards teams working in 3GPP Working Groups. As an example, RAN1 was in 2006 the working group responsible for the physical layer of the radio Interface for UE, UTRAN, and Evolved UTRAN of the 3GPP UMTS mobile telecommunication access network. It remains the working group responsible for the physical layer of the radio Interface for UE, and for the Evolved UTRANs of the LTE, LTE-Adv, and 5G mobile communications access network.

14. From 2005 until 2008 I worked in SA2 (Service and Systems Aspects WG2), and from 2008 until 2011 in SA1. I also attended SA plenary meetings from 2008 until I left Samsung in 2013. As well as generating contributions in support of Samsung's research and development in preparation for each meeting, I would download and review documents from other 3GPP members, identifying, and where necessary preparing, additional contributions on those of interest to Samsung. The work required a sound working knowledge of the broader 3GPP system to ensure effective management of the ATSR 3GPP standards team, effective participation in meeting discussions, effective assessment of third-party contributions, and effective provision of implementation guidance to Samsung developers.

15. From 2006 until the time I stopped attending SA1 meetings in 2011, I authored and presented over 100 contributions to SA2 and SA1 meetings at 3GPP and appeared as an author/co-author on 18 patent applications related to User

Equipment operation in the IMS and the 3GPP Core Network.

16. In 2011, I became Director of Standards and Industry Affairs at Samsung, and in November of that year I was elected to the Board of the ETSI on which I served for a term of 3 years until November 2014.

17. After leaving Samsung, I formed my own consulting company, which is a full ETSI member, and as part of various projects undertaken, I have continued to regularly access the 3GPP and ETSI document servers, and to keep abreast of 3GPP and ETSI document handling practices.

18. Through my extensive work on 3GPP standardization issues, I have become very familiar with 3GPP's practices relating to making draft standards and standards contributions publicly available, including in the 2006 timeframe.

### **III. PUBLIC AVAILABILITY OF 3GPP STANDARDS CONTRIBUTIONS AND OTHER DOCUMENTS**

19. 3GPP is a global initiative partnership that unites seven 3GPP Organizational Partners from Asia, Europe and North America, the Association of Radio Industries and Businesses (ARIB) and the Telecommunication Technology Committee (TTC) from Japan, the China Communications Standards Association (CCSA), the Telecommunications Standards Development Society (TSDSI) from India, the Telecommunications Technology Association (TTA) from Korea, the European Telecommunications Standards Institute (ETSI), and the Alliance for

Telecommunications Industry Solutions (ATIS) from the United States. The remainder of my declaration focuses on 3GPP activities in the 2006 timeframe unless stated otherwise.

20. The main goal of 3GPP is to provide its members with an environment to produce specifications and reports that define technologies covering cellular telecommunications networks, including the User Equipment (UE), Radio Access Network (RAN) technologies, Core Network (CN) technologies, service and system aspects which themselves include work on codecs, security, and quality of service. The specifications/reports also provide descriptions regarding interworking with non-3GPP networks including, but not limited to, Wi-Fi networks.

21. The technical specifications developed by 3GPP were, and remain, contribution-driven by the 3GPP member companies and the many individual participants from these companies. In the 2006 timeframe, there were around 270 (two hundred and seventy) individual members of 3GPP and the number of members was increasing. This is supported by a 2008 report (PCG20\_23 – **Appendix B**) from the ETSI Mobile Competence Centre (MCC) responsible of the administration of the 3GPP work programme, to the Partnership Coordination Group (PCG) (**Appendix B**, p. 9). The participant list from the RAN WG1 #44 meeting held 13-17 February 2006, (see **Appendix C**) shows 183 meeting

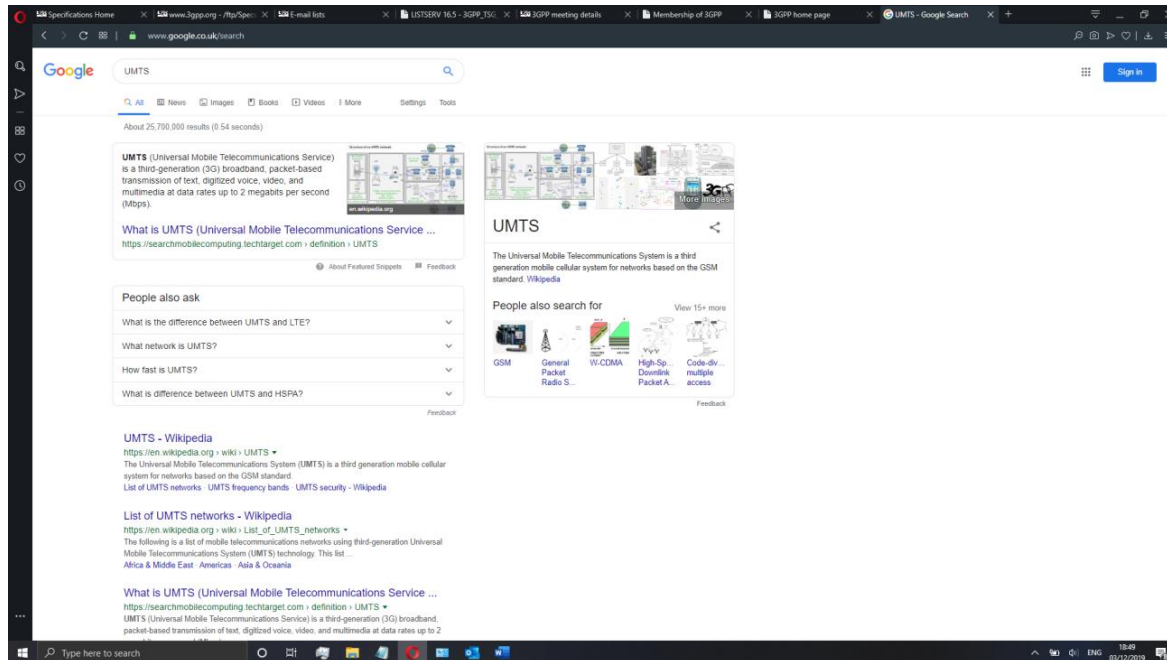
participants representing some 93 individual 3GPP members. Any company that is a member of one of the regional standards organisations that comprise the 3GPP Organizational Partners can become a member of 3GPP. In the 2006 timeframe, those Organizational Partners included: ARIB, ATIS, CCSA, ETSI, TTA, and TTC. An archived 3GPP membership application form dated February 11, 2006 and attached as **Appendix D** shows the online membership application process at that time.

22. In the 2006 timeframe, 3GPP comprised four Technical Specification Groups (TSGs). Three of those were (and still are in 2019) responsible for LTE: Radio Access Networks (RAN), Service & Systems Aspects (SA), and Core Network and Terminals (CT). The activities of the fourth, GSM EDGE Radio Access Networks (GERAN), closed in 2016, when the work on GSM/GPRS was transferred to a RAN working group (RAN6 – which now also has responsibility for UMTS as a legacy mobile communications radio access network system). The Working Groups (WGs) within the TSGs met regularly and had quarterly plenary meetings where member companies' Change Requests (CRs), draft specifications or reports, and other documents that had been agreed by the working groups, were presented for formal approval.

23. I believe that any member of the public who was interested in mobile telecommunications technology, such as the Universal Mobile

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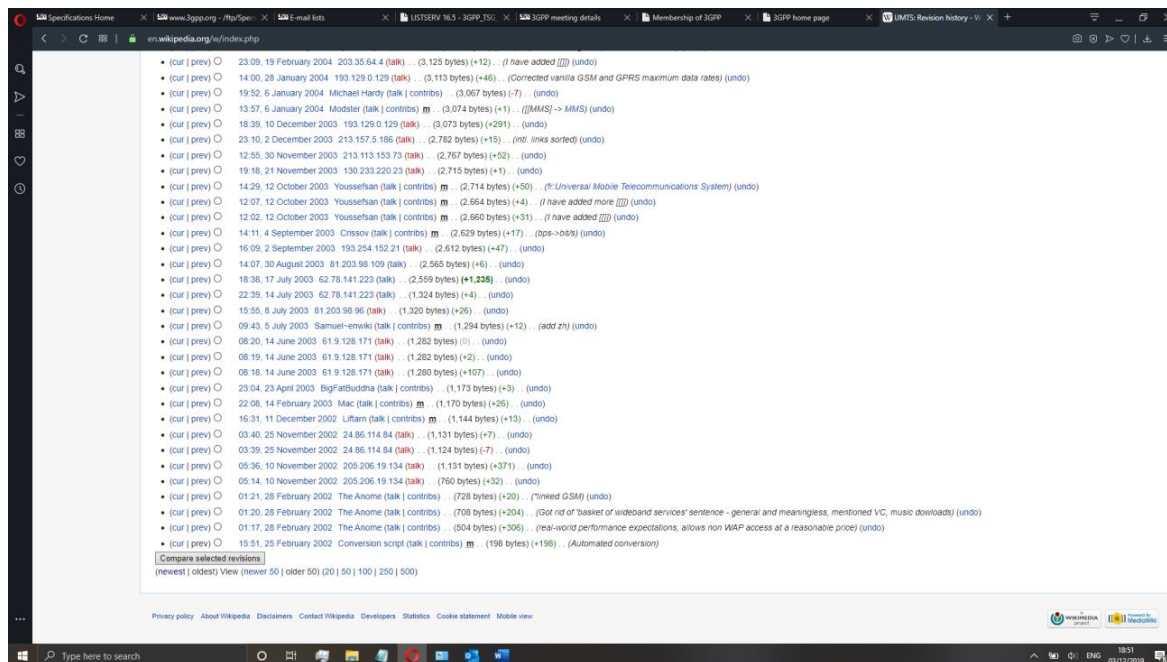
Telecommunications System, would have been aware of 3GPP as the leading global initiative for developing cellular technical specifications. Furthermore, any member of the public who was interested in such mobile telecommunications technology, even if not necessarily aware of 3GPP, would have been directed to the 3GPP website (<http://www.3gpp.org>) simply by inputting a search term such as “UMTS” into an online search engine, such as Google (<http://www.google.com>) (screenshot below).



24. One of the first pages returned by such a search is the Wikipedia UMTS page. *Available at:* <https://en.wikipedia.org/wiki/UMTS>. The history of the Wikipedia UMTS page (shown in the screenshot below and found by following the “View History” tab at the top right of the page) shows that it was first created

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on February 25, 2002.



Available at:

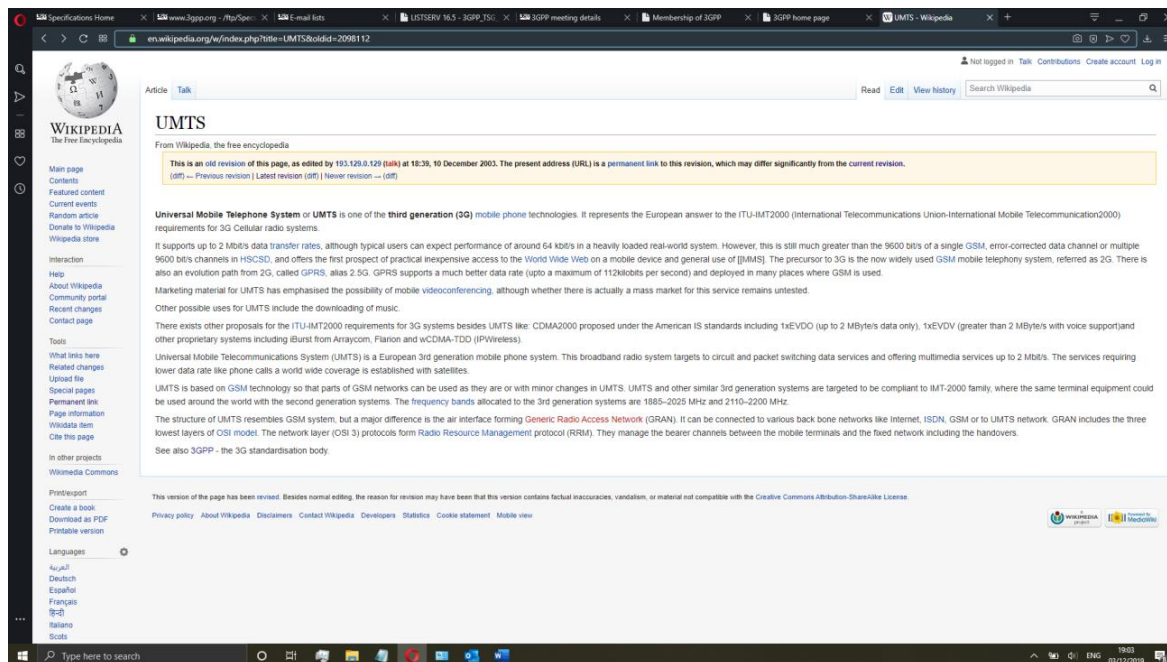
<https://en.wikipedia.org/w/index.php?title=UMTS&dir=prev&action=history>

25. An early version of the UMTS page e.g. from December 10, 2003 contained a brief paragraph describing UMTS as a “Universal Mobile Telephone System or UMTS is one of the third generation (3G) mobile phone technologies. It represents the European answer to the ITU-IMT2000 (International Telecommunications Union-International Mobile Telecommunication2000) requirements for 3G Cellular radio systems.” The final sentence of the page provided a link Wikipedia page that described 3GPP which in February 2006 included a link (<https://www.3gpp.org/>) to the 3GPP website under “External

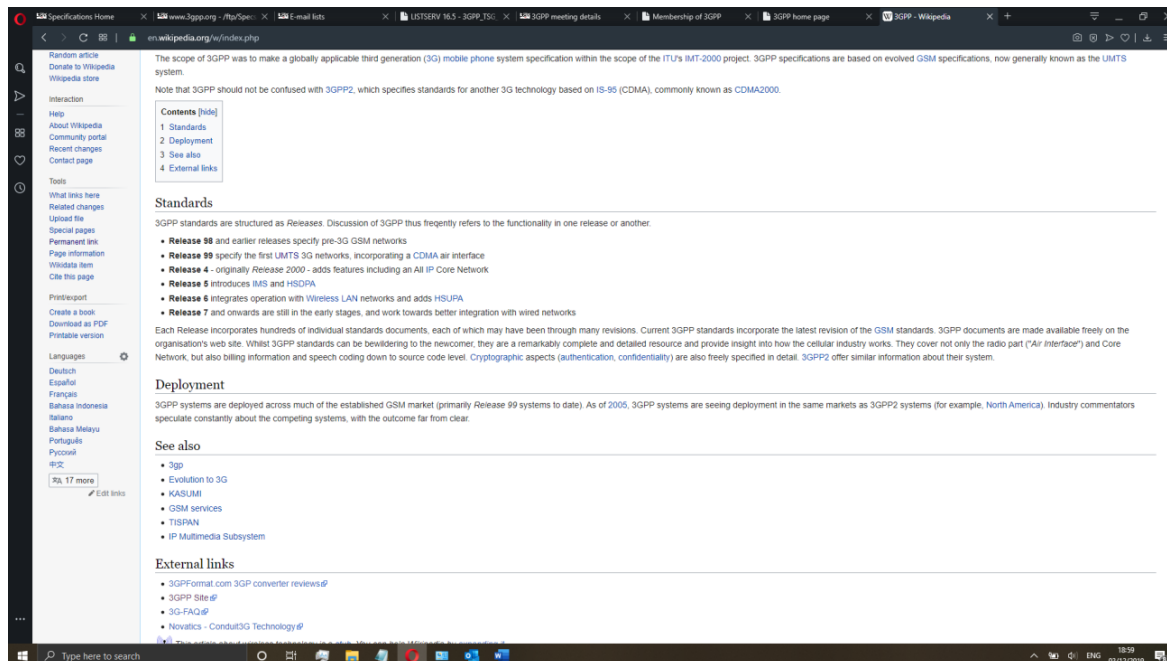
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Links”.



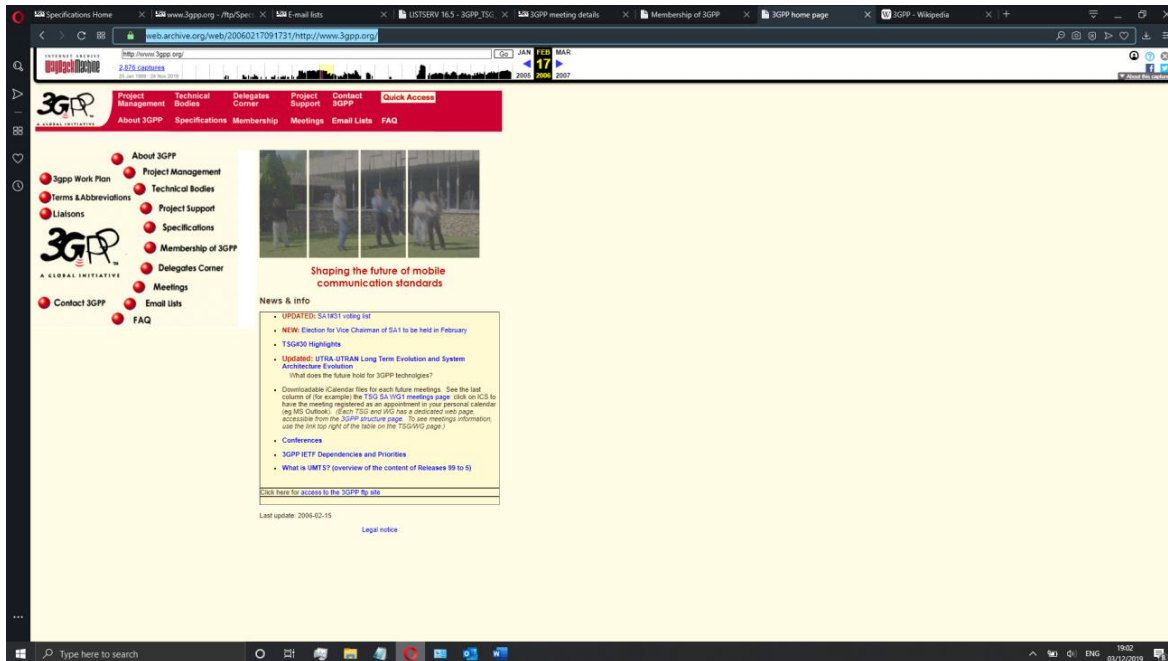
Available at: <https://en.wikipedia.org/w/index.php?title=UMTS&oldid=2098112>





Available at: <https://en.wikipedia.org/w/index.php?title=3GPP&oldid=39193672>

26. The 3GPP homepage as at February 17, 2006 available at:  
<https://web.archive.org/web/20060217091731/http://www.3gpp.org/>, included  
news about the work on LTE and a link to information about the project.



27. Each 3GPP TSG and WG has always operated one or more email  
reflectors to which interested members of the public could subscribe and which  
were, and still are, used for the distribution of technical and administrative  
documents, and for discussion of technical and administrative issues. “This

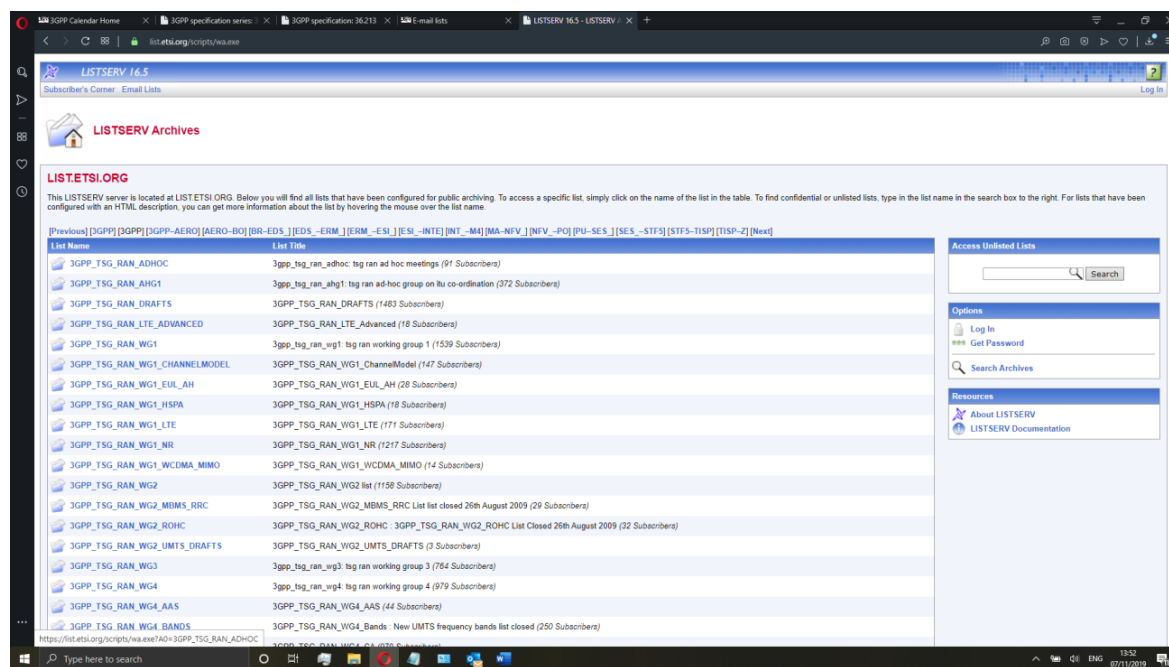
distribution on the group's email exploder<sup>1</sup> is important, because once that happens, the document is effectively in the public domain, since membership of the exploder is open to all and is (almost) unpoliced." (**Appendix E**, p. 8, emphasis added). Any member of the public could subscribe to a group's email list and the people that subscribed were typically technology strategists/commentators, or engineers, like me, who were interested in following and/or participating in 3GPP standards development and/or who were interested in keeping abreast of new ideas being submitted in Temporary Documents (TDocs) to meetings. The subscriber list also typically included all those persons who planned to attend an upcoming meeting where a TDoc may be discussed. It was a simple process to join a 3GPP email reflector as explained in the 3GPP Frequently Asked Questions (FAQ): "All 3GPP email exploder lists can be found at [list.3gpp.org](http://list.3gpp.org). In order to subscribe to any of the lists, scroll down until you find the list you are interested in, then click

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<sup>1</sup> Alternatively referred to as an email reflector, an email exploder is a program, e-mail address, service, or group that requires only a single user, computer, or group for an address. When an e-mail is sent to that address, it is automatically forwarded or exploded to multiple individual e-mail addresses that subscribe to the common address. *See, e.g.,*

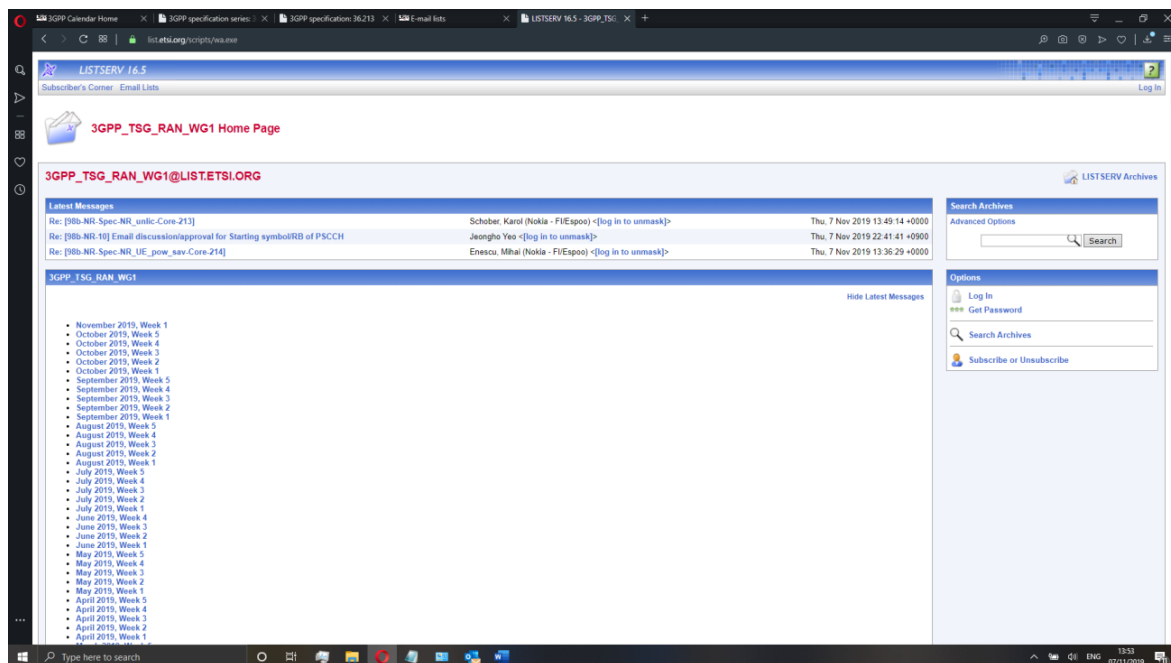
<https://www.computerhope.com/jargon/m/mailexpl.htm>

on the link and on the right side of the page you will find Subscribe or Unsubscribe. Click on the link and follow the simple instructions.” (Appendix E p. 3, emphasis added). Similar instructions are also available at the 3GPP email lists page (<https://www.3gpp.org/specifications-groups/e-mail-lists>). Following the list.3gpp.org link in the above FAQ response opens the ETSI Listserv site at <https://list.etsi.org/scripts/wa.exe?INDEX>, which hosts the 3GPP email reflectors and provides an index of all the ETSI email lists starting with those for 3GPP (the same page is opened by following the link ‘lists.3gpp.org’ on the 3GPP email lists page). The following screenshot shows a webpage from the ETSI Listserv pages for the email lists for 3GPP including RAN WG1 which currently has 1539 (one thousand, five hundred and thirty-nine) subscribers.

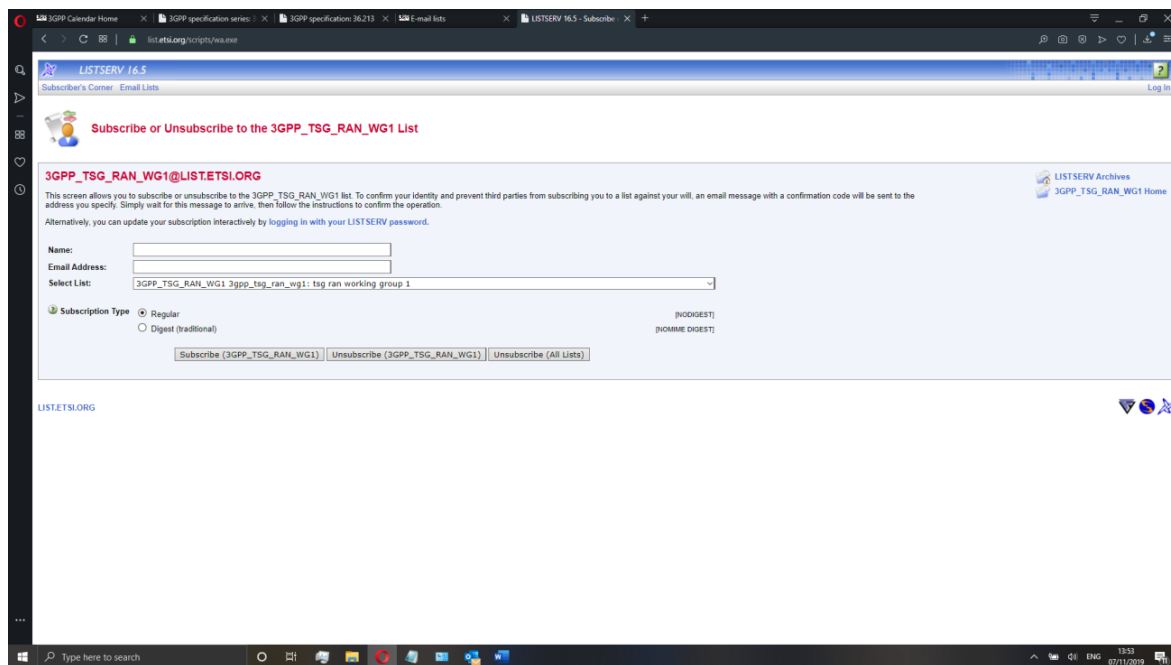


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Selecting the 3GPP\_TSG\_RAN\_WG1 list and then following the ‘Subscribe or Unsubscribe’ link on the right hand side opens a window that provides an simple form where an interested member of the public can input his/her name and email address, and specify their subscription type. This page can also be used to subscriber or unsubscribe to other 3GPP lists in the ‘Select List’ drop down box.



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**Appendix F**, nos. 2.1 and 2.2 links to how to subscribe to the 3GPP email lists and where to find the 3GPP email archives in the 2006 timeframe. The RAN WG1 email list had 967 (nine and sixty-seven) subscribers in February 2006, as shown in the archived screenshot of **Appendix G**.

28. In the ordinary course of 3GPP's regularly conducted business activities and pursuant to its standard business practices, the working groups created, and still create, incremental versions of draft specifications (*e.g.*, V0.2.1, V.1.0.0, V1.1.0 *etc.*) until such time that the specification is first approved by the relevant TSG plenary meeting. As explained in the "Foreword" section of all 3GPP deliverables, the version format *x.y.z* is as follows: *x* = 0 for draft versions, *x* = 1 when the deliverable is presented to TSG for information, *x* = 2 when the

deliverable is presented to TSG for approval, and  $x = 3$  or greater when the TSG has approved the deliverable and it is placed under ‘change control’. For approved deliverables,  $x = 3$  corresponds to Release 99, and  $x = 4$  onwards correspond to the 3GPP release number, e.g.  $x = 5$  identifies the deliverable as being for release 5. The second digit  $y$  is incremented for all changes of substance, e.g., technical enhancements, corrections, updates, etc., and the third digit  $z$  is incremented when editorial only changes have been incorporated in the document. After a Technical Specification has been placed under ‘change control’ it can be modified only by formal Change Requests (CRs) submitted to and agreed by Working Group meetings, and then formally approved by TSG plenary. Each subsequent version of a specification that is under ‘change control’ is created based on the Change Requests approved for the previous version of said specification at the most recent TSG plenary meeting, after which it is uploaded to the 3GPP file server. “New versions of many 3GPP specifications are made available shortly after the 3GPP TSG plenary meetings which take place four times a year (March, June, September and December). In order to identify what the current version is or and how to find information about older versions of specifications look here >>>”. (**Appendix F**, no. 4.15, emphasis added). Thus, an interested member of the public who was familiar with 3GPP practices would have known that the 3GPP standard practice was to make the latest version of a given specification available shortly after the

corresponding TSG plenary meeting. An interested member of the public also would have known that the 3GPP standard practice was, and still is, to make all versions of the technical specifications and related contributions, including draft versions, available on the 3GPP file server, which is accessible from the 3GPP specifications page.

29. Also, 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, in 2006, and still are, assigned a document number. Each Technical Specification Group (TSG) or Working Group (WG) adopts a structured numbering system for the documents associated with their meetings, and those systems typically followed a consistent numbering system as shown in the following example: **xminnzzzz**. The numbering system comprises six logical elements: (1) **x**: a single letter corresponding to the TSG; where in 2006 **x** was one of **R** (Radio Access Network), **C** (Core Network and Terminals), **S** (Service and System Aspects), or **G** (GSM/EDGE Radio Access Network); (2) **m** A single character corresponding to the Working Group identity (typically 1, 2, 3, etc.) or, in the case of the TSG itself, the letter "P" denominating 'Plenary'; (3) **i**: Normally the hyphen character "-", although it may take on other values depending on the nature of the meeting at

which the document is presented, e.g. the identity of a subgroup, or an “h” to indicate an ad hoc meeting; (4) **nn**: two digits to indicate the year, i.e. 07, 08, 09, etc.; and (5) **zzzz**: A unique number of the document. Thus, the document number R1-060001 would be the document allocated the 1<sup>st</sup> unique number in TSG RAN WG1 in 2006, R1-060002 the 2<sup>nd</sup>, and so on. In addition to its document number and title, it was, and still is, standard business practice in 3GPP to list on the face of each contribution document, the date, location, and meeting number of the meeting where the document was to be discussed. This information is recorded on the first page of the document by one of the document’s authors or editors at or near the time the document is created or presented to 3GPP.

30. 3GPP meetings are open to all 3GPP members, as well as to guest attendees (invited or attending through prior arrangement with the TSG / WG officials). “To attend a 3GPP meeting, you must be a 3GPP Individual Member ... The Guest Status is for potential Individual Members who may be granted permission to participate in 3GPP for a maximum period of 6 months. Guest status is granted on a case-by-case basis by the Organizational Partners... If you like to apply for a Guest status, please send an email...” (**Appendix F**, nos. 1.2, 1.7, emphasis added). The calendar of forthcoming meetings for each group is made available on the 3GPP website, which was also the case in the 2006 timeframe. The screenshot attached as **Appendix H** shows an archive of the 3GPP meeting



calendar webpage with links to the meeting calendars of each 3GPP group as at February 15, 2006. Following a link from the calendar webpage for the working group in question would open a page listing all the forthcoming meetings or one providing access to meeting contributions and information (invite, agenda, etc.) for said working group. The screenshot attached as **Appendix I** is a 3GPP webpage archived January 15 2006 showing directories for previous and planned 3GPP RAN WG1 meetings at that time and providing access to RAN WG1 meetings documents.

31. 3GPP meetings were, and still are, also announced via the respective group's email reflector. As an illustration, the screenshot in **Appendix J** shows an email attaching a meeting invitation that was sent on November 17, 2005 for the meeting RAN WG1 #44, which was held on February 13-17, 2006 in Denver, USA. The meeting invite itself (attached as **Appendix K**) provided details of the meeting, venue, locality, and travel requirements, and encouraged participants to register for the meeting by following the link included on the first page. The meeting registration page also provided links to view the current registered participant list, and to any available meeting documents, such as the agenda and meeting contributions.

32. Prior to each 3GPP working group meeting, members of the working group prepared TDocs (also referred to as "contributions"). For example, TDocs

were prepared to identify, discuss, and/or propose a new feature or change(s) to an existing feature or to identify a technical issue for discussion: “any bona fide representative of any 3GPP Individual Member ... can present a technical contribution - for example, a Change Request - to any 3GPP TSG or WG meeting.” (**Appendix E**, emphasis added). This is the same practice that has been the case since the beginning of 3GPP and during 2006 when I was actively participating in 3GPP meetings. The documents were assigned a number by the meeting secretary according to the numbering convention described above, then interested members of the public were informed by an email sent to the working group’s email reflector of the TDoc’s availability, either by the TDoc author distributing the TDoc itself (e.g., in the case of RAN WG1, RAN WG2), or by the meeting secretary (e.g. in the case of SA WG1, SA WG2), after which the meeting TDocs were uploaded to the meeting directory on the 3GPP document server for public viewing prior to the meeting in which the TDocs were intended to be discussed. In addition, the WG secretary would often inform interested members of the public via the email reflector of the upload of said TDocs and the availability of the meeting document list (or in some cases skeleton meeting report) including all meeting contributions that had been registered. The document list is a spreadsheet indexed by document number that included details of the TDoc source, title, agenda item, etc.

33. The documents were publicly available immediately upon upload to the 3GPP public file server as well as when distributed by the 3GPP email reflector. Specifically, and as per my experience of the 2006 timeframe, “TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create [the TDocs] and they or the group’s secretary **uploads them to the public file server as soon as possible.**” (Appendix E, emphases added). Further, “**Some may have been distributed to the group’s members in draft form for review, using the email exploder, in advance of the final one becoming available, and for some groups, it is normal to distribute even the final TDoc via the exploder,** where the secretary picks it up and copies it to the public server. ... This distribution on the group’s email exploder is important, because once that happens, the document is effectively in the public domain, since membership of the exploder is open to all and is (almost) unpoliced.” (Id., emphases added). Interested members of the public (e.g. individuals belonging to 3GPP members or simply following the progress of 3GPP) were made aware of meeting dates and times on 3GPP’s website, and/or from emails sent via the email exploder, and could download and access the contribution documents and other documents offered for discussion as soon as they were uploaded to 3GPP’s server. “**No password is needed to access any information on the 3GPP Web site, all information is openly published.**” (Id., emphases added). This has always been

the case, i.e. it was the case in 1998 when 3GPP was established and when I first participated, and it continued to be the case through 2006 when I was still participating. It is further stated in **Appendix F**, no. 7.3.

34. The typical practice among people who were to attend an upcoming meeting was to review and form opinions about the ideas in TDocs and their potential impact on the standard and on the user and the network equipment: “It is advisable for delegates attending a meeting to download the documents available prior to the meeting from the ftp server and onto their personal computers.” (**Appendix F**, no. 6.4, emphasis added). By way of example, **Appendix L** is a screenshot of the email archive of February 2006 week 1, which shows a range of email titles covering discussion of technical issues, previously uploaded contributions, as well as notifications of new contributions from companies such as Alcatel, Ericsson, and Nokia, among others. Thus, the email reflector for RAN1 provided an efficient way for contributors to quickly and efficiently disseminate TDocs and provided a forum for email discussion about TDocs where desired.

35. Submitters were on notice that uploading a document and its distribution via the email exploder resulted in public disclosure, as I mentioned previously. “This distribution on the group’s email exploder is important, because once that happens, the document is effectively in the public domain, since membership of the exploder is open to all and is (almost) unpoliced.” (**Appendix**

E, emphasis added). The documents can be disseminated without restrictions, and in fact, “**no restriction has ever been placed on how meeting participants dispose of the documents** subsequent to their distribution before, during, or after the meeting.” (Appendix E, emphases added).

36. As I mention above, in addition to the public distribution of documents on 3GPP email reflector, meeting documents are, and were in the 2006 timeframe, also made publicly available on the 3GPP public file server. “**TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create them and they or the group’s secretary uploads them to the public file server as soon as possible.**” (Appendix E, emphases added). The 3GPP public file server provides at least two mechanisms to determine when the document was uploaded and thus made publicly available on the server. First, when a document was uploaded, the file server automatically assigned the document a time stamp, an accurate and automatically computer-generated electronic record of when the document was uploaded, as part of the regular business practices of 3GPP. “**[T]he time stamp of the Zip file [of the TDoc] can be relied upon to indicate when the upload occurred.**” (Appendix E, emphasis added). Second, “**[t]he zip file for a TDoc typically contains a Word file which has its own date/time-stamp, which puts an absolute limit on the earliest moment that the TDoc could have become [publicly] available in that form.**” (Appendix E, emphases added). The

time stamp of the document contained in a zip file is an accurate electronic record of when the document was last modified.

37. Following each 3GPP meeting, the secretary would distribute the meeting minutes via the corresponding email list with a request for comments. Said email would effectively therefore inform subscribers that the meeting had taken place, and in the event that the meeting was a TSG plenary meeting, serve as notice that new versions of specifications incorporating Change Requests approved by the TSG meeting, would shortly be made available on the 3GPP public server. “**New versions of many 3GPP specifications are made available shortly after the 3GPP TSG plenary meetings** which take place four times a year (March, June, September and December). In order to identify what the current version is or and how to find information about older versions of specifications look here >>>”<sup>2</sup>. (Appendix F, no. 4.15, emphases added). The secretary would also update the TDoc list to include documents that were created at the meeting and would ensure that all documents from the meeting were uploaded to the 3GPP file server.

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<sup>2</sup> Note that 3GPP TSG plenary meetings were sometimes held during months adjacent to those listed as necessary to fit with the wider 3GPP meeting schedule, e.g. in February, May, November.

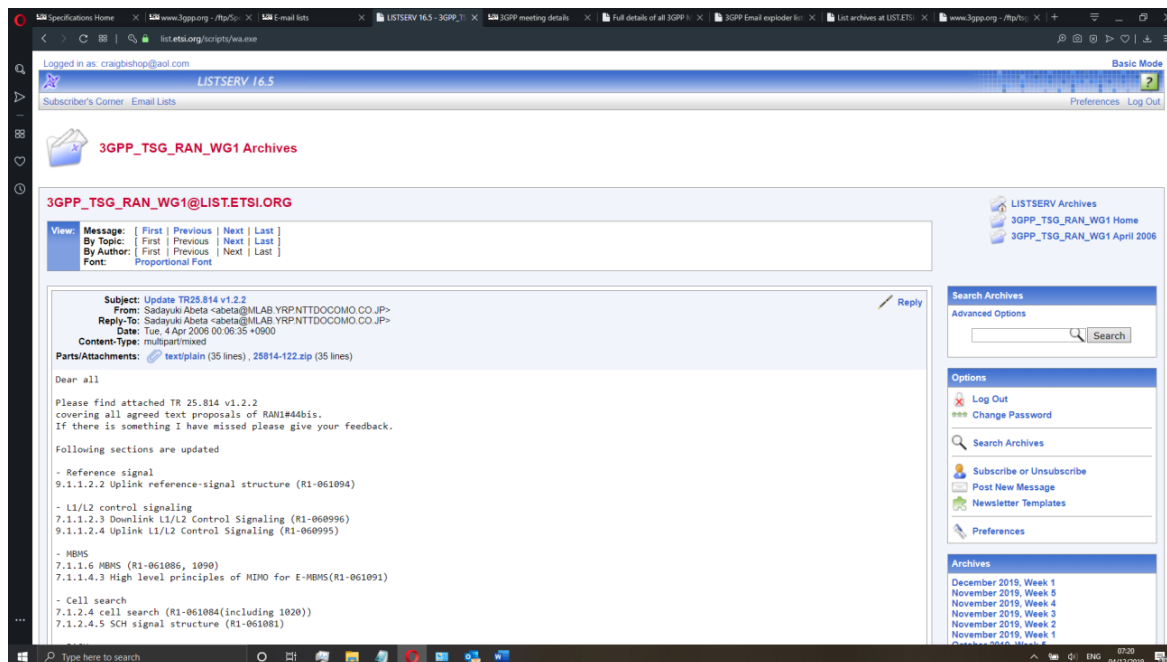
**IV. 3GPP TS 25.814 V1.2.2 (2006-04) TECHNICAL SPECIFICATION,  
3RD GENERATION PARTNERSHIP PROJECT; TECHNICAL  
SPECIFICATION GROUP RADIO ACCESS NETWORK;  
PHYSICAL LAYER ASPECTS FOR EVOLVED UTRA (RELEASE 7)**

38. 3GPP TS 25.814 v1.2.2 is a draft technical specification published by 3GPP “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Layer Aspects for Evolved UTRA (Release 7)” The date on the face of the specification (“2006-04”) corresponds to the year (2006) and month (April) that version of the specification was endorsed by 3GPP and made publicly available.

39. 3GPP TS 25.814 v1.2.2, being a draft release 8 version of the LTE Physical channels and modulation specification, was produced following the TSG plenary meeting TSG RAN1 #44bis, held 27-31 March 2006. An interested member of the public who subscribed to the email reflector for TSG RAN WG1, would know that the latest draft version of a given specification would be available following each RAN WG1 meeting responsible for said specification, in accordance with 3GPP standard practice. “Revised versions incorporating text agreed by the responsible working group are often made available by the rapporteur via the group's email exploder shortly after the end of the meeting at which such text was discussed.” (Appendix E, p. 8, emphases added). Further such an interested member of the public received TS 25.814 v1.2.2 via the RAN1

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email reflector following the RAN1 #44bis meeting. The screenshot below of 3GPP email archives shows an email dated 04 April 2006, which was sent to the email exploder for 3GPP TSG RAN WG1 and attached the latest version of TS 25.814 (v1.2.2) incorporating changes agreed at the RAN1 #44bis meeting.



Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0604&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=1550](https://list.etsi.org/scripts/wa.exe?A2=ind0604&L=3GPP_TSG_RAN_WG1&O=D&P=1550)

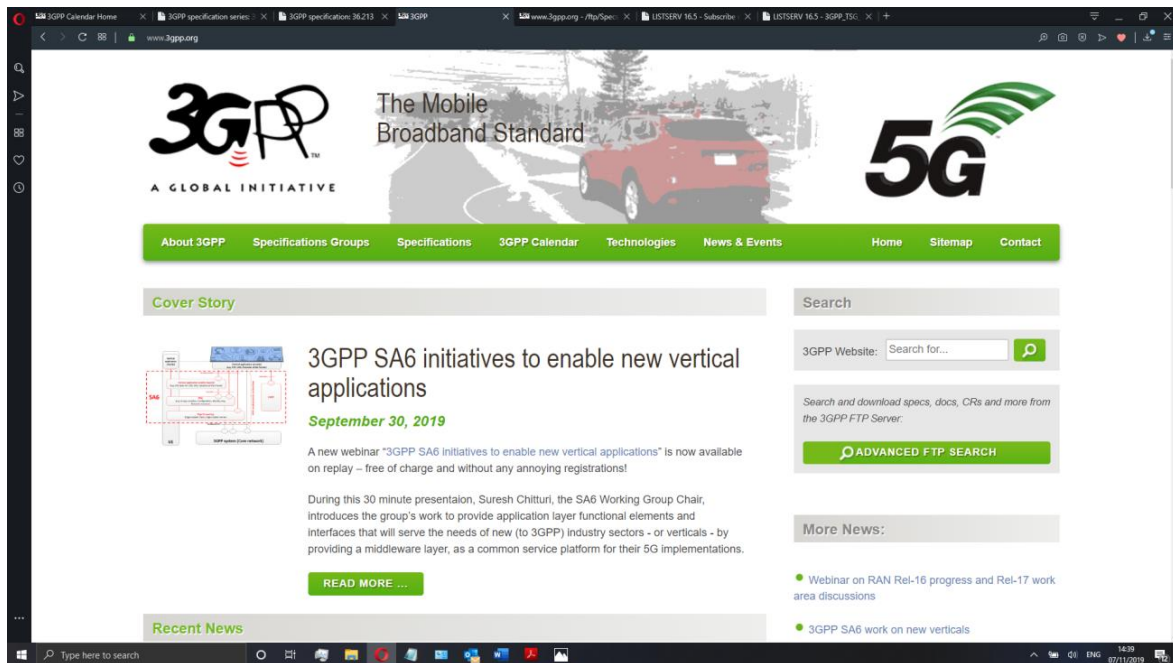
40. The email shown above attaching TS 25.814 v1.2.2 also pointed out the sections that had been updated as a result of discussions at the RAN1 #44bis meeting. As such, interested members of the public who subscribed to the email exploder list for 3GPP TSG RAN WG1 would have been aware of the availability



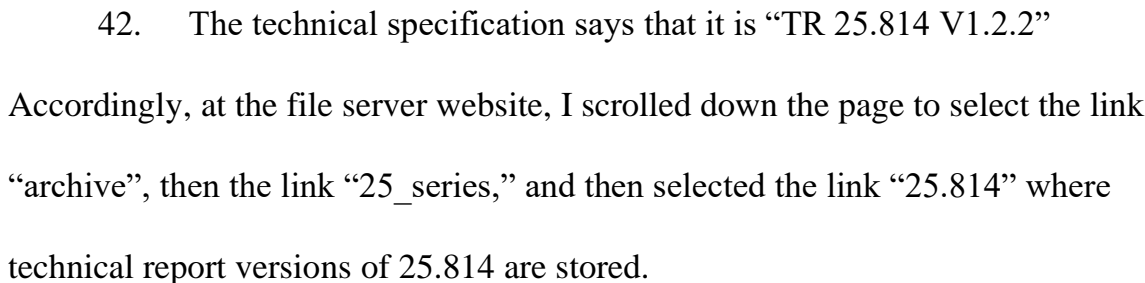
of and had access to TS 25.814 v1.2.2 as of April 04, 2006. See also paragraphs 24 and 30, where I explain that the content of emails sent on the email exploders and the documents uploaded to the 3GPP file server were available to the public without restriction. An interested member of the public could shortly thereafter retrieve said specification from the file server in a manner consistent with the steps outlined below.

41. The 3GPP file server is and always has been open to all and free from restriction such as username or password. By way of example of how an interested member of the public could access TS 25.814 v1.2.2 from the 3GPP website following RAN1 #44bis, if they had not downloaded it directly from the email that first distributed, I accessed the file server by going to the 3GPP website at <http://www.3gpp.org/>, selected “Specifications” from the menu bar, and then selected “Specifications Home” from the dropdown menu. I then selected the “file server area” link to access the public file server where the specifications are stored.

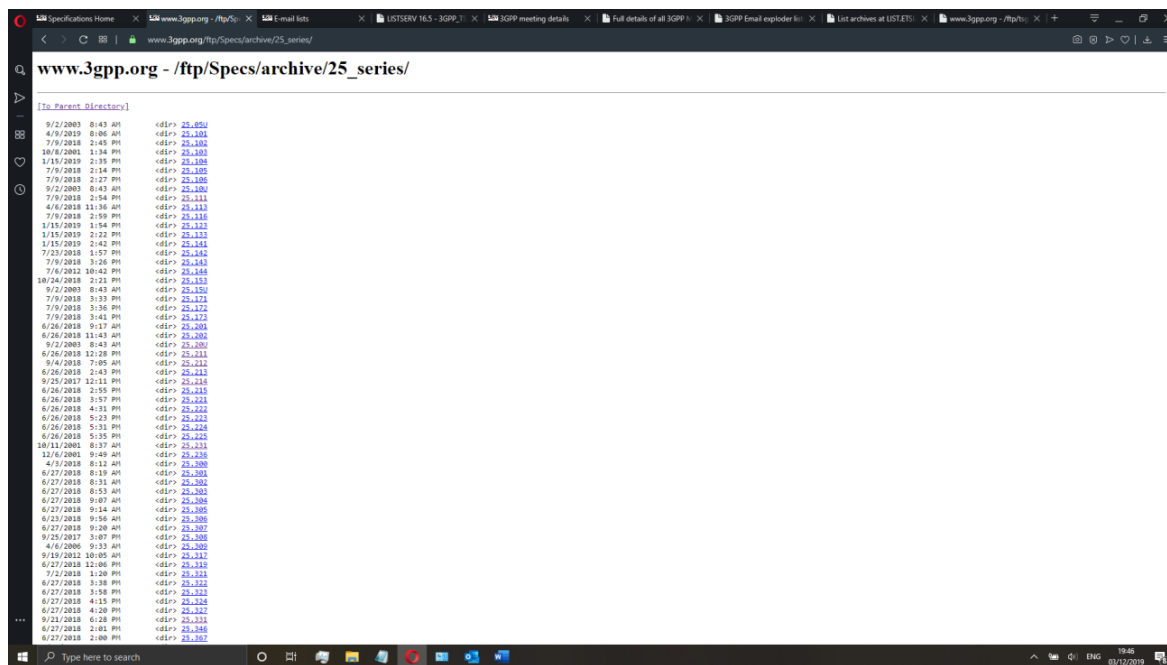
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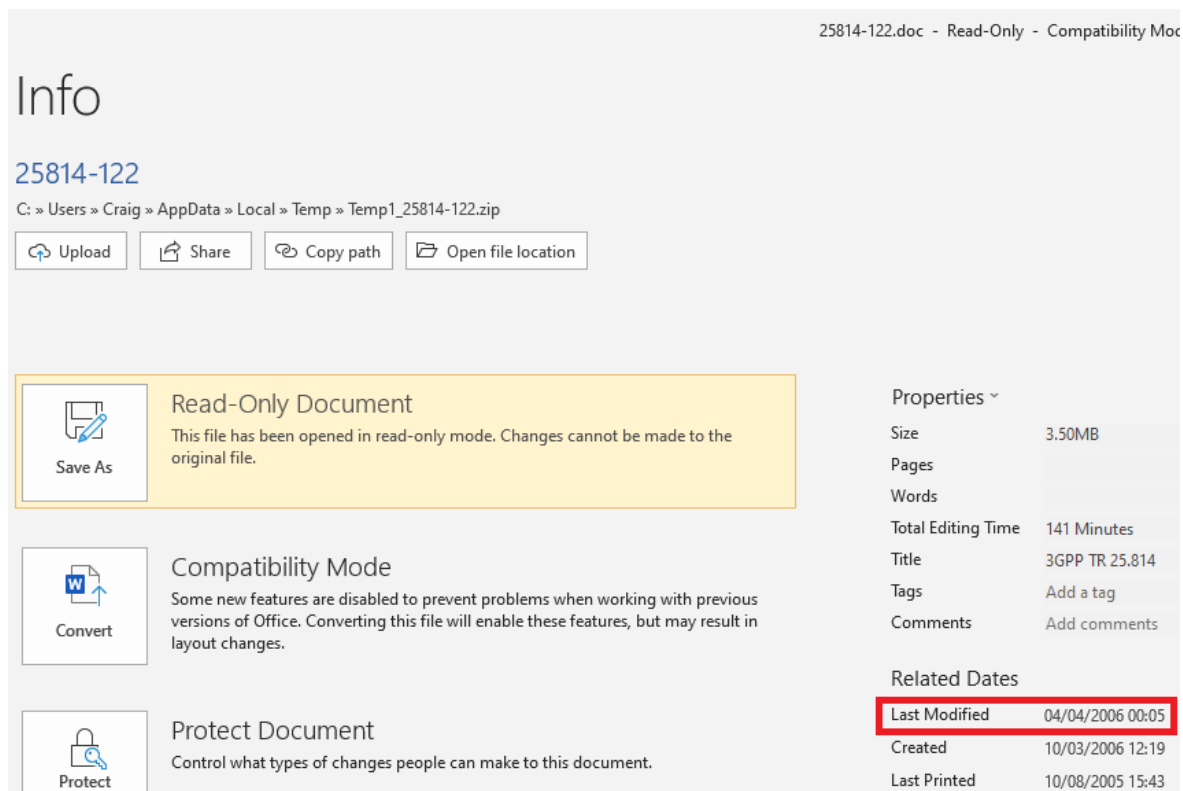
35

3/20/2006 10:56 AM	1027045	<a href="#">25814-121.zip</a>
4/3/2006 3:41 PM	1246828	<a href="#">25814-122.zip</a>
5/2/2006 2:30 PM	1262233	<a href="#">25814-123.zip</a>

Available at: [http://www.3gpp.org/ftp/Specs/archive/25\\_series/25.814/](http://www.3gpp.org/ftp/Specs/archive/25_series/25.814/)

43. The archive directory index stated that TR 25.814 v1.2.2 was uploaded on “4/3/2006” (US date format), this appears at first sight to be the day before the email was sent, but closer inspection of the email shows that it was sent at 00:06:35 [UTC] +0900 (the sender working for NTT DoCoMo in Japan), with the document subsequently being uploaded to the 3GPP server at 3.41pm UTC (some 35 minutes later). Selecting the link for “25814 - 122.zip” downloaded a zip file of the same name. The zip file contained a Microsoft Word document “25.814-122.doc,” with a date stamp also of “04/04/2006,” (European date format) the same day the zip file was sent by email. Inspection of the document information for 25.814 v1.2.2 shows that it was last edited at 00:05 on 04/04/2006, just before it was sent.

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44. A true and correct copy of the document within the zip file (25.814-122.zip) is provided as exhibit Ericsson Exhibit 1009. Based on my experience, I understand these date stamps to mean that 25.814-122.zip was uploaded to 3GPP's publicly available website on April 03, 2006 (UTC), and that an interested member of the public could have downloaded the zip file, extracted TR 25.814 v1.2.2 enclosed, viewed the contents of TR 25.814 v1.2.2, and further disseminated it without restriction on April 04, 2006 and thereafter. This date of uploading TR 25.814 v1.2.2 to the 3GPP file server after the RAN1 #44bis meeting is consistent with 3GPP's standard practice, as I explain in paragraph 34, that following each

meeting all documents from the meeting are uploaded to the 3GPP file server.

Accordingly, an interested member of the public who subscribed to the email reflector for 3GPP TSG RAN would have known as early as April 03, 2006 based on the email from the TR 25.814 rapporteur, that the document was available and would shortly be published on the file server. I have no reason to believe these date stamps are inaccurate.

45. Based on the information above and my personal knowledge and understanding of 3GPP practices, it is my opinion that TR 25.814 v1.2.2 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Layer Aspects for Evolved UTRA (Release 7)” provided as Ericsson Exhibit 1009, was publicly available on the 3GPP file server no later than April 04, 2006 and that an interested member of the public would have received it and been informed of its availability as early as April 03, 2006 by an email distributed via the 3GPP TSG RAN email reflector.

**V. R1-060187, OFDMA DOWNLINK PHYSICAL CHANNEL MAPPING  
– TEXT PROPOSAL**

46. R1-060187 is a technical contribution submitted to 3GPP TSG RAN WG1. It follows the naming convention (“xminzzzz”) described in the preceding section. Accordingly, “R1” indicates that the contribution was submitted to RAN WG1, “06” indicates the year (2006) that this technical contribution was submitted,

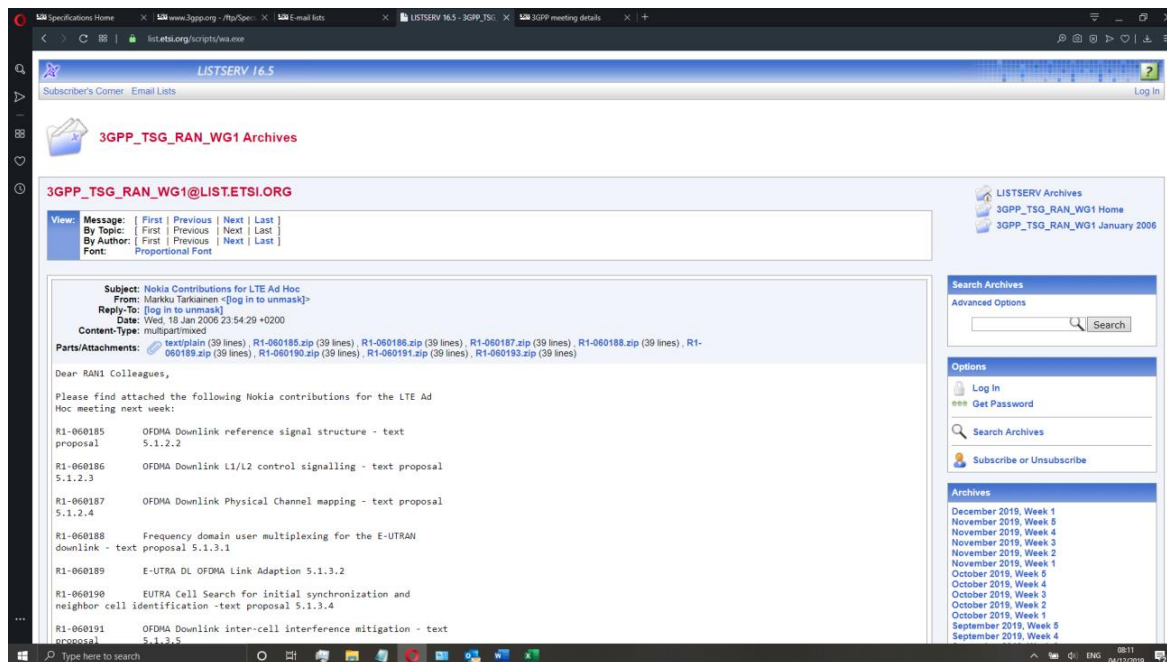
and “0187” is the unique number that was assigned to this contribution document by the working group secretary. It is titled “OFDMA Downlink Physical channel mapping – text proposal”.

47. Document R1-060187 was prepared for the RAN1 LTE Ad Hoc meeting January 2006 meeting in Helsinki, Finland, which was held between January 23 - 25, 2006. The submitter at that time would have sent to the 3GPP RAN WG1 email exploder an email announcing and attaching the document prior to the meeting, following the standard practice for RAN WG1. As mentioned previously, the RAN WG1 email list had 967 (nine hundred and sixty-seven) subscribers in February 2006 (**Appendix G**). Interested members of the public, subscribing to the 3GPP RAN WG1 email reflector, would have received the email in their inbox with R1-060187 attached, after which they were free to do as they wished with the attached contribution because “no restriction has ever been placed on how meeting participants dispose of the documents subsequent to their distribution before, during, or after the meeting.” (**Appendix E**, emphasis added). An interested member of the public could subscribe to the RAN WG1 email list as described in paragraph 24. A screenshot of the email notifying recipients of R1-060187 and distributing it to subscribers to the RAN WG1 email reflector is shown



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below.<sup>3</sup>

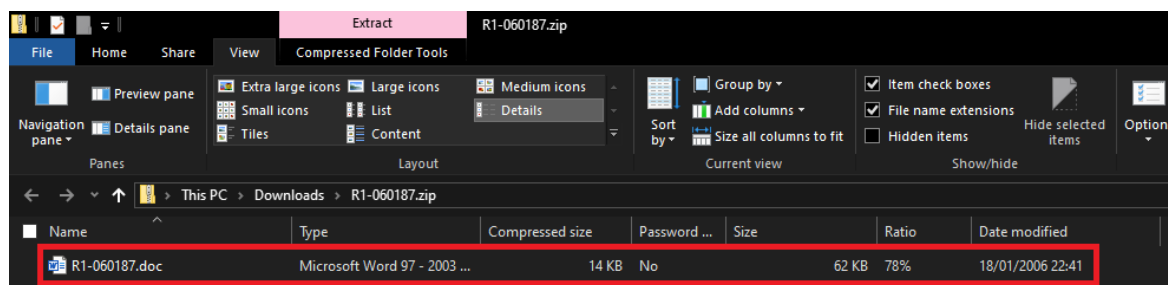


<sup>3</sup> As well as from receiving the document as an email attachment as described above, the email that distributed R1-060187 could be accessed by navigating to the 3GPP web site at <http://www.3gpp.org>, then selecting “email lists” from the dropdown menu under “Specification Groups” from the menu bar and selecting the email list for RAN WG1. Note that these steps can be performed now and could have been performed in the 2006 timeframe by any interested member of the public even if they had not subscribed to the RAN WG1 email list. This because access to the 3GPP email archives is open to all without any need to register and because the 3GPP email archives are updated in real time.

Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=22645](https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP_TSG_RAN_WG1&O=D&P=22645)

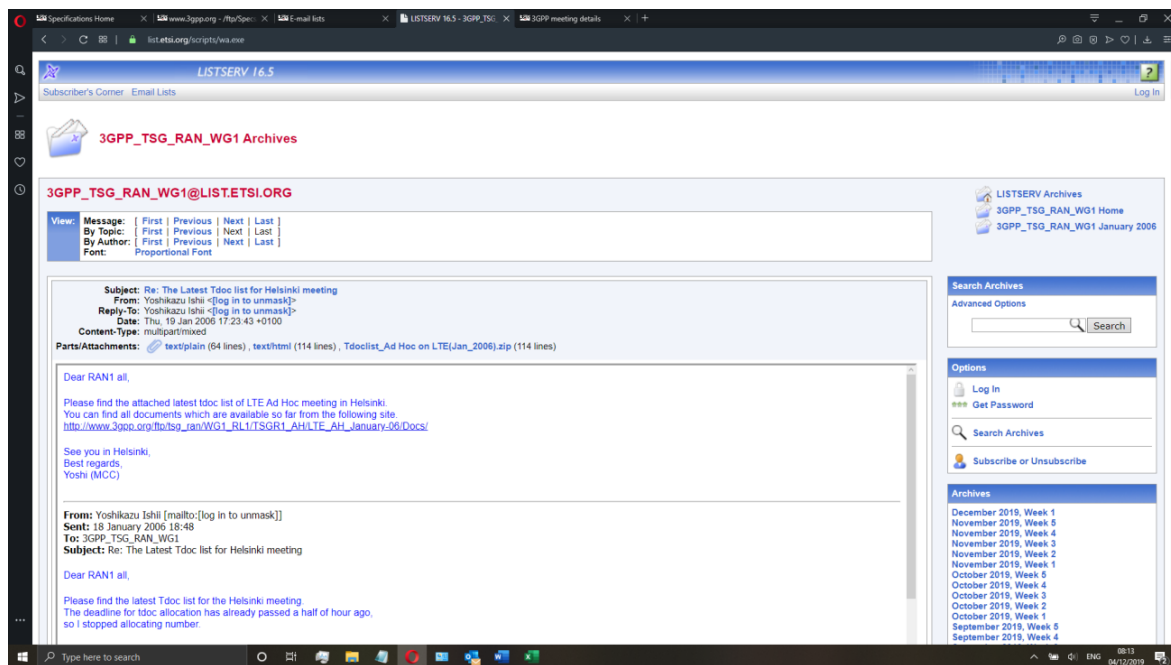
48. The email record shows that it was sent on “Wed, 18 Jan 2006”. The email states, “Please find attached the following Nokia contributions for the LTE Ad Hoc meeting next week:” (emphasis added). It includes the listing “R1-060187, OFDMA Downlink Physical Channel mapping - text proposal, 5.1.2.4” (emphasis added). The web page displaying the email provides links to download the email attachment. Selecting “R1-060187.zip.” downloads a file of the same name. The zip file that was attached to the email contained a Microsoft Word document, “R1-060187.doc”, with a date stamp of “18/01/2006,” (European date format) as shown below, i.e. the day before the email was sent. I have no reason to believe these date stamps are inaccurate.



49. From this, I concluded that R1-060187 was publicly distributed via email exploder on January 19, 2006, a process that the 3GPP recognizes as placing the document “in the public domain, since membership is open to all” and “no

restriction has ever been placed on how meeting participants dispose of the documents.” (Appendix E, emphasis added).

50. In addition, a subscriber to the email list would have received notification of the upload of contributions prior to the meeting as well as the ‘TDoc list’ from which they could search for meeting contributions based on agenda item, source, title, etc. The screenshot below shows that email for the RAN WG1 LTE Ad Hoc meeting of January 23-25, 2006. The email states: “Please find the attached latest tdoc list of LTE Ad Hoc meeting in Helsinki. You can find all documents which are available so far from the following site. [http://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_AH/LTE\\_AH\\_January-06/Docs/](http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_AH/LTE_AH_January-06/Docs/)”. The Tdoc list itself can be found in **Appendix M**.



Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=44163](https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP_TSG_RAN_WG1&O=D&P=44163)

51. As I mention above, following the public distribution of documents on 3GPP email reflector, meeting documents are, and were in the 2006 timeframe, also made publicly available on the 3GPP public file server from where an interested member of the public exercising reasonable diligence could freely access them. “TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create them and they or the group’s secretary uploads them to the public file server as soon as possible.” (Appendix E, emphases added). To confirm the availability of R1-060187 on the 3GPP document server in the 2006 timeframe, I navigated to the 3GPP website at <http://www.3gpp.org>, selected “Specification Groups” from the menu bar, and then selected “TSG RAN” from the dropdown menu. I then selected “RAN1 – Radio layer 1” and the “Documents” link to access the public file server where documents for the TSG-RAN Working Group 1 are stored, and from where I navigated to the documents for RAN WG1 LTE Ad Hoc meeting January 2006. A true and correct copy (with added red highlighting) of the relevant portion of the Documents directory listing produced by the file server website is provided below.

1/19/2006	8:18 AM	34768	<a href="#">R1-060186.zip</a>
1/19/2006	8:18 AM	14100	<a href="#">R1-060187.zip</a>
1/19/2006	8:18 AM	37710	<a href="#">R1-060188.zip</a>

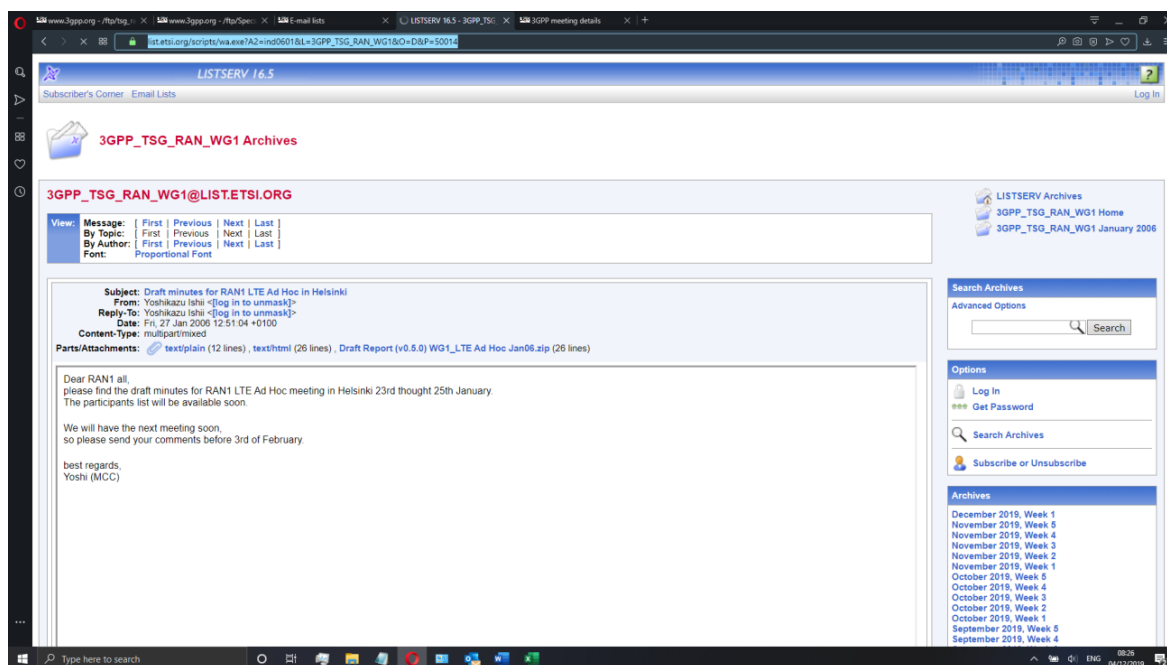
Available at:

[https://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_AH/LTE\\_AH\\_0601/Docs/](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_AH/LTE_AH_0601/Docs/)

The Docs directory index stated that R1-060187 was uploaded on “1/19/2006” (US date format), the same day the email distributing it was sent. I selected the link for “R1-060187.zip” and downloaded a zip file of the same name. The zip file contained a Microsoft Word document, “R1-060187.doc”, with a date stamp of “18/01/2006” (European date format), being the same document that had been distributed by the aforementioned email. A true and correct copy of the document within the zip file (R1-060187.doc) is provided as Ericsson Exhibit 1012. Based on my experience, I understand that these date stamps mean that R1-060187.zip was uploaded to 3GPP’s publicly available website on January 19, 2006, and that any member of the public could have downloaded the zip file, extracted the Word document enclosed, and viewed the contents of the Word document without restriction on January 19, 2006 and thereafter. The availability of the document on the 3GPP file server at that time is consistent with the email attaching R1-060187 dated January 19, 2006. I have no reason to believe these date stamps are inaccurate. I have therefore determined that R1-060187 was publicly available on

the file server no later than January 19, 2006.

52. The draft report of RAN1 LTE Ad Hoc meeting January 2006 (**Appendix N**) was distributed by email to the RAN WG1 reflector on 27 January 2006 (see screenshot below). The report indicates that R1-060187 was not presented, though the minutes contain a brief description of what the document proposed (Id, pp. 17, 19, § 5.1.2).



Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=50014](https://list.etsi.org/scripts/wa.exe?A2=ind0601&L=3GPP_TSG_RAN_WG1&O=D&P=50014)

53. Based on the information above, it is my opinion that R1-060187 titled “OFDMA Downlink Physical channel mapping – text proposal” and

provided as Ericsson Exhibit 1012 was publicly available to download from the 3GPP file server no later than January 19, 2006. Moreover, persons that were interested in the subject matter, such as subscribers to the RAN1 email exploder, received said document via email prior to the RAN1 LTE Ad Hoc January 2006 without restriction on further dissemination, also on January 19, 2006. Such persons would have been aware of the upcoming RAN1 LTE Ad Hoc meeting January 2006, have been informed that the meeting documents had been uploaded to the 3GPP server, would have had incentive to download emailed documents or those on the 3GPP server in anticipation of the upcoming meeting, and through the report from the meeting would have been made aware of the discussion of R1-060187.

## **VI. R1-060572, LTE PHYSICAL-LAYER MODELS**

54. R1-060572 is a technical contribution submitted to 3GPP TSG RAN WG1. It follows the naming convention (“xminnnzzzz”) described in the preceding section. Accordingly, “R1” indicates that the contribution was submitted to RAN WG1, “06” indicates the year (2006) that this technical contribution was submitted, and “0572” is the unique number that was assigned to this contribution document by the working group secretary. It is titled “LTE physical-layer models”.

55. Document R1-060572 was prepared for the RAN1 #44 meeting in Denver, USA, which was held between February 13-17, 2006. The submitter at that time would have sent to the 3GPP RAN WG1 email exploder an email

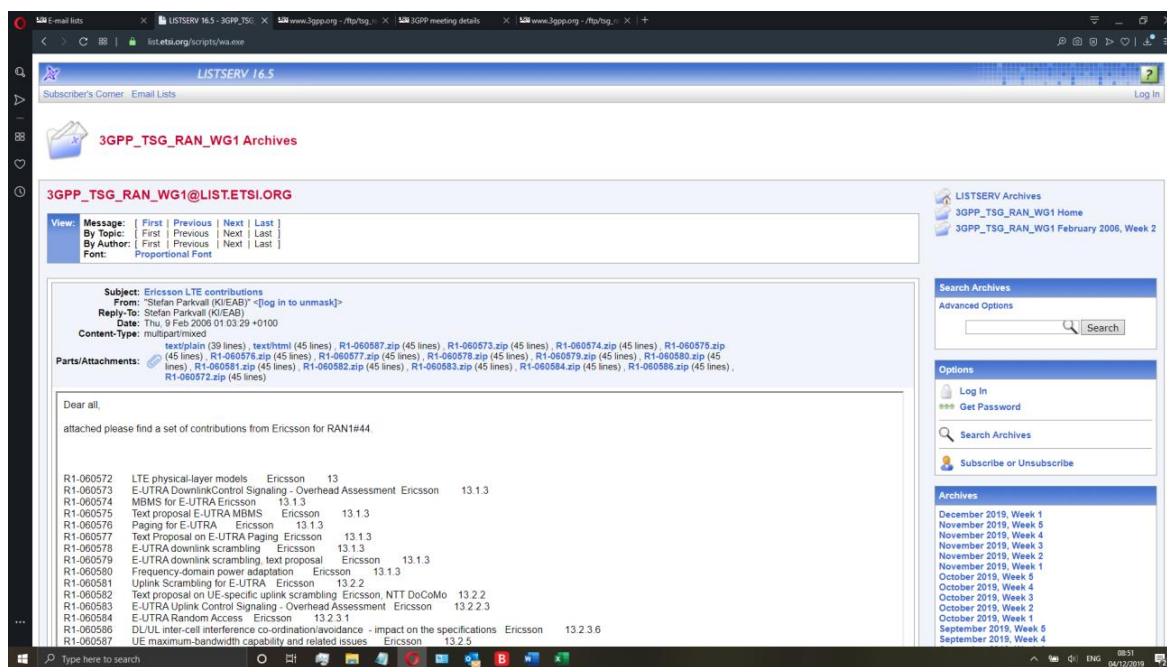
announcing and attaching the document prior to the meeting, following the standard practice for RAN WG1. As mentioned previously, the RAN WG1 email list had 967 (nine hundred and sixty-seven) subscribers in February 2006 (**Appendix G**). Interested members of the public, subscribing to the 3GPP RAN WG1 email reflector, would have received the email in their inbox with R1-060572 attached, after which they were free to do as they wished with the attached contribution because “no restriction has ever been placed on how meeting participants dispose of the documents subsequent to their distribution before, during, or after the meeting.” (**Appendix E**, emphasis added). An interested member of the public could subscribe to the RAN WG1 email list as described in paragraph 24. A screenshot of the email notifying recipients of R1-060572 and distributing it to subscribers to the RAN WG1 email reflector is shown below.<sup>4</sup>

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<sup>4</sup> As well as from receiving the document as an email attachment as described above, the email that distributed R1-060572 could be accessed by navigating to the 3GPP web site at <http://www.3gpp.org>, then selecting “email lists” from the dropdown menu under “Specification Groups” from the menu bar and selecting the email list for RAN WG1. Note that these steps can be performed now and could have been performed in the 2006 timeframe by any interested member of the



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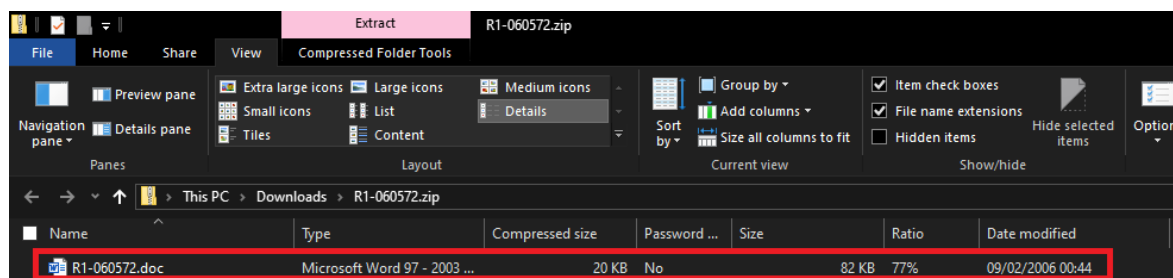
Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=19522](https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP_TSG_RAN_WG1&O=D&P=19522)

56. The email record shows that it was sent on “Thu, 9 Feb 2006”. The email states, “attached please find a set of contributions from Ericsson for RAN1#44.” (emphasis added). It includes the listing “R1-060572, LTE physical-layer models Ericsson, 13” (emphasis added). The web page displaying the

public even if they had not subscribed to the RAN WG1 email list. This because access to the 3GPP email archives is open to all without any need to register and because the 3GPP email archives are updated in real time.

email provides links to download the email attachment. Selecting “R1-060572.zip.” downloads a file of the same name. The zip file that was attached to the email contained a Microsoft Word document, “R1-060572.doc”, with a date stamp of “09/02/2006,” (European date format) as shown below, i.e. the day before the email was sent. I have no reason to believe these date stamps are inaccurate.

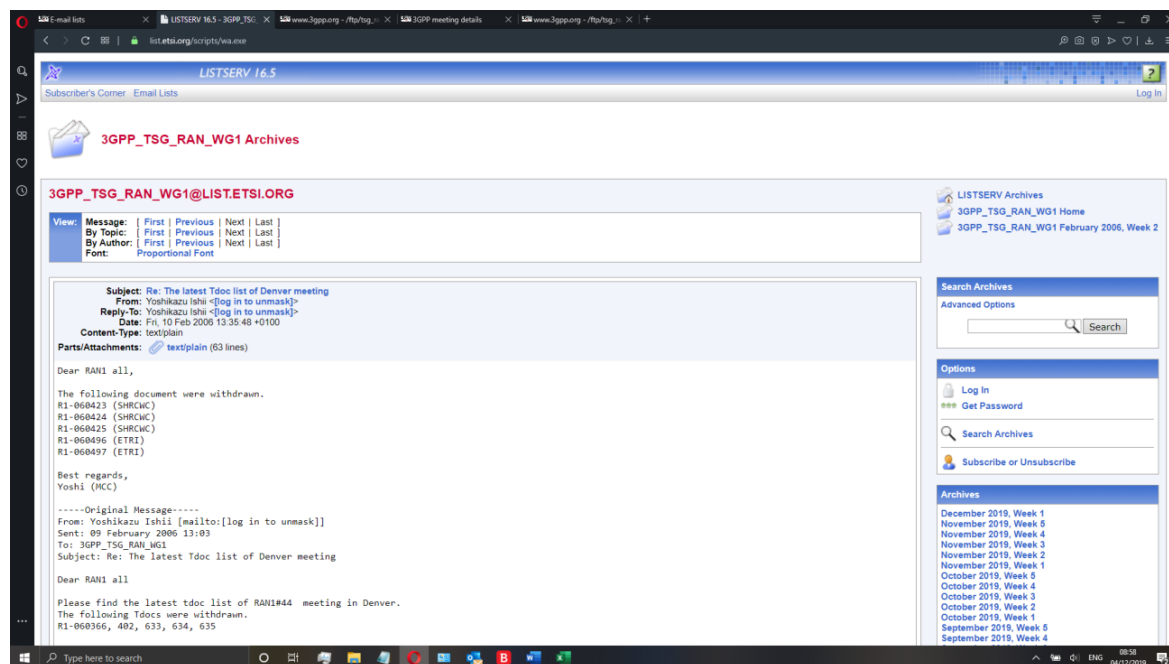


57. From this, I concluded that R1-060572 was publicly distributed via email exploder on February 09, 2006, a process that the 3GPP recognizes as placing the document “in the public domain, since membership is open to all” and “no restriction has ever been placed on how meeting participants dispose of the documents.” (**Appendix E**, emphasis added).

58. In addition, a subscriber to the email list would have received notification of the upload of contributions prior to the meeting as well as the ‘TDoc list’ from which they could search for meeting contributions based on agenda item, source, title, etc. The screenshot below shows that email for the RAN WG1 #44 meeting of February 09-13, 2006. The email states: “Please find the latest tdoc list of RAN1#44 meeting in Denver.”. The Tdoc list itself can be found in **Appendix**

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O.



Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=55552](https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP_TSG_RAN_WG1&O=D&P=55552)

59. As I mention above, following the public distribution of documents on 3GPP email reflector, meeting documents are, and were in the 2006 timeframe, also made publicly available on the 3GPP public file server from where an interested member of the public exercising reasonable diligence could freely access them. “TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create them and they or the group’s secretary uploads them to the public file server as soon as possible.” (Appendix E, emphases added). To

confirm the availability of R1-060572 on the 3GPP document server in the 2006 timeframe, I navigated to the 3GPP website at <http://www.3gpp.org>, selected “Specification Groups” from the menu bar, and then selected “TSG RAN” from the dropdown menu. I then selected “RAN1 – Radio layer 1” and the “Documents” link to access the public file server where documents for the TSG-RAN Working Group 1 are stored, and from where I navigated to the documents for RAN WG1 #44. A true and correct copy (with added red highlighting) of the relevant portion of the Documents directory listing produced by the file server website is provided below.

2/7/2006 10:59 AM	12007	<a href="#">R1-060571.zip</a>
2/9/2006 6:55 AM	19726	<a href="#">R1-060572.zip</a>
2/9/2006 6:55 AM	188137	<a href="#">R1-060573.zip</a>

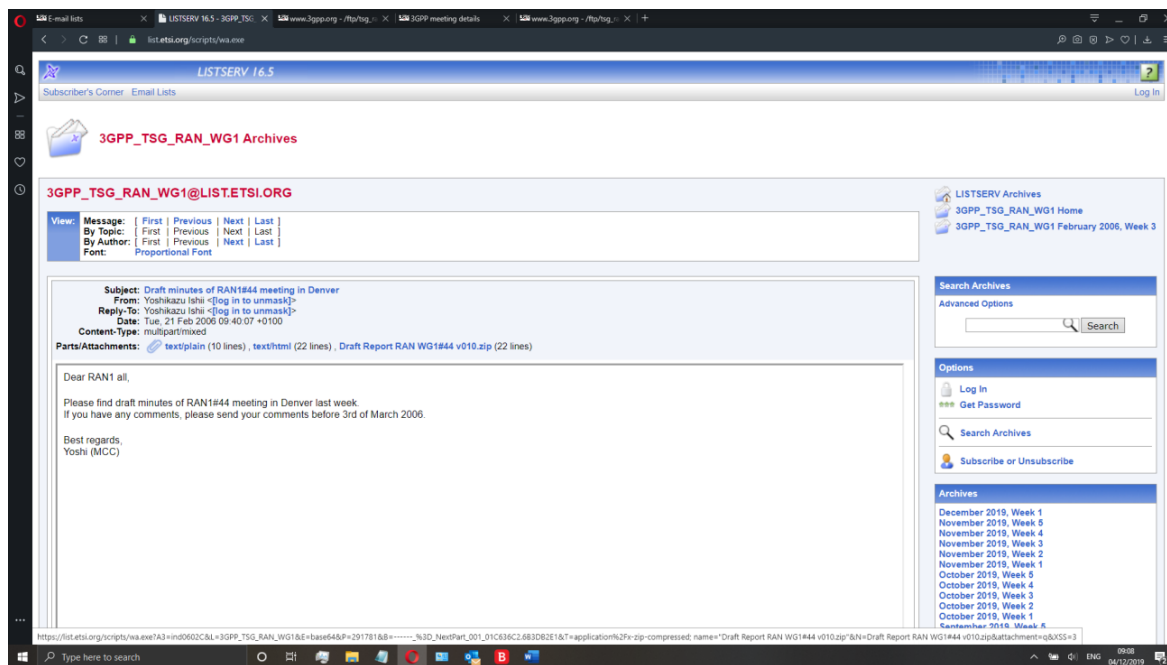
Available at: [https://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_44/Docs/](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_44/Docs/)

The Docs directory index stated that R1-060572 was uploaded on “2/9/2006” (US date format), the same day the email distributing it was sent. I selected the link for “R1-060572.zip” and downloaded a zip file of the same name. The zip file contained a Microsoft Word document, “R1-060572.doc”, with a date stamp of “09/02/2006” (European date format), being the same document that had been distributed by the aforementioned email. A true and correct copy of the document within the zip file (R1-060572.doc) is provided as Ericsson Exhibit 1008. Based on

my experience, I understand that these date stamps mean that R1-060572.zip was uploaded to 3GPP's publicly available website on February 09, 2006, and that any member of the public could have downloaded the zip file, extracted the Word document enclosed, and viewed the contents of the Word document without restriction on February 09, 2006 and thereafter. The availability of the document on the 3GPP file server at that time is consistent with the email attaching R1-060572 dated February 09, 2006. I have no reason to believe these date stamps are inaccurate. I have therefore determined that R1-060572 was publicly available on the file server no later than February 09, 2006.

60. The draft report of RAN1 #44 (**Appendix P**) was distributed by email to the RAN WG1 reflector on 21 February 2006 (see screenshot below). The report indicates that R1-060572 was noted for the time being with the issue being passed to RAN WG2 for a discussion (Id, p. 25, § 13).

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602C&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=8500](https://list.etsi.org/scripts/wa.exe?A2=ind0602C&L=3GPP_TSG_RAN_WG1&O=D&P=8500)

61. Based on the information above, it is my opinion that R1-060572 titled “LTE physical-layer models and provided as Ericsson Exhibit 1008 was publicly available to download from the 3GPP file server no later than February 09, 2006. Moreover, persons that were interested in the subject matter, such as subscribers to the RAN1 email exploder, received said document via email prior to the RAN1 #44 meeting, without restriction on further dissemination, also on February 09, 2006. Such persons would have been aware of the upcoming RAN1 #44 meeting, would have been informed that the meeting documents had been

uploaded to the 3GPP server, would have had incentive to download emailed documents or those on the 3GPP server in anticipation of the upcoming meeting, and through the report from the meeting would been made aware of the discussion of R1-060572.

## **VII. R1-060576, PAGING FOR E-UTRA**

62. R1-060576 is a technical contribution submitted to 3GPP TSG RAN WG1. It follows the naming convention (“xminzzzz”) described in the preceding section. Accordingly, “R1” indicates that the contribution was submitted to RAN WG1, “06” indicates the year (2006) that this technical contribution was submitted, and “0576” is the unique number that was assigned to this contribution document by the working group secretary. It is titled “Paging for E-UTRA”.

63. Document R1-060576 was prepared for the RAN1 #44 meeting in Denver, USA, which was held between February 13-17, 2006. The submitter at that time would have sent to the 3GPP RAN WG1 email exploder an email announcing and attaching the document prior to the meeting, following the standard practice for RAN WG1. As mentioned previously, the RAN WG1 email list had 967 (nine hundred and sixty-seven) subscribers in February 2006 (**Appendix G**). Interested members of the public, subscribing to the 3GPP RAN WG1 email reflector, would have received the email in their inbox with R1-060576 attached, after which they were free to do as they wished with the attached

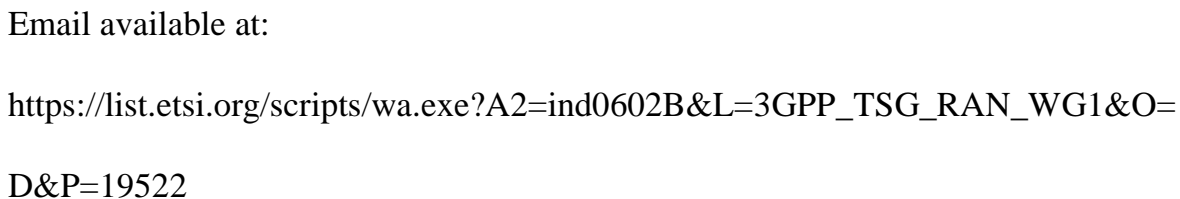
contribution because “no restriction has ever been placed on how meeting participants dispose of the documents subsequent to their distribution before, during, or after the meeting.” (**Appendix E**, emphasis added). An interested member of the public could subscribe to the RAN WG1 email list as described in paragraph 24. A screenshot of the email notifying recipients of R1-060576 and distributing it to subscribers to the RAN WG1 email reflector is shown below.<sup>5</sup>

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<sup>5</sup> As well as from receiving the document as an email attachment as described above, the email that distributed R1-060576 could be accessed by navigating to the 3GPP web site at <http://www.3gpp.org>, then selecting “email lists” from the dropdown menu under “Specification Groups” from the menu bar and selecting the email list for RAN WG1. Note that these steps can be performed now and could have been performed in the 2006 timeframe by any interested member of the public even if they had not subscribed to the RAN WG1 email list. This because access to the 3GPP email archives is open to all without any need to register and because the 3GPP email archives are updated in real time.

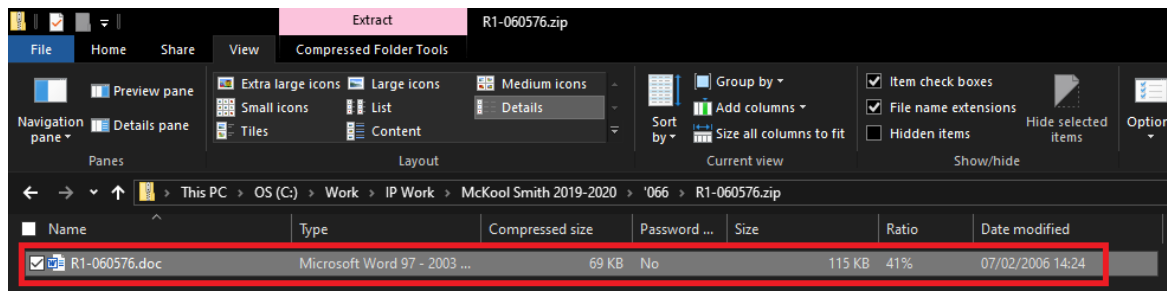


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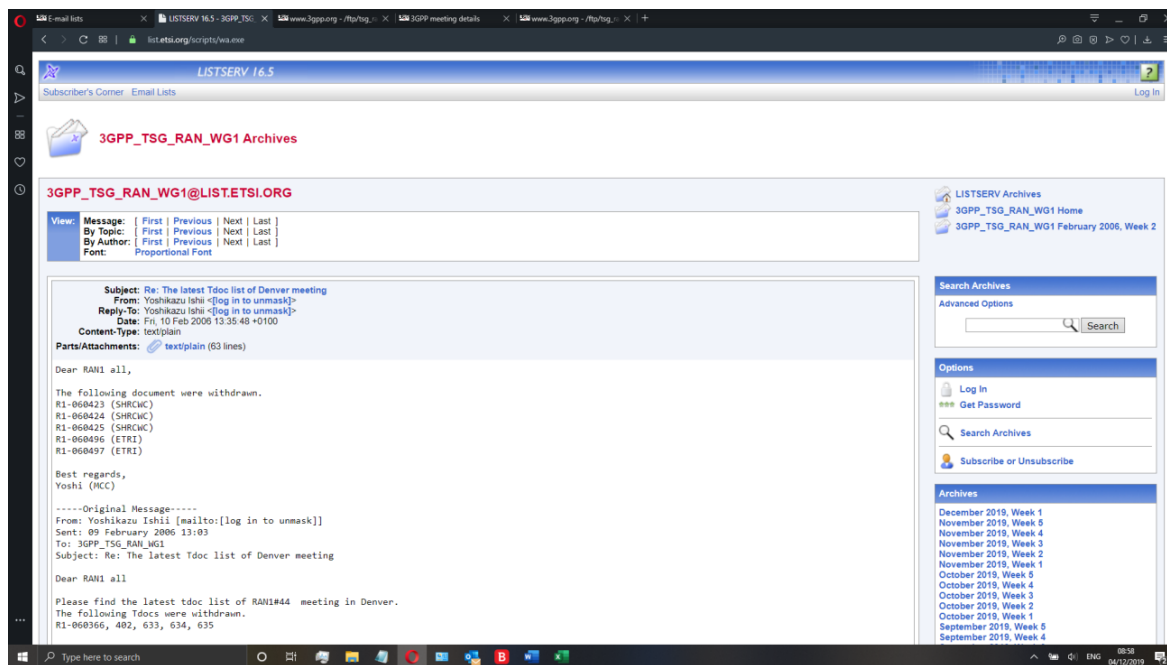
email was sent. I have no reason to believe these date stamps are inaccurate.



65. From this, I concluded that R1-060576 was publicly distributed via email exploder on February 09, 2006, a process that the 3GPP recognizes as placing the document “in the public domain, since membership is open to all” and “no restriction has ever been placed on how meeting participants dispose of the documents.” (**Appendix E**, emphasis added).

66. In addition, a subscriber to the email list would have received notification of the upload of contributions prior to the meeting as well as the ‘TDoc list’ from which they could search for meeting contributions based on agenda item, source, title, etc. The screenshot below shows that email for the RAN WG1 #44 meeting of February 09-13, 2006. The email states: “Please find the latest tdoc list of RAN1#44 meeting in Denver.”. The Tdoc list itself can be found in **Appendix O**.

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=55552](https://list.etsi.org/scripts/wa.exe?A2=ind0602B&L=3GPP_TSG_RAN_WG1&O=D&P=55552)

67. As I mention above, following the public distribution of documents on 3GPP email reflector, meeting documents are, and were in the 2006 timeframe, also made publicly available on the 3GPP public file server from where an interested member of the public exercising reasonable diligence could freely access them. “TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create them and they or the group’s secretary uploads them to the public file server as soon as possible.” (Appendix E, emphases added). To confirm the availability of R1-060576 on the 3GPP document server in the 2006

timeframe, I navigated to the 3GPP website at <http://www.3gpp.org>, selected “Specification Groups” from the menu bar, and then selected “TSG RAN” from the dropdown menu. I then selected “RAN1 – Radio layer 1” and the “Documents” link to access the public file server where documents for the TSG-RAN Working Group 1 are stored, and from where I navigated to the documents for RAN WG1 #44. A true and correct copy (with added red highlighting) of the relevant portion of the Documents directory listing produced by the file server website is provided below.

2/9/2006	6:55 AM	7856	<a href="#">R1-060575.zip</a>
2/9/2006	6:55 AM	70251	<a href="#">R1-060576.zip</a>
2/9/2006	6:55 AM	73347	<a href="#">R1-060577.zip</a>

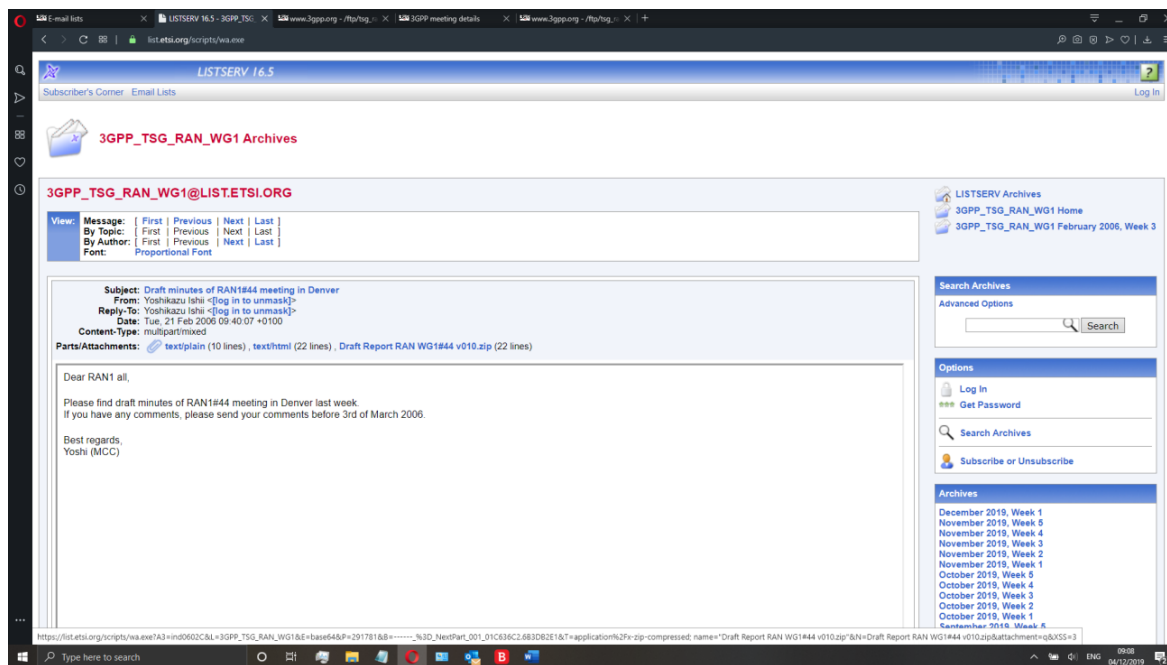
Available at: [https://www.3gpp.org/ftp/tsg\\_ran/WG1\\_RL1/TSGR1\\_44/Docs/](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_44/Docs/)

The Docs directory index stated that R1-060576 was uploaded on “2/9/2006” (US date format), the same day the email distributing it was sent. I selected the link for “R1-060576.zip” and downloaded a zip file of the same name. The zip file contained a Microsoft Word document, “R1-060576.doc”, with a date stamp of “09/02/2006” (European date format), being the same document that had been distributed by the aforementioned email. A true and correct copy of the document within the zip file (R1-060576.doc) is provided as Ericsson Exhibit 1011. Based on my experience, I understand that these date stamps mean that R1-060576.zip was

uploaded to 3GPP's publicly available website on February 09, 2006, and that any member of the public could have downloaded the zip file, extracted the Word document enclosed, and viewed the contents of the Word document without restriction on February 09, 2006 and thereafter. The availability of the document on the 3GPP file server at that time is consistent with the email attaching R1-060576 dated February 09, 2006. I have no reason to believe these date stamps are inaccurate. I have therefore determined that R1-060576 was publicly available on the file server no later than February 09, 2006.

68. The draft report of RAN1 #44 (**Appendix P**) was distributed by email to the RAN WG1 reflector on 21 February 2006 (see screenshot below). The report indicates that R1-060576 was among a group of documents that were not treated in the meeting (Id, pp. 33,34, § 13.1.3).

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602C&L=3GPP\\_TSG\\_RAN\\_WG1&O=D&P=8500](https://list.etsi.org/scripts/wa.exe?A2=ind0602C&L=3GPP_TSG_RAN_WG1&O=D&P=8500)

69. Based on the information above, it is my opinion that R1-060576 titled “Paging for E-UTRA” and provided as Ericsson Exhibit 1011 was publicly available to download from the 3GPP file server no later than February 09, 2006. Moreover, persons that were interested in the subject matter, such as subscribers to the RAN1 email exploder, received said document via email prior to the RAN1 #44 without restriction on further dissemination, also on February 09, 2006. Such persons would have been aware of the upcoming RAN1 #44 meeting, would have been informed that the meeting documents had been uploaded to the 3GPP server,

would have had incentive to download emailed documents or those on the 3GPP server in anticipation of the upcoming meeting, and through the report from the meeting would be made aware of the discussion of R1-060576.

#### **VIII. R2-060429, EVOLVED PAGING FOR LTE**

70. R2-060429 is a technical contribution submitted to 3GPP TSG RAN WG1. It follows the naming convention (“xminzzzz”) described in the preceding section. Accordingly, “R2” indicates that the contribution was submitted to RAN WG2, “06” indicates the year (2006) that this technical contribution was submitted, and “429” is the unique number that was assigned to this contribution document by the working group secretary. It is titled “Evolved Paging for LTE”.

71. Document R2-060429 was prepared for the RAN2 #51 meeting in Denver, USA, which was held between February 13-17, 2006. The submitter at that time would have sent to the 3GPP RAN WG2 email exploder an email announcing and attaching the document prior to the meeting, following the standard practice for RAN WG2. The RAN WG2 email list had 906 (nine hundred and six) subscribers in February 2006 (**Appendix G**). Interested members of the public, subscribing to the 3GPP RAN WG2 email reflector, would have received the email in their inbox with R2-060429 attached, after which they were free to do as they wished with the attached contribution because “no restriction has ever been placed on how meeting participants dispose of the documents subsequent to their

distribution before, during, or after the meeting.” (Appendix E, emphasis added).

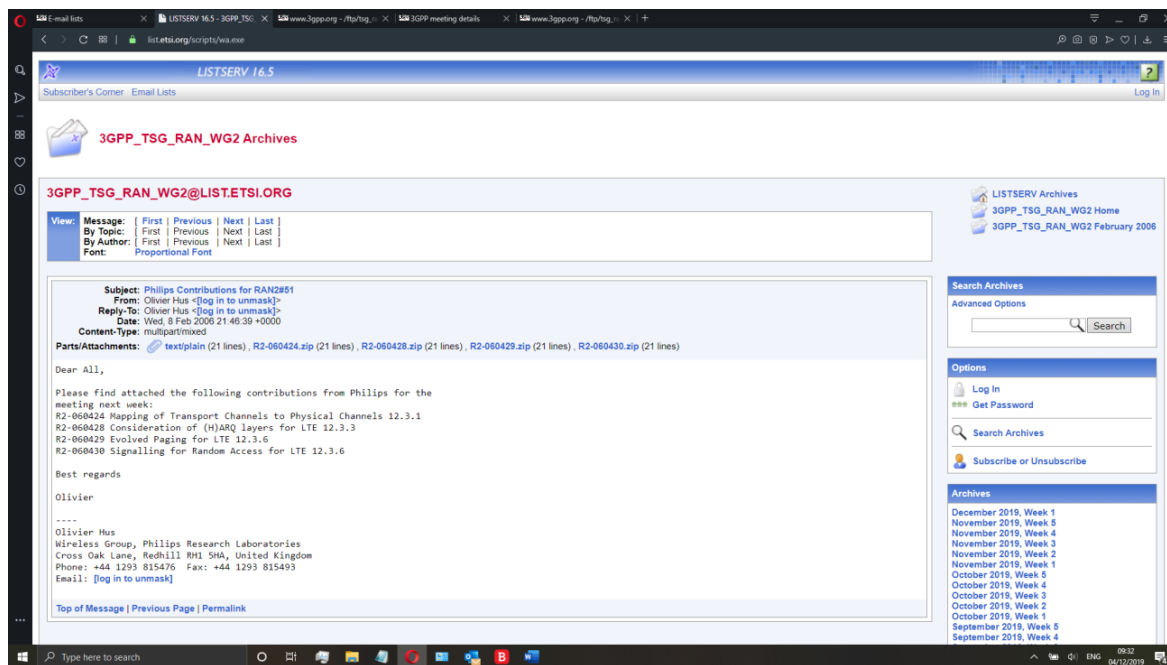
An interested member of the public could subscribe to the RAN WG2 email list as described in paragraph 24. A screenshot of the email notifying recipients of R2-060429 and distributing it to subscribers to the RAN WG2 email reflector is shown below.<sup>6</sup>

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<sup>6</sup> As well as from receiving the document as an email attachment as described above, the email that distributed R1-060429 could be accessed by navigating to the 3GPP web site at <http://www.3gpp.org>, then selecting “email lists” from the dropdown menu under “Specification Groups” from the menu bar and selecting the email list for RAN WG1. Note that these steps can be performed now and could have been performed in the 2006 timeframe by any interested member of the public even if they had not subscribed to the RAN WG1 email list. This because access to the 3GPP email archives is open to all without any need to register and because the 3GPP email archives are updated in real time.



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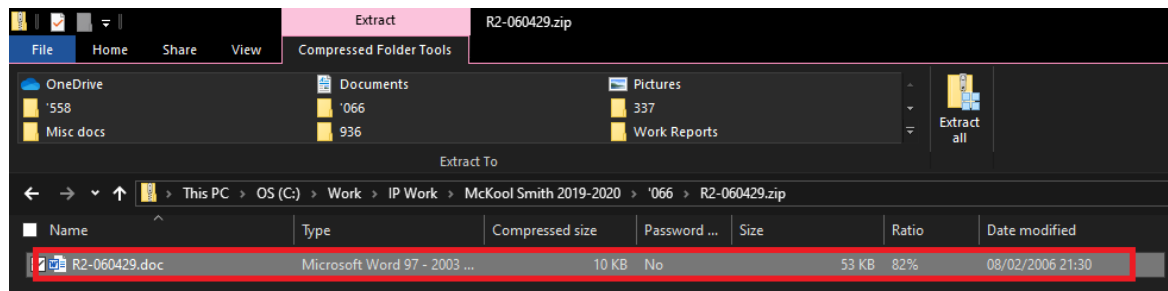


Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP\\_TSG\\_RAN\\_WG2&P=47201](https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP_TSG_RAN_WG2&P=47201)

72. The email record shows that it was sent on “Wed, 8 Feb 2006”. The email states, “Please find attached the following contributions from Philips for the meeting next week:” (emphasis added). It includes the listing “R2-060429 Evolved Paging for LTE 12.3.6” (emphasis added). The web page displaying the email provides links to download the email attachment. Selecting “R2-060429.zip.” downloads a file of the same name. The zip file that was attached to the email contained a Microsoft Word document, “R2-060429.doc”, with a date stamp of “08/02/2006,” (European date format) as shown below, i.e. the day before the

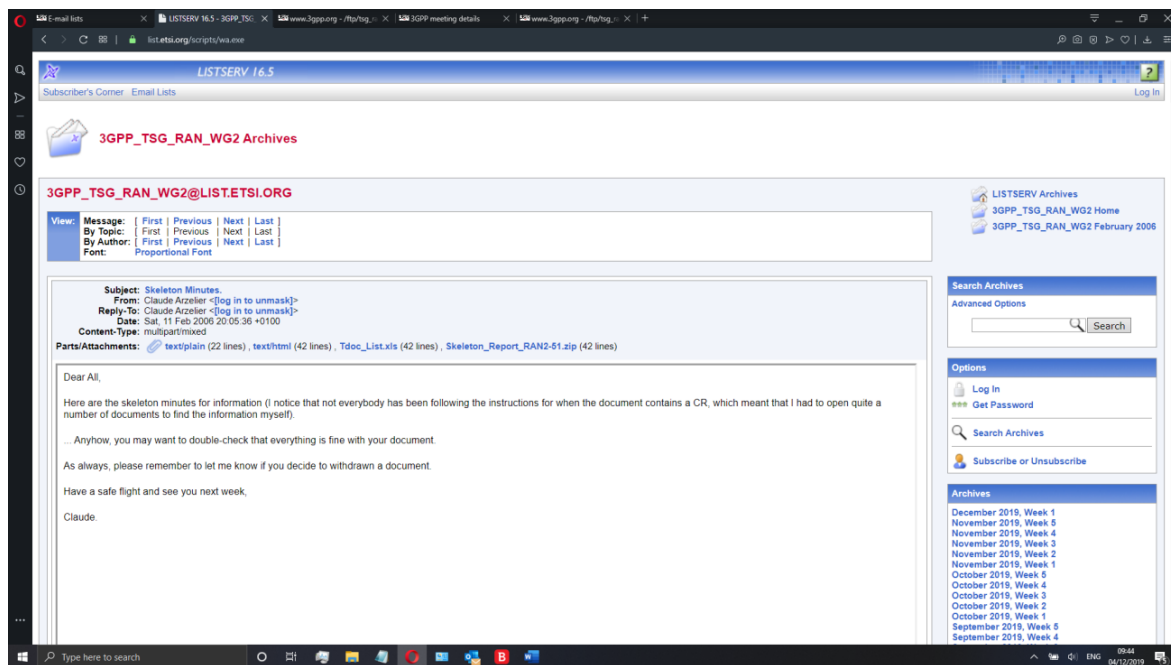
email was sent. I have no reason to believe these date stamps are inaccurate.



73. From this, I concluded that R2-060429 was publicly distributed via email exploder on February 08, 2006, a process that the 3GPP recognizes as placing the document “in the public domain, since membership is open to all” and “no restriction has ever been placed on how meeting participants dispose of the documents.” (**Appendix E**, emphasis added).

74. In addition, a subscriber to the email list would have received the ‘TDoc list’ and ‘skeleton report’ from which they could search for meeting contributions based on agenda item, source, title, etc. The screenshot below shows that email for the RAN WG2 #51 meeting of February 09-13, 2006. The email states: “Here are the skeleton minutes for information”. The Tdoc list itself can be found in **Appendix Q**.

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP\\_TSG\\_RAN\\_WG2&O=A&P=69573](https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP_TSG_RAN_WG2&O=A&P=69573)

75. As I mention above, following the public distribution of documents on 3GPP email reflector, meeting documents are, and were in the 2006 timeframe, also made publicly available on the 3GPP public file server from where an interested member of the public exercising reasonable diligence could freely access them. “TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create them and they or the group’s secretary uploads them to the public file server as soon as possible.” (Appendix E, emphases added). To confirm the availability of R2-060429 on the 3GPP document server in the 2006

timeframe, I navigated to the 3GPP website at <http://www.3gpp.org>, selected “Specification Groups” from the menu bar, and then selected “TSG RAN” from the dropdown menu. I then selected “RAN2 – Radio layer 2 and Radio layer 3 RR” and the “Documents” link to access the public file server where documents for the TSG-RAN Working Group 2 are stored, and from where I navigated to the documents for RAN WG2 #51. A true and correct copy (with added red highlighting) of the relevant portion of the Documents directory listing produced by the file server website is provided below.

2/9/2006	2:51 PM	8604	<a href="#">R2-060428.zip</a>
2/9/2006	2:51 PM	10194	<a href="#">R2-060429.zip</a>
2/9/2006	2:51 PM	14386	<a href="#">R2-060430.zip</a>

Available at:

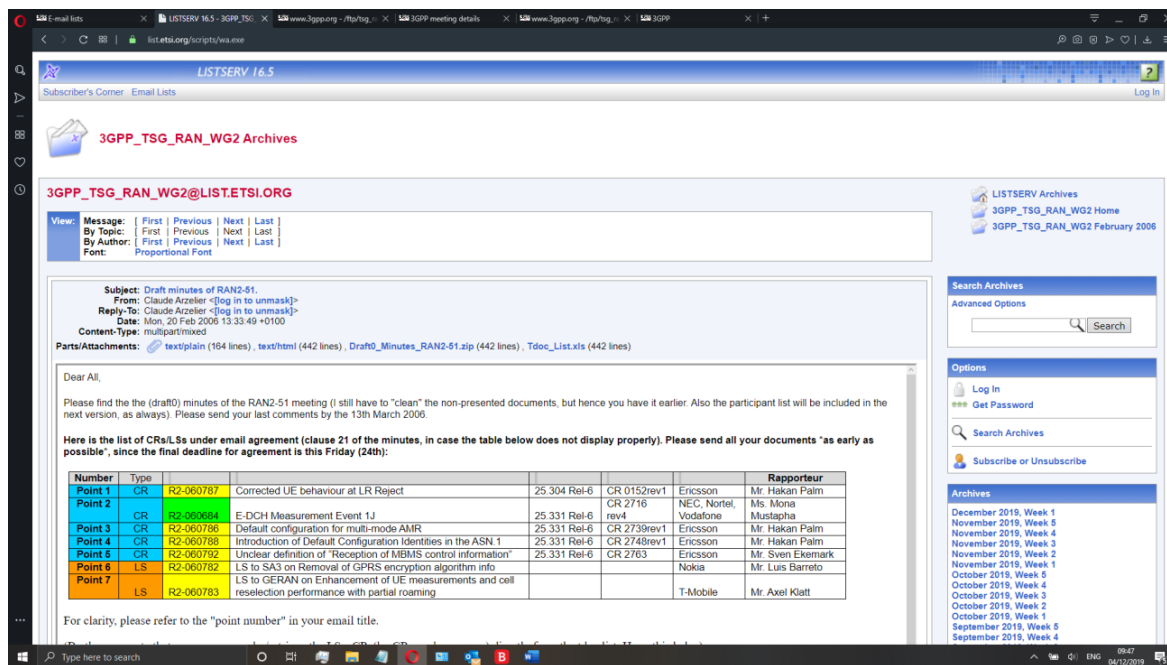
[https://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_51/Documents/](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_51/Documents/)

The Docs directory index stated that R2-060429 was uploaded on “2/9/2006” (US date format), the day after the email distributing it was sent. I selected the link for “R2-060429.zip” and downloaded a zip file of the same name. The zip file contained a Microsoft Word document, “R2-060429.doc”, with a date stamp of “08/02/2006” (European date format), being the same document that had been distributed by the aforementioned email. A true and correct copy of the document within the zip file (R2-060429.doc) is provided as Ericsson Exhibit 1010. Based on

my experience, I understand that these date stamps mean that R2-060429.zip was uploaded to 3GPP's publicly available website on February 09, 2006, and that any member of the public could have downloaded the zip file, extracted the Word document enclosed, and viewed the contents of the Word document without restriction on February 09, 2006 and thereafter. The availability of the document on the 3GPP file server at that time is consistent with the email attaching R2-060429 dated February 08, 2006. I have no reason to believe these date stamps are inaccurate. I have therefore determined that R2-060429 was publicly available on the file server no later than February 09, 2006.

76. The draft report of RAN2 #51 (**Appendix R**) was distributed by email to the RAN WG2 reflector on 21 February 2006 (see screenshot below). The report indicates that R2-060429 does not appear to have been treated at the meeting as there is no explicit indication of any discussion or that the document was noted. (Id, p. 49, § 12.3.6).

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP\\_TSG\\_RAN\\_WG2&O=A&P=73164](https://list.etsi.org/scripts/wa.exe?A2=ind0602&L=3GPP_TSG_RAN_WG2&O=A&P=73164)

77. Based on the information above, it is my opinion that R2-060429 titled “Evolved Paging for LTE” and provided as Ericsson Exhibit 1010 was publicly available to download from the 3GPP file server no later than February 09, 2006. Moreover, persons that were interested in the subject matter, such as subscribers to the RAN2 email exploder, received said document via email prior to the RAN2 #51 meeting, without restriction on further dissemination, on February 08, 2006. Such persons would have been aware of the upcoming RAN2 #51 meeting, would have been informed that the meeting documents had been

uploaded to the 3GPP server, would have had incentive to download emailed documents or those on the 3GPP server in anticipation of the upcoming meeting, and through the report from the meeting would have been made aware of the discussion of R2-060429.

## **IX. R2-060988, PCH MAPPING AND PAGING CONTROL**

78. R2-060988 is a technical contribution submitted to 3GPP TSG RAN WG2. It follows the naming convention (“xminzzzz”) described in the preceding section. Accordingly, “R2” indicates that the contribution was submitted to RAN WG2, “06” indicates the year (2006) that this technical contribution was submitted, and “0988” is the unique number that was assigned to this contribution document by the working group secretary. It is titled “PCH mapping and Paging control”.

79. Document R2-060988 was prepared for the RAN1 / RAN2 joint meeting held during the RAN2 #52 meeting in Athens, Greece, which was held between March 27-31, 2006. The submitter at that time would have sent to the 3GPP RAN WG2 email exploder an email announcing and attaching the document prior to the meeting, following the standard practice for RAN WG2. The RAN WG2 email list had 906 (nine hundred and six) subscribers in February 2006 (**Appendix G**). Interested members of the public, subscribing to the 3GPP RAN WG2 email reflector, would have received the email in their inbox with R2-060988 attached, after which they were free to do as they wished with the attached

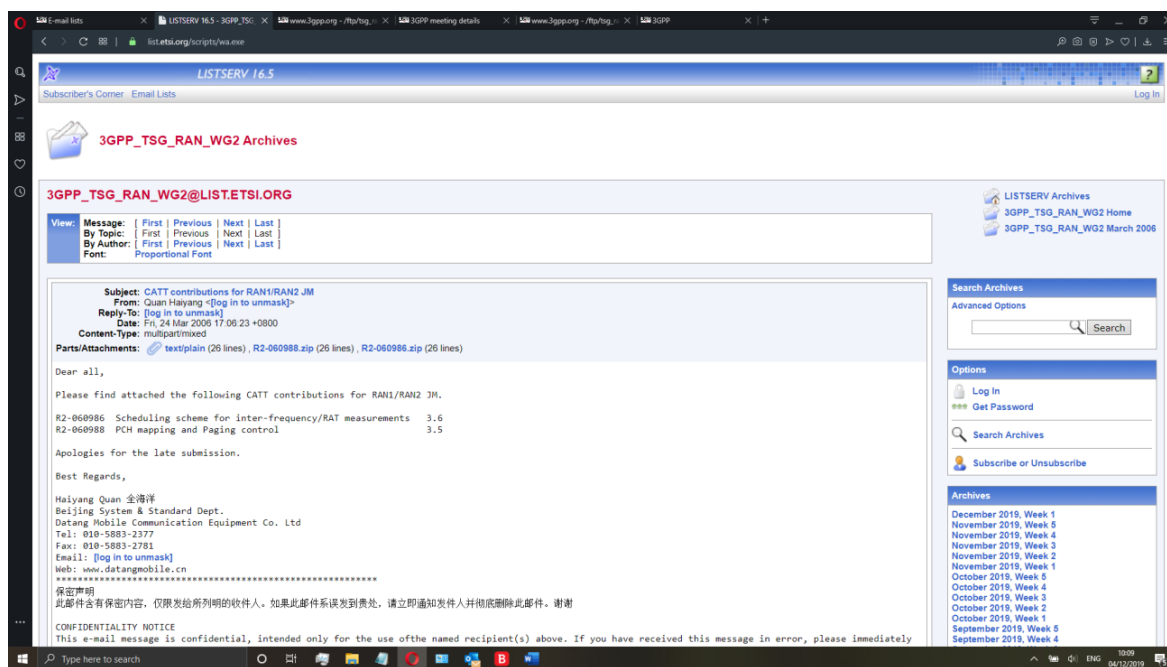
contribution because “no restriction has ever been placed on how meeting participants dispose of the documents subsequent to their distribution before, during, or after the meeting.” (**Appendix E**, emphasis added). An interested member of the public could subscribe to the RAN WG2 email list as described in paragraph 24. A screenshot of the email notifying recipients of R2-060988 and distributing it to subscribers to the RAN WG2 email reflector is shown below.<sup>7</sup>

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<sup>7</sup> As well as from receiving the document as an email attachment as described above, the email that distributed R1-060988 could be accessed by navigating to the 3GPP web site at <http://www.3gpp.org>, then selecting “email lists” from the dropdown menu under “Specification Groups” from the menu bar and selecting the email list for RAN WG1. Note that these steps can be performed now and could have been performed in the 2006 timeframe by any interested member of the public even if they had not subscribed to the RAN WG1 email list. This because access to the 3GPP email archives is open to all without any need to register and because the 3GPP email archives are updated in real time.



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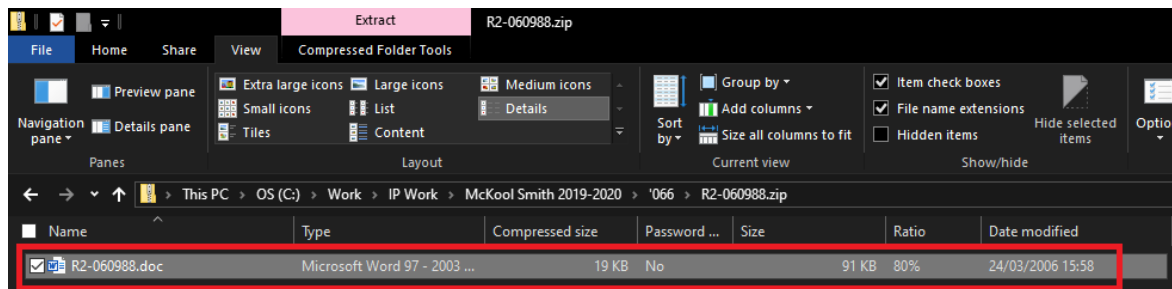


Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP\\_TSG\\_RAN\\_WG2&O=D&P=77863](https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP_TSG_RAN_WG2&O=D&P=77863)

80. The email record shows that it was sent on “Fri, 24 Mar 2006”. The email states, “Please find attached the following CATT contributions for RAN1/RAN2 JM.” (emphasis added). It includes the listing “R2-060988, PCH mapping and Paging control, 3.5” (emphasis added). The web page displaying the email provides links to download the email attachment. Selecting “R2-060988.zip.” downloads a file of the same name. The zip file that was attached to the email contained a Microsoft Word document, “R2-060988.doc”, with a date stamp of “08/02/2006,” (European date format) as shown below, i.e. the day before

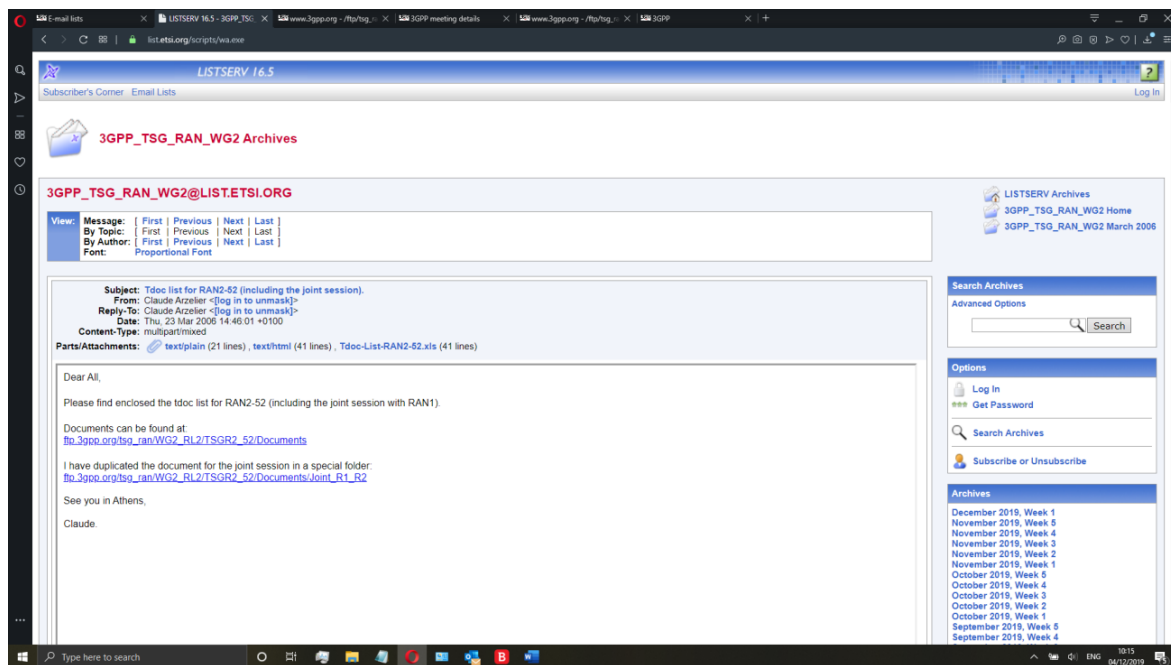
the email was sent. I have no reason to believe these date stamps are inaccurate.



81. From this, I concluded that R2-060988 was publicly distributed via email exploder on March 24, 2006, a process that the 3GPP recognizes as placing the document “in the public domain, since membership is open to all” and “no restriction has ever been placed on how meeting participants dispose of the documents.” (**Appendix E**, emphasis added).

82. In addition, a subscriber to the email list would have received the ‘TDoc list’ from which they could search for meeting contributions based on agenda item, source, title, etc. The screenshot below shows that email for the RAN WG2 #52 meeting of March 27-31, 2006. The email states: “Please find enclosed the tdoc list for RAN2-52 (including the joint session with RAN1)”. It also provides a link to the directory on the 3GPP file server where the TDocs are stored. The Tdoc list itself can be found in **Appendix S**.

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP\\_TSG\\_RAN\\_WG2&O=A&P=74325](https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP_TSG_RAN_WG2&O=A&P=74325)

83. As I mention above, following the public distribution of documents on 3GPP email reflector, meeting documents are, and were in the 2006 timeframe, also made publicly available on the 3GPP public file server from where an interested member of the public exercising reasonable diligence could freely access them. “TDoc numbers start to be allocated some weeks before a 3GPP meeting, and the authors then create them and they or the group’s secretary uploads them to the public file server as soon as possible.” (Appendix E, emphases added). To confirm the availability of R2-060988 on the 3GPP document server in the 2006

timeframe, I navigated to the 3GPP website at <http://www.3gpp.org>, selected “Specification Groups” from the menu bar, and then selected “TSG RAN” from the dropdown menu. I then selected “RAN2 – Radio layer 2 and Radio layer 3 RR” and the “Documents” link to access the public file server where documents for the TSG-RAN Working Group 2 are stored, and from where I navigated to the documents for RAN WG2 #52. A true and correct copy (with added red highlighting) of the relevant portion of the Documents directory listing produced by the file server website is provided below.

3/23/2006 12:11 PM	14598	<a href="#">R2-060987.zip</a>
3/24/2006 1:22 PM	18767	<a href="#">R2-060988.zip</a>
3/23/2006 12:11 PM	8204	<a href="#">R2-060989.zip</a>

Available at:

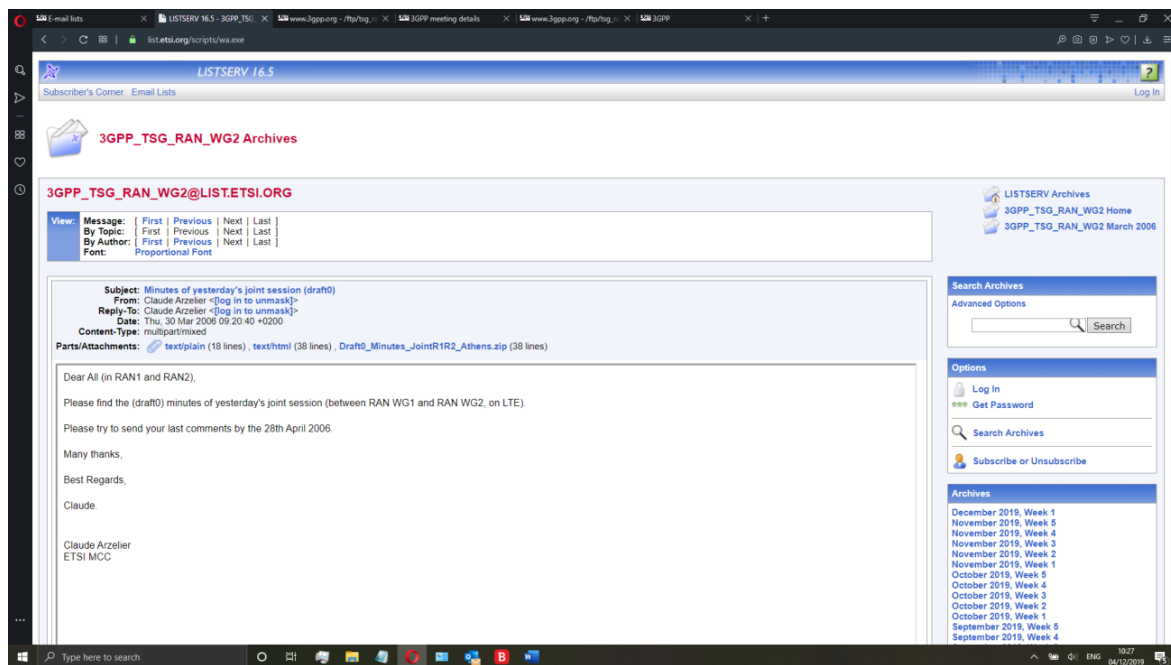
[https://www.3gpp.org/ftp/tsg\\_ran/WG2\\_RL2/TSGR2\\_52/Documents/](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_52/Documents/)

The Docs directory index stated that R2-060988 was uploaded on “3/24/2006” (US date format), the day after the email distributing it was sent. I selected the link for “R2-060988.zip” and downloaded a zip file of the same name. The zip file contained a Microsoft Word document, “R2-060988.doc”, with a date stamp of “24/03/2006” (European date format), being the same document that had been distributed by the aforementioned email. A true and correct copy of the document within the zip file (R2-060988.doc) is provided as Ericsson Exhibit 1007. Based on

my experience, I understand that these date stamps mean that R2-060988.zip was uploaded to 3GPP's publicly available website on March 24, 2006, and that any member of the public could have downloaded the zip file, extracted the Word document enclosed, and viewed the contents of the Word document without restriction on March 24, 2006 and thereafter. The availability of the document on the 3GPP file server at that time is consistent with the email attaching R2-060988 dated March 24, 2006. I have no reason to believe these date stamps are inaccurate. I have therefore determined that R2-060988 was publicly available on the file server no later than March 24, 2006.

84. The draft report of the joint RAN1/RAN2 session held at RAN2 #52 (**Appendix T**) was distributed by email to the RAN WG2 reflector on 30 March 2006 (see screenshot below). The report indicates that R2-060988 was not treated at the meeting. (Id, p. 13, § 3.5).

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Email available at:

[https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP\\_TSG\\_RAN\\_WG2&O=D&P=80686](https://list.etsi.org/scripts/wa.exe?A2=ind0603&L=3GPP_TSG_RAN_WG2&O=D&P=80686)

85. Based on the information above, it is my opinion that R2-060988 titled “PCH mapping and Paging control” and provided as Ericsson Exhibit 1007 was publicly available to download from the 3GPP file server no later than March 24, 2006. Moreover, persons that were interested in the subject matter, such as subscribers to the RAN2 email exploder, received said document via email prior to the RAN2 #52 meeting, without restriction on further dissemination, on March 24, 2006. Such persons would have been aware of the upcoming RAN2 #52 meeting, would have been informed that the meeting documents had been uploaded to the

3GPP server, would have had incentive to download emailed documents or those on the 3GPP server in anticipation of the upcoming meeting, and through the report from the meeting would been made aware of the discussion of R2-060988.

## **X. CONCLUSIONS**

86. As described under section IV of the present document, it is my opinion that 3GPP TS 25.814 V1.2.2 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Layer Aspects for Evolved UTRA (Release 7)” and provided as Ericsson Exhibit 1009, was publicly available on the 3GPP file server no later than April 04, 2006. Further an interested member of the public who subscribed to the email reflector for 3GPP TSG RAN would have known as early as April 03, 2006, from an email notification to the email reflector, about the upcoming publication of the document on the 3GPP file server.

87. As described under section V of the present document, it is my opinion that R1-060187 titled “OFDMA Downlink Physical channel mapping – text proposal” and provided as Ericsson Exhibit 1012, was publicly available on the 3GPP file server no later than January 19, 2006. Further an interested member of the public who subscribed to the email reflector for 3GPP TSG RAN WG1 would have known as early as January 19, 2006, from an email notification to the email reflector, about the publication of the document, both as an attachment to the

email and also on the 3GPP file server.

88. As described under section VI of the present document, it is my opinion that R1-060572 titled “LTE physical-layer models” and provided as Ericsson Exhibit 1008, was publicly available on the 3GPP file server no later than February 09, 2006. Further an interested member of the public who subscribed to the email reflector for 3GPP TSG RAN WG1 would have known as early as February 09, 2006, from an email notification to the email reflector, about the publication of the document, both as an attachment to the email and also on the 3GPP file server.

89. As described under section VII of the present document, it is my opinion that R1-060576 titled “Paging for E-UTRA” and provided as Ericsson Exhibit 1011, was publicly available on the 3GPP file server no later than February 09, 2006. Further an interested member of the public who subscribed to the email reflector for 3GPP TSG RAN WG1 would have known as early as February 09, 2006, from an email notification to the email reflector, about the publication of the document, both as an attachment to the email and also on the 3GPP file server.

90. As described under section VIII of the present document, it is my opinion that R2-060429 titled “Evolved Paging for LTE” and provided as Ericsson Exhibit 1010, was publicly available on the 3GPP file server no later than February 09, 2006. Further an interested member of the public who subscribed to the email



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reflector for 3GPP TSG RAN WG2 would have known as early as February 08, 2006, from an email notification to the email reflector, about the publication of the document, both as an attachment to the email and also on the 3GPP file server.

91. As described under section IX of the present document, it is my opinion that R2-060988 titled “PCH mapping and Paging control” and provided as Ericsson Exhibit 1007, was publicly available on the 3GPP file server no later than March 24, 2006. Further an interested member of the public who subscribed to the email reflector for 3GPP TSG RAN WG2 would have known as early as March 24, 2006, from an email notification to the email reflector, about the publication of the document, both as an attachment to the email and also on the 3GPP file server.

92. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. I hereby 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 wilful 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.

Date: December 10, 2019

By: 

Printed Name: Craig Bishop