

(51) International Patent Classification:
H04W 4/06 (2009.01)(21) International Application Number:
PCT/US2012/042526(22) International Filing Date:
14 June 2012 (14.06.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
13/162,926 17 June 2011 (17.06.2011) US(71) Applicant (for all designated States except US): **QUALCOMM INCORPORATED** [US/US]; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, California 92121-1714 (US).

(72) Inventors; and

(57) Inventors/Applicants (for US only): **KRISHNASWAMY, Dilip** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **SOLIMAN, Samir S.** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **ERAVELLI, Srinivasa R.** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **GUPTA, Rajat** [IN/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **DOS SANTOS, Jose Ricardo** [PT/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US).(74) Agent: **JACOBS, Jeffrey, D.**; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, California 92121-1714 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

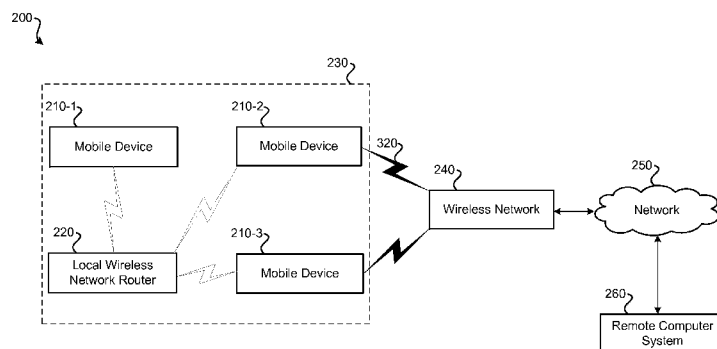
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))

[Continued on next page]

(54) Title: METHOD, APPARATUSES AND COMPUTER PROGRAM PRODUCT FOR RECEIVING SHARED DATA AND DATA THAT MAY NOT BE SHARED VIA A WIRELESS NETWORK

**FIG. 2**

(57) Abstract: Various arrangements for cooperative data transport are presented. These arrangements may include a first mobile device configured to receive, via a first wireless network, a first set of shared data. The first set of shared data may be shared among a plurality of mobile devices using a second wireless network. The first mobile device may also receive, via the first wireless network, a first set of private data, wherein the first set of private data is intended for the first mobile device. The first set of private data may not be shared among the plurality of mobile devices.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
25 April 2013

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/042526

A. CLASSIFICATION OF SUBJECT MATTER

INV. H04W4/06

ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04W H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/211720 A1 (FUCHS MEIR [IL] ET AL) 13 September 2007 (2007-09-13) paragraphs [0042], [0068] - [0070], [0079] - [0123]; figures 1,2 -----	1-43
X	WARABINO T ET AL: "OVERHEAD REDUCTION OF INTERNET INDIRECTION INFRASTRUCTURE (I3) FOR FUTURE MOBILE AND WIRELESS COMMUNICATIONS", IEICE TRANSACTIONS ON COMMUNICATIONS, COMMUNICATIONS SOCIETY, TOKYO, JP, vol. E90B, no. 4, 1 April 2007 (2007-04-01), pages 761-768, XP001541830, ISSN: 0916-8516, DOI: 10.1093/IETCOM/E90-B.4.761 paragraphs [Summary], [002.] - [2.2.]; figures 1b,2b ----- -/-	1-43



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

14 February 2013

Date of mailing of the international search report

22/02/2013

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Günther, Steffen

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/042526

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	STOICA I ET AL: "INTERNET INDIRECTION INFRASTRUCTURE", IEEE / ACM TRANSACTIONS ON NETWORKING, IEEE / ACM, NEW YORK, NY, US, vol. 12, no. 2, 1 April 2004 (2004-04-01), pages 205-218, XP001193285, ISSN: 1063-6692, DOI: 10.1109/TNET.2004.826279 paragraphs [Abstract] - [001.], [II.D.2)], [II.I.]; figures 1c,2b,7 -----	1-43
A	AGRAWAL P ET AL: "MTorrent: A multicast enabled BitTorrent protocol", COMMUNICATION SYSTEMS AND NETWORKS (COMSNETS), 2010 SECOND INTERNATIONAL CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 5 January 2010 (2010-01-05), pages 1-10, XP031670909, ISBN: 978-1-4244-5487-7 paragraphs [Abstract], [001.] - [III.]; figure 1 -----	1-43
A	US 2002/080755 A1 (TASMAN MITCHELL PAUL [US] ET AL) 27 June 2002 (2002-06-27) paragraphs [0046] - [0107]; figures 1a,3b,4 -----	1-43

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/042526

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2007211720 A1	13-09-2007	EP 1676401 A2 IL 158158 A US 2007211720 A1	05-07-2006 31-05-2012 13-09-2007
US 2002080755 A1	27-06-2002	NONE	