### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau

## (43) International Publication Date 21 October 2010 (21.10.2010)





# (10) International Publication Number WO 2010/120674 A3

- (51) International Patent Classification: *H04L 29/06* (2006.01)
- (21) International Application Number:

PCT/US2010/030716

(22) International Filing Date:

12 April 2010 (12.04.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/169,929 12/437,276

16 April 2009 (16.04.2009) 7 May 2009 (07.05.2009)

US US

- (71) Applicant (for all designated States except US): ALCA-TEL-LUCENT USA INC. [US/US]; 600-700 Mountain Avenue, Murray Hill, NJ 07974-0636 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BRUSILOVSKY, Alec [US/US]; 3844 Caine Court, Naperville, IL 60564 (US). ALFANO, Frank [US/US]; 710 Gary Avenue, Wheaton, IL 60187 (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, RO, RS, RU, 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.

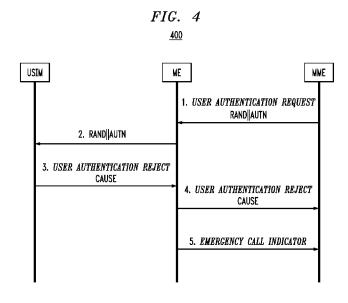
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS,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

#### Published:

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

24 March 2011

(54) Title: EMERGENCY CALL HANDLING IN ACCORDANCE WITH AUTHENTICATION PROCEDURE IN COMMUNICATION NETWORK



(57) Abstract: Techniques are provided for handling of an emergency call as it affects an authentication procedure in a communication network. For example, it is assumed that, in a communication network, a first computing device comprises user equipment and a second computing device comprises an authentication function. Thus, a method comprises the following steps. A first type call indicator message is received at the second computing device from the first computing device. A decision is made to proceed with or drop an authentication procedure for the first computing device at the second computing device based on the first type call indicator message. The second computing device may enable a first type call to be placed for the first computing device. The first type call may be an emergency



## INTERNATIONAL SEARCH REPORT

International application No PCT/US2010/030716

A. CLASSIFICATION OF SUBJECT MATTER INV. H04W4/22

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 practical, search terms used)

EPO-Internal, WPI Data

| C. DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |  |  |  |  |
|--|---|-----------------------|--|--|--|--|
| Category*                              | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |  |  |  |  |
| X                                      | US 2007/123208 A1 (BATTA PUNEET [US] ET<br>AL) 31 May 2007 (2007-05-31)<br>* abstract<br>paragraph [0001] - paragraph [0002]<br>paragraph [0012] - paragraph [0018] | 1-10                  |  |  |  |  |
| X                                      | GB 2 437 346 A (SAMSUNG ELECTRONICS CO LTD [KR]) 24 October 2007 (2007-10-24)  * abstract; figures 1,6,8 page 1 page 5 - page 7 page 11 - page 13 page 15           | 1-10                  |  |  |  |  |

| Further documents are listed in the continuation of Box C.  | X See patent family annex.  |
|---|---|
| "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier document 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   | Date of mailing of the international search report  |
| 24 January 2011   | 01/02/2011  |
| 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  Lamelas Polo, Yvan  |

## INTERNATIONAL SEARCH REPORT

International application No
PCT/US2010/030716

| C(Continua | tion). DOCUMENTS CONSIDERED TO BE RELEVANT  |                       |
|------------|---|-----------------------|
| Category*  | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| Х          | US 2008/009262 A1 (RUDOLF MARIAN [FR] ET AL) 10 January 2008 (2008-01-10) * abstract paragraph [0006] paragraph [0015] paragraph [0017] - paragraph [0019] paragraph [0021] paragraph [0025] paragraph [0043]   | 1-10                  |
| X          | "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Support for Internet Protocol (IP) based IP Multimedia Subsystem (IMS) Emergency calls over General Packet Radio Service (GPRS) and Evolved Packet Service (EPS) (Release 9)", 3GPP STANDARD; 3GPP TR 23.869, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE; 650, ROUTE DES LUCIOLES; F-06921 SOPHIA-ANTIPOLIS CEDEX; FRANCE, no. V9.0.0, 1 March 2009 (2009-03-01), pages 1-35, XP050364031, *Annex C* | 1-10                  |
| X          | ALCATEL-LUCENT ET AL: "Addition of EC Clauses to the Rel-9 TS 33.401", 3GPP DRAFT; S3-091073 33.401 EC-RELATED CLAUSES ADDED DELTA, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE; 650, ROUTE DES LUCIOLES; F-06921 SOPHIA-ANTIPOLIS CEDEX; FRANCE, 26 March 2009 (2009-03-26), XP050347700, [retrieved on 2009-05-12] page 8 - page 10   | 1-10                  |

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2010/030716

| Patent document cited in search report |    | Publication<br>date | Patent family<br>member(s)                         |  | Publication<br>date  |  |
|--|----|---------------------|--|--|--|--|
| US 2007123208                          | A1 | 31-05-2007          | NON  | E  |  |  |
| GB 2437346                             | Α  | 24-10-2007          | NONE   |  |  |  |
| US 2008009262                          | A1 | 10-01-2008          | AR<br>AU<br>CA<br>CN<br>EP<br>JP<br>KR<br>KR<br>WO | 060909 A1 2007282168 A1 2651977 A1 101444118 A 2022288 A1 2009537108 T 20090019832 A 20090023479 A 2008018937 A1 | 23-07-2008<br>14-02-2008<br>14-02-2008<br>27-05-2009<br>11-02-2009<br>22-10-2009<br>25-02-2009<br>04-03-2009 |  |