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(54) Title: GENERIC MULTI-ACCESS PROTOCOLS FOR NEXT GENERATION MULTI-ACCESS NETWORKS

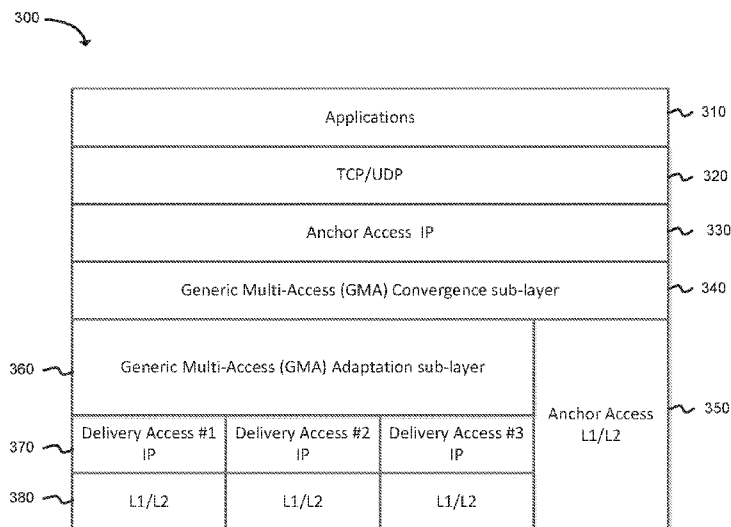
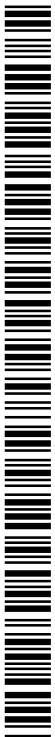


FIG. 3

(57) Abstract: Technology for a User Equipment (UE) operable to support a client connection manager (CCM) to communicate over a generic multi-access (GMA) control plane protocol, and to support a client Multi-Access Data Proxy (C-MADP) to communicate over a generic multi-access (GMA) user plane protocol is disclosed. The UE can decode an initial (INIT) request (REQ) message received from a network connection manager (NCM) for capability exchange & initial configurations. The UE can encode, for transmission to the NCM, an INIT response (RSP) message. The UE can encode, for transmission to the NCM, a reconfiguration request (REQ) message, wherein the reconfiguration message includes a connection identification (ID) to identify a connection for reconfiguration; and a reconfiguration action to indicate which reconfiguration action to request one or more of a setup or a release of a secondary connection.



SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,  
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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
INV. H04W36/00 H04W80/04  
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  
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)  
EPO-Internal, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
T	KANUGOVI S VASUDEVAN NOKIA J ZHU INTEL F BABOESCU BROADCOM S PENG HUAWEI S SEO KOREA TELECOM S: "Control Plane Protocols and Procedures for Multiple Access Management Services; draft-zhu-intarea-mams-control-protocol-01.txt", CONTROL PLANE PROTOCOLS AND PROCEDURES FOR MULTIPLE ACCESS MANAGEMENT SERVICES; DRAFT-ZHU-INTAREA-MAMS-CONTROL-PROTOCOL-01.TXT, INTERNET ENGINEERING TASK FORCE, IETF; STANDARDWORKINGDRAFT, INTERNET SOCIETY (ISOC) 4, RUE DES FALAISES CH-1205 GENEVA,, 27 March 2017 (2017-03-27), pages 1-19, XP015118910, [retrieved on 2017-03-27] the whole document ----- -/--	1-18

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

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Date of the actual completion of the international search <b>9 May 2018</b>	Date of mailing of the international search report <b>25/05/2018</b>
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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 <b>Carnerero Álvaro, F</b>
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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2017/025612

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ALBENA MIHOVSKA ET AL: "Requirements and Algorithms for Cooperation of Heterogeneous Radio Access Networks", WIRELESS PERSONAL COMMUNICATIONS, KLUWER ACADEMIC PUBLISHERS, DO, vol. 50, no. 2, 15 October 2008 (2008-10-15), pages 207-245, XP019691143, ISSN: 1572-834X the whole document	1-36
A	----- JOACHIM SACHS ET AL: "Multi-access Management in Heterogeneous Networks", WIRELESS PERSONAL COMMUNICATIONS, KLUWER ACADEMIC PUBLISHERS, DO, vol. 48, no. 1, 24 November 2007 (2007-11-24), pages 7-32, XP019650471, ISSN: 1572-834X the whole document	1-18
X	----- ERICSSON: "Overview of LTE-WLAN integration supporting legacy WLAN", 3GPP DRAFT; R2-154769- OVERVIEW OF LTE WLAN INTEGRATION SUPPORTING LEGACY WLAN, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS , vol. RAN WG2, no. Malmö, Sweden; 20151005 - 20151009 26 September 2015 (2015-09-26), XP051023979, Retrieved from the Internet: URL: <a href="http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_91bis/Docs/">http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_91bis/Docs/</a> [retrieved on 2015-09-26] the whole document	20,23