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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 January 2011 (20.01.2011)

PCT

(10) International Publication Number
WO 2011/008000 A3

(51) International Patent Classification:
H04L 29/06 (2006.01) *H04W 80/02* (2009.01)

(21) International Application Number:
PCT/KR2010/004535

(22) International Filing Date:
13 July 2010 (13.07.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1662/CHE/2009 13 July 2009 (13.07.2009) IN
1662/CHE/2009 2 July 2010 (02.07.2010) IN

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(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 (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

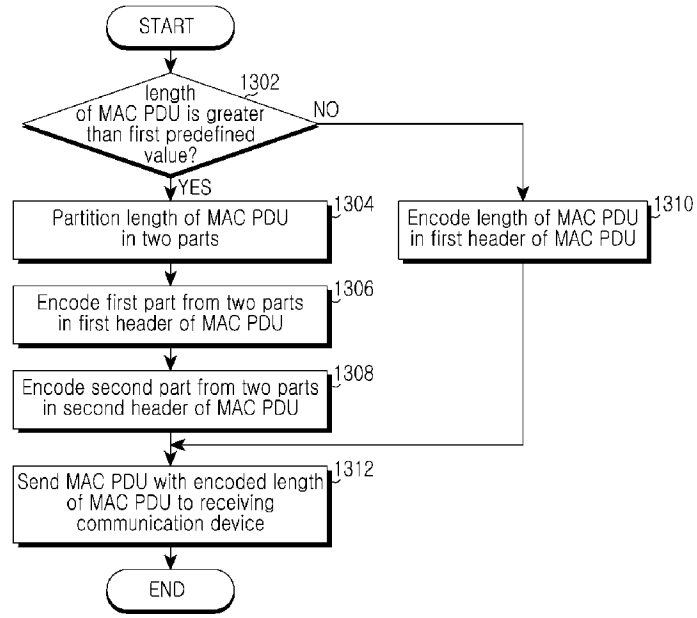
Published:

— *with international search report (Art. 21(3))*

[Continued on next page]

(54) **Title**: METHOD AND SYSTEM FOR ENCODING AND DECODING LENGTH OF MEDIUM ACCESS CONTROL PROTOCOL DATA UNIT

[Fig. 13]



(57) **Abstract**: A method and system for encoding the length of a Medium Access Control (MAC) Protocol Data Unit (PDU) is provided. The method includes partitioning the length of the MAC PDU into a first part and a second part when the length of the MAC PDU is greater than a first predefined value, encoding the first part in a first header of the MAC PDU, encoding the second part in a second header of the MAC PDU, encoding the length of the MAC PDU in a first header of the MAC PDU when the length of the MAC PDU is less than or equal to first predefined value, and transmitting the MAC PDU with the encoded length of the MAC PDU to a receiving communication device. In another embodiment, the invention includes a method and apparatus for decoding an encoded length of a MAC PDU.

WO 2011/008000 A3

— *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:
21 April 2011

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2010/004535

A. CLASSIFICATION OF SUBJECT MATTER

H04L 29/06(2006.01)i, H04W 80/02(2009.01)i

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)
H04L 29/06; H04B 7/216; H04J 3/24

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: Medium Access Control Protocol Data Unit, MAC PDU, MAC layer packet, IEEE 802.16

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	AGIWAL et al. `Proposed Text on Construction & Transmission of MAC PDU secti on for AWD.` IEEE 802.16 Broadband Wireless Access Working Group, 27 April 2 009. (Retrieved from the Internet on 24 February 2011: <http://www.ieee802. org/16/tgm/contrib/C80216m-09_0981.doc>) See sections 15.2.x.2-15.2.x.4.	1-32
A	TAO et al. 'Performance Improvement for Multichannel HARQ Protocol in Next Generation WiMAX System.' In: IEEE Wireless Communications and Networking Conference. 2008, pp. 2009-2014. See section II.A; figure 1.	1-32
A	HUAWEI, `Concatenated MAC-hs PDU,' 3GPP Draft R2-061211, 3GPP TSG-RAN-WG2 Me eting #53, 8-12 May 2006. (Retrieved from the Internet on 25 February 2011: <http://www.quintillion.co.jp/3GPP/TSG_RAN/TSG_RAN2006/TSG_RAN_WG2_RL2_5.htm >) See section 2.	1-32
A	US 6590882 B1 (FONG, MO-HAN et al.) 08 July 2003 See figures 2-4.	1-32

☐ 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	Date of mailing of the international search report
25 FEBRUARY 2011 (25.02.2011)	**25 FEBRUARY 2011 (25.02.2011)**

Name and mailing address of the ISA/KR
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Facsimile No. 82-42-472-7140

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2010/004535

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6590882 B1	08.07.2003	None	