

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
5 July 2007 (05.07.2007)

PCT

(10) International Publication Number  
**WO 2007/075854 A3**

(51) International Patent Classification:  
**H04L 12/56** (2006.01)

(21) International Application Number:  
PCT/US2006/048725

(22) International Filing Date:  
20 December 2006 (20.12.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
11/316,601 22 December 2005 (22.12.2005) US

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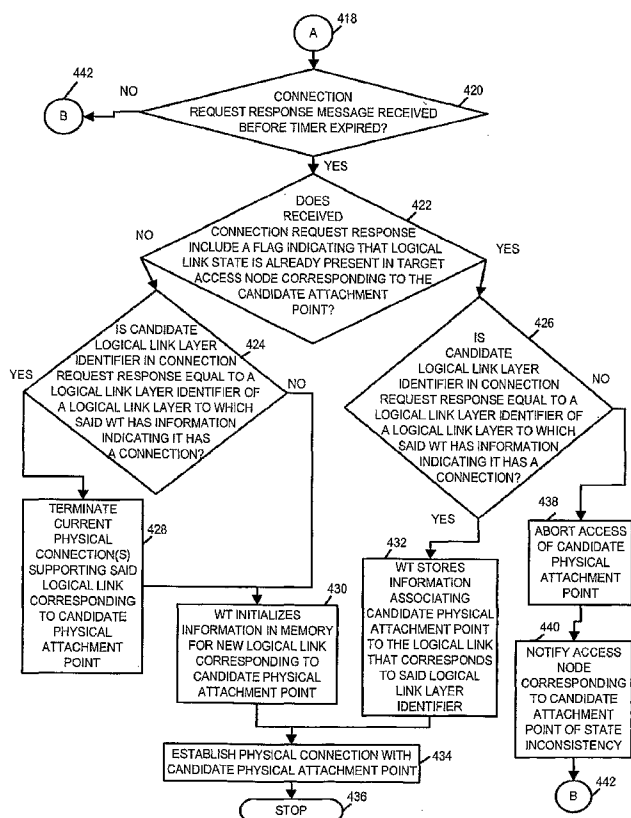
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(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS,  
JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS,  
LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY,  
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,

[Continued on next page]

(54) Title: COMMUNICATIONS METHODS AND APPARATUS FOR USING A SINGLE LOGICAL LINK WITH MULTIPLE PHYSICAL LAYER CONNECTIONS



(57) Abstract: A base station uses a common link layer controller corresponding to multiple physical attachment points, facilitating multiple concurrent wireless connections between different base station sector physical attachment points and the same wireless terminal using the same link layer link. A wireless terminal maintains multiple simultaneous wireless connections for the same link layer link. A packet of user data is fragmented into a plurality of grouping of MAC frames, thus a packet portion can be communicated over a connection. A single packet is sometimes communicated with different portions conveyed over different wireless connections. Automatic repeat request, implemented using the common link layer controller, allows for retransmission of a packet portion over a different connection than it was initially transmitted over. A wireless terminal sends connection request messages including lists of link layer identifiers associated with the wireless terminal. A base station sends response messages including an indication of whether logical link state was already present.

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RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

- (88) Date of publication of the international search report:**

13 September 2007

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*