PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : H04L 1/18, 1/00 — A1

(11) International Publication Number: **WO 00/24152**

(43) International Publication Date: 27 April 2000 (27.04.00)

(21) International Application Number: PCT/EP99/07567

(22) International Filing Date: 8 October 1999 (08.10.99)

(30) Priority Data:
98119947.4 21 October 1998 (21.10.98) EP

(71) Applicant: TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S–126 25 Stockholm (SE).

(72) Inventors: RATHONYI, Bela; Kiviksg. 8c, S–214 40 Malmö (SE). KHAN, Farooq; 810 Solook Drive, Parlin, NJ 08859 (US). LUDWIG, Reiner; Helga Hoeppner, Im Levert 14, D–52355 Düren (DE).

(74) Agents: VON FISCHERN, Bernhard et al.; Hoffmann . Eitle, Arabellastrasse 4, D–81925 Munich (DE).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: ARQ PROTOCOL WITH PACKET–BASED RELIABILITY LEVEL SETTING

(57) **Abstract**

A communication device and method is provided, for which, when having implementations of first protocol that specifies different reliability levels for sending PDUs of a second protocol, where the second protocol specifies segmentation of PDUs of a third, higher layer protocol, a capability is introduced for setting the reliability level of second protocol (L2_ARQ) PDUs differently for second protocol PDUs belonging to a defined data structure containing such second protocol (L2_ARQ) data units. The defined data structure can be a higher layer protocol data unit or the send window. Thereby the delay caused by retransmission of second protocol data units can be reduced significantly.

