

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 October 2006 (19.10.2006)

PCT

(10) International Publication Number
WO 2006/110672 A3

(51) International Patent Classification:
G06F 15/167 (2006.01) **G06F 15/173** (2006.01)

(21) International Application Number:
PCT/US2006/013347

(22) International Filing Date: 11 April 2006 (11.04.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
05252251.3 11 April 2005 (11.04.2005) EP

(71) Applicant (for all designated States except US): **LAST-MILE COMMUNICATIONS LIMITED** [GB/GB]; 39 Marsh Green Road, Marsh Barton Industrial Estate, Exeter Devon EX2 8PN (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BALLOU, Bernard L., Jr.** [US/US]; 11404 Blackbrook Court, Raleigh, NC 27614 (US). **HUNTER, Charles Eric** [US/US]; 1329 Phoenix Colvard Road, Jefferson, NC 28640 (US). **CROCKER, Timothy Richard** [GB/GB]; 4 Middlewood, Exeter Cockwood EX6 8RN (GB).

(74) Agent: **FISCHMAN, Steven**; Scully, Scott, Murphy & Presser PC, 400 Garden City Plaza, Garden City, NY 11530 (US).

(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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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:
9 August 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.

(54) Title: A COMMUNICATIONS NETWORK

(57) Abstract: A distributed communications network comprising a plurality of nodes (40-42) and a plurality of user devices (54 and 58), wherein each node comprises: a communications device for establishing bi-directional wireless communication with at least one user device, communications device for establishing bi-directional communication with at least one other node; and a data processor (50) in association with a local memory (60) for storing information for presentation to users, and wherein at least one of the nodes further includes a communications device connected to a further communications network, and wherein nodes are grouped into clusters that cooperates with one another such that if a user requests information which is held in the local memory of a node within a cluster then the nodes cooperate to supply that information to the user and if a connection between a user and the further communications network is required, the nodes cooperate to establish it.



WO 2006/110672 A3