

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/062528 A3

(51) International Patent Classification⁷: **H04L 12/56**

(74) Agents: **DONALD, Heather, June** et al.; Spoor & Fisher,
P. O. Box 41312, Craighall, 2146 Morningside (ZA).

(21) International Application Number:
PCT/IB2004/004111

(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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, 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.

(22) International Filing Date:
14 December 2004 (14.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/531,308 19 December 2003 (19.12.2003) US

(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, 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).

(71) Applicant (*for all designated States except US*): **IWICS Inc** [US/US]; 19125 North Creek Parkway, Suite 201, Bothell, WA 98011 (US).

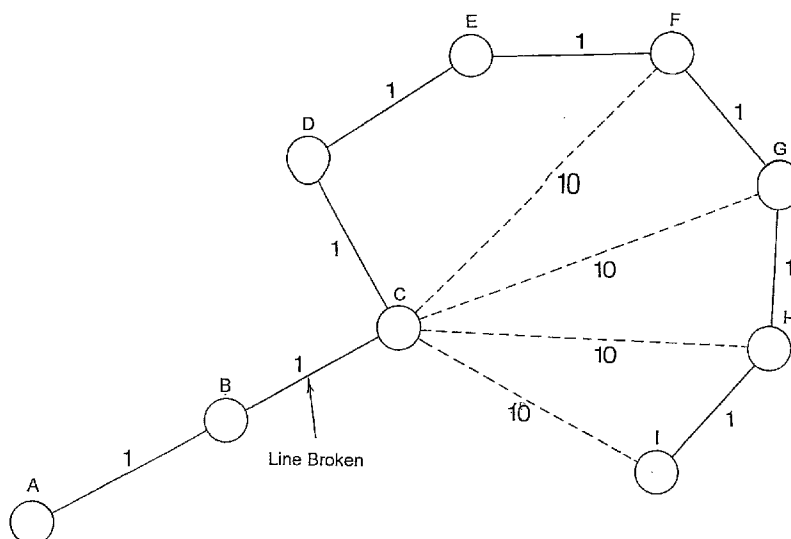
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LARSEN, James, David** [ZA/US]; 22023 78th Place West, Edmonds, WA 98026 (US). **RODMAN, Paul, Jonathan** [US/US]; 12221 NE 82nd Lane, Kirkland, WA 98033 (US).

Published:
— with international search report

[Continued on next page]

(54) Title: PROBING METHOD FOR A MULTI-STATION NETWORK



(57) Abstract: The invention relates to a method of operating a communication network, the network comprising a plurality of stations which are able to transmit data to and receive data from one another. The method comprises defining a first probing channel for the transmission of probe signals to other stations. Other stations which receive the first probe signals from a probing station indicate to the probing station their availability as destination or intermediate stations. A neighbor table comprising details of these other available stations is maintained at each station. Also, second probe signals are sent and received from stations in the neighbor table and a gradient table comprising data related to the cost of communicating with each neighbor station is maintained at each station, thereby to allow each station to select a predetermined number of intermediate stations for onward transmission of data from an originating station to a destination station at minimum cost.

WO 2005/062528 A3



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

13 October 2005

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.