

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 January 2004 (08.01.2004)

PCT

(10) International Publication Number
WO 2004/004226 A2

(51) International Patent Classification⁷: **H04L 12/28**

(21) International Application Number:
PCT/GB2003/002729

(22) International Filing Date: 25 June 2003 (25.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/180,768 26 June 2002 (26.06.2002) US

(71) Applicant: **INTERNATIONAL BUSINESS MACHINES CORPORATION** [US/US]; New Orchard Road, Armonk, NY 10504 (US).

(71) Applicant (for MG only): **IBM UNITED KINGDOM LIMITED** [GB/GB]; PO Box 41, North Harbour, Portsmouth, Hampshire PO6 3AU (GB).

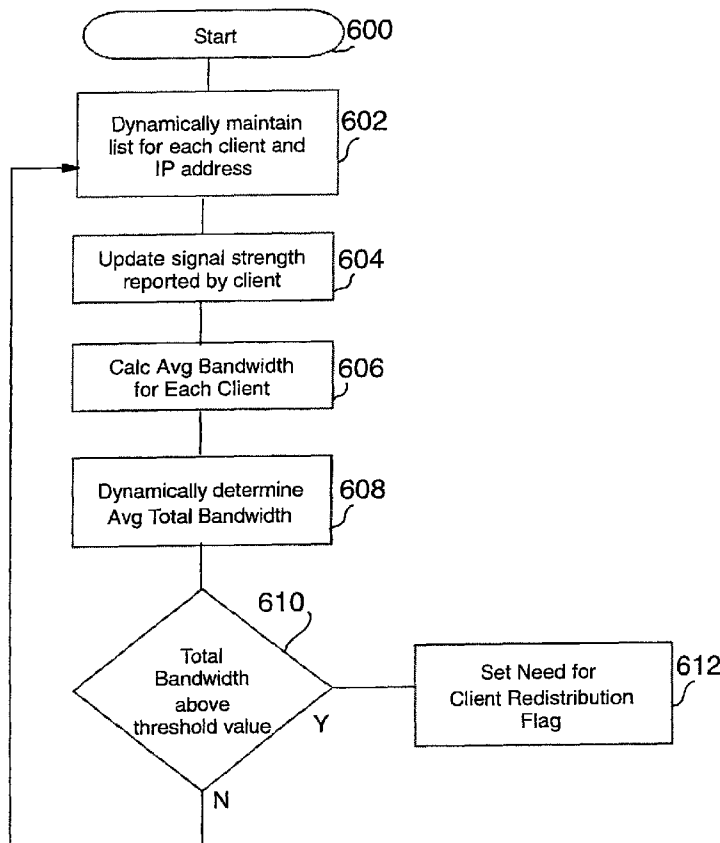
(72) Inventors: **CROMER, Daryl, Carvis**; 206 Haley House Lane, Apex, NC 27502 (US). **JAKES, Philip, John**; 4303 Thetford Road, Durham, NC 27707 (US). **LOCKER, Howard, Jeffrey**; 404 Hogans Valley Way, Cary, NC 27513 (US). **WARD, James, Peter**; 107 Hemingway Forest Place, Raleigh, NC 27607 (US).

(74) Agent: **MOSS, Robert, Douglas**; IBM United Kingdom Limited, Intellectual Property Law, Hursley Park, Winchester, Hampshire SO21 2JN (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: ACCESS POINT INITIATED FORCED ROAMING BASED UPON BANDWIDTH



(57) Abstract: Apparatus and method provides dynamic load balancing of network bandwidth between access points in an 802.11 wireless LAN. The access point generates and monitors average bandwidth utilization of client devices connected to said access point. The average bandwidth utilization for each client device is aggregated and selected clients are forced to roam to other access points if the aggregate bandwidth is equal or exceeds a threshold.

WO 2004/004226 A2



(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

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.