

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 March 2006 (23.03.2006)

PCT

(10) International Publication Number
WO 2006/031493 A3

- (51) International Patent Classification:
H04L 12/28 (2006.01) H04Q 7/24 (2006.01)
H04Q 7/00 (2006.01)
- (21) International Application Number:
PCT/US2005/031633
- (22) International Filing Date:
7 September 2005 (07.09.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/608,766 10 September 2004 (10.09.2004) US
11/018,184 21 December 2004 (21.12.2004) US
- (71) Applicant (for all designated States except US): INTER-DIGITAL TECHNOLOGY CORPORATION [US/US];
300 Delaware Avenue, Suite 527, Wilmington, Delaware 19801 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CUFFARO, Angelo [CA/CA]; 3837 Place du Brigadier, Laval, Québec

H7E 5M7 (CA). CAVE, Christopher [CA/CA]; 63 Place Chambord, Candiac, Québec J5R 4W7 (CA). MARINIER, Paul [CA/CA]; 1805 Stravinski, Brossard, Québec J4X 2J7 (CA). ROY, Vincent [CA/CA]; 6254 De La Roche, Montreal, Québec H2S 2E1 (CA).

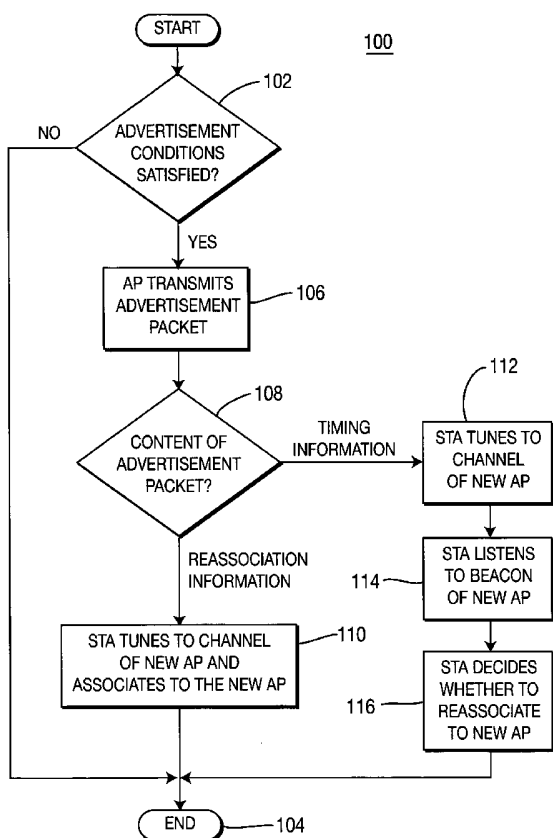
(74) Agent: BALLARINI, Robert, J.; VOLPE AND KOENIG, P.C., United Plaza, Suite 1600, 30 S. 17th Street, Philadelphia, Pennsylvania 19103 (US).

(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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, 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,

[Continued on next page]

(54) Title: ACCELERATING DISCOVERY OF ACCESS POINTS IN A WIRELESS LOCAL AREA NETWORK



(57) Abstract: A method (100) for accelerating discovery of access points (APs) in a wireless local area network begins by transmitting an advertisement packet by an AP via at least one channel other than a channel on which the AP transmits beacon signals. The advertisement packet is received by a station (STA), which then determines whether to associate to the transmitting AP. The advertisement packet can include reassociation information, such that the STA can associate to the AP based on the information in the advertisement packet, or timing information, such that the STA can tune to the AP and receive the AP's beacon without dwelling on the AP for an extended period of time.

WO 2006/031493 A3



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).

(88) Date of publication of the international search report:
26 May 2006

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.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 0/531633

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) : H04L 12/28; H04Q 7/00, 7/24

US CL : 370/ 254, 328, 338

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 370/ 254, 328, 338

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	US 2004/0264475 A1 (KOWALSKI) 30 December 2004 (30.12.2004), fig. 1.	1-2, 7, 9-10, 12 and 17-20
X, E	US 2005/0226207 A1 (SHARMA) 13 October 2005 (13.10.2005), fig. 3.	1-2, 7, 9-10, 12 and 17-20

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

06 February 2006 (06.02.2006)

Date of mailing of the international search report

05 APR 2006

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Kevin C. Harper

Telephone No. 571-272-0000

