

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 August 2007 (09.08.2007)

PCT

(10) International Publication Number
WO 2007/089217 A3

(51) International Patent Classification:
H04L 7/00 (2006.01) **H04L 12/28** (2006.01)

(74) Agent: **PARKER, Stephen, B.**; Watchstone P+D, PLC,
1250 Connecticut Ave. N.W., Suite 700, Washington, D.C.
20036-2657 (US).

(21) International Application Number:
PCT/US2005/040188

(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.

(22) International Filing Date:
5 November 2005 (05.11.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/625,106 5 November 2004 (05.11.2004) US
60/593,377 9 January 2005 (09.01.2005) US
60/670,655 13 April 2005 (13.04.2005) US
60/697,589 11 July 2005 (11.07.2005) 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, 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).

(71) Applicants (for all designated States except US):
KABUSHIKI KAISHA TOSHIBA [JP/JP]; 1-1,
Shibaura 1-chome, Minato-ku, Tokyo (JP). **TELCORDIA
TECHNOLOGIES, INC.** [US/US]; One Telcordia Drive
05G0116, Piscataway, New Jersey 08854 (US).

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

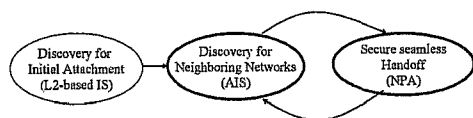
(72) Inventors; and

(75) Inventors/Applicants (for US only): **KENICHI, Tani-
uchi** [JP/US]; 1 Telcordia Drive, Suite 1A257, Piscataway,
New Jersey 08854 (US). **YOSHIHIRO, Oba** [JP/US];
1 Telcordia Drive, Suite 1A257, Piscataway, New Jersey
08854 (US). **DAS, Subir** [IN/US]; One Telcordia Drive
05G0116, Piscataway, NJ 08854 (US). **DUTTA, Ashutosh**
[IN/US]; One Telcordia Drive 05G0116, Piscataway, New
Jersey 08854 (US). **ZHANG, Tao** [—/US]; One Telcordia
Drive 05G0116, Piscataway, New Jersey 08854 (US).

(88) Date of publication of the international search report:
22 November 2007

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: NETWORK DISCOVERY MECHANISMS



Integration of Network Discovery and Secure Seamless handoff

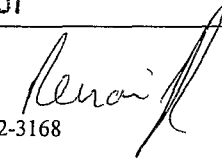
(57) Abstract: In some of the preferred embodiments, a method
for network discovery of a mobile device to use at least one of a
plurality of access networks within an IP network includes: ob-
taining specified network information in the vicinity of a given
location based on a set of criteria when a mobile is connected to
the IP network from any location.

WO 2007/089217 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/40188

A. CLASSIFICATION OF SUBJECT MATTER IPC: H04Q 7/00(2006.01);H04L 12/28(2006.01) USPC: 370/331,254 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. : 370/331,254,328,338 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)																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 6,522,880 B1 (VERMA et al) 18 February 2003 (18.02.2003), column 1, line 25 - column 2, line 60; column 8, lines 9-24; column 9, lines 22-48; Figure 4.</td> <td>1-32</td> </tr> <tr> <td>A</td> <td>US 6,304,556 (HAAS) 16 October 2001 (16.10.2001), column 5, lines 36-62; column 6, lines 56-67; column 8, lines 48-57; column 9, lines 32-41.</td> <td>1-32</td> </tr> <tr> <td>A</td> <td>US 6,704,301 (CHARI et al) 9 March 2004 (09.03.2004), column 4, lines 32-67; Figure 3A.</td> <td>1-32</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 6,522,880 B1 (VERMA et al) 18 February 2003 (18.02.2003), column 1, line 25 - column 2, line 60; column 8, lines 9-24; column 9, lines 22-48; Figure 4.	1-32	A	US 6,304,556 (HAAS) 16 October 2001 (16.10.2001), column 5, lines 36-62; column 6, lines 56-67; column 8, lines 48-57; column 9, lines 32-41.	1-32	A	US 6,704,301 (CHARI et al) 9 March 2004 (09.03.2004), column 4, lines 32-67; Figure 3A.	1-32						
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																		
X	US 6,522,880 B1 (VERMA et al) 18 February 2003 (18.02.2003), column 1, line 25 - column 2, line 60; column 8, lines 9-24; column 9, lines 22-48; Figure 4.	1-32																		
A	US 6,304,556 (HAAS) 16 October 2001 (16.10.2001), column 5, lines 36-62; column 6, lines 56-67; column 8, lines 48-57; column 9, lines 32-41.	1-32																		
A	US 6,704,301 (CHARI et al) 9 March 2004 (09.03.2004), column 4, lines 32-67; Figure 3A.	1-32																		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																				
<table border="1"> <thead> <tr> <th colspan="2">* Special categories of cited documents:</th> <th></th> </tr> </thead> <tbody> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"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</td> </tr> <tr> <td>"E"</td> <td>earlier application or patent published on or after the international filing date</td> <td>"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</td> </tr> <tr> <td>"L"</td> <td>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)</td> <td>"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</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td></td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td>"&" document member of the same patent family</td> </tr> </tbody> </table>			* Special categories of cited documents:			"A"	document defining the general state of the art which is not considered to be of particular relevance	"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	"E"	earlier application or patent published on or after the international filing date	"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	"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)	"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	"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	"&" document member of the same patent family
* Special categories of cited documents:																				
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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																		
"E"	earlier application or patent published on or after the international filing date	"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																		
"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)	"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																		
"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	"&" document member of the same patent family																		
Date of the actual completion of the international search 16 August 2007 (16.08.2007)		Date of mailing of the international search report 21 SEP 2007																		
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 Michael J. Moore, Jr.  Telephone No. (571)272-3168																		