

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
28 August 2003 (28.08.2003)

PCT

(10) International Publication Number  
**WO 2003/071726 A3**

(51) International Patent Classification<sup>7</sup>: **H04L 12/66**  
(21) International Application Number:  
PCT/US2003/004776

(22) International Filing Date: 18 February 2003 (18.02.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/357,672 19 February 2002 (19.02.2002) US

(71) Applicant (for all designated States except US): **VOICER-AMP TECHNOLOGIES, INC.** [US/US]; 2140 Lake Park Blvd., Richardson, TX 75080 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CRUTCHER, Mark, A.** [US/US]; 6012 Daven Oaks Dr., Dallas, TX 75248 (US). **WATERS, Randal, E.** [US/US]; 2209 Amherst Circle, McKinney, TX 75070 (US). **MILLER, Craig, W.** [US/US]; 7413 Hammer Lane, Plano, TX 75024 (US).

(74) Agents: **BLISS, Timothy, F.** et al.; Haynes and Boone, LLP, 901 Main Street, Suite 3100, Dallas, TX 75202-3789 (US).

(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, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

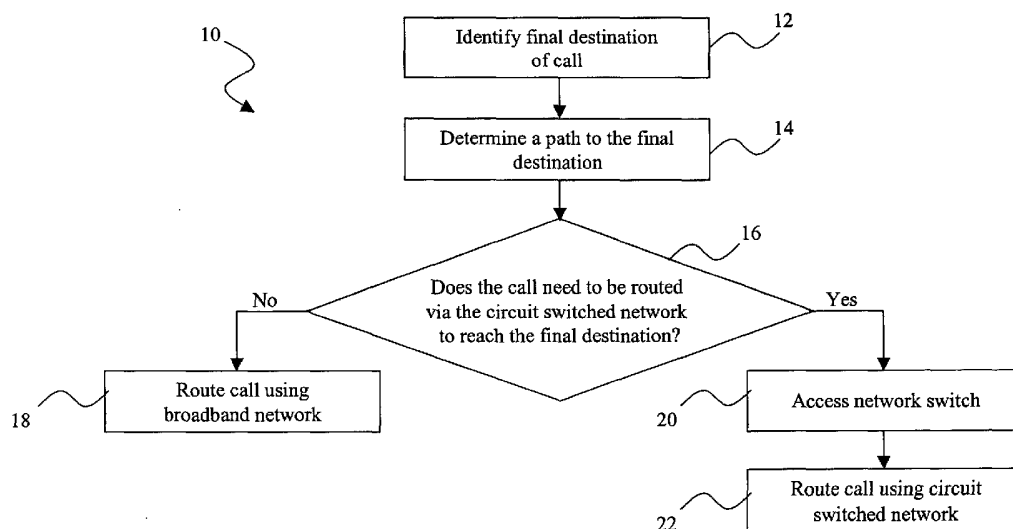
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG,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

**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR INTERFACING A BROADBAND NETWORK AND A CIRCUIT SWITCHED NETWORK



(57) Abstract: A system and method is provided for interfacing a broadband network (26) and a circuit switched network (28), such as a PSTN (28), that is accessed via a switch (30, 32) that resides in the circuit switched network (28). The system includes a device (34, 36), such as a gateway (34,36), that is located at a point of convergence between the two networks and connects to the circuit switched network (28) through the switch (30, 32). The gateway (34, 36) incorporates call management capabilities and is able to offload call management functions from the circuit switched network (28). The method manages call traffic by identifying a final destination for a call and determining a path for the call to the final destination (Fig. 1). If the path does not need to use the circuit switched network (28), the gateway (34, 36) routes the call without accessing the switch (30, 32).



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, 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, 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, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
- of inventorship (Rule 4.17(iv)) for US only

**Published:**

- with international search report

**(88) Date of publication of the international search report:**  
11 March 2004

*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.*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/04776

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : H04L 12/66

US CL : 370/352

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. : 370/352,353,354,355,356

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 --- Y	US 6,229,810 B1 (GERSZBERG et al) 08 May 2001 (08.05.2001), figure 1	1-16, 18-20 ----- 17
X --- Y	US 6,026,087 A (MIRASHRAFI et al) 15 February 2000 (15.02.2000), figure 1	1-16, 18-20 ----- 17
X --- Y	US 6,141,341 B1 (JONES et al) 31 October 2000 (31.10.2000), ALL	1-16, 18-20 ----- 17
Y	US 5,608,720 A (BIEGEL et al) 04 March 1997 (04.03.1997), <i>ALL</i>	17



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search

03 September 2003 (03.09.2003)

Date of mailing of the international search report

**30 SEP 2003**

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. (703)305-3230

Authorized officer

Huy Vu

Telephone No. (703) 305-3900

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/04776

### Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

A system and method is provided for interfacing a broadband network (26) and a circuit switched network (28), such as a PSTN (28), that is accessed via a switch (30, 32) that resides in the circuit switched network (28). The system includes a device (34, 36), such as a gateway (34, 36), that is located at a point of convergence between the two networks and connects to the circuit switched network (28) through the switch (30, 32). The gateway (34, 36) incorporates call management capabilities and is able to offload call management functions from the circuit switched network (28). The method manages call traffic by identifying a final destination for a call and determining a path for the call to the final destination (Fig. 1). If the path does not need to use the circuit switched network (28), the gateway (34, 36) routes the call without accessing the switch (30, 32).