

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 February 2003 (13.02.2003)

PCT

(10) International Publication Number
WO 03/012601 A3

(51) International Patent Classification⁷: **H04J 3/06**,
H04L 12/28, 12/66

315 Creeks Edge, Chapel Hill, NC 27516 (US). **SKINNER, Emily, Jean**; 204 Trails End Court, Raleigh, NC 27614 (US).

(21) International Application Number: PCT/US02/24837

(22) International Filing Date: 29 July 2002 (29.07.2002)

(74) Agent: **FLYNN, Kevin, E.**; Daniels Daniels & Verdonik, P.A., Post Office Drawer 12218, Research Triangle Park, NC 27709 (US).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/308,738 30 July 2001 (30.07.2001) US

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

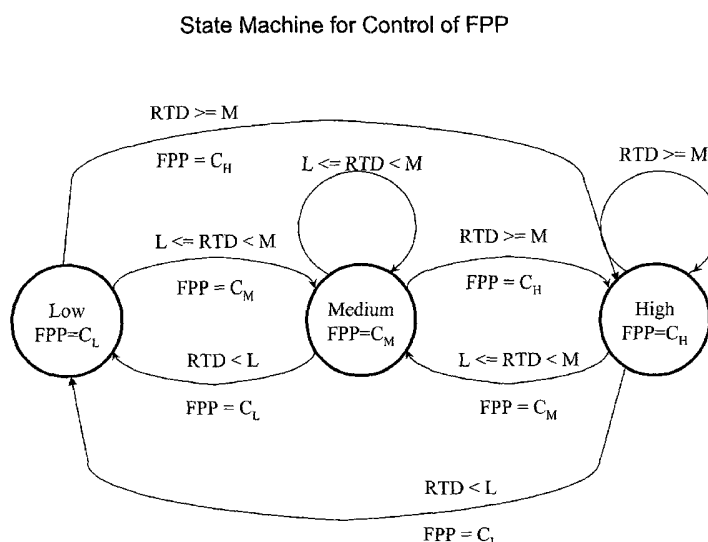
(71) Applicant: **OVERTURE NETWORKS, INC.** [US/US];
507 Airport Boulevard, Building 111, Morrisville, NC 27560 (US).

(72) Inventors: **PATE, Prayson, Will**; 8 Rose Bay Road, Durham, NC 27713 (US). **POUPARD, Michael, Joseph**; 450 Dreamcatcher Trail, Youngsville, NC 27696 (US). **LYNCH, Robert, Leroy**; 7516 Pat's Branch Drive, Raleigh, NC 27516 (US). **GRISWOLD, David, Stephen**;

(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, IE, IT, LU, MC, NL, PT, SE, SK,

[Continued on next page]

(54) Title: FLEXIBLE MAPPING OF CIRCUITS INTO PACKETS



(57) Abstract: A system for optimally mapping circuits into packets based on round trip delay (RTD), and a system for measuring RTD for use in packet communications systems such as circuit emulation (CEM) systems is disclosed. The measured RTD value can be used in a system that adjusts packet size to reduce capture delay to partially offset an increase in RTD. As the use of smaller packets increases the overhead burden on the packet communication system, the packet size can be increased to reduce the overhead burden when the size of the current RTD becomes appropriately short. The disclosure also teaches the placement of data from two or more circuits destined for the same emulation endpoint into the same transmission packet in order to improve system performance. The abstract is a tool for finding relevant disclosures and not a limitation on the scope of the claims.

WO 03/012601 A3



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

Published:

— with international search report

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i)) for all designations
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

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

15 May 2003

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/US02/24837

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04J 3/06; H04L 12/28, 12/66

US CL : 370/350, 519, 400, 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. : 370/350, 519, 400, 352

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

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

EAST DATABASE

search term: round trip delay, latency, time stamp

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 6,324,170 B1 (MCCLENNON et al.) 27 November 2001, col. 5, line 55 to col. 6, line 15.	1-16
A	US 6,118,765 A (PHILLIPS) 12 September 2000. See entire document.	1-16
X	US 6,058,102 A (DRYSDALE et al.) 02 May 2000, col. 9, lines 30-60.	1-16
X, E	US 6,445,681 B1 (POGREBINSKY) 03 September 2002, col. 1, lines 35-45	1-16



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 document 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 OCTOBER 2002

Date of mailing of the international search report

21 FEB 2003

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-8230

Authorized officer

HANH NGUYEN

Telephone No. (703) 306-5445