

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
6 March 2003 (06.03.2003)

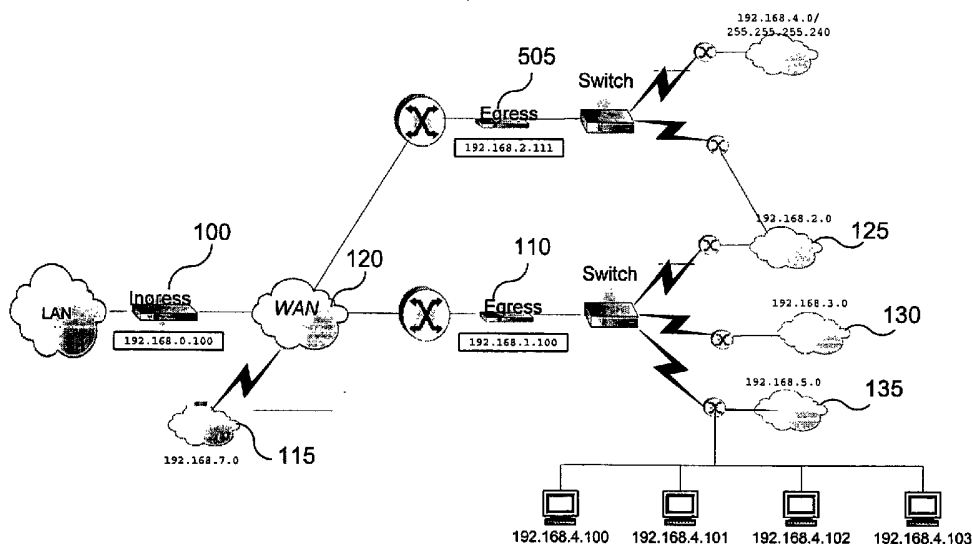
PCT

(10) International Publication Number  
WO 03/019870 A3

- (51) International Patent Classification<sup>7</sup>: H04L 12/28, 12/50
  - (74) Agents: GLORE, James, E. et al.; Fenwick & West LLP, Two Palo Alto Square, Palo Alto, CA 94306 (US).
  - (21) International Application Number: PCT/US02/26905
  - (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, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.
  - (22) International Filing Date: 23 August 2002 (23.08.2002)
  - (25) Filing Language: English
  - (26) Publication Language: English
  - (30) Priority Data: 60/314,692 24 August 2001 (24.08.2001) US
  - (71) Applicant: PERIBIT NETWORKS, INC. [US/US]; 2855 Bowers Drive, Santa Clara, CA 95051 (US).
  - (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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
  - (72) Inventors: BHARALI, Anupam, A.; 5210 Silver Ridge Court, San Jose, CA 95138 (US). SINGH, Balraj; 885 Highlands Circle, Los Altos, CA 94024 (US). SAMPAT, Manish, H.; Apt.J-108, 2000 Walnut Avenue, Fremont, CA 94538 (US). SINGH, Amit, P.; 1044 Renoir Court, Sunnyvale, CA 94087 (US). BATRA, Rajiv; 28020 Audrey Smith Lane, Saratoga, CA 95070 (US).
- Published:  
— with international search report

[Continued on next page]

(54) Title: DYNAMIC MULTI-POINT MESHED OVERLAY NETWORK



(57) Abstract: The present invention provides an efficient system and method for routing information through a dynamic network (FIG. 5). The system includes at least one ingress point and one egress point (100, 110). The ingress and egress point cooperate to form a virtual circuit for routing packets to destination subnets directly reachable by the egress point. The egress point automatically discovers which subnets are directly accessible via its local ports and summarizes this information to the ingress point (110). The ingress point receives this information, compiles it into a routing table, and verifies that those subnets are best accessed by the egress point. Verification is accomplished by sending probe packets to select addresses on the subnet. Additionally, the egress point may continue to monitor the local topology and incrementally update the information to the ingress to allow the ingress to adjust its compiled routing table.



WO 03/019870 A3



---

**(88) Date of publication of the international search report:**  
12 June 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/US02/26905

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : H04L 12/28; H04L 12/50		
US CL : 370/392,400,401,351-360		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 370/392,400,401,351-360		
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)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 2002/0044553 A1 (CHAKRAVORTY) 18 April 2002 (18.04.2002), Abstract, items 0002-0067.	1, 4, 5, 7-16, 18-24, 26, 28-35, 37-49
Y	US 6,339,595 B1 (REKHTER et al) 15 January 2002 (15.01.2002), abstract, columns 1-10.	1-3, 6, 13, 17, 23, 25, 27, 32, 36, 40
A	US 6,351,465 B1 (HAN) 26 February 2002 (26.02.2002), All	1-49
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> 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	"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	"&" document member of the same patent family
"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	Date of mailing of the international search report	
13 January 2003 (13.01.2003)	04 FEB 2003	
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Raj Jain Telephone No. 703-305-5652	