Exhibit 2



(12) United States Patent Holt et al.

(10) Patent No.: US 6,714,966 B1

(45) **Date of Patent:** *Mar. 30, 2004

(54)	INFORMAT	ION DELIV	ERY SERVICE
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(US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 467 days.

This patent is subject to a terminal dis-

claimer.

(21) Appl. No.: 09/629,043

(22) Filed: Jul. 31, 2000

(51) Int. Cl.⁷ G06F 15/16

(56) References Cited

U.S. PATENT DOCUMENTS

4,912,656 A	3/1990	Cain et al.
5,056,085 A	10/1991	Vu
5,058,105 A	* 10/1991	Mansour et al 370/228
5,079,767 A	* 1/1992	Perlman 370/408
5,117,422 A	* 5/1992	Hauptschein et al 370/255
5,309,437 A	5/1994	Perlman et al.
5,426,637 A	6/1995	Derby et al.
5,459,725 A	* 10/1995	Bodner et al 370/390
5,471,623 A	* 11/1995	Napolitano, Jr 709/243
5,535,199 A	7/1996	Amri et al.
5,568,487 A	10/1996	Sitbon et al.
5,636,371 A	6/1997	Yu
5,644,714 A	* 7/1997	Kikinis 709/219
5,673,265 A	9/1997	Gupta et al.
5,696,903 A	12/1997	Mahany
5,732,074 A	3/1998	Spaur et al.
5,732,086 A	* 3/1998	Liang et al 370/410
5,732,219 A	3/1998	Blumer et al.

5,734,865 A	3/1998	Yu
5,737,526 A	4/1998	Periasamy et al.
5,754,830 A	5/1998	Butts et al.
5,761,425 A	6/1998	Miller
5,764,756 A	6/1998	Onweller
5,790,548 A	8/1998	Sistanizadeh et al.
5,790,553 A	8/1998	Deaton, Jr. et al.
5,799,016 A	8/1998	Onweller
5,802,285 A	9/1998	Hirviniemi
5,850,592 A	* 12/1998	Ramanathan 455/7
5,864,711 A	1/1999	Mairs et al.
5,867,660 A	2/1999	Schmidt et al.
5,867,667 A	2/1999	Butman et al.
5,870,605 A	2/1999	Bracho et al.

(List continued on next page.)

OTHER PUBLICATIONS

PR Newswire, "Microsoft Boosts Accessibility to Internet Gaming Zone with Latest Release," Apr. 27, 1998, pp. 1ff.* PR Newswire, "Microsoft Announces Launch Date for UltraCorps, Its Second Premium Title for the Internet Gaming Zone," Ma 27, 1998, pp. 1 ff.* Business Wire, "Boeing and Panthesis Complete SWAN Transaction," Jul. 22, 2002, pp. 1ff.*

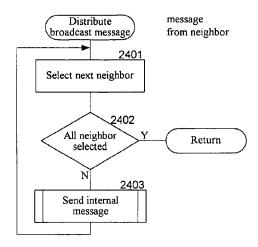
(List continued on next page.)

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(57) ABSTRACT

A computer network for providing an information delivery service for a plurality of participants over the network is disclosed. Each participant has connections to at least three neighbor participants. An originating participant sends data to the other participants by sending the data through each of its connections to its neighbor participants. Further, each participant sends data that it receives from a neighbor participant to its other neighbor participants. The network is m-regular where m is the exact number of neighbor participants of each participant and the network is an incomplete graph.

17 Claims, 39 Drawing Sheets





U.S. PATENT DOCUMENTS

5,874,960	A		2/1999	Mairs et al.
5,899,980	Α		5/1999	Wilf et al.
5,907,610	Α		5/1999	Onweller
5,925,097	Α	*	7/1999	Gopinath et al 709/200
5,928,335	Α		7/1999	Morita
5,935,215	Α		8/1999	Bell et al.
5,948,054	Α		9/1999	Nielsen
5,949,975	Α		9/1999	Batty et al.
5,956,484	Α		9/1999	Rosenberg et al.
5,970,232	Α	*	10/1999	Passint et al 709/238
5,974,043	Α		10/1999	Solomon
5,987,506	Α		11/1999	Carter et al.
6,003,088	Α		12/1999	Houston et al.
6,013,107	Α		1/2000	Blackshear et al.
6,023,734	Α		2/2000	Ratcliff et al.
6,029,171	Α		2/2000	Smiga et al.
6,032,188	Α		2/2000	Mairs et al.
6,038,602	Α		3/2000	Ishikawa
6,047,289	Α		4/2000	Thorne et al.
6,094,676	Α		7/2000	Gray et al.
6,115,580	Α	*	9/2000	Chuprun et al 455/1
6,167,432	Α	*	12/2000	Jiang 709/204
6,173,314	B1	*	1/2001	Kurashima et al 709/204
6,199,116	B1		3/2001	May et al.
6,216,177	B1		4/2001	Mairs et al.
6,223,212	B 1		4/2001	Batty et al.
6,243,691	B1		6/2001	Fisher et al.
6,268,855	B1		7/2001	Mairs et al.
6,271,839	B1		8/2001	Mairs et al.
6,272,548	B1	*	8/2001	Cotter et al 709/239
6,285,363	B1		9/2001	Mairs et al.
6,304,928	B1		10/2001	Mairs et al.
6,321,270	B 1	*	11/2001	Crawley 709/238
6,463,078	B1	*	10/2002	Engstrom et al 370/466
6,524,189	B1	*	2/2003	Rautila 463/40
2002/0027896	A 1	*	3/2002	Hughes et al 370/342
				=

OTHER PUBLICATIONS

Azar et al., "Routing Strategies for Fast Networks," May 1992, INFOCOM '92, Eleventh Annual Joint Conference of the IEEE Computer and Communications Societies, vol. 1, pp. 170–179.*

Cho et al., "A Flood Routing Method for Data Networks," Sep. 1997, Proceedings of 1997 International Conference on Information, Communications, and Signal Processing, vol. 3, pp. 1418–1422.*

Komine et al., "A Distributed Restoration Algorithm for Multiple-Link and Node Failures of Transport Networks," Dec. 199 Global Telecommunications Conference, 1990, and Exhibition, IEEE, vol. 1, pp. 459–463.*

Peercy et al., "Distributed Algorithms for Shortest-Path, Deadlock-Free Routing and Broadcasting in Arbitrarily Faulty Hypercubes," Jun. 1999, 20th International Symposium of Fault-Tolerant Computing, 1990, pp. 218–225.*

Alagar, S. and Venkatesan, S., "Reliable Broadcast in Mobile Wireless Networks," Department of Computer Science, University of Texas at Dallas, Military Communications Conference, 1995, MILCOM '95 Conference Record, IEEE San Diego, California, Nov. 5–8, 1995 (pp. 236–240). International Search Report for The Boeing Company, International patent application No. PCT/US01/24240, Jun. 5, 2002 (7 pages).

U.S. patent application Ser. No. 09/629,570, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,577, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,575, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,572, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,023, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,576, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,024, Bourassa et al., filed Jul. 31, 2000.

U.S. patent application Ser. No. 09/629,042, Bourassa et al., filed Jul. 31, 2000.

Murphy, Patricia, A., "The Next Generation Networking Paradigm: Producer/Consumer Model," Dedicated Systems Magazine—2000 (pp. 26–28).

The Gamer's Guide, "First-Person Shooters," Oct. 20, 1998 (4 pages).

The O'Reilly Network, "Gnutella: Alive, Well, and Changing Fast," Jan. 25, 2001 (5 pages) http://www.open2p.com/lpt/... [Accessed Jan. 29, 2002].

Oram, Andy, "Gnutella and Freenet Represents True Technological Innovation," May 12, 2000 (7 pages) The O'Reily Network http://www.oreillynet.com/lpt... [Accessed Jan. 29, 2002].

Internetworking Technologies Handbook, Chapter 43 (pp. 43–1–43–16).

Oram, Andy, "Peer-to-Peer Makes the Internet Interesting Again," Sep. 22, 2000 (7 pages) The O'Reilly Network http://linux.oreillynet.com/lpt... [Accessed Jan. 29, 2002].

Monte, Richard, "The Random Walk for Dummies, "MIT Undergraduate Journal of Mathematics (pp. 143–148).

Srinivasan, R., "XDR: External Data Representation Standard," Sun Microsystems, Aug. 1995 (20 pages) Internet RFC/STD/FYI/BCP Archives http://www.faqs.org/rfcs/rfc1832.html [Accessed Jan. 29, 2002].

A Databeam Corporate White Paper, "A Primer on the T.120 Series Standards," Copyright 1995 (pp. 1–16).

Kessler, Gary, C., "An Overview of TCP/IP Protocols and the Internet," Apr. 23, 1999 (23 pages) Hill Assoicates, Inc., http://www.hill.com/library/publications/t... [Accessed Jan. 29, 2002].

Bondy, J.A., and Murty, U.S.R., "Graph Theory with Applications," Chapters 1–3 (pp. 1–47), 1976 American Elsevier Publishing Co., Inc., New York, New York.

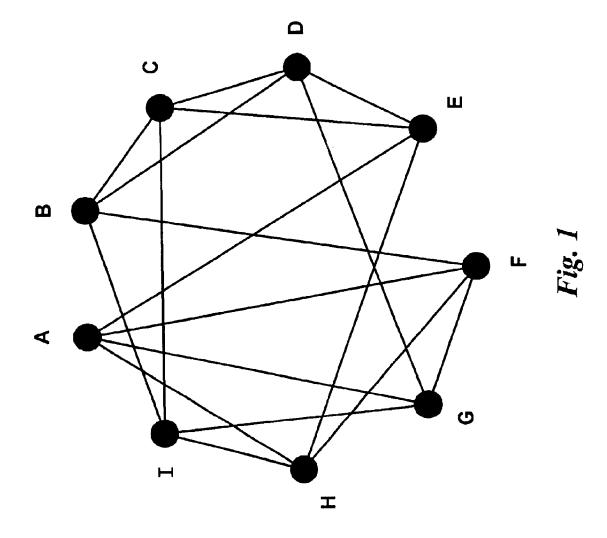
Cormen, Thomas H. et al., Introduction to Algorithms, Chapter 5.3 (pp. 84–91), Chapter 12 (pp. 218–243), Chapter 13 (p. 245), 1990, The MIT Press, Cambridge, Massachusetts, McGraw–Hill Book Company, New York.

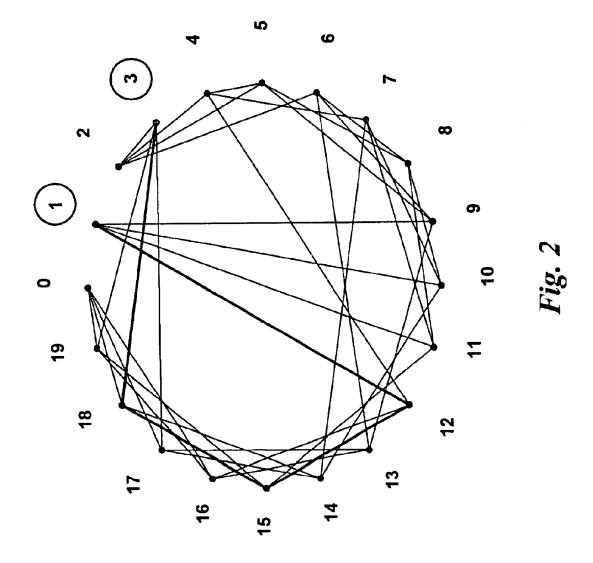
The Common Object Request Broker: Architecture and Specification, Revision 2.6, Dec. 2001, Chapter 12 (pp. 21–1–12–10), Chapter 12 (pp. 13–1–13–56), Chapter 16 (pp. 16–1–16–26), Chapter 18 (pp. 18–1–18–52), Chapter 20 (pp. 20–1–20–22).

The University of Warwick, Computer Science Open Days, "Demonstration on the Problems of Distributed Systems," http://www.dcs.warwick.ac.u... [Accessed Jan. 29, 2002].



^{*} cited by examiner







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