

EXHIBIT 3



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Farber et al.

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(54) **CONTROLLING ACCESS TO DATA IN A DATA PROCESSING SYSTEM**
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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 79 days.
This patent is subject to a terminal disclaimer.

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,668,647 A 6/1972 Evangelisti et al.
(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 268 069 A2 5/1988
(Continued)

OTHER PUBLICATIONS

Cheriton, David R. and Mann, Timothy P. "Decentralizing a global naming service for improved performance and fault tolerance", ACM Transactions on Computer Systems, vol. 7, No. 2, May 1989, pp. 147-183.

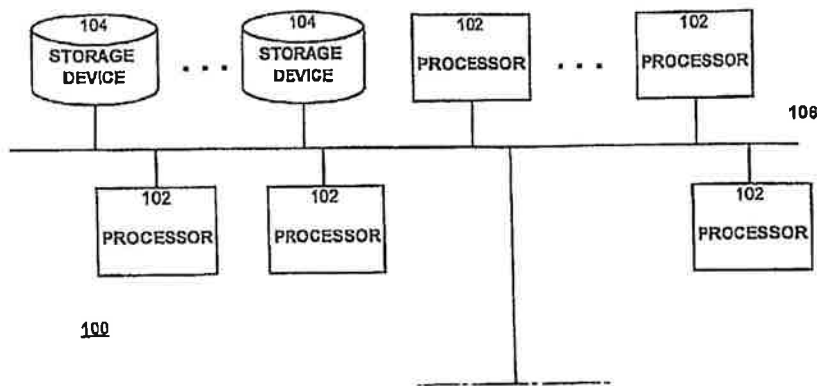
(Continued)

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(57) **ABSTRACT**

Access to and delivery of licensed content is controlled using content names that were determined based on the content. A name for a data item is obtained, the name having been determined based at least in part on the data which comprise the contents of the data item. Access to the data item is authorized based at least in part on the name. Once authorized, access may be granted from more than one computer. The name may have been determined using a hash or message digest function such as MD4, MD5 or SHA. The data item may comprise a file, a portion of a file, a page in memory, a digital message, a digital image, a video signal or an audio signal.

87 Claims, 31 Drawing Sheets



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U.S. PATENT DOCUMENTS							
3,835,260	A	9/1974	Prescher et al.	5,394,555	A	2/1995	Hunter et al.
4,096,568	A	6/1978	Bennett et al.	5,403,639	A	4/1995	Belsan et al.
4,215,402	A	7/1980	Mitchell et al.	5,404,508	A	4/1995	Konrad et al.
4,221,003	A	9/1980	Chang et al.	5,438,508	A	8/1995	Wyman
4,290,105	A	9/1981	Cichelli et al.	5,442,343	A	8/1995	Cato et al.
4,376,299	A	3/1983	Rivest	5,448,668	A *	9/1995	Perelson et al. 714/21
4,405,829	A	9/1983	Rivest et al.	5,448,718	A	9/1995	Cohn et al.
4,412,285	A	10/1983	Neches et al.	5,452,447	A	9/1995	Nelson et al.
4,414,624	A	11/1983	Summer, Jr. et al.	5,454,000	A *	9/1995	Dorfman 714/54
4,441,155	A	4/1984	Fletcher et al.	5,454,039	A	9/1995	Coppersmith et al.
4,464,713	A	8/1984	Benhase et al.	5,459,860	A	10/1995	Burnett
4,490,782	A	12/1984	Dixon et al.	5,465,365	A	11/1995	Winterbottom
4,558,413	A	12/1985	Schmidt et al.	5,467,471	A	11/1995	Bader
4,571,700	A	2/1986	Emry, Jr. et al.	5,475,826	A	12/1995	Fischer
4,577,293	A	3/1986	Matick et al.	5,479,654	A *	12/1995	Squibb 707/695
4,642,793	A	2/1987	Menden	5,491,817	A	2/1996	Gopal et al.
4,658,093	A	4/1987	Hellman	5,499,294	A	3/1996	Friedman
4,675,810	A	6/1987	Gruner et al.	5,504,879	A	4/1996	Fisenberg et al.
4,691,299	A	9/1987	Rivest et al.	5,530,757	A *	6/1996	Krawczyk 713/188
4,725,945	A	2/1988	Kronstadt et al.	5,537,585	A *	7/1996	Blickenstaff et al. 707/205
4,773,039	A	9/1988	Zamora	5,542,087	A	7/1996	Neimat et al.
4,821,184	A	4/1989	Clancy et al.	5,553,143	A	9/1996	Ross et al.
4,887,235	A	12/1989	Holloway et al.	5,568,181	A	10/1996	Greenwood et al.
4,888,681	A	12/1989	Barnes et al.	5,581,615	A	12/1996	Stern
4,914,586	A	4/1990	Swinehart et al.	5,581,758	A	12/1996	Burnett
4,922,414	A	5/1990	Holloway et al.	5,581,764	A	12/1996	Fitzgerald et al.
4,922,417	A	5/1990	Churm et al.	5,583,995	A	12/1996	Gardner et al.
4,949,302	A	8/1990	Arnold et al.	5,588,147	A	12/1996	Neeman et al.
4,972,367	A	11/1990	Burke	5,600,834	A	2/1997	Howard
5,007,658	A	4/1991	Bendert et al.	5,604,803	A	2/1997	Aziz
5,014,192	A	5/1991	Mansfield et al.	5,604,892	A	2/1997	Nuttall et al.
5,025,421	A	6/1991	Cho	5,630,067	A	5/1997	Kindell et al.
5,047,918	A	9/1991	Schwartz et al.	5,632,031	A	5/1997	Velissaropoulos et al.
5,050,074	A	9/1991	Marca	5,638,443	A	6/1997	Stefik et al.
5,050,212	A	9/1991	Dyson	5,640,564	A	6/1997	Hamilton et al.
5,057,837	A	10/1991	Colwell et al.	5,649,196	A	7/1997	Woodhill et al.
5,077,658	A	12/1991	Bendert	5,677,952	A	10/1997	Blakley, III et al.
5,084,815	A	1/1992	Mazzario	5,678,038	A	10/1997	Dockter et al.
5,117,351	A	5/1992	Miller	5,678,046	A	10/1997	Cahill et al.
5,129,081	A	7/1992	Kobayashi et al.	5,694,472	A *	12/1997	Johnson et al. 713/189
5,129,082	A	7/1992	Tirfing et al.	5,694,596	A	12/1997	Campbell
5,144,667	A	9/1992	Pogue, Jr. et al.	5,701,316	A	12/1997	Alferness et al.
5,163,147	A *	11/1992	Orita 707/9	5,710,922	A	1/1998	Alley et al.
5,179,680	A	1/1993	Colwell et al.	5,724,425	A	3/1998	Chang et al.
5,182,799	A	1/1993	Tamura et al.	5,724,552	A	3/1998	Taoda
5,199,073	A	3/1993	Scott	5,742,807	A *	4/1998	Masinter 707/1
5,202,982	A *	4/1993	Gramlich et al. 1/1	5,745,879	A	4/1998	Wyman
5,204,897	A	4/1993	Wyman	5,757,913	A	5/1998	Bellare et al.
5,204,958	A	4/1993	Cheng et al.	5,757,915	A	5/1998	Aucsmith et al.
5,204,966	A	4/1993	Wittenberg et al.	5,781,629	A	7/1998	Haber et al.
5,208,858	A	5/1993	Vollert et al.	5,802,291	A	9/1998	Balick et al.
5,247,620	A	9/1993	Fukuzawa et al.	5,809,494	A	9/1998	Nguyen
5,260,999	A	11/1993	Wyman	5,826,049	A	10/1998	Ogata et al.
5,276,869	A	1/1994	Forrest et al.	5,835,087	A	11/1998	Herz et al.
5,276,901	A	1/1994	Howell et al.	5,864,683	A	1/1999	Boebert et al.
5,287,499	A	2/1994	Nemes	5,907,619	A	5/1999	Davis
5,287,514	A	2/1994	Gram	5,907,704	A	5/1999	Gudmundson et al.
5,297,279	A	3/1994	Bannon et al.	5,940,504	A	8/1999	Griswold
5,301,286	A	4/1994	Rajani	5,978,791	A	11/1999	Farber et al.
5,301,316	A	4/1994	Hamilton et al.	5,991,414	A	11/1999	Garay et al.
5,317,693	A	5/1994	Cuenod et al.	6,006,018	A	12/1999	Burnett et al.
5,341,477	A	8/1994	Pitkin et al.	6,134,603	A	10/2000	Jones et al.
5,343,527	A	8/1994	Moore	6,135,646	A	10/2000	Kahn et al.
5,347,653	A	9/1994	Flynn et al.	6,415,280	B1	7/2002	Farber et al.
5,351,302	A	9/1994	Leighton et al.	6,732,180	B1	5/2004	Hale et al.
5,357,440	A	10/1994	Talbott et al.	6,816,872	B1 *	11/2004	Squibb 1/1
5,357,623	A	10/1994	Megory-Cohen	6,928,442	B2	8/2005	Farber et al.
5,359,523	A	10/1994	Talbott et al.	2002/0052884	A1	5/2002	Farber et al.
5,361,356	A	11/1994	Clark et al.	2002/0082999	A1	6/2002	Lee et al.
5,371,897	A	12/1994	Brown et al.	2003/0078888	A1	4/2003	Lee et al.
5,384,565	A	1/1995	Cannon	2003/0078889	A1	4/2003	Lee et al.
				2003/0095660	A1	5/2003	Lee et al.
				2004/0139097	A1	7/2004	Farber et al.

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US 7,802,310 B2

Page 3

2005/0010792 A1* 1/2005 Carpentier et al. 713/193
 2005/0114296 A1 5/2005 Farber et al.
 2007/0185848 A1 8/2007 Farber et al.
 2008/0065635 A1 3/2008 Farber et al.
 2008/0066191 A1 3/2008 Farber et al.
 2008/0071855 A1 3/2008 Farber et al.
 2008/0082551 A1 4/2008 Farber et al.

FOREIGN PATENT DOCUMENTS

EP 0 315 425 5/1989
 EP 0 558 945 A2 9/1993
 EP 0 566 967 A2 10/1993
 EP 0592045 4/1994
 EP 0631 226 A1 12/1994
 EP 0 654 920 A2 5/1995
 EP 0 658 022 A2 6/1995
 GB 2294132 A 4/1996
 JP 59058564 4/1984
 JP 63-106048 5/1988
 JP 63-273961 11/1988
 JP 2-127755 5/1990
 JP 05162529 6/1993
 JP 06187384 A2 7/1994
 JP 06348558 A 12/1994
 WO WO 92/20021 11/1992
 WO WO 94/06087 3/1994
 WO WO 94/20913 9/1994
 WO WO 95/01599 1/1995
 WO WO 97/43717 11/1997

OTHER PUBLICATIONS

Request for Reexamination of U.S. Patent No. 6,928,442; Reexam U.S. Appl. No. 90/010,260, filed on Aug. 29, 2008.
 Advances in Cryptology-AUSCRYPT '92—Workshop on the Theory and Application of Cryptographic Techniques Gold Coast, Queensland, Australia Dec. 13-16, 1992 Proceedings.
 Advances in Cryptology-EUROCRYPT '93, Workshop on the Theory and Application of Cryptographic Techniques Lofthus, Norway, May 23-27, 1993 Proceedings.
 Affidavit of Timothy P. Walker in Support of CWIS' Opening Markman Brief Construing the Terms at Issue in U.S. Patent No. 6,415,280, dated Jul. 25, 2003, from Civil Action No. 02-11430 RWZ.
 Akamai and MIT's Memorandum in Support of Their Claim Construction of USPAT 5,978,791, dated Aug. 31, 2001, from Civil Action No. 00-cv-11851RWZ.
 Akamai's Answer, Affirmative Defenses and Counterclaims to Amended Complaint, filed Dec. 6, 2002, in Civil Action No. 02-CV-11430RWZ.
 Akamai's Brief on Claim Construction, dated Aug. 8, 2003, from Civil Action No. 02-11430 RWZ.
 Albert Langer (cmf851@anu.oz.au), <http://groups.google.com/groups?selm=1991Aug7.225159.786%40newshost.anu.edu.au&oe=UTF-8&output=gplain>, Aug. 7, 1991.
 Alexander Dupuy (dupuy@smarts.com), "MD5 and LIFNs (was: Misc Comments)", www.acl.lanl.gov/URI/archive/uri-94q2.messages/0081.html, Apr. 17, 1994.
 Alexander Dupuy (dupuy@smarts.com), "RE: MD5 and LIFNs (was: Misc Comments)", www.acl.lanl.gov/URI/archive/uri-94q2.messages/0113.html, Apr. 26, 1994.
 Answer of Defendant RIAA to First Amended Complaint and Counterclaim, dated Feb. 8, 2005, from Civil Action No. CV04-7456 JFW (CTx).
 Berners-Lee, T. et al., "Hypertext Transfer Protocol HTTP/1.0," May 1996, pp. 1-54.
 Berners-Lee, T. et al., "Uniform Resource Locators (URL)," pp. 1-25, Dec. 1994.
 Berners-Lee, T., "Universal Resource Identifiers in WWW," Jun. 1994, pp. 1-25.
 Bert den Boer, et al., Collisions for the compression function of MD.sub.5 pp. 292-304, 1994.

Birgit Pfizman, Sorting Out Signature Schemes, Nov. 1993, 1.sup.sl Conf. Computer & Comm. Security '93, p. 74-85.
 Birgit Pfizmann, Sorting Out Signature Schemes, Nov. 1993, 1st Conf. Computer & Comm. Security '93 pp. 74-85.
 Bowman, C. Mic, et al., "Harvest: A Scalable, Customizable Discovery and Access System," Aug. 4, 1994, pp. 1-27.
 Bowman, C. Mic, et al., "Harvest: A Scalable, Customizable Discovery and Access System," Mar. 12, 1995, pp. 1-29.
 Brisco, T., "DNS Support for Load Balancing," Apr. 1995, pp. 1-7.
 Browne, Shirley et al., "Location-Independent Naming for Virtual Distributed Software Repositories," 1995, 7 pages.
 Browne, Shirley et al., "Location-Independent Naming for Virtual Distributed Software Repositories," 1995, printed from <http://www.netlib.org/utk/papers/lifn/main.html> on Mar. 22, 2006, 18 pages.
 Carter, J. Lawrence, et al. "Universal Classes of Hash Functions." Journal of Computer and System Sciences, vol. 18, No. 2, Apr. 1979, pp. 143-154.
 Chris Charnes and Josef Pieprzky, Linear Nonequivallence versus Nonlinearity, Pieprzky, pp. 156-164, 1993.
 Civil Minutes General dated Jan. 25, 2005, from Civil Action No. CV 04-7456-JFW (CTx).
 Clifford Lynch (Calur@uccmva.bitnet), "ietf url/uri overview draft paper (long)", www.acl.lanl.gov/URI/archive/uri-93q1.messages/0015.html, Mar. 25, 1993.
 Complaint for Patent Infringement, Permanent Injunction, and Damages, dated Sep. 8, 2004, from Civil Action No. CV 04-7456 JFW (AJWx).
 Cormen, Thomas H., et al. Introduction to Algorithms, The MIT Press, Cambridge, Massachusetts, 1994, pp. 219-243, 991-993.
 CWIS' Opening Markman Brief Construing the Terms at Issue in U.S. Patent No. 6,415,280, dated Jul. 25, 2003, from Civil Action No. 02-11430 RWZ.
 CWIS' Reply Markman Brief Construing the Terms at Issue in U.S. Patent No. 6,415,280, dated Aug. 15, 2003, from Civil Action No. 02-11430 RWZ.
 Danzig, P.B., et al., "Distributed Indexing: A Scalable Mechanism For Distributed Information Retrieval," Proceedings of the 14th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 220-229, Oct. 13-16, 1991.
 Davis, James R., "A Server for a Distributed Digital Technical Report Library," Jan. 15, 1994, pp. 1-8.
 Declaration of Robert B.K. Dewar in Support of CWIS' Construction of the Terms at Issue in U.S. Patent No. 6,415,280, dated Jul. 25, 2003, from Civil Action No. 02-cv-11430RWZ.
 Deering, Stephen, et al. "Multicast Routing in Datagram Internetworks and Extended LANs." ACM Transactions on Computer Systems, vol. 8, No. 2, May 1990, pp. 85-110.
 Defendant Digital Island's Opening Brief on Claim Construction Issues dated Aug. 17, 2001, from Civil Action No. 00-cv-11851-RWZ.
 Defendant Lime Wire, LLC's Answer, Affirmative Defenses and Counterclaims dated Nov. 15, 2007, from Civil Action No. 07-06161 VBF (PLAx).
 Defendant Media Sentry, Inc.'s Reply Memorandum of Points and Authorities in Further Support of Its Motion to Dismiss, dated Nov. 15, 2004, from Civil Action No. CV04-7456 JFW (CTx).
 Defendant MediaSentry Inc.'s Notice of Motion and Motion to Dismiss First Amended Complaint; Memorandum of Points and Authorities in Support Thereof, dated Dec. 13, 2004, from Civil Action No. CV04-7456 JFW.
 Defendant MediaSentry, Inc.'s Answer to Plaintiffs' First Amended Complaint and Counterclaims, dated Feb. 8, 2005, from Civil Action No. CV04-7456 JFW (CTx).
 Defendant RIAA's Notice of Motion and Motion to Dismiss First Amended Complaint; Memorandum of Points and Authorities in Support Thereof, dated Dec. 13, 2004, from Civil Action No. CV04-7456 JFW (CTx).
 Defendants Loudeye Corp.'s and Overpeer, Inc.'s Answer to Plaintiffs' First Amended Complaint and Counterclaim, dated Feb. 8, 2005, from Civil Action No. 04-7456 JFW (AJWx).
 Defendants' Preliminary Invalidity Contentions dated Dec. 14, 2006, from Civil Action No. CV 06-5086 SJO (Ex).

EXHIBIT 2 2

US 7,802,310 B2

Page 4

- Devine, Robert. "Design and Implementation of DDH: A Distributed Dynamic Hashing Algorithm." In Proc. of 4th International Conference on Foundations of Data Organizations and Algorithms, 1993, pp. 101-114.
- European Search Report issued Dec. 23, 2004 in corresponding European Application No. 96910762.2-2201.
- Expert Report of Professor Ellis Horowitz, dated Mar. 6, 2006, from Civil Action No. 04-7456 JFW (CTx).
- Expert Report of the Honorable Gerald J. Mossinghoff, dated Mar. 13, 2006, from Civil Action No. 04-7456 JFW (CTx).
- Faltstrom, P. et al., "How to Interact with a Whois++ Mesh," Feb. 1996, pp. 1-9.
- Fecley, Michael, et al. "Implementing Global Memory Management in a Workstation Cluster." In Proc. of the 15th ACM Symp. on Operating Systems Principles, 1995, pp. 201-212.
- Fielding, R. et al., "Hypertext Transfer Protocol—HTTP/1.1," Jan. 1997, pp. 1-163.
- Fielding, R. et al., "Hypertext Transfer Protocol—HTTP/1.1." Jun. 1999, pp. 1-157.
- First Amended Complaint for Patent Infringement, Permanent Injunction and Damages, dated Nov. 24, 2004, from Civil Action No. CV 04-7456 JFW (CTx).
- Floyd, Sally, et al. "A reliable Multicast Framework for Light-Weight Sessions and Application Level Framing." In Proceeding of ACM SIGCOMM '95, pp. 342-356.
- Fredman, Michael, et al. "Storing a Sparse Table with $O(1)$ Worst Case Access Time." Journal of the Association for Computing Machinery, vol. 31, No. 3, Jul. 1984, pp. 538-544.
- G. L. Friedman, Digital Camera With Apparatus for Authentication of Images Produced From an Image File, NASA Case No. NPO-19108-1-CU, U.S. Appl. No. 08/159,980, Nov. 24, 1993.
- Grigni, Michelangelo, et al. "Tight Bounds on Minimum Broadcasts Networks." SIAM Journal of Discrete Mathematics, vol. 4, No. 2, May 1991, pp. 207-222.
- Gwertzman, James, et al. "The Case for Geographical Push-Caching." Technical Report HU TR 34-94 (excerpt), Harvard University, DAS, Cambridge, MA 02138, 1994, 2 pgs.
- H. Goodman, Ada, Object-Oriented Techniques, and Concurrency in Teaching Data Structures and File Management Report Documentation p. Ad-A275 385-94-04277.
- H. Goodman, Feb. 9, 1994 Ada, Object-Oriented Techniques, and Concurrency in Teaching Data Structures and File Management Report Documentation P. AD-A275 385-94-04277.
- Hauzeur, B. M., "A Model for Naming, Addressing, and Routing," ACM Trans. Inf. Syst. 4, Oct. 4, 1986), 293-311.
- International Search Report dated Jun. 24, 1996 in corresponding international application PCT/US1996/004733.
- K. Sollins and I. Masinter, "Functional Requirements for Uniform Resource Names", www.w3.org/Addressing/rfc1737.txt, Dec. 1994, pp. 1-7.
- Khare, R. and Lawrence, S., "Upgrading to TLS Within HTTP/1.1," May 2000, pp. 1-12.
- Khoshafian, S. N. et al. 1986. Object identity. In Conf. Proc. On Object-Oriented Programming Systems, Languages and Applications (Portland, Oregon, United States, Sep. 29-Oct. 2, 1986). N. Meyrowitz, Ed. OOPLSA '86. ACM Press, New York, NY, 406-416.
- Kim et al., "Experiences with Tripwire: Using Integrity Checkers for Intrusion Detection", COAST Labs. Dept. of Computer Sciences Purdue University, Feb. 22, 1995, pp. 1-12.
- Kim et al., "The Design and Implementation of Tripwire: A file System Integrity Checker", COAST Labs. Dept. of Computer Sciences Purdue University, Feb. 23, 1995, pp. 1-18.
- Kim et al., "The Design and Implementation of Tripwire: A file System Integrity Checker", COAST Labs. Dept. of Computer Sciences Purdue University, Nov. 19, 1993, pp. 1-21.
- Kim, Gene H., and Spafford, Eugene H., "Writing, Supporting, and Evaluating Tripwire: A Publicly Available Security Tool." COAST Labs. Dept. of Computer Sciences Purdue University, Mar. 12, 1994, pp. 1-23.
- Knuth, Donald E., "The Art of Computer Programming," 1973, vol. 3, Ch. 6.4, pp. 506-549.
- Lantz, K. A., et al., "Towards a universal directory service." In Proc. 4th Annual ACM Symp. on Principles of Distributed Computing (Minaki, Ontario, Canada). PODC '85. ACM Press, New York, NY, 250-260.
- Leach, P. J., et al., "The file system of an integrated local network. In Proc. 1985 ACM 13th Annual Conf. on Comp. Sci. CSC '85. ACM Press, NY, NY, 309-324.
- Leach, P.J., et al., "UIDs as Internal Names in a Distributed File System," In Proc. 1st ACM SIGACT-SIGOPS Symp. on Principles of Distributed Computing (Ottawa, Canada, Aug. 18-20, 1982). PODC '82. ACM Press, New York, NY, 34-41.
- Ma, C. 1992. On building very large naming systems. In Proc. 5th Workshop on ACM SIGOPS European Workshop: Models and Paradigms For Distributed Systems Structuring (France, Sep. 21-23, 1992). EW 5. ACM Press, New York, NY, 1-5.
- Memorandum of Points and Authorities in Support of Loudcye's and Overpeer's Motion to Dismiss the First Amended Complaint for Failure to State a Claim or, In the Alternative, for a More Definitive Statement, dated Dec. 13, 2004, from Civil Action No. CV-04-7456 JFW (AJWX).
- Ming-Ling Lo et al., On Optimal Processor Allocation to Support Pipelined Hash Joins, ACM SIGMOD, pp. 69-78, May 1993.
- Moats, R., "URN Syntax," May 1997, pp. 1-8.
- Murlidhar Koushik, Dynamic Hashing With Distributed Overflow Space: A File Organization With Good Insertion Performance, 1993, Info. Sys., vol. 18, No. 5, pp. 299-317.
- Myers, J. and Rose, M., "The Content-MD5 Header Field." Oct. 1995, pp. 1-4.
- Naor, Moni, et al. "The Load, Capacity and Availability of Quorum Systems." In Proceedings of the 35th IEEE Symposium on Foundations of Computer Science, Nov. 1994, pp. 214-225.
- Nisan, Noam. "Pseudorandom Generators for Space-Bounded Computation." In Proceedings of the Twenty-Second Annual ACM Symposium on Theory of Computing, May 1990, pp. 204-212.
- Office Action in corresponding Japanese Application No. 531,073/1996 mailed on Apr. 25, 2006.
- Office Communication in corresponding European Application No. 96910762.2-1225 dated Jan. 17, 2007.
- Order Re Claim Construction dated Nov. 8, 2001, from Civil Action No. 00-11851-RWZ.
- Palmer, Mark, et al. "Fido: A Cache that Learns to Fetch." In Proceedings of the 17th International Conference on Very Large Data Bases, Sep. 1991, pp. 255-264.
- Patent Abstracts of Japan, "Device for Generating Database and Method for the Same," Application No. 03-080504, Sun Microsystems, Inc., published Jun. 1993, 38 pages.
- Patent Abstracts of Japan, "Electronic Mail Multiplexing System and Communication Control Method in The System." Jun. 30, 1993, JP 051625293.
- Patent Abstracts of Japan, "Method for Registering and Retrieving Data Base," Application No. 03-187303, Nippon Electr. & Teleph. Corp., published Feb. 1993, 11 pages.
- Peleg, David, et al. "The Availability of Quorum Systems." Information and Computation 123, 1995, 210-223.
- Peter Deutsch (peterd@bunyip.com), "Re: MD5 and LiFNs (was: Misc Comments)", www.acl.lanl.gov/IJRI/archive/uri-94q2.messages/0106.html, Apr. 26, 1994.
- Peterson, L. L. 1988. A yellow-pages service for a local-area network. In Proc. ACM Workshop on Frontiers in Computer Communications Technology (Vermont, 1987). J. J. Garcia-Luna-Aceves, Ed. SIGCOMM '87. ACM Press, New York, NY, 235-242.
- Plaintiffs' Memorandum of Points and Authorities in Opposition to Loudcye Defendants' Motion to Dismiss, dated Nov. 8, 2004, from Civil Action No. CV-04-7456 JFW (AJWX).
- Plaintiffs' Opposition to Media Sentry's Motion to Dismiss; Memorandum of Points and Authorities in Support Thereof, dated Nov. 8, 2004, from Civil Action No. CV 04-7456 JFW (CTx).
- Plaintiff's Opposition to Recording Industry Association of America's Motion to Dismiss; Memorandum of Points and Authorities in Support Thereof, dated Nov. 8, 2004, from Civil Action No. CV-04-7456 JFW (CTx).

EXHIBIT 2 4

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