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(12) United States Patent Touboul

(54) SYSTEM AND METHOD FOR PROTECTING A COMPUTER AND A NETWORK FROM HOSTILE DOWNLOADABLES

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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 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

- (63) Continuation of application No. 08/964,388, filed on Nov. 6, 1997, now Pat. No. 6,092,194.
- (60) Provisional application No. 60/030,639, filed on Nov. 8, 1996.
- (51) Int. Cl.⁷ H04L 9/00; G06F 11/30
- (52) U.S. Cl. 713/181; 713/201; 713/176;
 - 717/178

(56) References Cited

U.S. PATENT DOCUMENTS

5,077,677 A	12/1991	Murphy et al.
5,359,659 A	10/1994	Rosenthal
5,361,359 A	11/1994	Tajalli et al.
5,485,409 A	1/1996	Gupta et al.
5,485,575 A	1/1996	Chess et al.

(10) Patent No.: US 6,804,780 B1 (45) Date of Patent: *Oct. 12, 2004

5,572,643 A	11/1996	Judson
5,579,509 A	* 11/1996	Furtney et al 703/27
5,606,668 A	2/1997	Shwed
5,623,600 A	4/1997	Ji et al.
5,638,446 A	6/1997	Rubin
5,692,047 A	11/1997	McManis
5,692,124 A	11/1997	Holden et al.
5,720,033 A	2/1998	Deo
5,724,425 A	3/1998	Chang et al.
5,740,248 A	4/1998	Fieres et al.
5.761.421 A	6/1998	van Hoff et al.

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

EP	1091276 A1 *	4/2001	 G06F/1/00
EP	1132796 A1 *	9/2001	 G06F/1/00

OTHER PUBLICATIONS

Khare, "Microsoft Authenticode Analyzed" Jul. 22, 1996, xent.com/FoRK-archive/summer96/0338.html, p. 1–2.*

(List continued on next page.)

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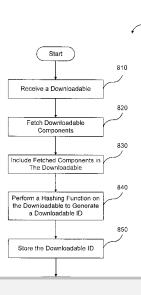
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(57) **ABSTRACT**

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A computer-based method for generating a Downloadable ID to identify a Downloadable, including obtaining a Downloadable that includes one or more references to software components required by the Downloadable, fetching at least one software component identified by the one or more references, and performing a function on the Downloadable and the fetched software components to generate a Downloadable ID. A system and a computer-readable storage medium are also described and claimed.

18 Claims, 10 Drawing Sheets



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U.S. PATENT DOCUMENTS

5,765,205	Α		6/1998	Breslau et al.
5,784,459	Α		7/1998	Devarakonda et al.
5,796,952	Α		8/1998	Davis et al.
5,805,829	Α		9/1998	Cohen et al.
5,832,208	Α		11/1998	Chen et al.
5,832,274	Α	*	11/1998	Cutler et al 717/171
5,850,559	Α		12/1998	Angelo et al.
5,859,966	Α		1/1999	Hayman et al.
5,864,683	Α		1/1999	Boebert et al.
5,892,904	Α		4/1999	Atkinson et al.
5,951,698	Α		9/1999	Chen et al.
5,956,481	Α		9/1999	Walsh et al.
5,974,549	Α		10/1999	Golan
5,978,484	Α	*	11/1999	Apperson et al 705/54
5,983,348	Α		11/1999	Ji
6,092,194	Α	*	7/2000	Touboul 713/200
6,154,844	Α	*	11/2000	Touboul et al 713/201
6,339,829	B 1	*	1/2002	Beadle et al 713/201

OTHER PUBLICATIONS

"Release Notes for the Microsfot ActiveX Development Kit", Aug. 13, 1996, activex.adsp.or.jp/inetsdk/readme.txt, p. 1–10.*

"Microsoft ActiveX Software Development Kit" Aug. 12, 1996, activex.adsp.or.jp/inetsdk/help/overview.htm, p. 1–6.*

Doyle et al, "Microsoft Press Computer Dictionary" 1993, Microsoft Press, 2nd Edition, p. 137–138.*

Schmitt, ".EXE. files, OS-2 style" Nov. 1988, PC Tech Journal via dialog search, vol. 6, #11, p. 76-78.*

Jim K. Omura, "Novel Applications of Cryptography in Digital Communications", IEEE Communications Magazine, May, 1990; pp. 21–29.

Okamoto, E. et al., "ID–Based Authentication System For Computer Virus Detection", IEEE/IEE Electronic Library online, Electronics Letters, vol. 26, Issue 15, ISSN 0013/ 5194, Jul. 19, 1990, Abstract and pp. 1169–1170. URL: http://iel.ihs.com:80/cgi–bin/iel_cgi?se

2ehts%26ViewTemplate%3ddocview%5fb%2ehts.

DOCKE

IBM AntiVirus User's Guide Version 2.4, International Business Machines Corporation, Nov. 15, 1995, pp. 6–7.

Norvin Leach et al, "IE 3.0 Applets Will Earn Certification", PC Week, vol. 13, No. 29, Jul. 22, 1996, 2 pages.

"Finjan Software Releases SurfinBoard, Industry's First JAVA Security Product For the World Wide Web", Article published on the Internet by Finjan Softwre Ltd., Jul. 29, 1996, 1 page.

"Powerful PC Security for the New World of JavaTM and Downloadables, Surfin ShieldTM" Article published on the Internet by Finjan Software Ltd., 1996, 2 Pages.

Microsoft® Authenticode Technology, "Ensuring Accountability and Authenticity for Software Components on the Internet", Microsoft Corporation, Oct. 1996, including Abstract, Contents, Introduction and pp. 1–10.

"Finjan Announces a Personal Java[™] Firewall For Web Browsers—the SurfinShield[™] 1.6 (formerly known as SurfinBoard)", Press Release of Finjan Releases SurfinShield 1.6, Oct. 21, 1996, 2 pages.

Company Profile "Finjan—Safe Surfing, The Java Security Solutions Provider", Article published on the Internet by Finjan Software Ltd., Oct. 31, 1996, 3 pages.

"Finjan Announces Major Power Boost and New Features for SurfinShield[™] 2.0" Las Vegas Convention Center/Pavilion 5 P5551, Nov. 18, 1996, 3 pages.

"Java Security: Issues & Solutions" Article published on the Internet by Finjan Software Ltd., 1996, 8 pages.

"Products" Article published on the Internet, 7 pages.

Mark LaDue, "Online Business Consulant: Java Security: Whose Business Is It?" Article published on the Internet, Home Page Press, Inc. 1996, 4 pages.

Web Page Article "Frequently Asked Questions About Authenticode", Microsoft Corporation, last updated Feb. 17, 1997, Printed Dec. 23, 1998. URL: http://www.microsoft. com/workshop/security/authcode/signfag.asp#9, pp. 1–13.

Zhang, X.N., "Secure Code Distribution", IEEE/IEE Electronic Library online, Computer, vol. 30, Issue 6, Jun., 1997, pp. 76–79.

* cited by examiner

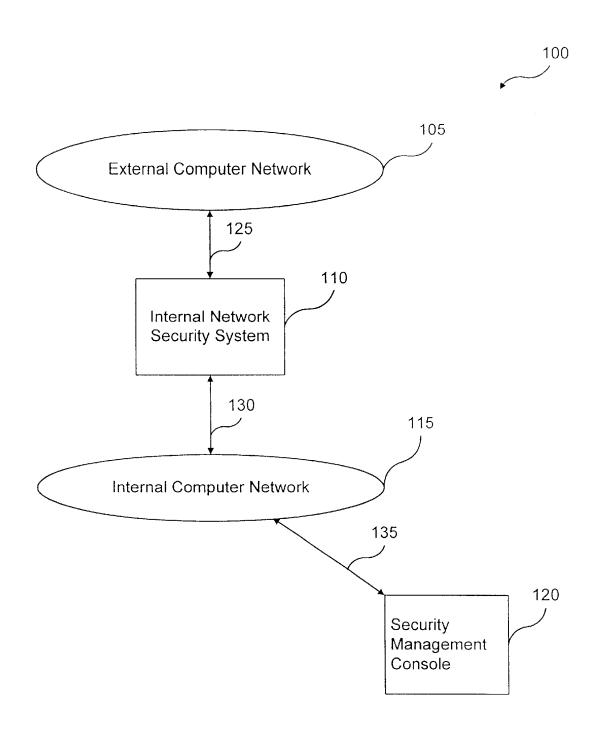


FIG. 1

DOCKET

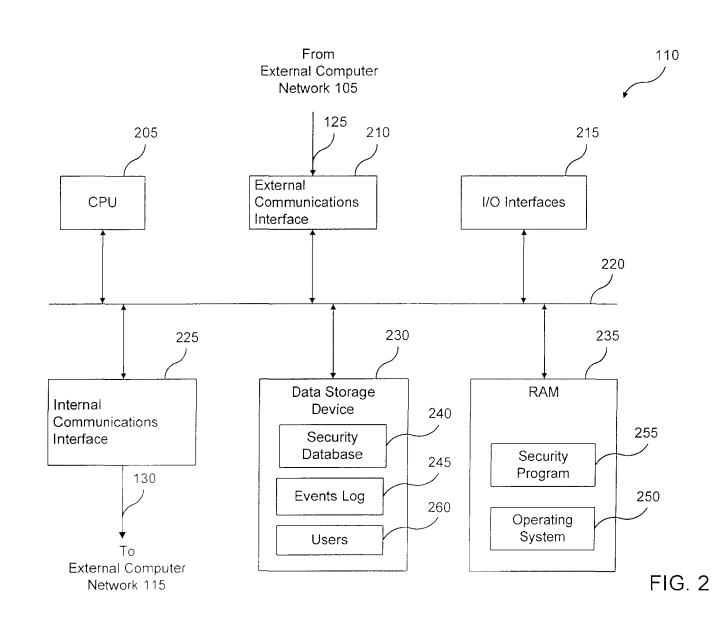
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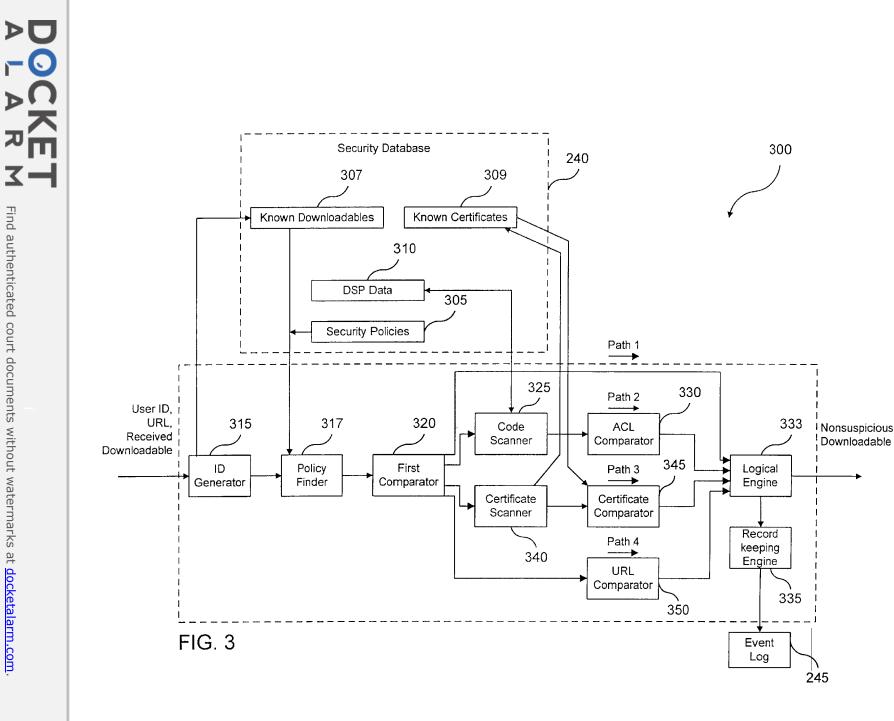
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