

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/111760 A3

- (51) International Patent Classification⁷: **G06F 11/30**, 12/14, H04L 9/00, 9/32
- (21) International Application Number: PCT/US2004/016740
- (22) International Filing Date: 27 May 2004 (27.05.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/446,054 28 May 2003 (28.05.2003) US
- (71) Applicant (for all designated States except US): **KAVADO, INC.** [US/US]; 130 West 42nd Street, Suite 850, New York, NY 10036 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **BEN-ITZHAK, Yuval** [IL/IL]; Shtern St. 92/a, Kiron 55602 (IL).
- (74) Agents: **CODDINGTON, Trevor, Q.** et al.; Paul Hastings Janofsky & Walker LLP, P.O. Box 919092, San Diego, CA 92191-9092 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report:
29 December 2005
- 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.

(54) Title: APPLICATION LAYER SECURITY METHOD AND SYSTEM

(57) Abstract: The invention provides an application layer security method and system to secure trusted computer applications from executing out of their intended and authorized scope caused by illegal or harmful operation requests received from a distrusted environment. In an embodiment of the invention, a protective layer is implemented in between a trusted application and distrusted application operation requests. In operation, the protective layer identifies an application path of each operation request. Depending on the application path identified, one or more security pipes scrutinize the application contents of the operation request to determine if the operation request is illegal or harmful to the application or a surrounding environment.

WO 2004/111760 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/16740

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : G06F 11/30, 12/14; H04L 9/00, 9/32
 US CL : 713/200
 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. : 713/200

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,321,337 B1 (RESHEF et al) 20 November 2001 (20.11.2001), column 4, lines 14-27, column 5, lines 4-23, column 6, lines 61-67, column 8, lines 36-45, column 10, lines 21-56, column 12 lines 32-62, column 8 lines 1-8.	1-20

Further documents are listed in the continuation of Box C. Sec 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 application or patent 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 28 July 2005 (28.07.2005)	Date of mailing of the international search report 20 SEP 2005
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>Ayaz Sheikh</i> Ayaz Sheikh Telephone No. 571-272-3795