

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 March 2008 (20.03.2008)

PCT

(10) International Publication Number
WO 2008/033480 A3

(51) International Patent Classification:
G06F 11/00 (2006.01) **G06F 11/30** (2006.01)

(21) International Application Number:
PCT/US2007/019960

(22) International Filing Date:
14 September 2007 (14.09.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/522,007 14 September 2006 (14.09.2006) US

(71) Applicant (for all designated States except US): **GENPACT GLOBAL HOLDINGS SICAR SARL** [LU/LU];
65 Boulevard Grande Duchesse Charlotte, L-1331 Luxembourg (LU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WALIA, Suraj** [IN/IN]; Q-415, Sector 21, Noida, India, UP 201301 (IN). **JACOB, Juby** [IN/US]; 3070 Windward Piz., #F221, Alpharetta, Georgia 30005 (US). **VIDWANS, Makarand** [IN/IN]; 201, Sai Lakshmi Niwas, House No. 1-10-251,

Lane No.4, Street No.1, Brahmanwadi, Begumpet, Hyderabad 500 016 (IN).

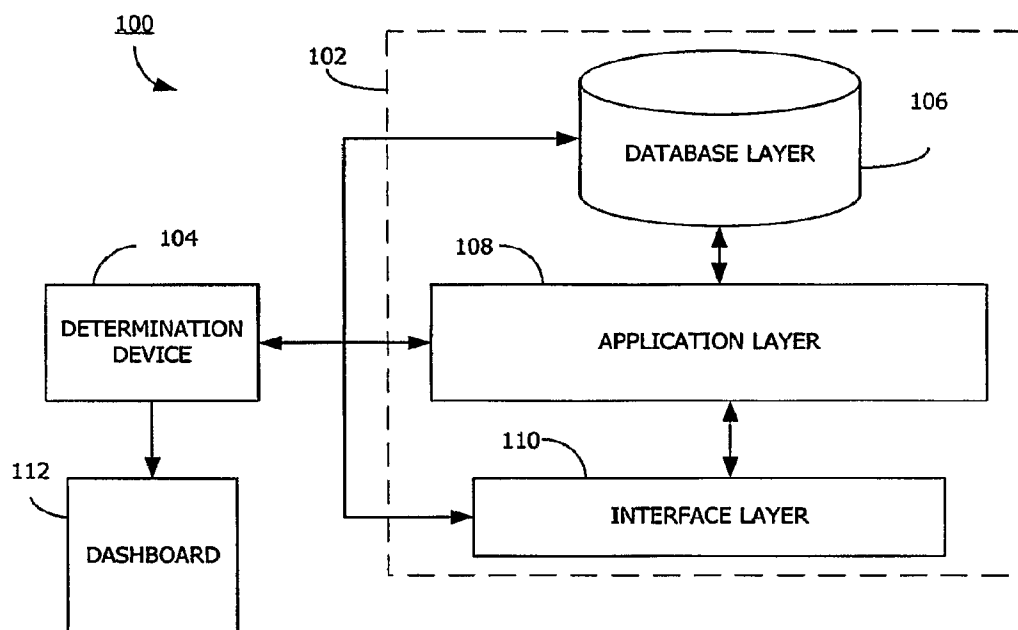
(74) Agent: **KENYON & KENYON LLP**; One Broadway, New York, NY 10004 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, IS, IT, LT, LU, LV, MC, MT, 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).

[Continued on next page]

(54) Title: SECURITY VULNERABILITY DETERMINATION IN A COMPUTING SYSTEM



(57) Abstract: Security level of a computing system (102) may be computed based on determining various security factor values for different operational aspects of the processing components. These security factor values are scaled to representative values or other types of identifiers. These security factor values may then be mapped on a security expectation scale, including taking into account the corresponding operational aspects. From this security factor value mapping, a computing system security determination (104) can be calculated, which provides a vulnerability determination for the computing system (102) providing information not only to the individual components, but also to the system (100 as a whole).

WO 2008/033480 A3



Published:

— *with international search report*

(88) Date of publication of the international search report:

26 June 2008

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/19960

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **G06F 11/00**(2006.01),**11/30**(2006.01)
G06F 11/00(2006.01)

USPC: 726/25,22;713/189,194

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. : 726/25, 22; 713/189, 194

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)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,892,903 (KLAUS) 06 April 1999 (06.04.1999), abstract, Column 8, lines 60-62, Column 9, lines 1-21, Column 12, lines 66-67, Column 13, lines 1-67, Column 15, lines 3-16, lines 63-65, Column 7, lines 56-60	1-20

☐ Further documents are listed in the continuation of Box C.

☐ 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

"E" earlier application or patent published on or after the international filing date

"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)

"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

"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

"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

"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

"&"

document member of the same patent family

Date of the actual completion of the international search

13 March 2008 (13.03.2008)

Date of mailing of the international search report

01 APR 2008

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. (571) 273-3201

Authorized officer

Emmanuel Moise

Telephone No. 703-305-3900

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/19960

Continuation of B. FIELDS SEARCHED Item 3:

EAST Search, Search terms: vulnerability assessment, security detection, vulnerability report, monitoring, security factor values, expectation scale, security level