

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
8 February 2007 (08.02.2007)

PCT

(10) International Publication Number  
WO 2007/015253 A3

- (51) International Patent Classification:  
G06F 17/30 (2006.01)
- (21) International Application Number:  
PCT/IL2006/000903
- (22) International Filing Date: 3 August 2006 (03.08.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/704,908 3 August 2005 (03.08.2005) US
- (71) Applicant (for all designated States except US): **AL-ADDIN KNOWLEDGE SYSTEMS LTD.** [IL/IL];  
P.o.box 11141, 61110 Tel Aviv (IL).

(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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

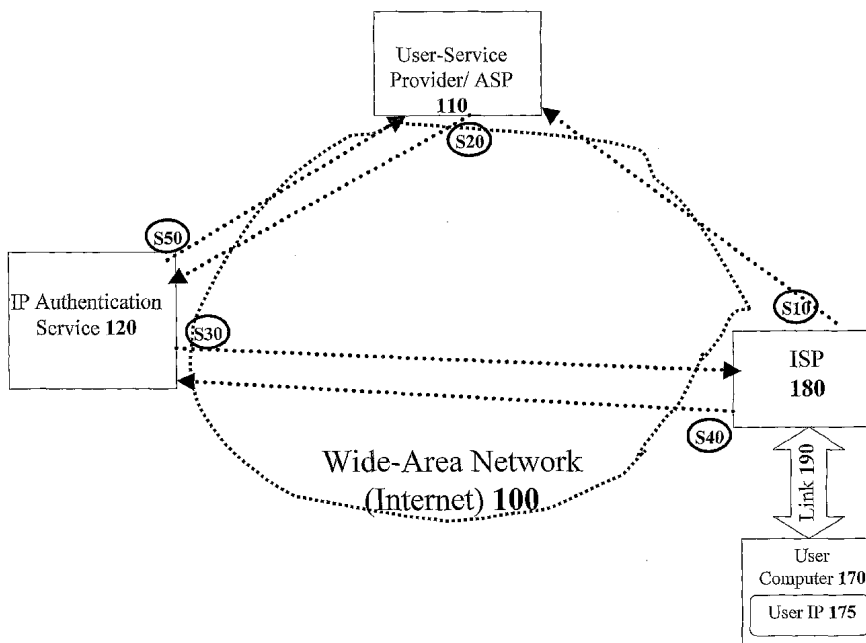
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, 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).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **DVIR, Uzi** [IL/IL];  
Shalag 3a, 63574 Tel Aviv (IL).
- (74) Agent: **FRIEDMAN, Mark**; 7 Jabotinsky St., 52520 Ramat Gan (IL).

Published:  
— with international search report

(88) Date of publication of the international search report:  
30 April 2009

(54) Title: TWO-FACTOR AUTHENTICATION EMPLOYING A USER'S IP ADDRESS



(57) Abstract: A method, system and computer-readable code for providing authentication services. In some embodiments, an attempt is made to match an IP address associated with a service and/or authentication request and user details of the request with an ISP account. In exemplary embodiments, if there is an indication that the IP address was issued by an ISP to a user matching the user details, the user is authenticated. In exemplary embodiments, a database of allowable dynamic and/or static IPs is maintained, and users are authenticated in accordance with contents of the maintained database. Systems, methods and computer-readable code for maintaining a database of allowable IPs are disclosed herein.



WO 2007/015253 A3

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/IL06/00903

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC: **G06F 17/30( 2006.01)**

USPC: 726/6  
 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. : 726/2, 3, 4, 5, 6, 7

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)  
 Google, ACM and IEEE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,895,511 B1 (BORSATO et al) 17 May 2005 (17.05.2005), Figures 1-3 and abstract	28, 29, 37 ----- 1-27, 30-36, 38
Y	US 2005/0039050 A1 (MORAND et al) 17 February 2005 (17.02.2005), Figures 1-3 and abstract	1-27,30-36, 38

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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"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	"&"	document member of the same patent family

Date of the actual completion of the international search: 18 June 2008 (18.06.2008)  
 Date of mailing of the international search report: 11 JUL 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: Kristine Kincaid  
 Telephone No. (571) 272-2000

