

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 September 2001 (13.09.2001)

PCT

(10) International Publication Number
WO 01/67201 A3

- (51) International Patent Classification⁷: **G06F 17/60**
- (21) International Application Number: PCT/IB01/00549
- (22) International Filing Date: 27 February 2001 (27.02.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/187,927 8 March 2000 (08.03.2000) US
- (71) Applicant (for all designated States except US): **AURORA WIRELESS TECHNOLOGIES, Ltd.** [CN/CN]; 18F, No. 1 Pao Sheng Road, Yung-Ho City, Taipei (TW).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **CAMACHO, Luz, Maria** [US/US]; 107 Tate Court, Orlando, FL 32828 (US). **PIRKEY, Roger, D.** [US/US]; 165 Broadmoor Road,

Lake Mary, FL 32746 (US). **HANKINSON, Michael, L.** [US/US]; 2186 Mt. Evans Boulevard, Pine, CO 80470 (US).

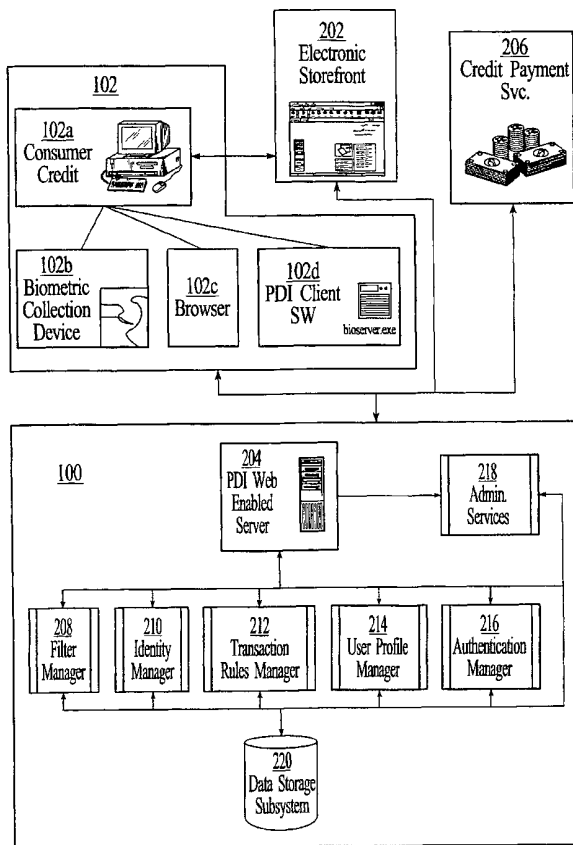
(74) Agents: **DANIELSON, Mark, J.** et al.; Pillsbury Winthrop LLP, 1100 New York Avenue, N.W., Washington, DC 20005 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, 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, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR REDUCING ON-LINE FRAUD USING PERSONAL DIGITAL IDENTIFICATION



(57) Abstract: A distributed Personal Digital Identification (PDI) system (100) and architecture rapidly verifies individuals using biometrics data or other tokens prior to approving a transaction and/or granting access to an on-line service and other network services. The architecture that includes a server (204) that has access to template data required to authenticate individuals, and the processing capacity to route authenticated requests to the appropriate downstream entity (Internet Service Provider, Credit Card Company, etc.). The server (204) is connected to requesting users by various network methods to form a client/server architecture. The server (204) and clients each contain discrete subsystems (208,210,212,214,216, and 218) which provide various levels of authentication services to users of the system (100).

WO 01/67201 A3



IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
28 February 2002

Published:

— with international search report

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.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB01/00549**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :G 06F 17/60

US CL : 705/1

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. : 705/1

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)

EAST search terms: authenticat\$ and biometrics

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,157,707 A (BAULIER et al.) 05 December 2000, FIGS. 1-5; col. 1, line 64-col. 2, line 3; col. 3, line 67-col. 4, line 37; col. 5, lines 26-54; col. 6, lines 45-63; col. 9, lines 31-36.	1-45
A	US 5,386,104 A (SIME) 31 January 1995, abstract.	1-45
A,P	US 6,158,010 A (MORICONI et al.) 05 December 2000, abstract, col. 3, lines 63-67; col. 7, lines 59-65; col. 8, lines 15-37.	1-45

 Further documents are listed in the continuation of Box C.
 See 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 document 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

07 SEPTEMBER 2001

Date of mailing of the international search report

18 OCT 2001

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

HYUNG S. SOU^{BH}

Telephone No. (703) 308-0505

James R. Matthews