(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 February 2006 (09.02.2006)

PCT

(10) International Publication Number
WO 2006/014205 A2

(51) International Patent Classification:
G06K 5/00 (2006.01)

(21) International Application Number:
PCT/US2005/019388

(22) International Filing Date: 2 June 2005 (02.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/710,329	1 July 2004 (01.07.2004)	US
10/710,323	1 July 2004 (01.07.2004)	US
10/710,335	1 July 2004 (01.07.2004)	US
10/710,308	1 July 2004 (01.07.2004)	US
10/710,327	1 July 2004 (01.07.2004)	US
10/710,309	1 July 2004 (01.07.2004)	US
10/710,330	1 July 2004 (01.07.2004)	US
10/710,328	1 July 2004 (01.07.2004)	US
10/710,332	1 July 2004 (01.07.2004)	US
10/710,334	1 July 2004 (01.07.2004)	US
10/710,317	1 July 2004 (01.07.2004)	US
10/710,325	1 July 2004 (01.07.2004)	US
10/710,331	1 July 2004 (01.07.2004)	US
10/710,307	1 July 2004 (01.07.2004)	US
10/710,311	1 July 2004 (01.07.2004)	US
10/710,326	1 July 2004 (01.07.2004)	US
10/710,315	1 July 2004 (01.07.2004)	US
10/710,319	1 July 2004 (01.07.2004)	US
10/710,324	1 July 2004 (01.07.2004)	US
10/710,310	1 July 2004 (01.07.2004)	US

(71) Applicant *(for all designated States except US)*: **AMERICAN EXPRESS TRAVEL RELATED SERVICES COMPANY, INC.** [US/US]; American Express Tower, World Financial Center, New York City, New York 10285-4900 (US).

(72) Inventors; and

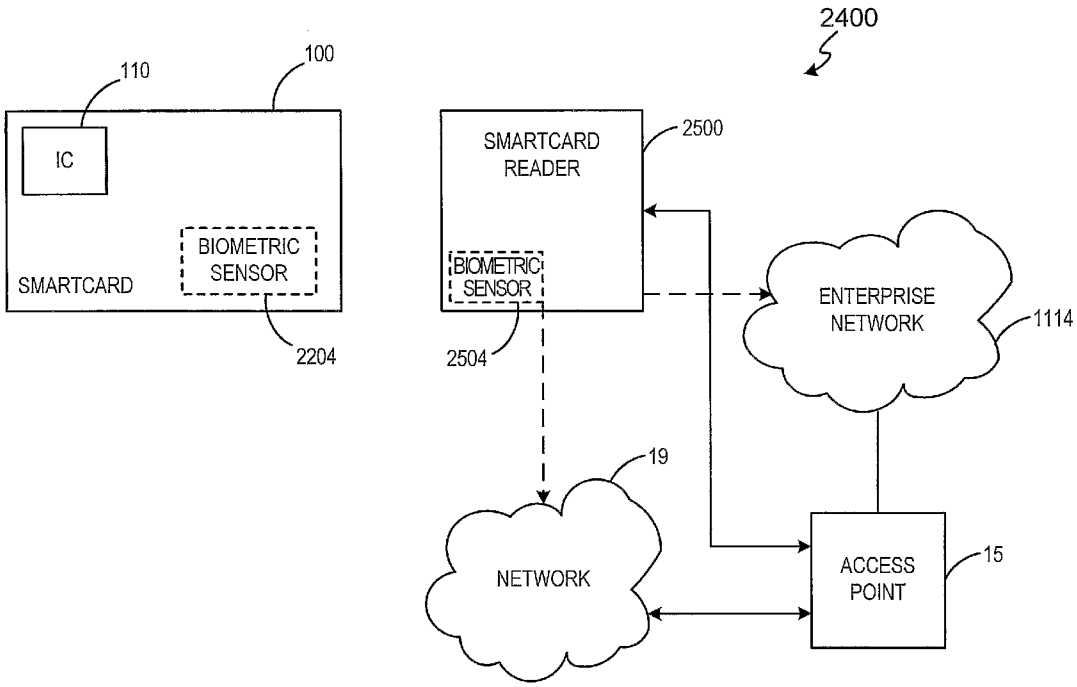
(75) Inventors/Applicants *(for US only)*: **BONALLE, David S.** [US/US]; 77 Rose Hill Avenue, New Rochelle, New York 10804 (US). **SALOW, Glen** [US/US]; 4 Hastings Road, Holmdel, New Jersey 07733 (US).

(74) Agent: **SOBELMAN, Howard, I.**; Snell & Wilmer L.L.P., One Arizona Center, 400 East Van Buren, Phoenix, Arizona 85004-2202 (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,

[Continued on next page]

(54) Title: SYSTEM FOR BIOMETRIC SECURITY USING A SMARTCARD



(57) Abstract: The present invention discloses a system and methods for biometric security using biometrics in a smartcard transaction system. The biometric security system also includes a biometric sensor that detects biometric samples and a device for verifying biometric samples. In one embodiment, the biometric security system includes a smartcard configured with a biometric sensor. In another embodiment, the system includes a reader configured with a biometric sensor. The device for verifying samples compares the biometric samples with information stored on databases.

WO 2006/014205 A2

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, IS, IT, LT, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations 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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:

— *without international search report and to be republished upon receipt of that 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.