

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
09 April 2020 (09.04.2020)



(10) International Publication Number
WO 2020/072403 A1

(51) International Patent Classification:

G06Q 20/32 (2012.01) H04W 4/80 (2018.01)
H04B 5/00 (2006.01) H04W 12/06 (2009.01)

(21) International Application Number:

PCT/US2019/053936

(22) International Filing Date:

01 October 2019 (01.10.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/740,352 02 October 2018 (02.10.2018) US
16/205,119 29 November 2018 (29.11.2018) US
16/546,792 21 August 2019 (21.08.2019) US

(71) Applicant: CAPITAL ONE SERVICES, LLC [US/US];
1680 Capital One Drive, McLean, VA 22102 (US).

(72) Inventors: RULE, Jeffrey; 3906 Laird Place, Chevy Chase, MD 20815 (US). HENG, Melissa; 11908 Sumner Court, Glen Allen, VA 23059 (US). LUTZ, Wayne; 902 Lira Drive, Fort Washington, MD 20744 (US). ASHFIELD, James; 14106 Old Fort Drive, Midlothian, VA 23113 (US). HART, Colin; 2604 S Adams Street, Arlington, VA 22206 (US). ILINCIC, Rajko; 4428 Sleaford Road, Ammandale, VA 22003 (US).

(74) Agent: KASNEVICH, Andrew, D.; Hunton Andrews Kurth LLP, 2200 Pennsylvania Ave, NW, Washington, DC 20037 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: SYSTEMS AND METHODS FOR CRYPTOGRAPHIC AUTHENTICATION OF CONTACTLESS CARDS

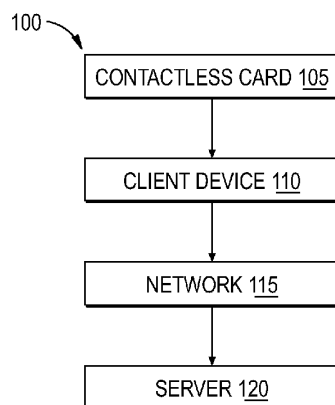


FIG. 1A

(57) Abstract: Example embodiments of systems and methods for data transmission between a contactless card, a client device, and one or more servers are provided. The contactless card may include one or more processors and memory, which may include one or more applets. The client device may include one or more processors and memory. The client device may be in data communication with the contactless card. One or more servers may be in data communication with the client device. A first set of information may be transmitted from the contactless card to the client device. The first set of information may include one or more links to activate the contactless card via a designated email program. Upon validation of the first set of information by the one or more servers, the contactless card may be activated.

WO 2020/072403 A1