

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
01 July 2021 (01.07.2021)



(10) International Publication Number
WO 2021/133491 A1

(51) International Patent Classification:

H04L 29/06 (2006.01) G06Q 20/40 (2012.01)
G06Q 20/38 (2012.01) G06Q 20/34 (2012.01)

(21) International Application Number:

PCT/US2020/061785

(22) International Filing Date:

23 November 2020 (23.11.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

16/726,385 24 December 2019 (24.12.2019) US

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

(72) Inventors: CAPURSO, Nicholas; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US). EDWARDS, Samuel; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US). PRIBBLE, Jason; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US).

(74) Agent: CARR, Nick et al.; Kacvinsky Daisak Bluni PLLC, 2601 Weston Parkway, Suite 103, Cary, North Carolina 27513 (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, IT, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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).

(54) Title: SECURE AUTHENTICATION BASED ON IDENTITY DATA STORED IN A CONTACTLESS CARD

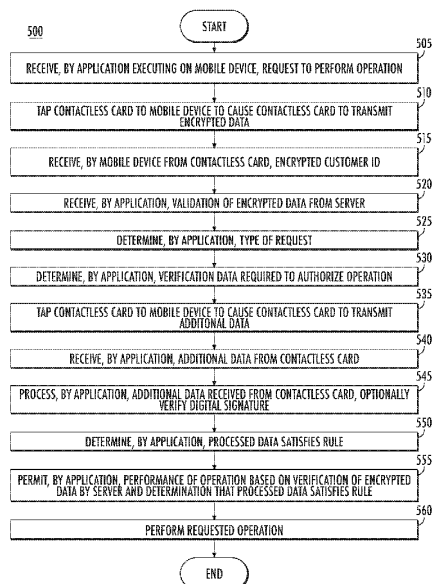


FIG. 5

(57) Abstract: Systems, methods, articles of manufacture, and computer-readable media for secure authentication based on identity data stored in a contactless card associated with an account. An application may receive an indication specifying to perform an operation. The application may receive encrypted data from the card, the encrypted data based on a cryptographic algorithm, a customer identifier, and a private key. The application may receive an indication that the authentication server verified the encrypted data based on the private key for the card. The application may determine a type of data required to authorize the operation. The application may receive data comprising passport data or driver license data from the card. The application may determine that the data satisfies a rule for authorizing the operation and authorize performance of the operation based on the authentication server verifying the encrypted data and the data satisfying the at least one rule.

WO 2021/133491 A1

[Continued on next page]

Published:

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