

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 February 2023 (23.02.2023)



(10) International Publication Number
WO 2023/022927 A1

(51) International Patent Classification:

G06Q 20/34 (2012.01) G06Q 20/38 (2012.01)
G06Q 20/12 (2012.01) G06Q 20/40 (2012.01)
G06Q 20/14 (2012.01)

(21) International Application Number:

PCT/US2022/040144

(22) International Filing Date:

12 August 2022 (12.08.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

17/405,625 18 August 2021 (18.08.2021) US

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

(72) Inventors: **VARGAS, Cruz**; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US). **YEE, Bryant**; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US). **PETERS, Joshua**; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US). **CHAUD-**

HARY, Viraj; c/o Capital One Services, LLC, 1680 Capital One Drive, McLean, Virginia 22102 (US).

(74) Agent: **RUSSELL, Matthew**; 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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, 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,

(54) Title: TECHNIQUES AND SYSTEMS TO PERFORM AUTHENTICATION AND PAYMENT OPERATIONS WITH A CONTACTLESS CARD TO PROVIDE ITEMS AND SERVICES

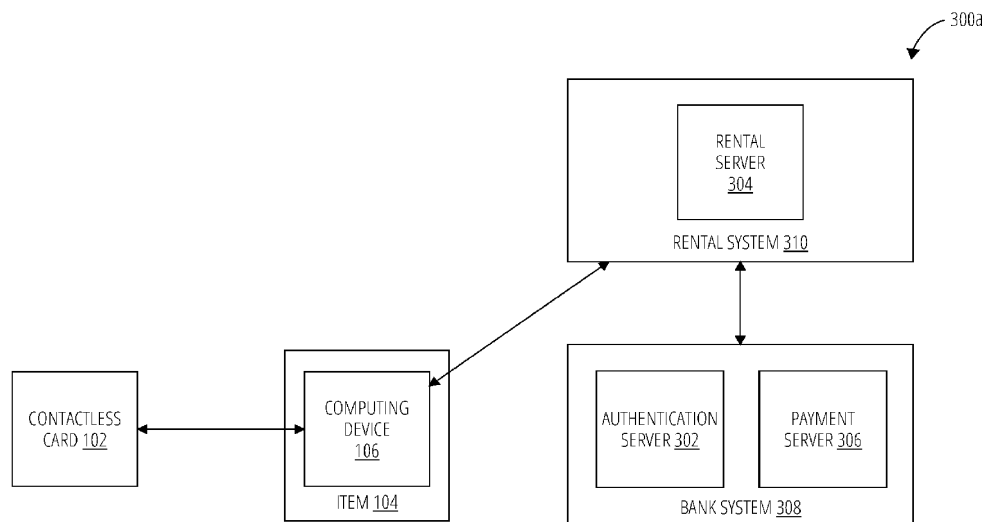


FIG. 3A

(57) Abstract: Embodiments discussed herein are generally directed to systems, devices, methods, and techniques to perform authentication and payment operations with a contactless card to provide items and services.

[Continued on next page]

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))*