

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 September 2021 (23.09.2021)



(10) International Publication Number
WO 2021/188635 A1

(51) International Patent Classification:

G06Q 20/06 (2012.01) G06Q 20/38 (2012.01)
G06Q 20/40 (2012.01) H04L 9/06 (2006.01)

(21) International Application Number:

PCT/US2021/022710

(22) International Filing Date:

17 March 2021 (17.03.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/992,219 20 March 2020 (20.03.2020) US

(71) Applicant: **MASTERCARD INTERNATIONAL INCORPORATED** [US/US]; 2000 Purchase Street, Purchase, NY 10577 (US).

(72) Inventor: **DAVIS, Steven, C.**; 128 Glenallen Drive, Saint Peter, MO 63376-1732 (US).

(74) Agent: **DOBBYN, Colm, J.**; Mastercard International Incorporated, 2000 Purchase Street, Purchase, NY 10577 (US).

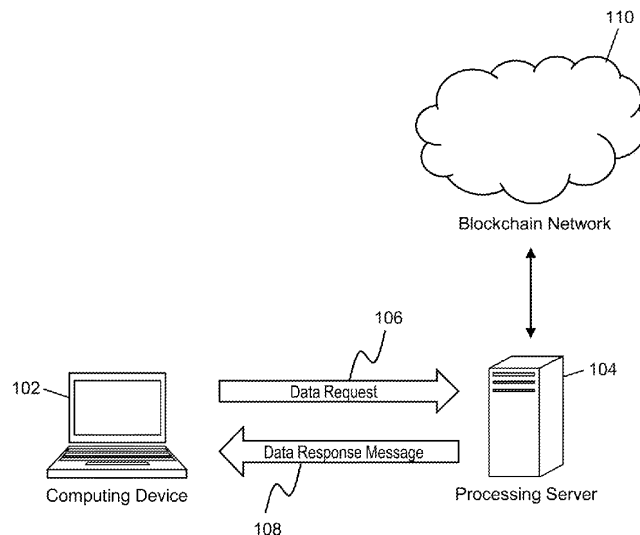
(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, 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,

(54) Title: METHOD AND SYSTEM TO REPRESENT SCALAR DIGITAL ASSETS USING HASH CHAINS

100

FIG. 1



(57) Abstract: A method and system for representing scalar digital assets using hash chains may include a processor which may receive a data request for one or more units of a scalar digital asset from a computing device. The processor may identify the scalar digital asset requested by the computing device and the one or more units of the scalar digital asset. The processor may verify the computing device has access to the scalar digital asset. The processor may generate a hash chain of the one or more units of the scalar digital asset and transmit a data response message containing the hash chain of the one or more units of the scalar digital asset to the computing device.

[Continued on next page]

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))*