



(51) International Patent Classification:  
*G06Q 30/02* (2012.01)

(21) International Application Number:  
PCT/CN2019/082541

(22) International Filing Date:  
12 April 2019 (12.04.2019)

(25) Filing Language: English

(26) Publication Language: English

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(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,

(54) Title: RETRIEVING VALUES OF DIGITAL TICKETS USING SMART CONTRACTS IN BLOCKCHAIN NETWORKS

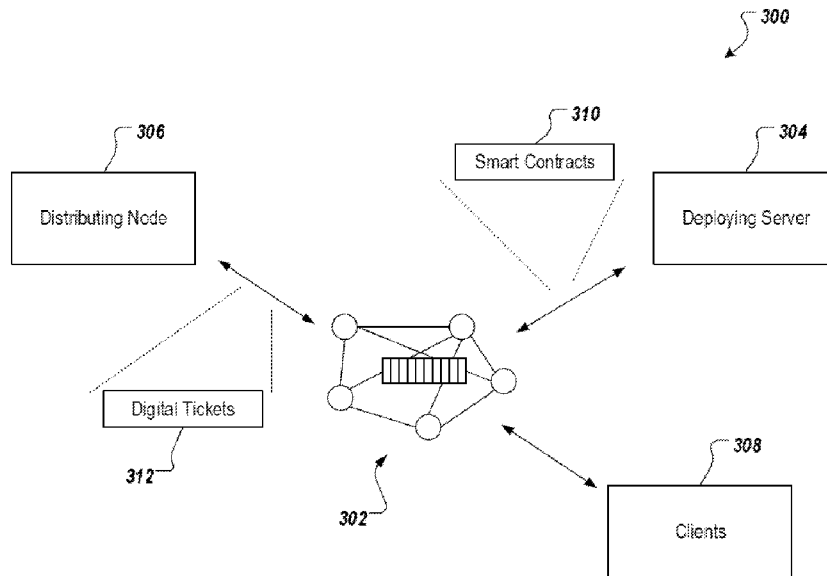


FIG. 3

(57) Abstract: Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for retrieval of values of digital tickets. One of the methods includes receiving a request from a client device for a current value of a digital ticket by a distributing node. The request includes the digital ticket and one or more value changing rules for determining the current value of the digital ticket. The distributing node retrieves a smart contract from a blockchain network in response to the request from the client device. The smart contract includes the one or more value changing rules for determining the current value of the digital ticket. The distributing node determines the current value of the digital ticket based on an original value of the digital ticket and the one or more value changing rules by executing the smart contract, and associates the current value with the digital ticket.



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))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a)*

**(88) Date of publication of the international search report:**

20 February 2020 (20.02.2020)

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2019/082541

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> G06Q 30/02(2012.01)i  According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) H04L;G06Q  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CNABS;CNTXT;USTXT;EPTXT;WOTXT;CNKI:block, chain, blockchain, distributed ledger system, coupon, voucher, ticket, value, change, smart contract		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 109214792 A (MASTERCARD INT INC) 15 January 2019 (2019-01-15) the description paragraphs [0058]-[0063]	1-9
Y	CN 108241979 A (SHENZHEN ONECONNECT TECH CO LTD) 03 July 2018 (2018-07-03) the description paragraph [0100]	1-9
A	CN 107146101 A (HANGZHOU HYPERCHAIN TECHNOLOGY CO LTD) 08 September 2017 (2017-09-08)	1-9
A	US 2018101844 A1 (COINPLUG INC) 12 April 2018 (2018-04-12) the whole document	1-9
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
<p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p> <p>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>“&amp;” document member of the same patent family</p>		
Date of the actual completion of the international search <b>25 December 2019</b>		Date of mailing of the international search report <b>03 January 2020</b>
Name and mailing address of the ISA/CN <b>National Intellectual Property Administration, PRC 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088 China</b> Facsimile No. (86-10)62019451		Authorized officer <b>ZHU, Xiuling</b>  Telephone No. 86-(010)-62089127

**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/CN2019/082541**

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				WO	2018070784	A3	19 July 2018