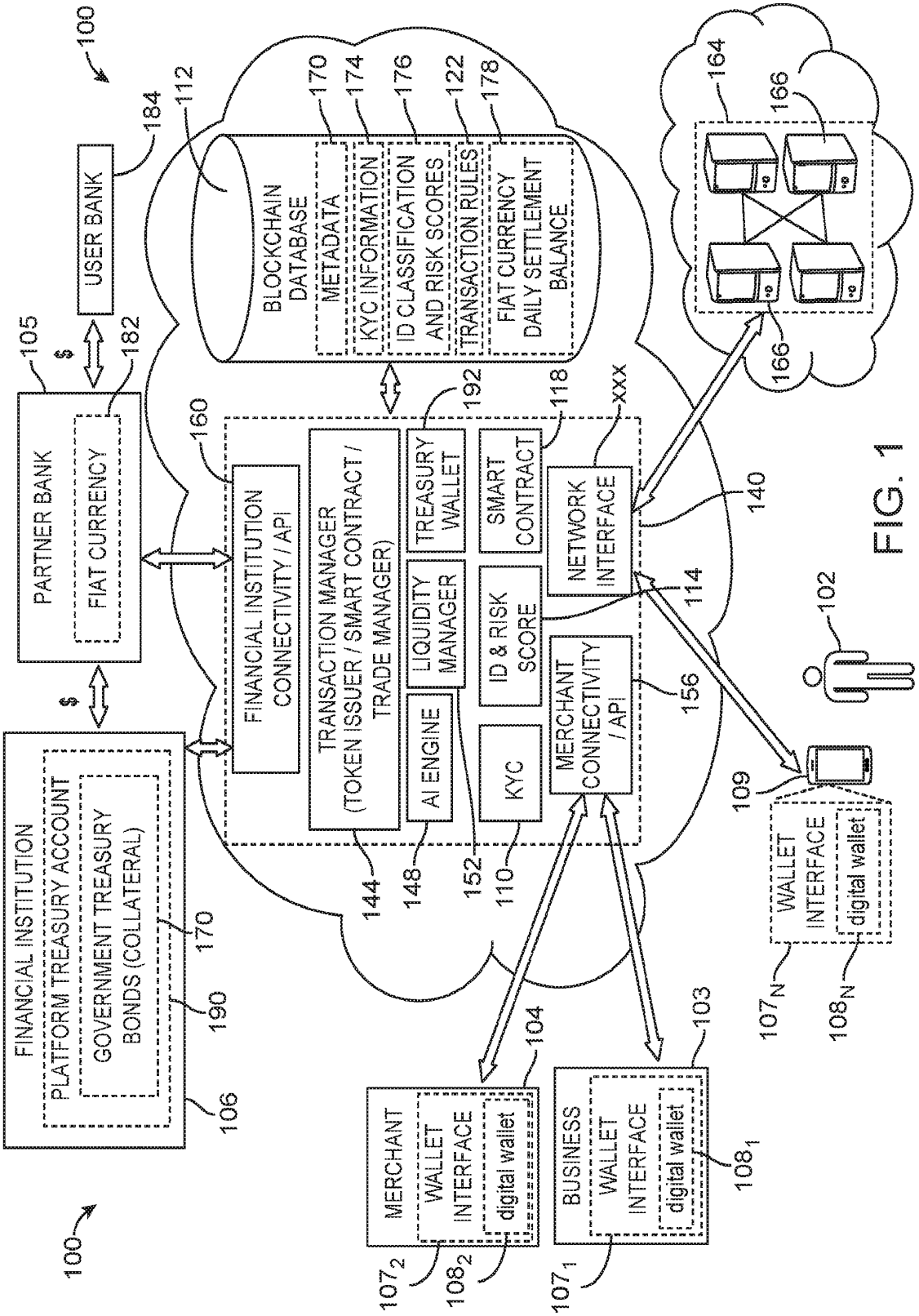
100
USER BANK
184
112
BLOCKCHAIN DATABASE
METADATA
KYC INFORMATION
ID CLASSIFICATION AND RISK SCORES
TRANSACTION RULES
FIAT CURRENCY DAILY SETTLEMENT BALANCE
170
174
176
122
178
164
166
105
$
182
PARTNER BANK
FIAT CURRENCY
160
192
118
XXX
FINANCIAL INSTITUTION CONNECTIVITY / API
TRANSACTION MANAGER (TOKEN ISSUER / SMART CONTRACT / TRADE MANAGER)
TREASURY WALLET
SMART CONTRACT
NETWORK INTERFACE
140
LIQUIDITY MANAGER
ID & RISK SCORE
114
AI ENGINE
KYC
MERCHANT CONNECTIVITY / API
156
102
109
FINANCIAL INSTITUTION
PLATFORM TREASURY ACCOUNT
GOVERNMENT TREASURY BONDS (COLLATERAL)
170
190
106
144
148
152
110
104
103
WALLET INTERFACE
digital wallet
107N
108N
MERCHANT WALLET INTERFACE
digital wallet
107 2
108 2
BUSINESS WALLET INTERFACE
digital wallet
107 1
108 1
100

FIG. 1

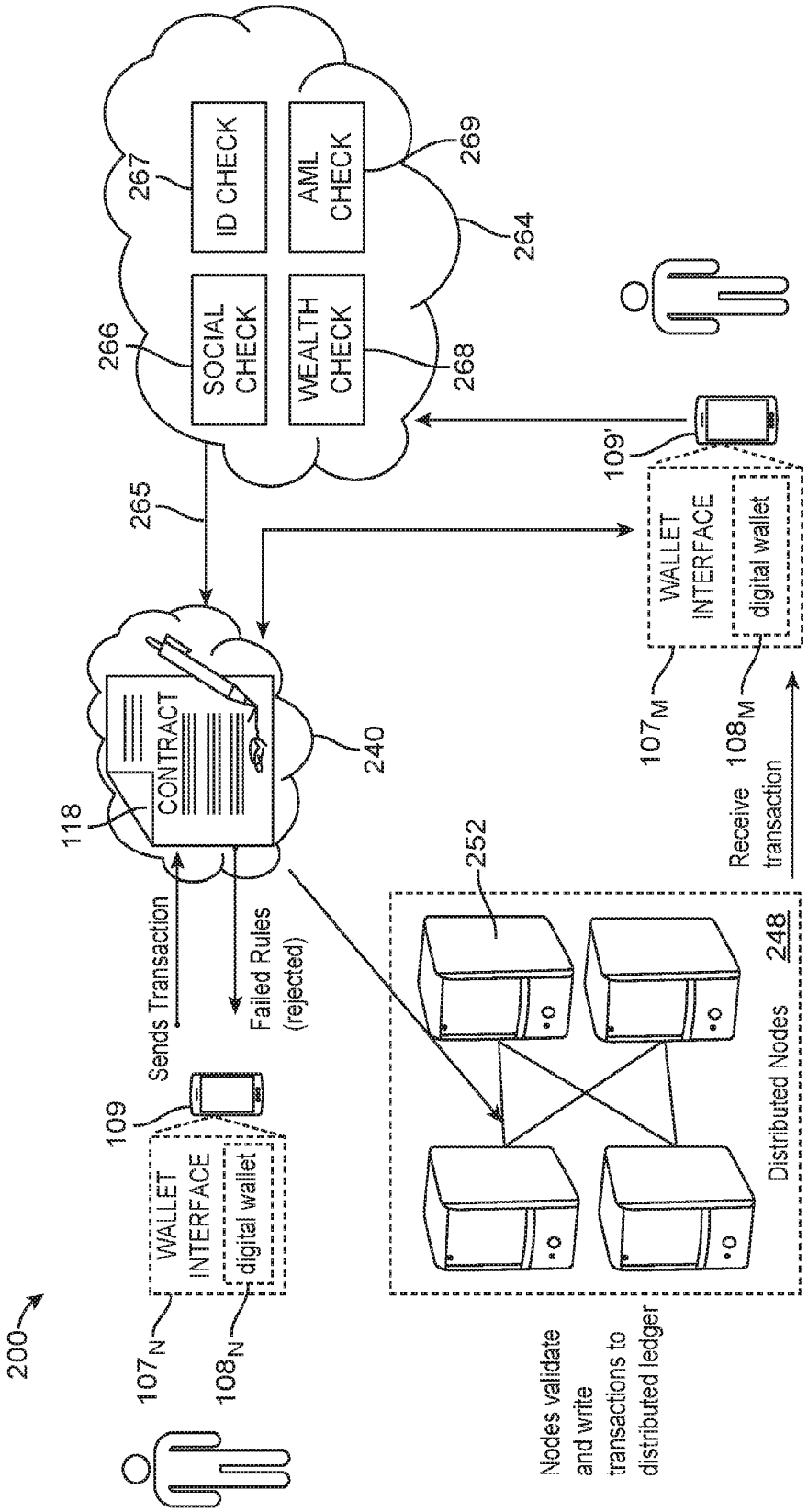
200
ID CHECK
AML CHECK
SOCIAL CHECK
WEALTH CHECK
267
269
264
266
268
265
109'
WALLET INTERFACE
digital wallet
107M
108M
Receive transaction
CONTRACT
240
118
252
Distributed Nodes
248
Sends Transaction
Failed Rules (rejected)
109
WALLET INTERFACE
digital wallet
107N
108N
Nodes validate and write transactions to distributed ledger

FIG. 2

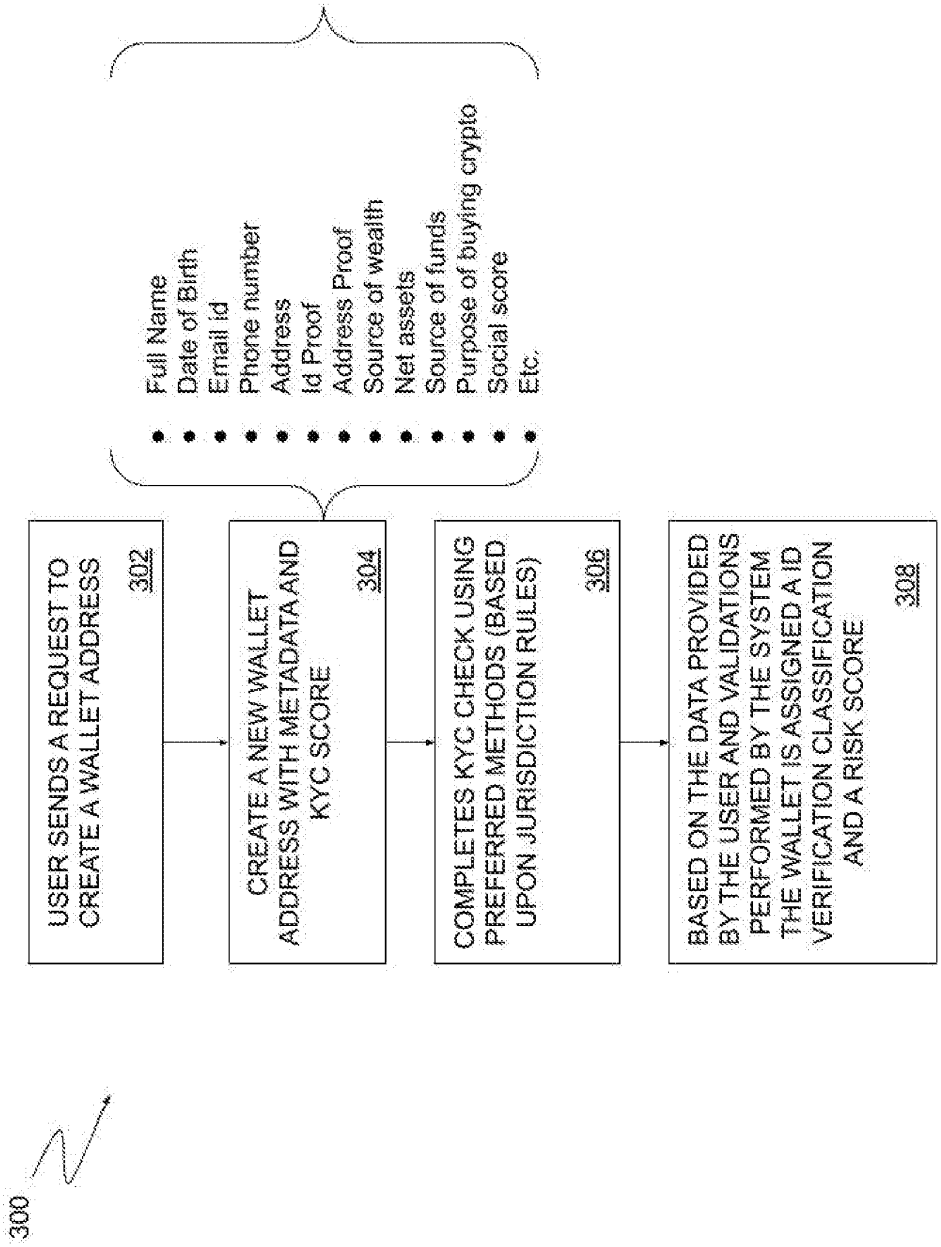
300
USER SENDS A REQUEST TO CREATE A WALLET ADDRESS
302
CREATE A NEW WALLET ADDRESS WITH METADATA AND KYC SCORE
304
COMPLETES KYC CHECK USING PREFERRED METHODS (BASED UPON JURISDICTION RULES)
306
BASED ON THE DATA PROVIDED BY THE USER AND VALIDATIONS PERFORMED BY THE SYSTEM THE WALLET IS ASSIGNED A ID VERIFICATION CLASSIFICATION AND A RISK SCORE
308
Full Name
Date of Birth
Email id
Phone number
Address
Id Proof
Address Proof
Source of wealth
Net assets
Source of funds
Purpose of buying crypto
Social score
Etc.

FIG. 3

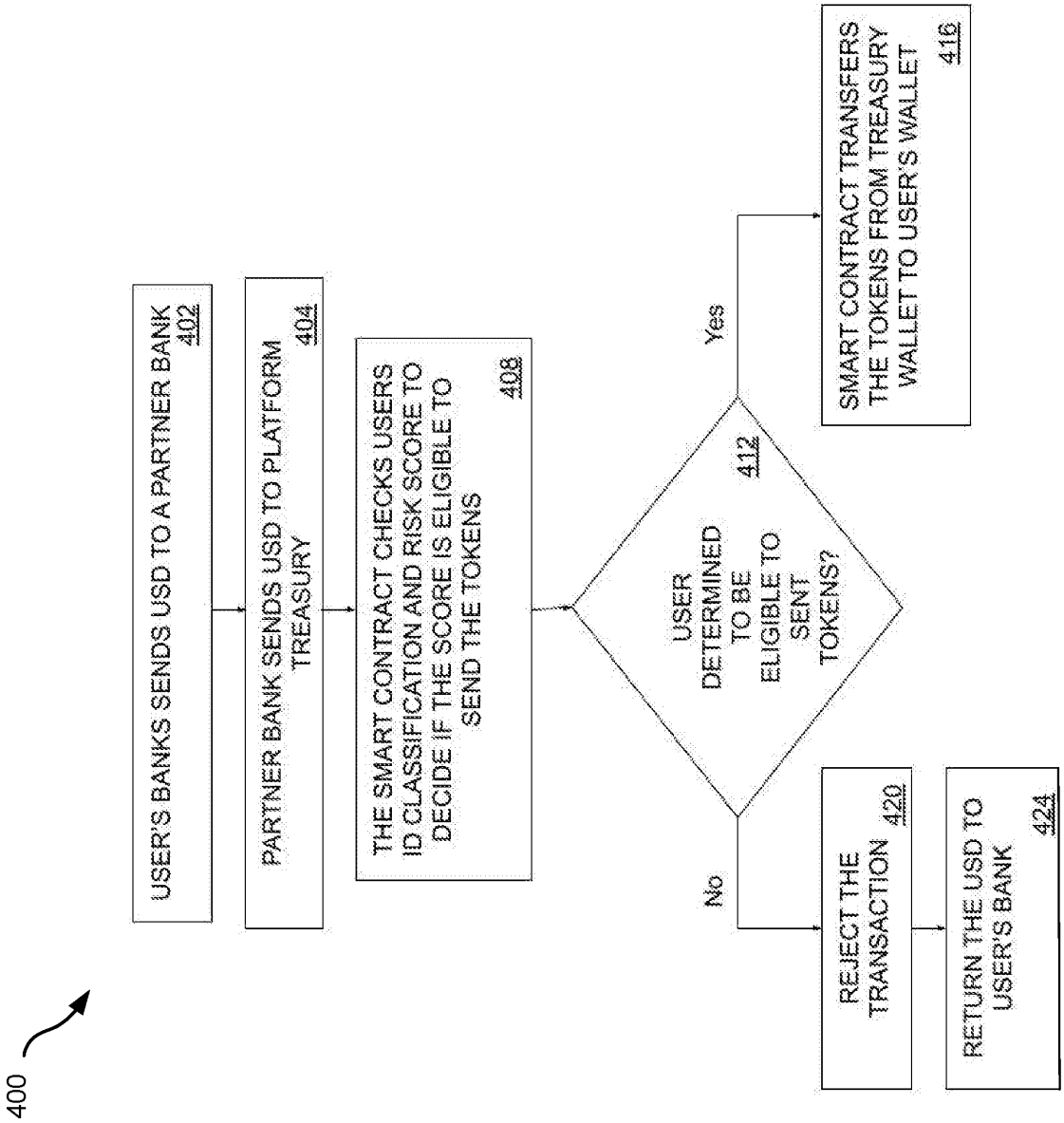
400
USER'S BANKS SENDS USD TO A PARTNER BANK 402
PARTNER BANK SENDS USD TO PLATFORM TREASURY 404
THE SMART CONTRACT CHECKS USERS ID CLASSIFICATION AND RISK SCORE TO DECIDE IF THE SCORE IS ELIGIBLE TO SEND THE TOKENS 408
USER DETERMINED TO BE ELIGIBLE TO SENT TOKENS? 412
Yes
SMART CONTRACT TRANSFERS THE TOKENS FROM TREASURY WALLET TO USER'S WALLET 416
No
REJECT THE TRANSACTION 420
RETURN THE USD TO USER'S BANK 424

FIG. 4

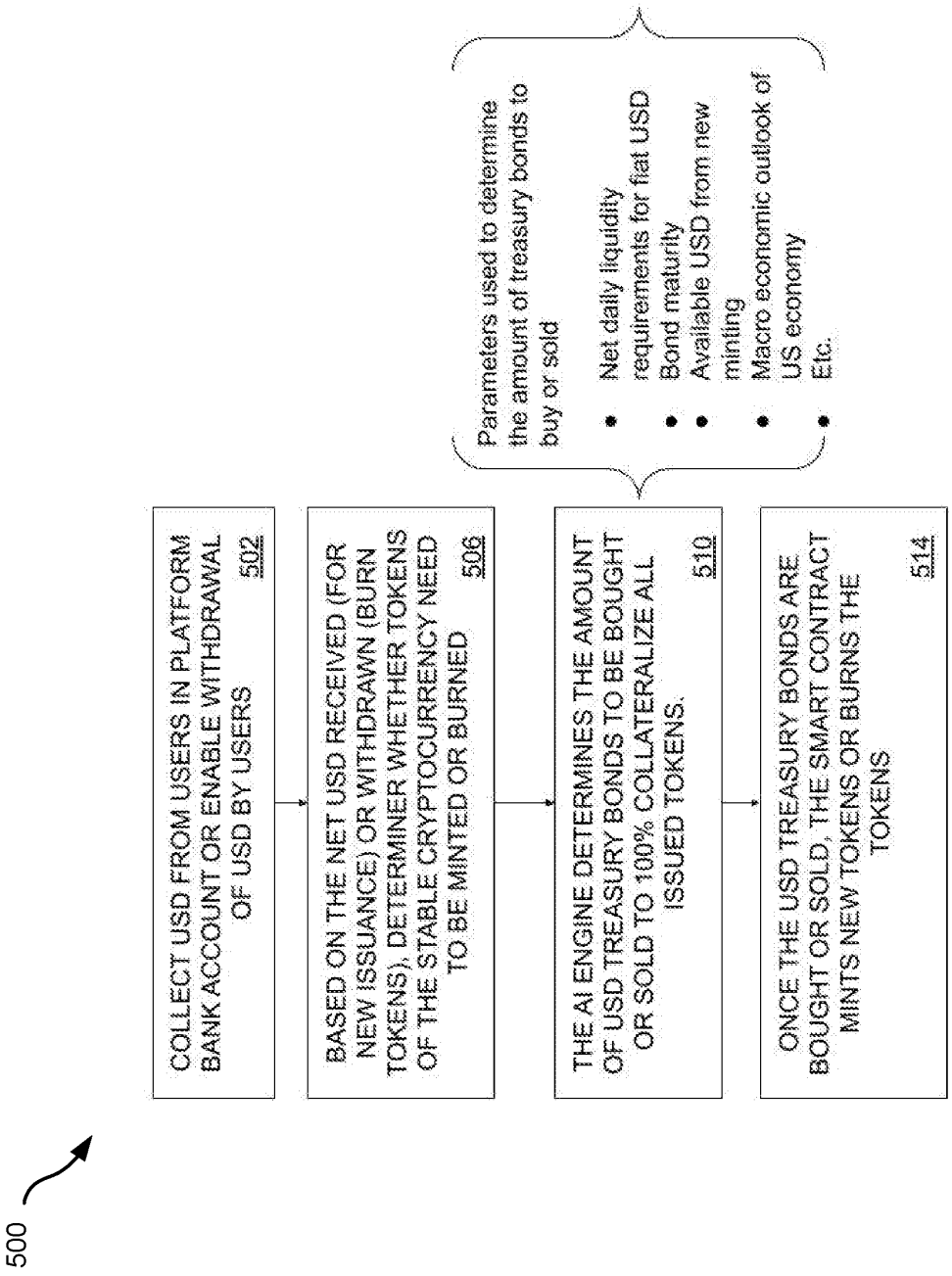
500
COLLECT USD FROM USERS IN PLATFORM BANK ACCOUNT OR ENABLE WITHDRAWAL OF USD BY USERS 502
BASED ON THE NET USD RECEIVED (FOR NEW ISSUANCE) OR WITHDRAWN (BURN TOKENS), DETERMINER WHETHER TOKENS OF THE STABLE CRYPTOCURRENCY NEED TO BE MINTED OR BURNED 506
THE AI ENGINE DETERMINES THE AMOUNT OF USD TREASURY BONDS TO BE BOUGHT OR SOLD TO 100% COLLATERALIZE ALL ISSUED TOKENS. 510
ONCE THE USD TREASURY BONDS ARE BOUGHT OR SOLD, THE SMART CONTRACT MINTS NEW TOKENS OR BURNS THE TOKENS 514
Parameters used to determine the amount of treasury bonds to buy or sold
Net daily liquidity requirements for fiat USD
Bond maturity
Available USD from new minting
Macro economic outlook of US economy
Etc.

FIG. 5

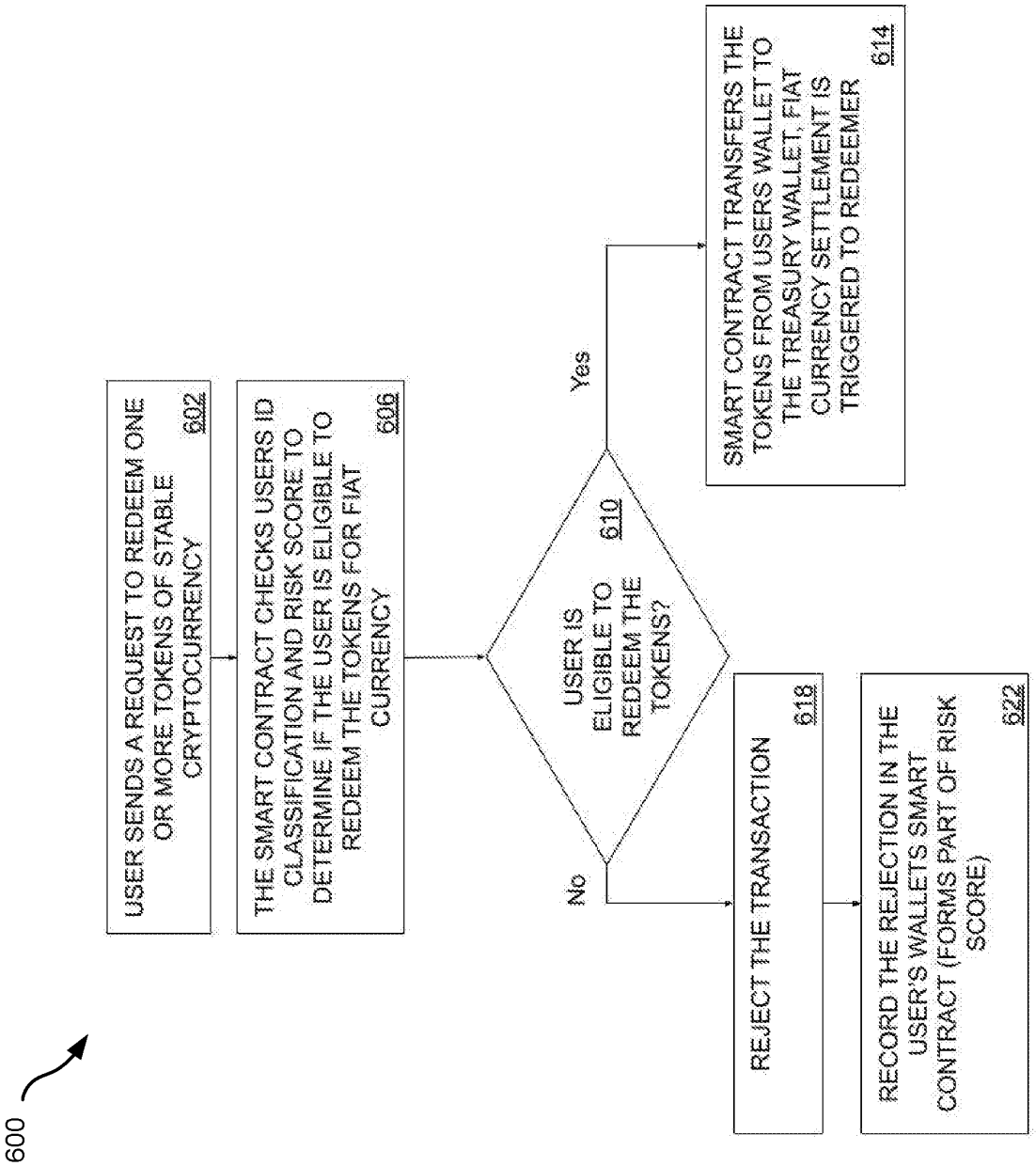
600
USER SENDS A REQUEST TO REDEEM ONE OR MORE TOKENS OF STABLE CRYPTOCURRENCY 602
THE SMART CONTRACT CHECKS USERS ID CLASSIFICATION AND RISK SCORE TO DETERMINE IF THE USER IS ELIGIBLE TO REDEEM THE TOKENS FOR FIAT CURRENCY 606
USER IS ELIGIBLE TO REDEEM THE TOKENS? 610
Yes
No
SMART CONTRACT TRANSFERS THE TOKENS FROM USERS WALLET TO THE TREASURY WALLET, FIAT CURRENCY SETTLEMENT IS TRIGGERED TO REDEEMER 614
REJECT THE TRANSACTION 618
RECORD THE REJECTION IN THE USER'S WALLETS SMART CONTRACT (FORMS PART OF RISK SCORE) 622

FIG. 6

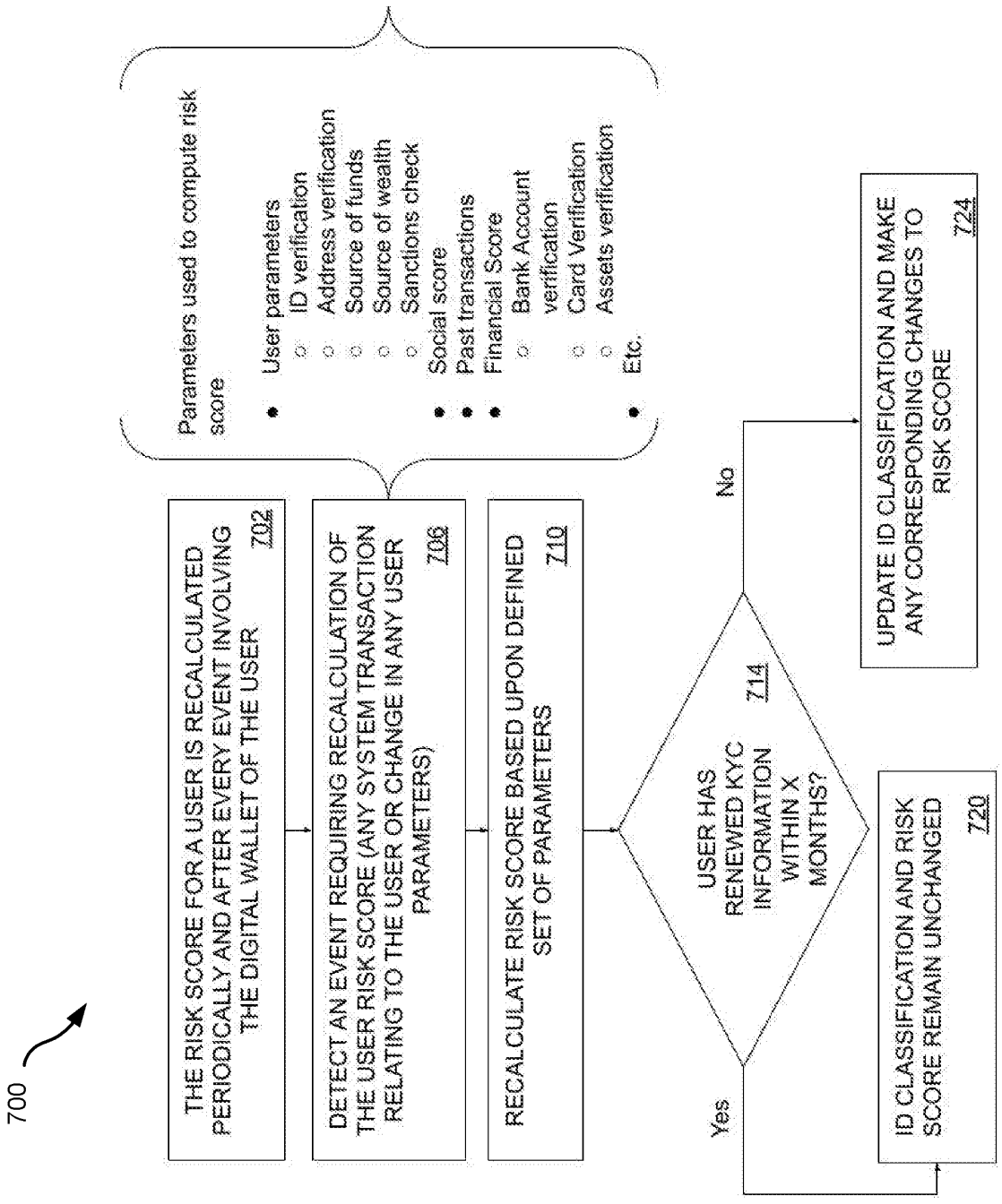
700
THE RISK SCORE FOR A USER IS RECALCULATED PERIODICALLY AND AFTER EVERY EVENT INVOLVING THE DIGITAL WALLET OF THE USER
702
DETECT AN EVENT REQUIRING RECALCULATION OF THE USER RISK SCORE (ANY SYSTEM TRANSACTION RELATING TO THE USER OR CHANGE IN ANY USER PARAMETERS)
706
RECALCULATE RISK SCORE BASED UPON DEFINED SET OF PARAMETERS
710
Parameters used to compute risk score
User parameters
ID verification
Address verification
Source of funds
Source of wealth
Sanctions check
Social score
Past transactions
Financial Score
Bank Account verification
Card Verification
Assets verification
Etc.
USER HAS RENEWED KYC INFORMATION WITHIN X MONTHS?
714
Yes
No
ID CLASSIFICATION AND RISK SCORE REMAIN UNCHANGED
720
UPDATE ID CLASSIFICATION AND MAKE ANY CORRESPONDING CHANGES TO RISK SCORE
724

FIG. 7

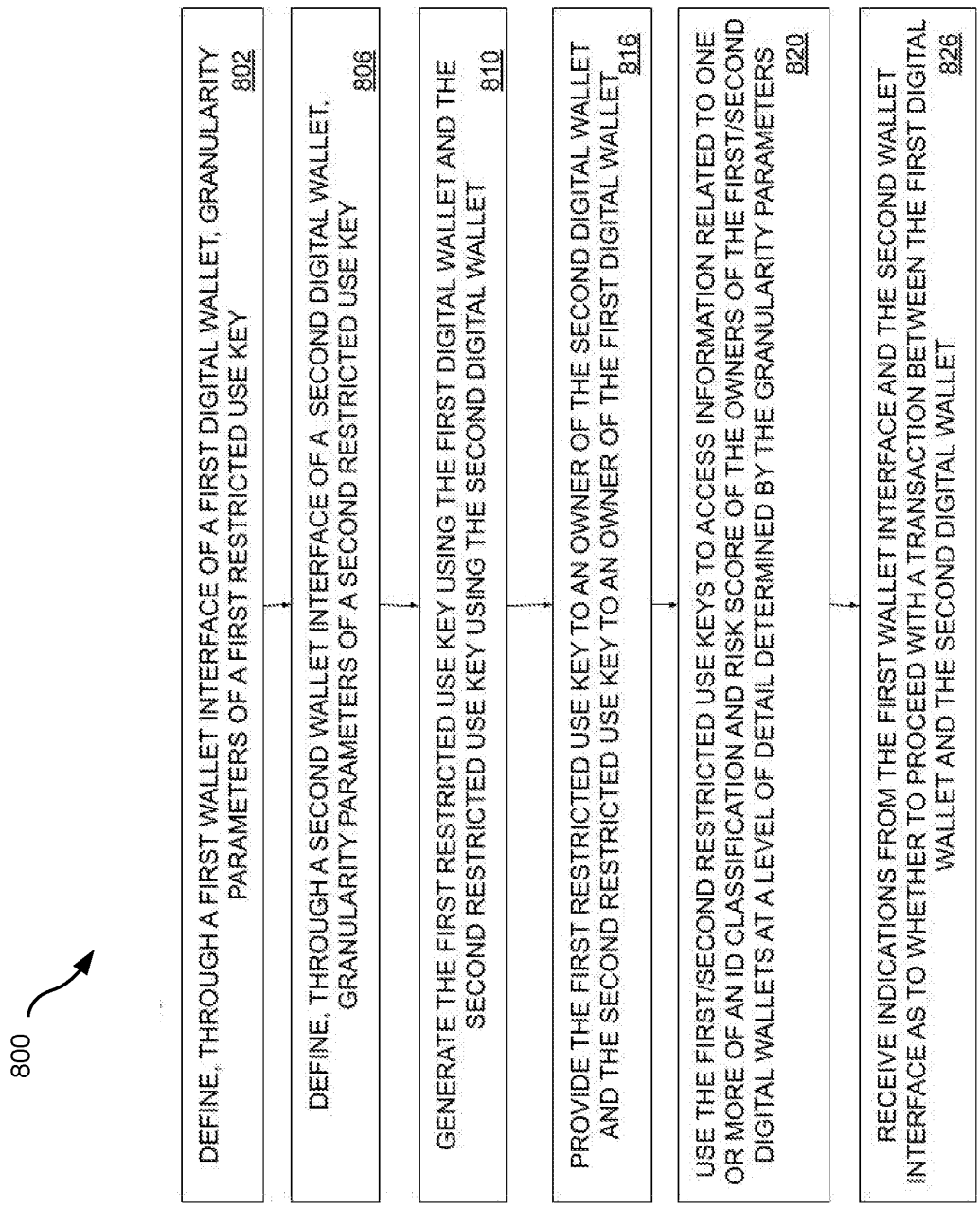
800
DEFINE, THROUGH A FIRST WALLET INTERFACE OF A FIRST DIGITAL WALLET, GRANULARITY PARAMETERS OF A FIRST RESTRICTED USE KEY 802
DEFINE, THROUGH A SECOND WALLET INTERFACE OF A SECOND DIGITAL WALLET, GRANULARITY PARAMETERS OF A SECOND RESTRICTED USE KEY 806
GENERATE THE FIRST RESTRICTED USE KEY USING THE FIRST DIGITAL WALLET AND THE SECOND RESTRICTED USE KEY USING THE SECOND DIGITAL WALLET 810
PROVIDE THE FIRST RESTRICTED USE KEY TO AN OWNER OF THE SECOND DIGITAL WALLET AND THE SECOND RESTRICTED USE KEY TO AN OWNER OF THE FIRST DIGITAL WALLET 816
USE THE FIRST/SECOND RESTRICTED USE KEYS TO ACCESS INFORMATION RELATED TO ONE OR MORE OF AN ID CLASSIFICATION AND RISK SCORE OF THE OWNERS OF THE FIRST/SECOND DIGITAL WALLETS AT A LEVEL OF DETAIL DETERMINED BY THE GRANULARITY PARAMETERS 820
RECEIVE INDICATIONS FROM THE FIRST WALLET INTERFACE AND THE SECOND WALLET INTERFACE AS TO WHETHER TO PROCEED WITH A TRANSACTION BETWEEN THE FIRST DIGITAL WALLET AND THE SECOND DIGITAL WALLET 826

FIG. 8