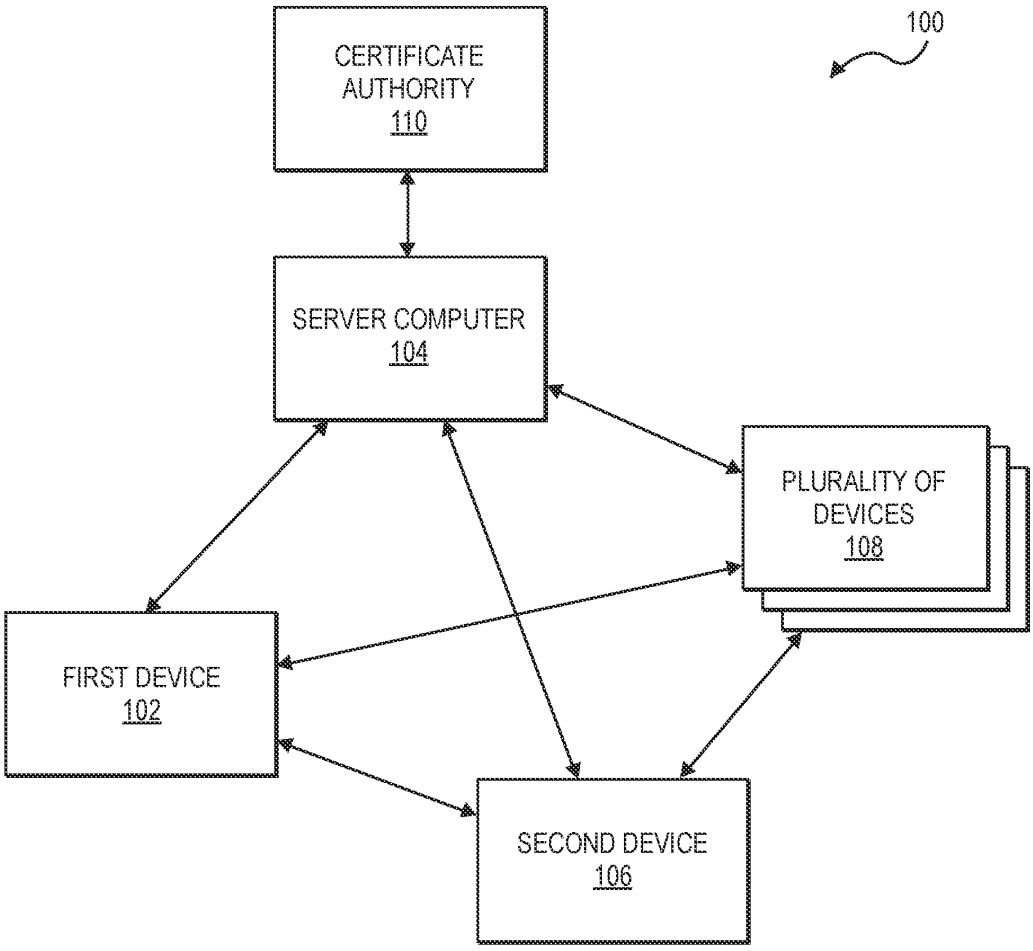

100
CERTIFICATE AUTHORITY 110
SERVER COMPUTER 104
PLURALITY OF DEVICES 108
FIRST DEVICE 102
SECOND DEVICE 106

FIG. 1

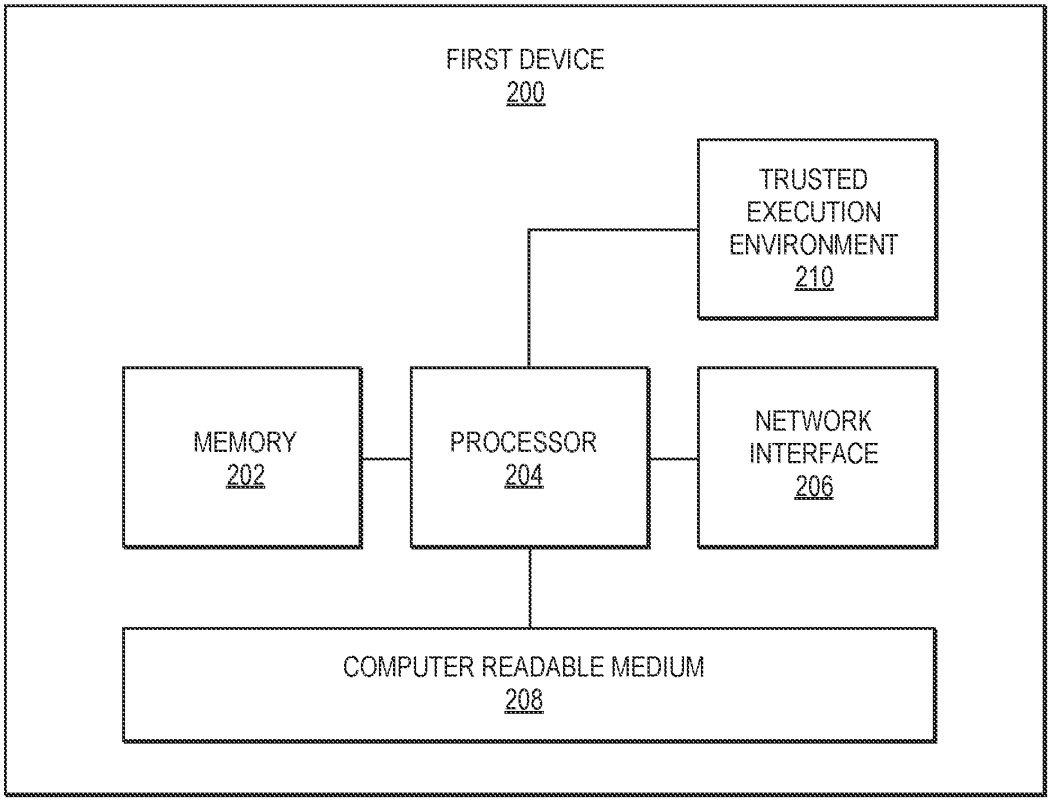

FIRST DEVICE
200
TRUSTED EXECUTION ENVIRONMENT
210
MEMORY
202
PROCESSOR
204
NETWORK INTERFACE
206
COMPUTER READABLE MEDIUM
208

FIG. 2

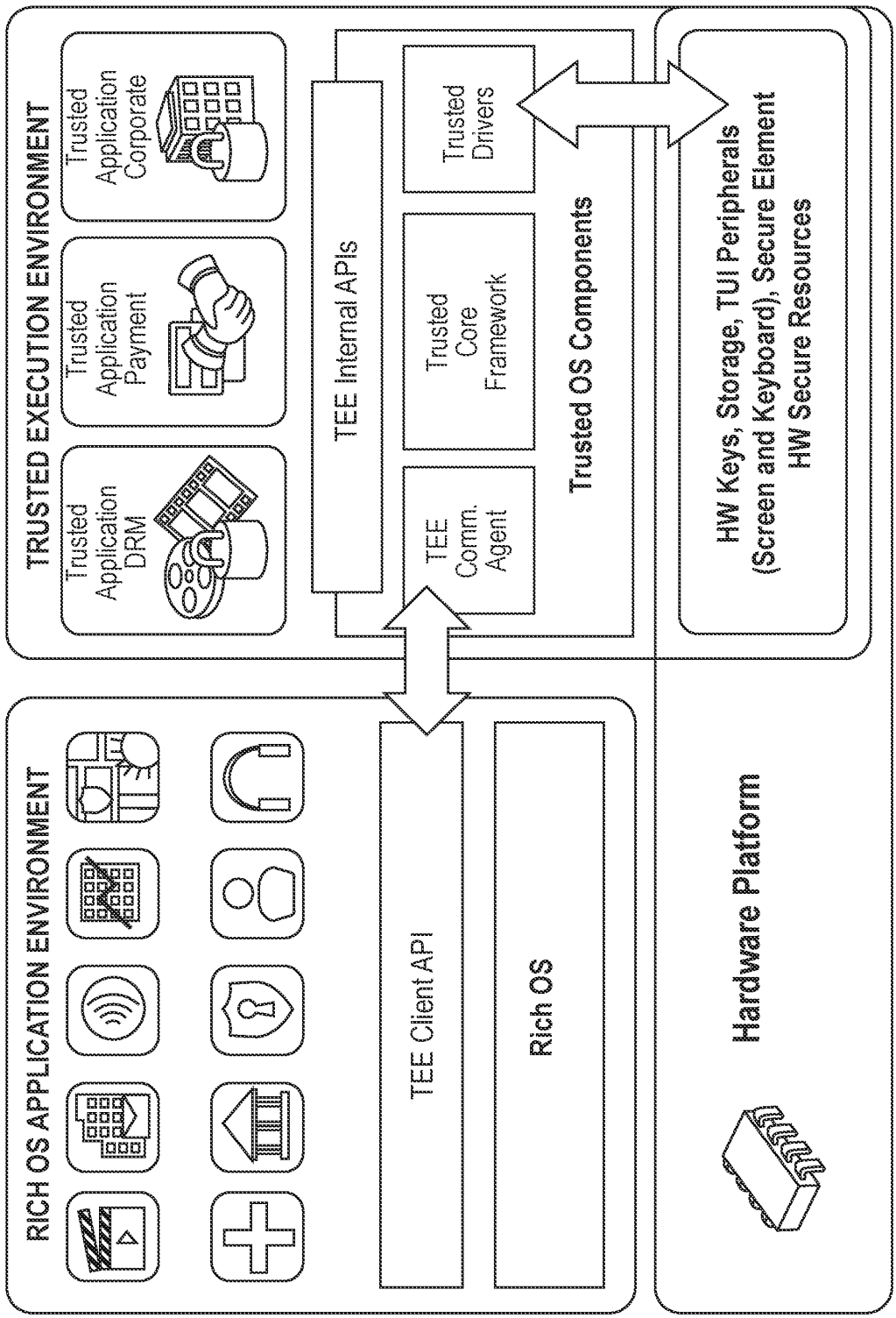

TRUSTED EXECUTION ENVIRONMENT
Trusted Application DRM
Trusted Application Payment
Trusted Application Corporate
TEE Internal APIs
TEE Comm. Agent
Trusted Core Framework
Trusted Drivers
Trusted OS Components
HW Keys, Storage, TUI Peripherals (Screen and Keyboard), Secure Element HW Secure Resources
RICH OS APPLICATION ENVIRONMENT
TEE Client API
Rich OS
Hardware Platform

FIG. 3

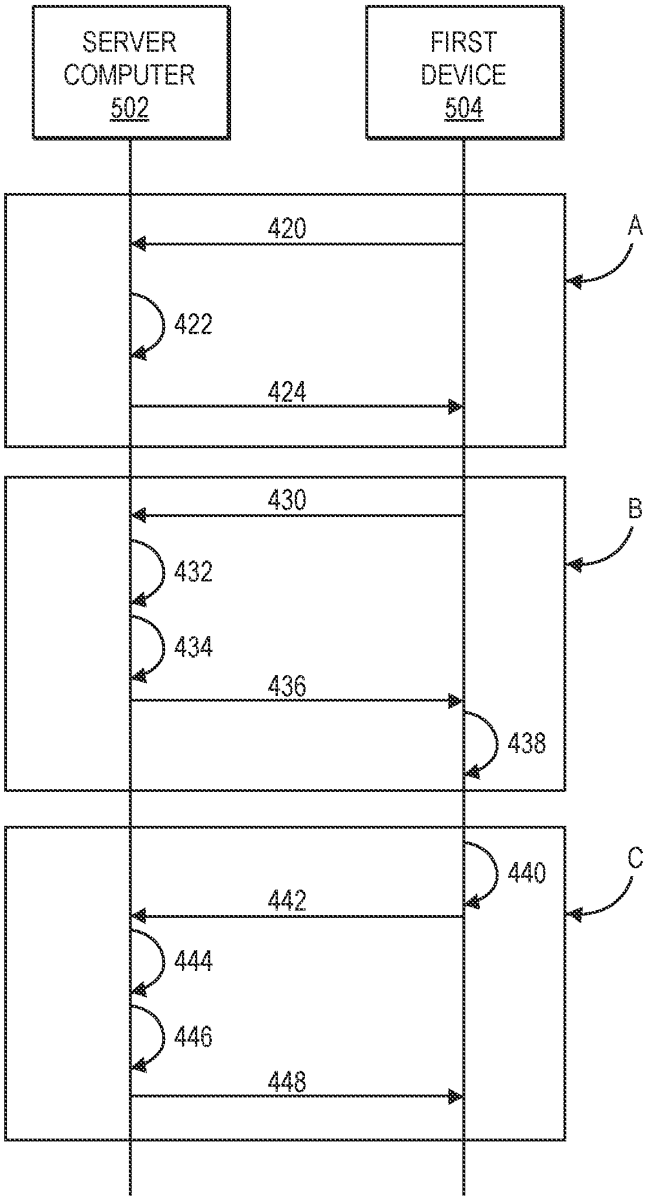

SERVER COMPUTER 502
FIRST DEVICE 504
420
422
424
A
430
432
434
436
438
B
440
442
444
446
448
C

FIG. 4

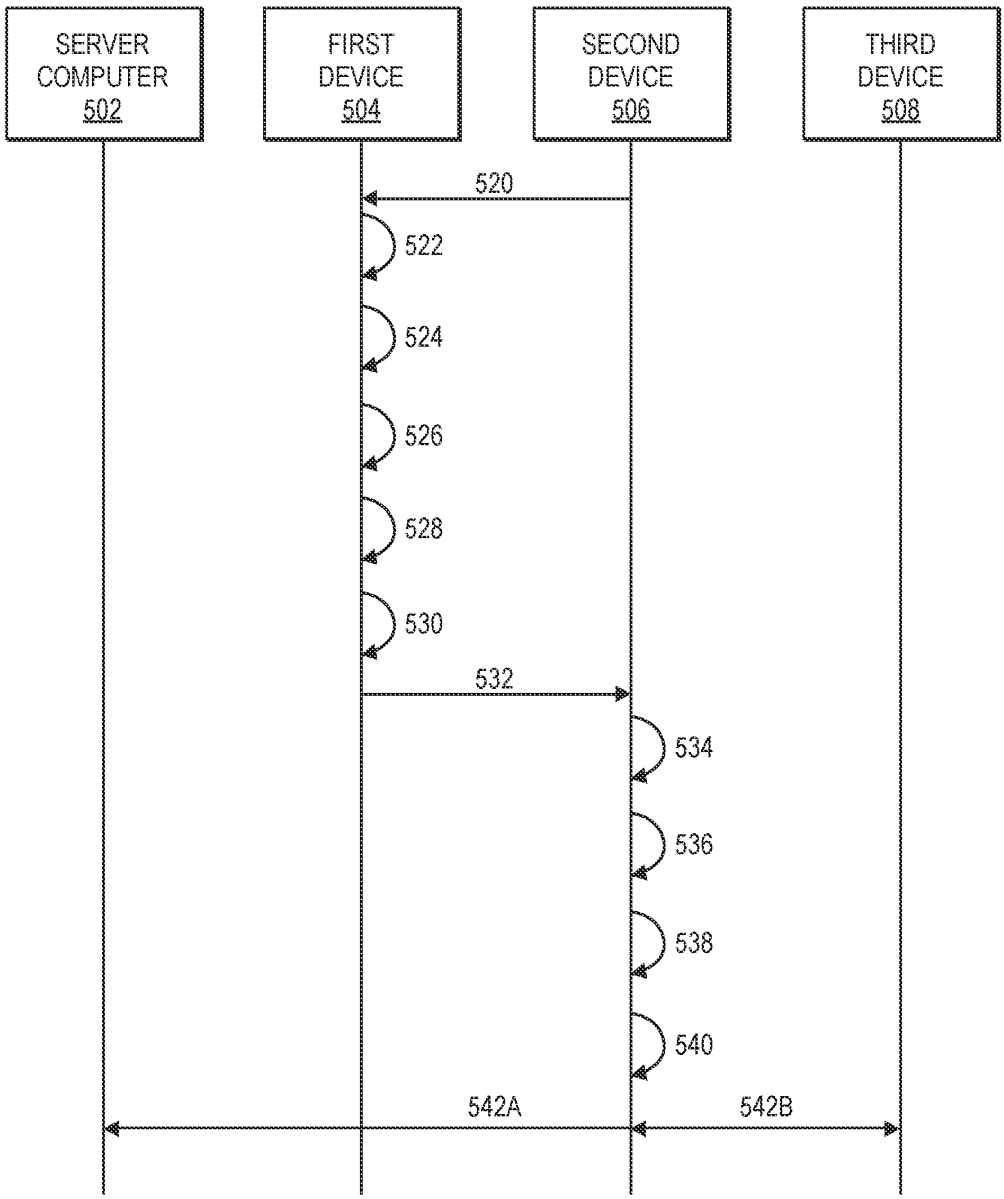

SERVER COMPUTER 502
FIRST DEVICE 504
SECOND DEVICE 506
THIRD DEVICE 508
520
522
524
526
528
530
532
534
536
538
540
542A
542B

FIG. 5

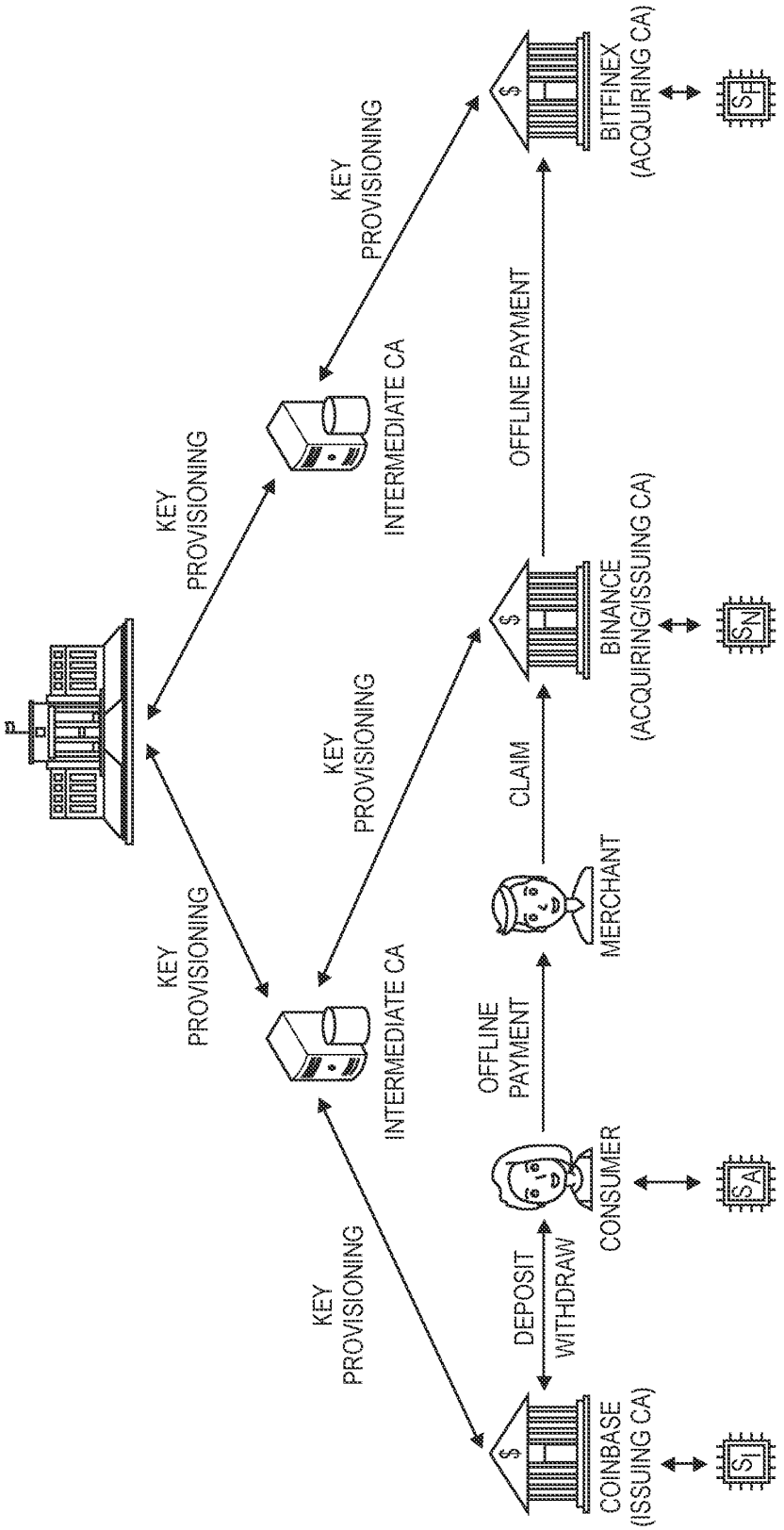

KEY PROVISIONING
KEY PROVISIONING
KEY PROVISIONING
KEY PROVISIONING
KEY PROVISIONING
INTERMEDIATE CA
INTERMEDIATE CA
OFFLINE PAYMENT
CLAIM
OFFLINE PAYMENT
DEPOSIT
WITHDRAW
BITFINEX
(ACQUIRING CA)
BINANCE
(ACQUIRING/ISSUING CA)
MERCHANT
CONSUMER
COINBASE
(ISSUING CA)
SB
SN
SA
SI

FIG. 6

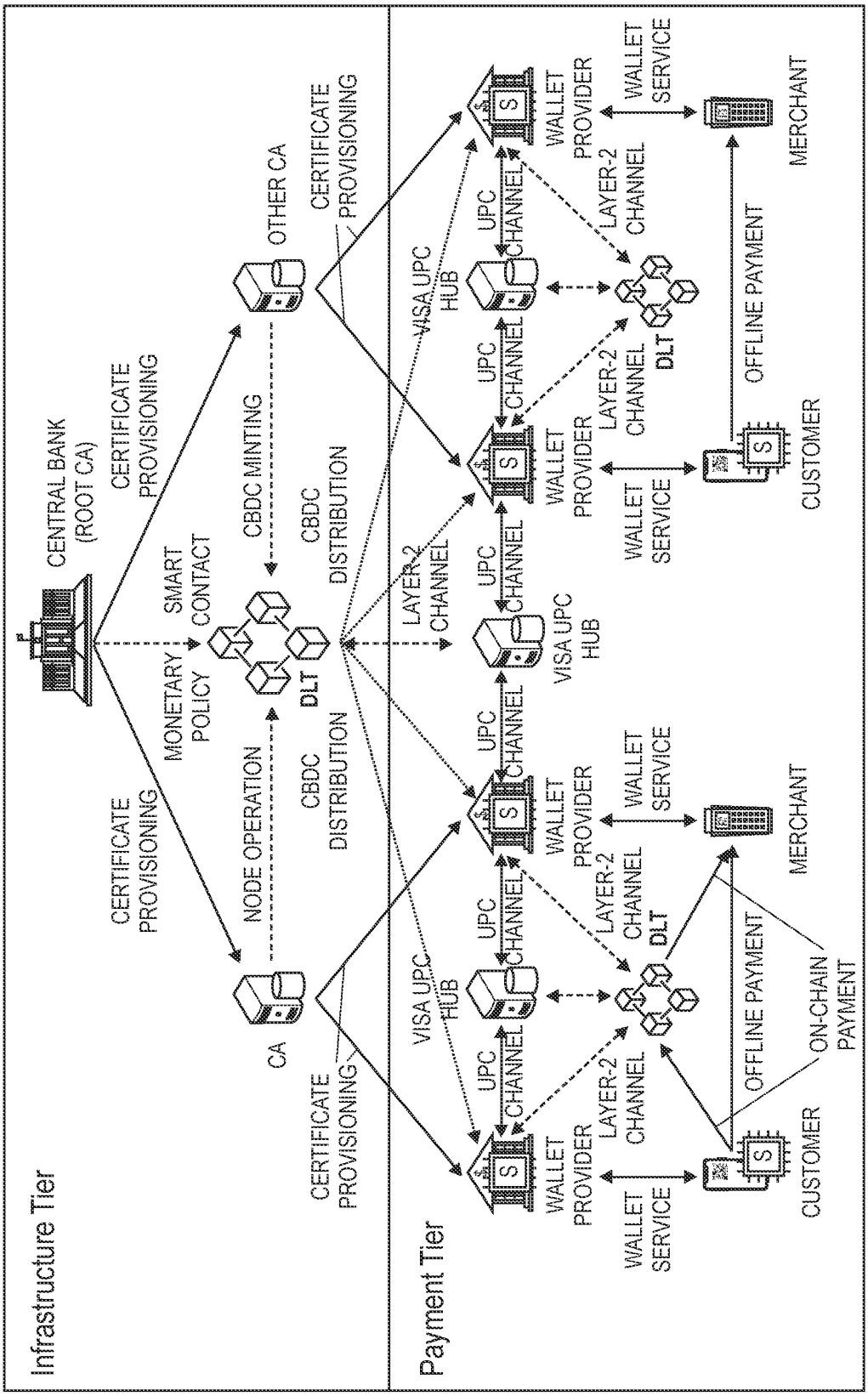

Infrastructure Tier
Payment Tier
CENTRAL BANK (ROOT CA)
CERTIFICATE PROVISIONING
SMART CONTACT
MONETARY POLICY
CBDC MINTING
CBDC DISTRIBUTION
DLT
OTHER CA
CERTIFICATE PROVISIONING
NODE OPERATION
CBDC DISTRIBUTION
CA
CERTIFICATE PROVISIONING
LAYER-2 CHANNEL
VISA UPC HUB
UPC CHANNEL
WALLET PROVIDER
WALLET SERVICE
LAYER-2 CHANNEL
DLT
OFFLINE PAYMENT
ON-CHAIN PAYMENT
MERCHANT
CUSTOMER

FIG. 7

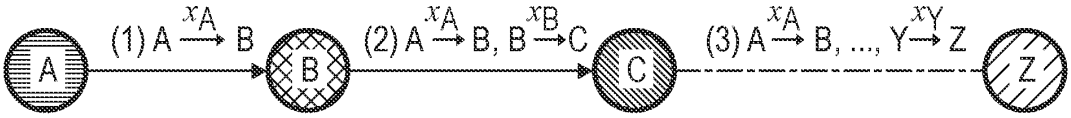


FIG. 8A

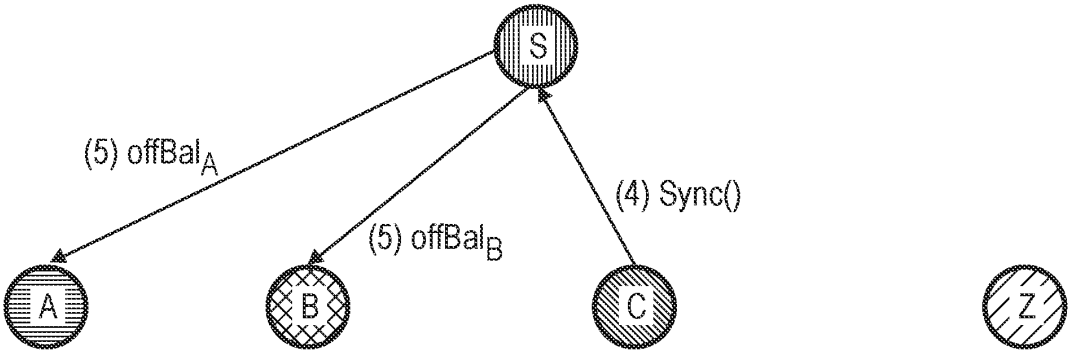


FIG. 8B

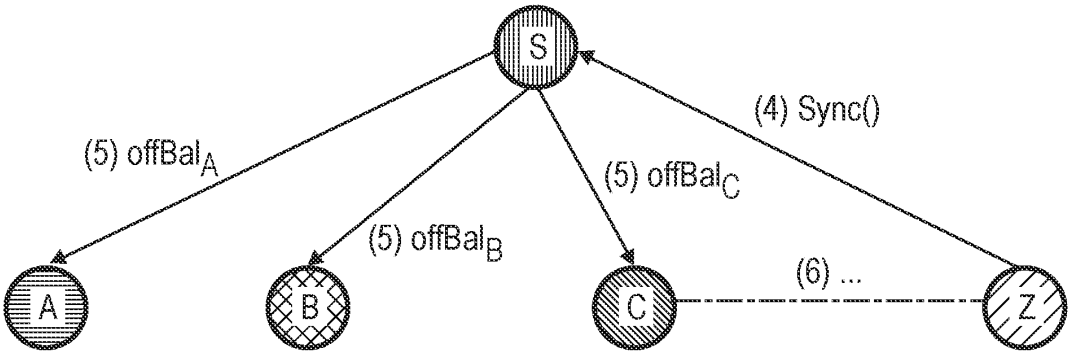


FIG. 8C

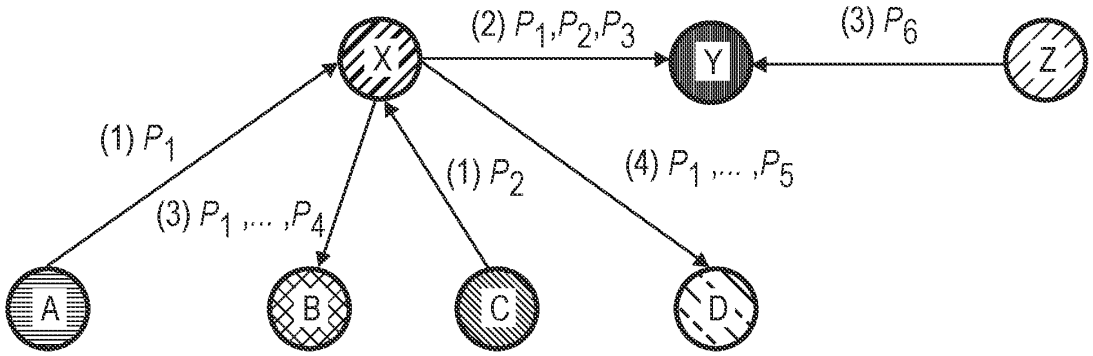

X
Y
Z
A
B
C
D
(1) P_1
(2) P_1,P_2,P_3
(3) P_6
(3) P_1 ,... ,P_4
(1) P_2
(4) P_1 ,... ,P_5

FIG. 9A

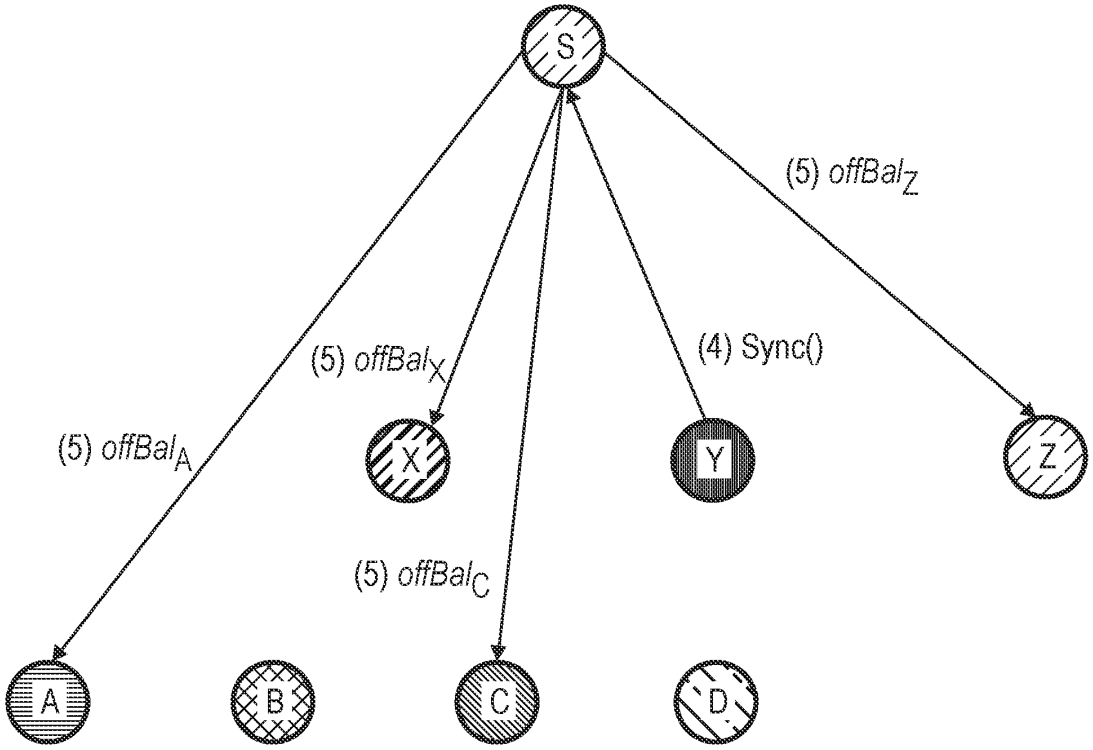

S
X
Y
Z
A
B
C
D
(5) $offBal_Z$
(5) $offBal_X$
(4) Sync()
(5) $offBal_A$
(5) $offBal_C$

FIG. 9B