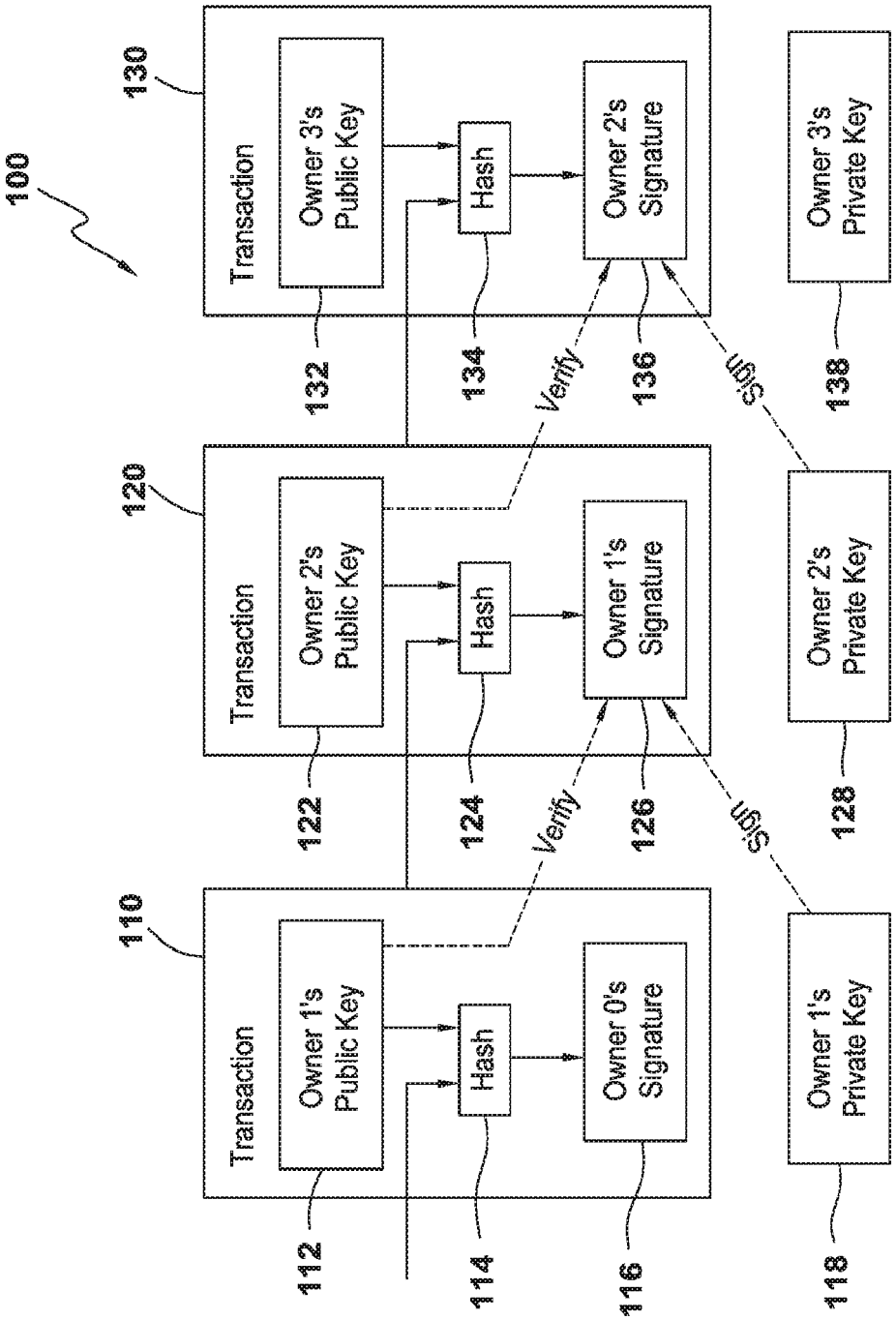

100
130
Transaction
Owner 3's Public Key
Hash
Owner 2's Signature
Owner 3's Private Key
132
134
136
138
Verify
Sign
120
Transaction
Owner 2's Public Key
Hash
Owner 1's Signature
Owner 2's Private Key
122
124
126
128
Verify
Sign
110
Transaction
Owner 1's Public Key
Hash
Owner 0's Signature
Owner 1's Private Key
112
114
116
118

FIG. 1

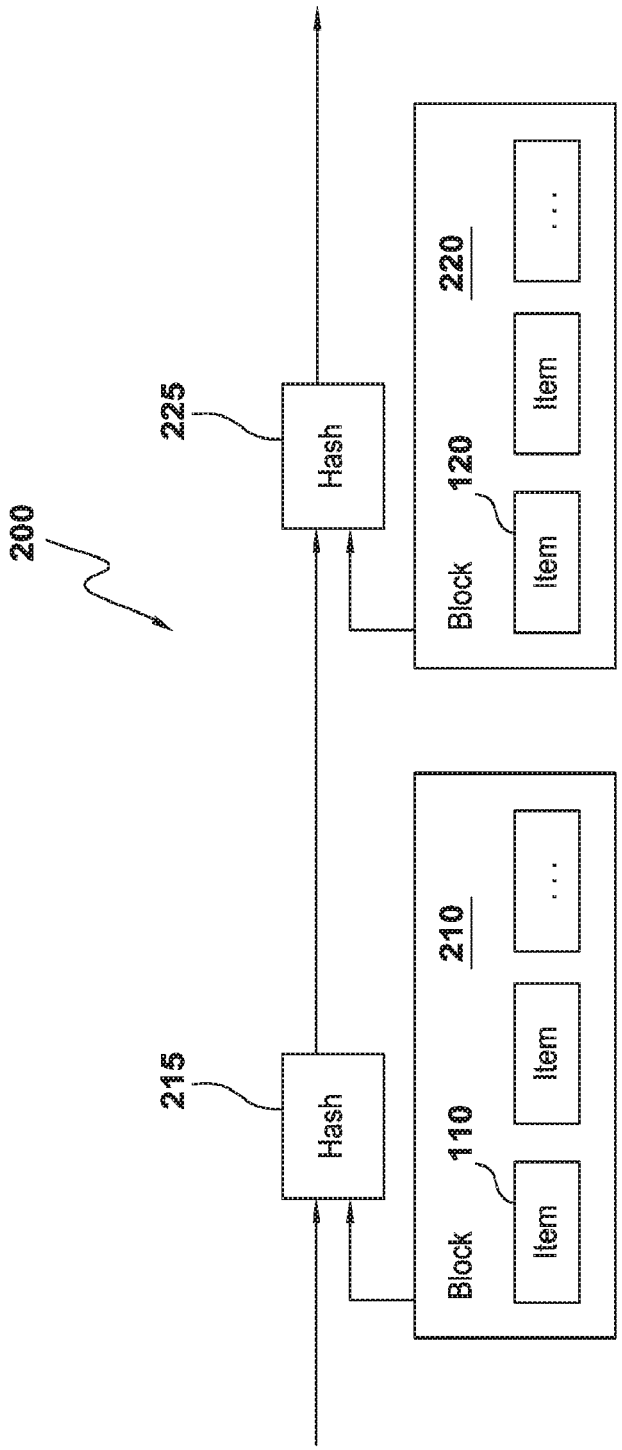

200
225
Hash
220
Block
120
Item
Item
...
215
Hash
210
Block
110
Item
Item
...

FIG. 2

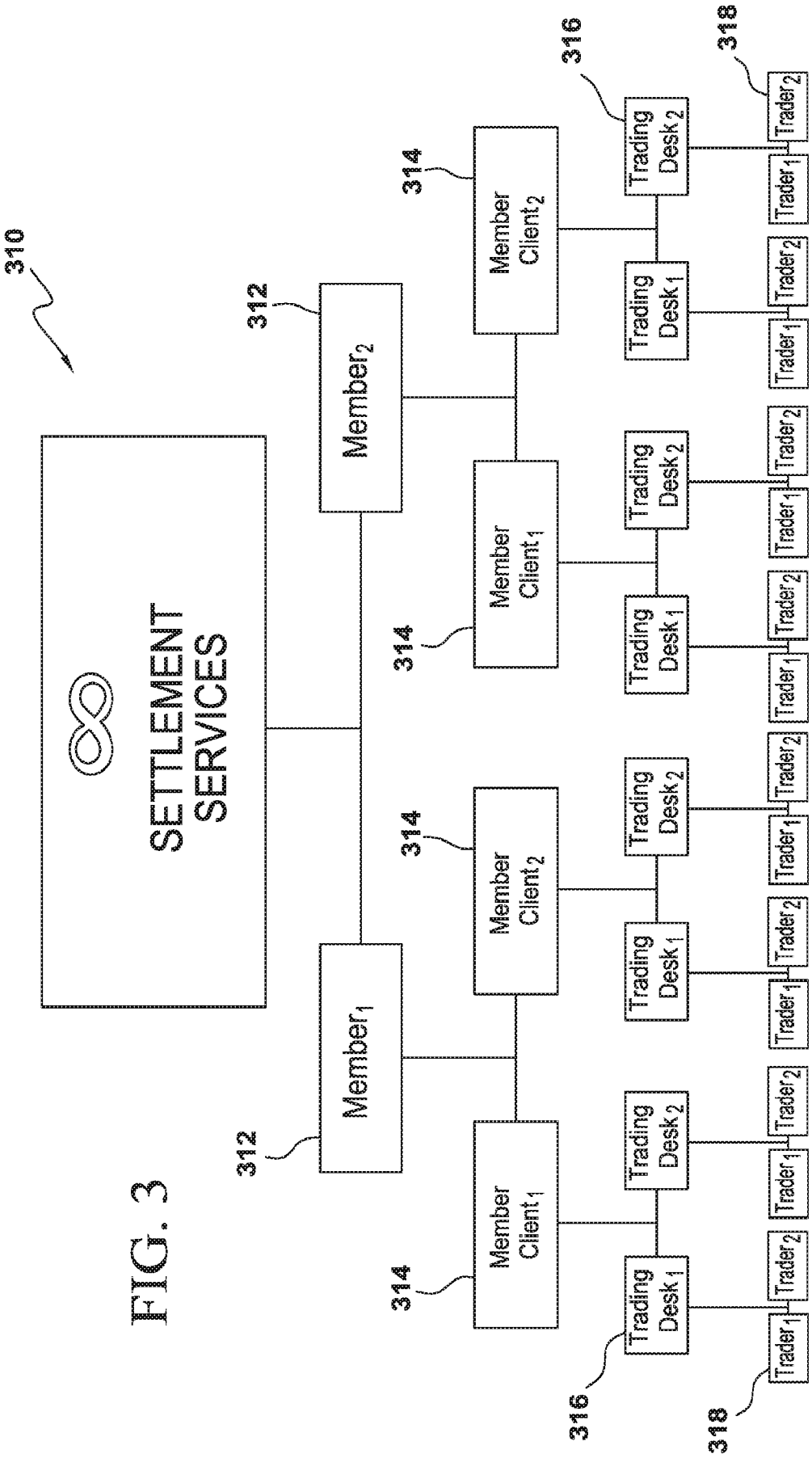

310
SETTLEMENT SERVICES
312
Member1
Member2
314
Member Client1
Member Client2
316
Trading Desk1
Trading Desk2
318
Trader1
Trader2

FIG. 3

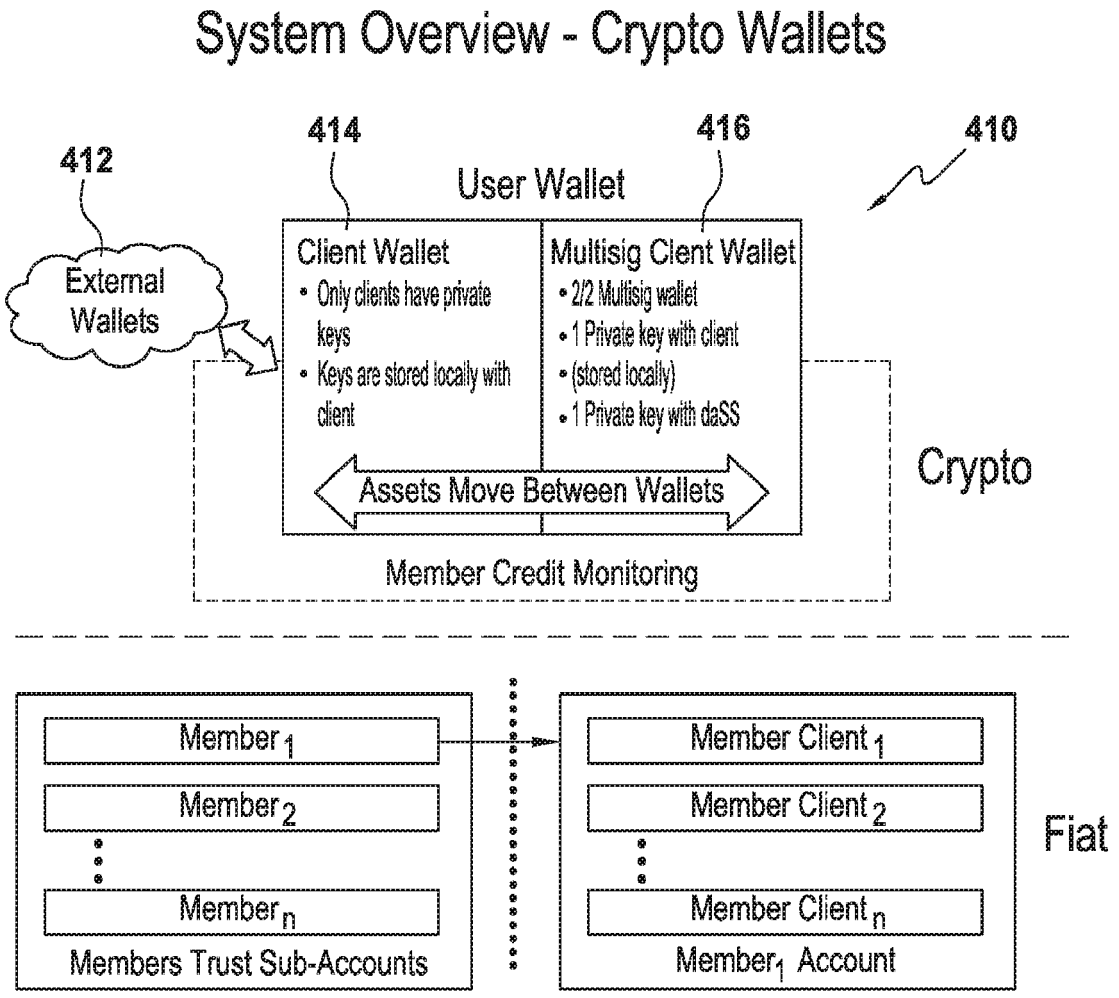

System Overview - Crypto Wallets
412
414
416
410
User Wallet
External Wallets
Client Wallet
• Only clients have private keys
• Keys are stored locally with client
Multisig Client Wallet
• 2/2 Multisig wallet
• 1 Private key with client
• (stored locally)
• 1 Private key with daSS
Assets Move Between Wallets
Member Credit Monitoring
Crypto
Member 1
Member 2
Member n
Members Trust Sub-Accounts
Member Client 1
Member Client 2
Member Client n
Member1 Account
Fiat

FIG. 4

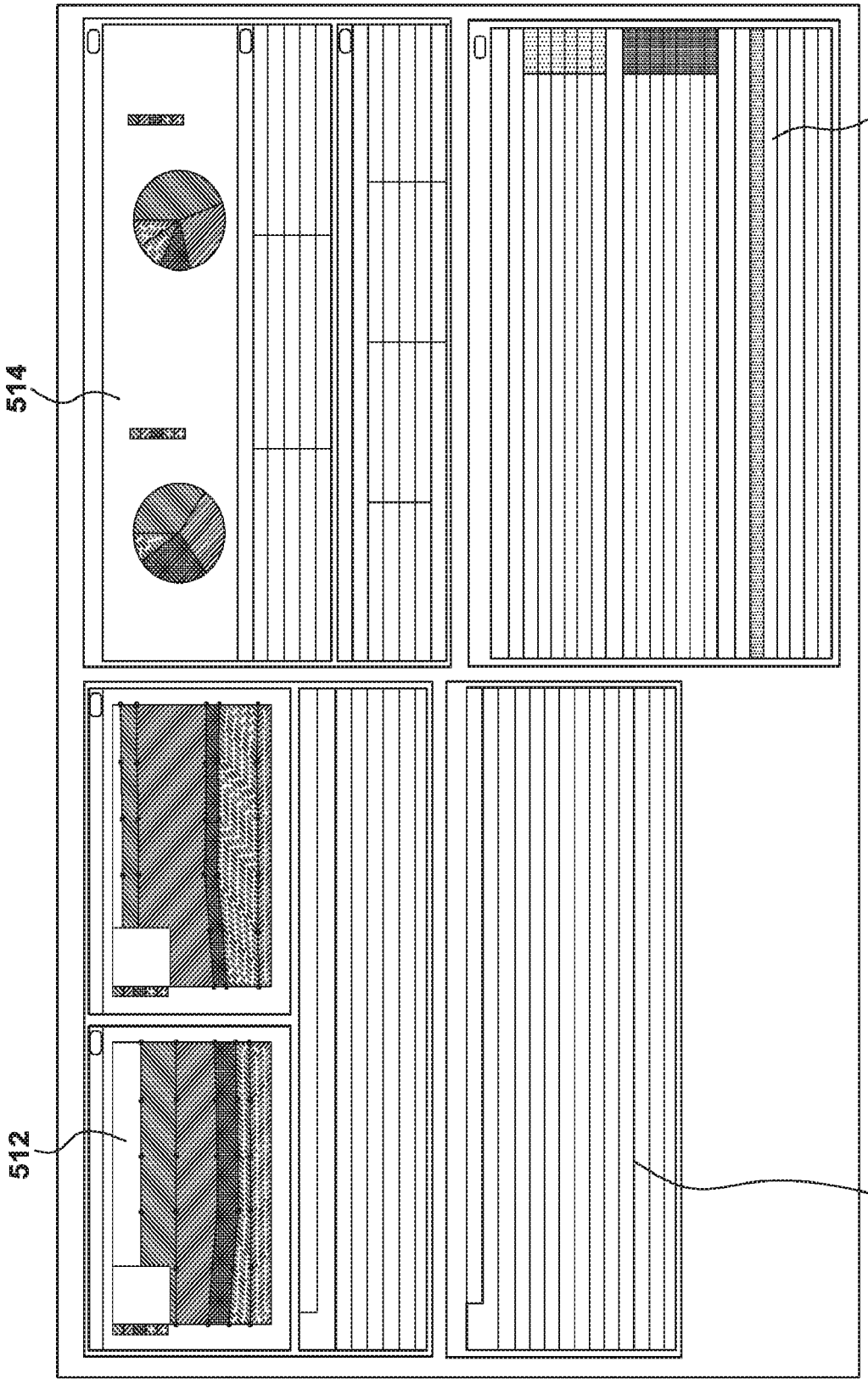


FIG. 5

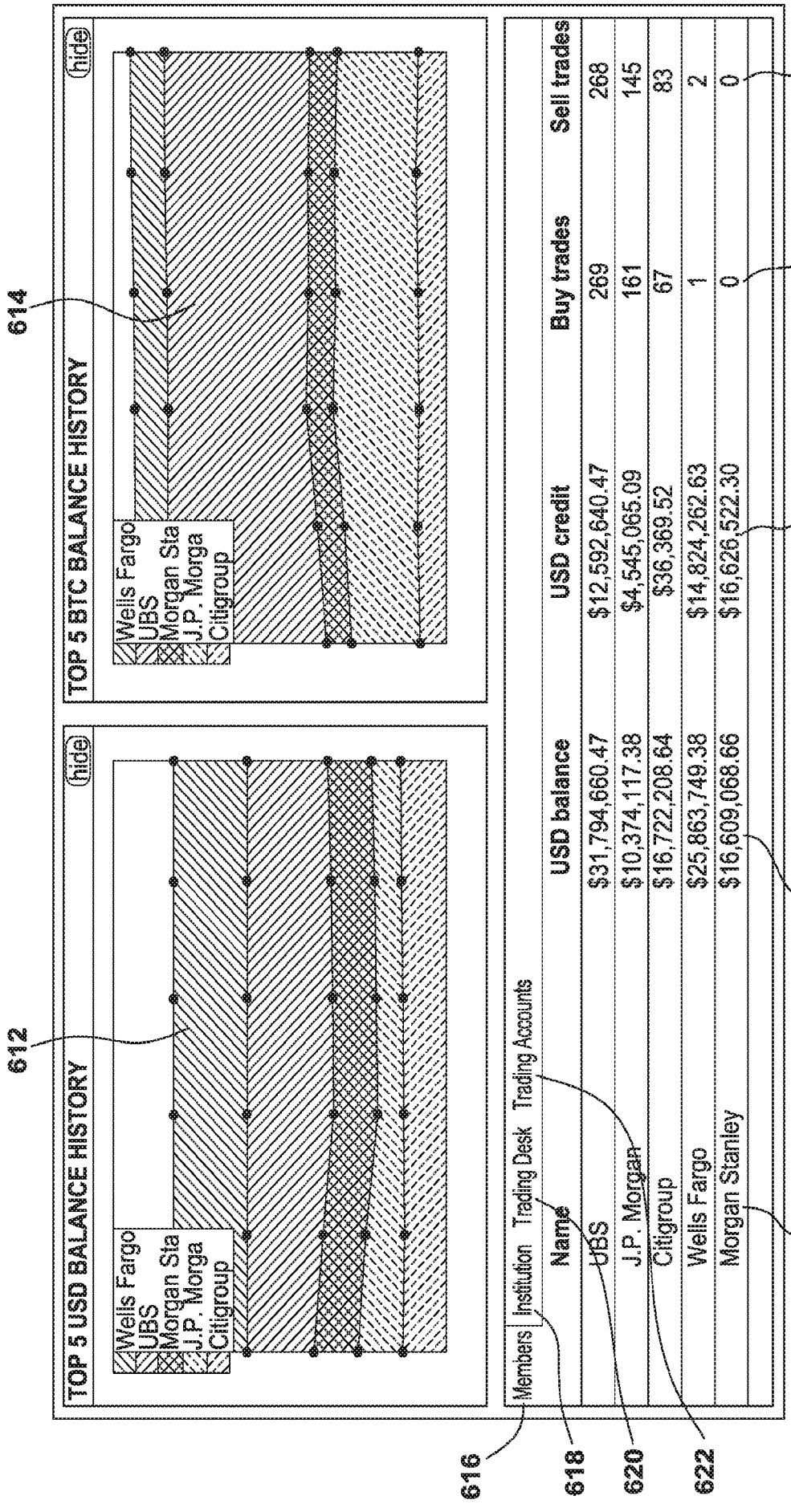

TOP 5 USD BALANCE HISTORY
(hide)
Wells Fargo
UBS
Morgan Sta
J.P. Morga
Citigroup
TOP 5 BTC BALANCE HISTORY
(hide)
Wells Fargo
UBS
Morgan Sta
J.P. Morga
Citigroup
Members
Institution
Trading Desk
Trading Accounts
Name
USD balance
USD credit
Buy trades
Sell trades
UBS
$31,794,660.47
$12,592,640.47
269
268
J.P. Morgan
$10,374,117.38
$4,545,065.09
161
145
Citigroup
$16,722,208.64
$36,369.52
67
83
Wells Fargo
$25,863,749.38
$14,824,262.63
1
2
Morgan Stanley
$16,609,068.66
$16,626,522.30
0
0
612
614
616
618
620
622
624
626
628
630
632

FIG. 6

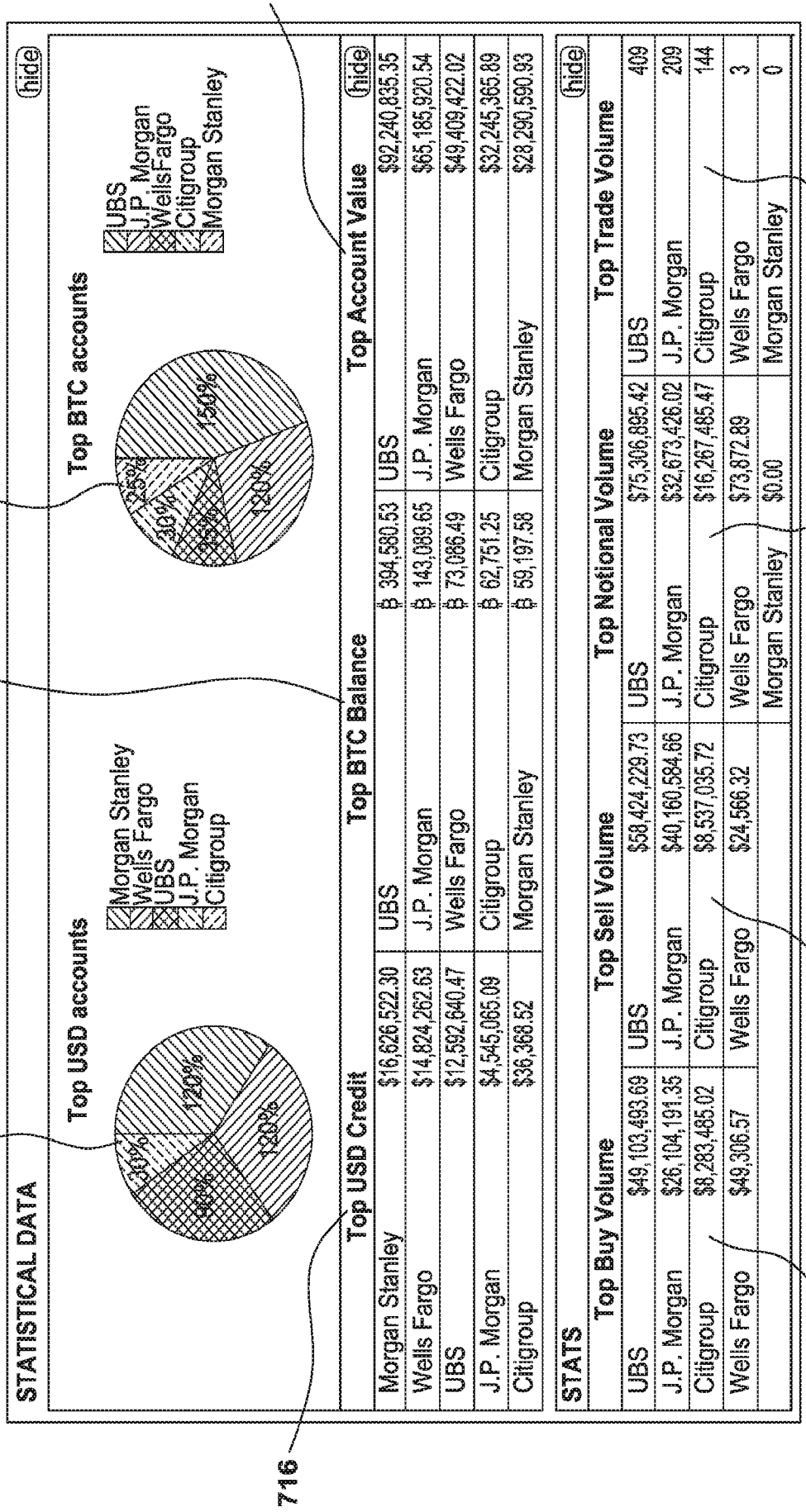
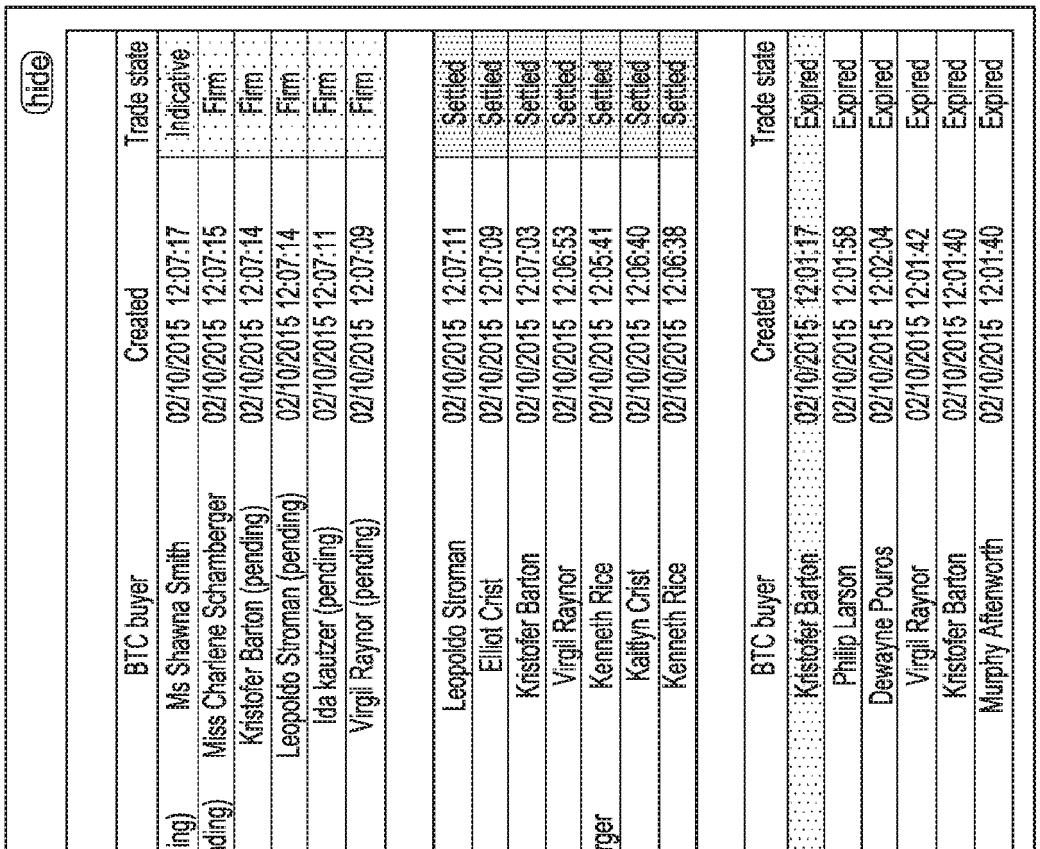

712
714
716
718
721
723
725
727
729
516
STATISTICAL DATA
hide
Top USD accounts
Morgan Stanley
Wells Fargo
UBS
J.P. Morgan
Citigroup
30%
120%
120%
Top BTC accounts
UBS
J.P. Morgan
WellsFargo
Citigroup
Morgan Stanley
25%
30%
150%
Top USD Credit
Top BTC Balance
Top Account Value
Morgan Stanley $16,626,522.30
Wells Fargo $14,824,262.63
UBS $12,592,640.47
J.P. Morgan $4,545,065.09
Citigroup $36,368.52
UBS Ƀ 394,580.53
J.P. Morgan Ƀ 143,089.65
Wells Fargo Ƀ 73,086.49
Citigroup Ƀ 62,751.25
Morgan Stanley Ƀ 59,197.58
UBS $92,240,835.35
J.P. Morgan $65,185,920.54
Wells Fargo $49,409,422.02
Citigroup $32,245,365.89
Morgan Stanley $28,290,590.93
STATS
hide
Top Buy Volume
Top Sell Volume
Top Notional Volume
Top Trade Volume
UBS $49,103,493.69
J.P. Morgan $26,104,191.35
Citigroup $8,283,485.02
Wells Fargo $49,306.57
UBS $58,424,229.73
J.P. Morgan $40,160,584.66
Citigroup $8,537,035.72
Wells Fargo $24,566.32
UBS $75,306,895.42
J.P. Morgan $32,673,426.02
Citigroup $16,267,485.47
Wells Fargo $73,872.89
Morgan Stanley $0.00
UBS 409
J.P. Morgan 209
Citigroup 144
Wells Fargo 3
Morgan Stanley 0

FIG. 7



Pending Trades

Trade ID	Price	BTC amount	USD amount	BTC seller	BTC buyer	Created	Trade state
1484	$197.32	Ƀ 356,240	$70,293.28	Dr. Unique Raynor (pending)	Ms Shawna Smith	02/10/2015 12:07:17	Indicative
1483	$70.52	Ƀ 791,163	$154,442.93	Lisangrio Romaguera (pending)	Miss Charlene Schamberger	02/10/2015 12:07:15	Firm
1482	$197.35	Ƀ 564873	$111,477.69	Phillip Larson	Kristofer Barton (pending)	02/10/2015 12:07:14	Firm
1481	$195.37	Ƀ 144,468	$28,195.62	Jefferey Block	Leopoldo Stroman (pending)	02/10/2015 12:07:14	Firm
1479	$145.55	Ƀ 4,744,974	$923,134.69	Leopoldo Stroman	Ida kautzer (pending)	02/10/2015 12:07:11	Firm
1477	$142.47	Ƀ 3,239,911	$629,938.70	Jefferey Block	Virgil Raynor (pending)	02/10/2015 12:07:09	Firm

Settled Trades

Trade ID	Price	BTC amount	USD amount	BTC seller	BTC buyer	Created	Trade state
1478	$200.11	Ƀ 316,658	$63,156.32	Isaias Brekke	Leopoldo Stroman	02/10/2015 12:07:11	Settled
1476	$180.72	Ƀ 878,286	$174,992.06	Dewayne Pouros	Elliot Crist	02/10/2015 12:07:09	Settled
1472	$199.52	Ƀ 727,134	$145,077.76	Phillip Larson	Kristofer Barton	02/10/2015 12:07:03	Settled
1465	$153.44	Ƀ 961,435	$191,344.79	Leopoldo Stroman	Virgil Raynor	02/10/2015 12:06:53	Settled
1456	$199.24	Ƀ 76,558	$15,274.85	Miss Charlene Schamberger	Kenneth Rice	02/10/2015 12:05:41	Settled
1454	$201.33	Ƀ 16,653073	$3,291,979.47	Kristofer barton	Kaitlyn Crist	02/10/2015 12:06:40	Settled
1452	$143.78	Ƀ 726,440	$144,074.85	Leopoldo Stroman	Kenneth Rice	02/10/2015 12:06:38	Settled

Unsettled Trades

Trade ID	Price	BTC amount	USD amount	BTC seller	BTC buyer	Created	Trade state
1203	$197.32	Ƀ 564,673	$111,127.60	Phillip Lawson	Kristofer Barton	02/10/2015 12:01:17	Expired
1218	$199.35	Ƀ 291,716	$58,156.50	Ida Kautzer	Phillip Larson	02/10/2015 12:01:58	Expired
1223	$199.04	Ƀ 158,315	$31,352.70	Kenneth Block	Dewayne Pouros	02/10/2015 12:02:04	Expired
1204	$198.27	Ƀ 932,085	$183,714.15	Jefferey Block	Virgil Raynor	02/10/2015 12:01:42	Expired
1202	$198.82	Ƀ 738,571	$146,035.26	Miya Stehr	Kristofer Barton	02/10/2015 12:01:40	Expired
1201	$197.73	Ƀ 516,554	$102,138.22	Ms Shawna Swift	Murphy Aftenworth	02/10/2015 12:01:40	Expired

FIG. 8

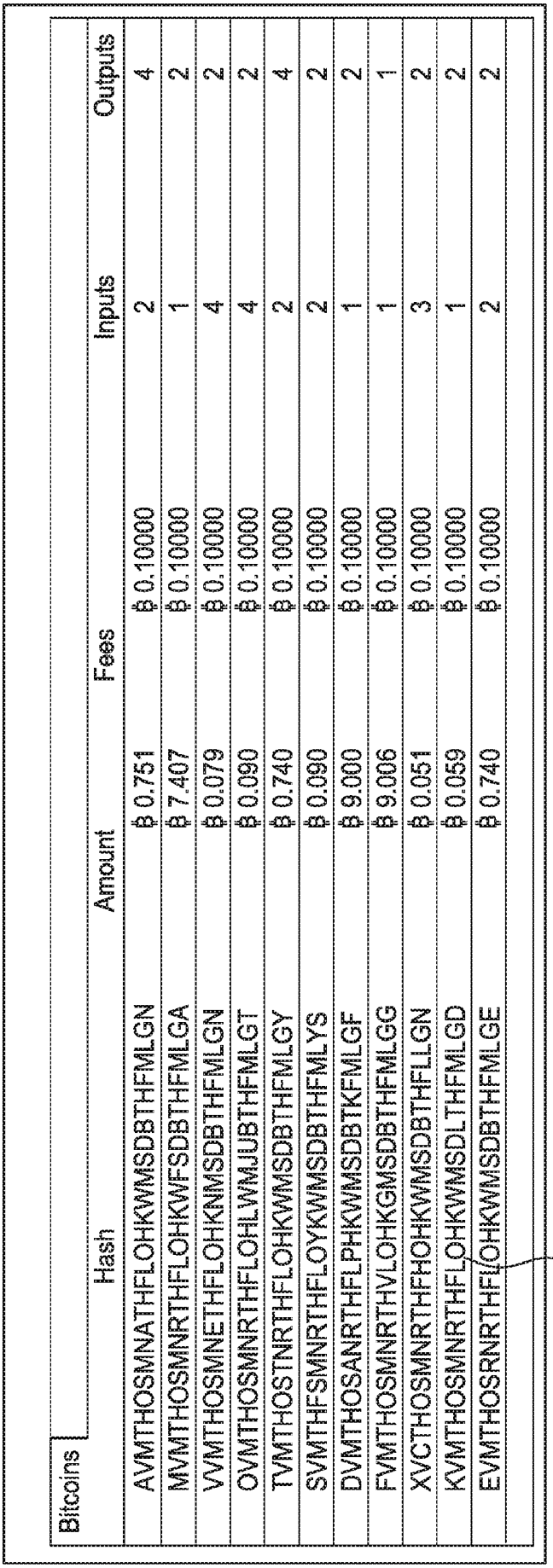

Bitcoins
Hash
Amount
Fees
Inputs
Outputs
AVMTHOSMNATHFLOHKWMSDBTHFMLGN ฿ 0.751 ฿ 0.10000 2 4
MVMTHOSMNRTHFLOHKWFSDBTHFMLGA ฿ 7.407 ฿ 0.10000 1 2
VVMTHOSMNETHFLOHKNMSDBTHFMLGN ฿ 0.079 ฿ 0.10000 4 2
OVMTHOSMNRTHFLOHLWMJUBTHFMLGT ฿ 0.090 ฿ 0.10000 4 2
TVMTHOSTNRTHFLOHKWMSDBTHFMLGY ฿ 0.740 ฿ 0.10000 2 4
SVMTHFSMNRTHFLOYKWMSDBTHFMLYS ฿ 0.090 ฿ 0.10000 2 2
DVMTHOSANRTHFLPHKWMSDBTKFMLGF ฿ 9.000 ฿ 0.10000 1 2
FVMTHOSMNRTHVLOHKGMSDBTHFMLGG ฿ 9.006 ฿ 0.10000 1 1
XVCTHOSMNRTHFHOHKWMSDBTHFLLGN ฿ 0.051 ฿ 0.10000 3 2
KVMTHOSMNRTHFLOHKWMSDLTHFMLGD ฿ 0.059 ฿ 0.10000 1 2
EVMTHOSRNRTHFIOHKWMSDBTHFMLGE ฿ 0.740 ฿ 0.10000 2 2
912
516

FIG. 9

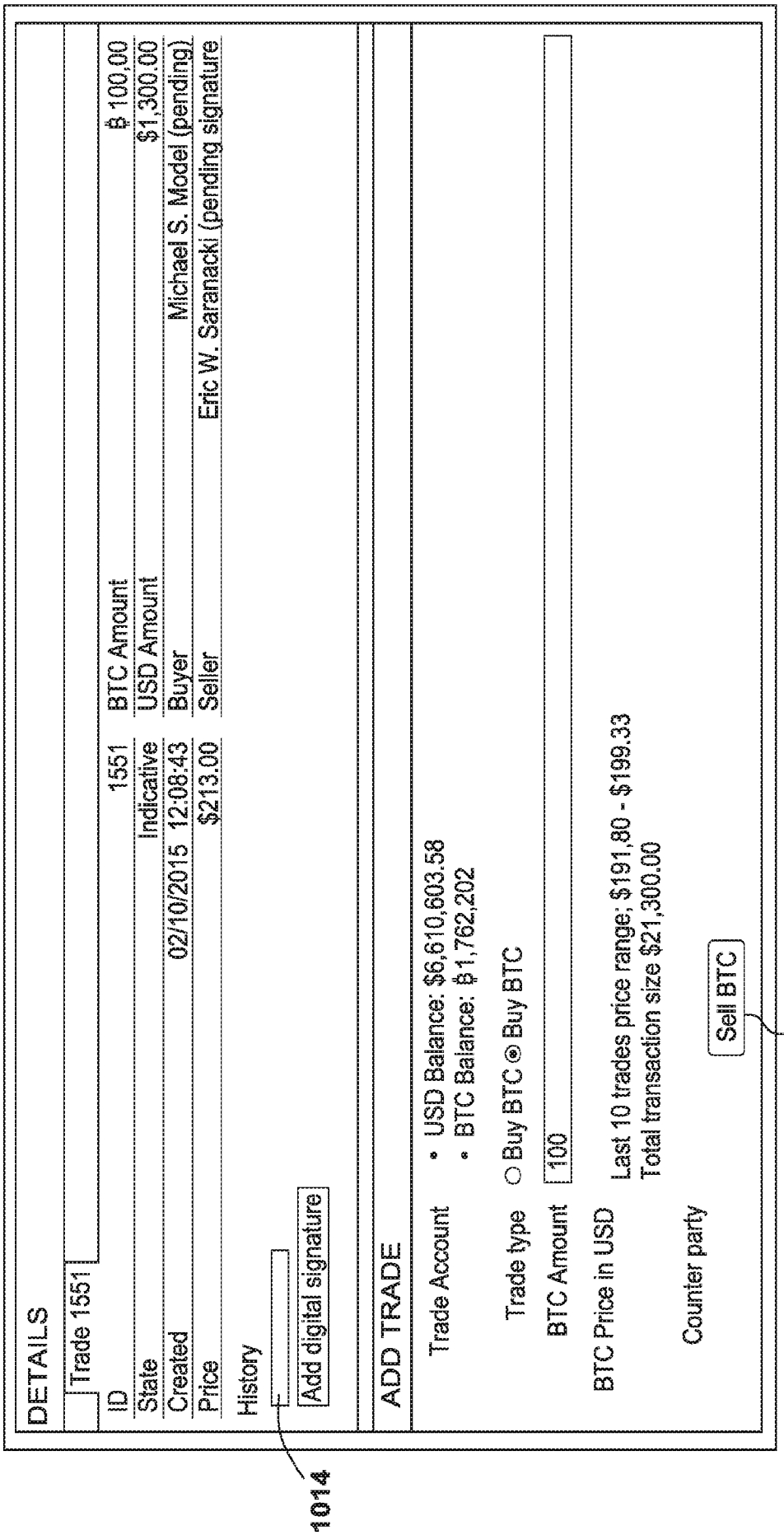

DETAILS
Trade 1551
ID 1551 BTC Amount Ƀ 100,00
State Indicative USD Amount $1,300.00
Created 02/10/2015 12:08:43 Buyer Michael S. Model (pending)
Price $213.00 Seller Eric W. Saranacki (pending signature
History
Add digital signature
ADD TRADE
Trade Account
• USD Balance: $6,610,603.58
• BTC Balance: Ƀ1,762,202
Trade type ○ Buy BTC ◉ Buy BTC
BTC Amount 100
BTC Price in USD
Last 10 trades price range: $191,80 - $199.33
Total transaction size $21,300.00
Counter party
Sell BTC
1014
1016
1012

FIG. 10

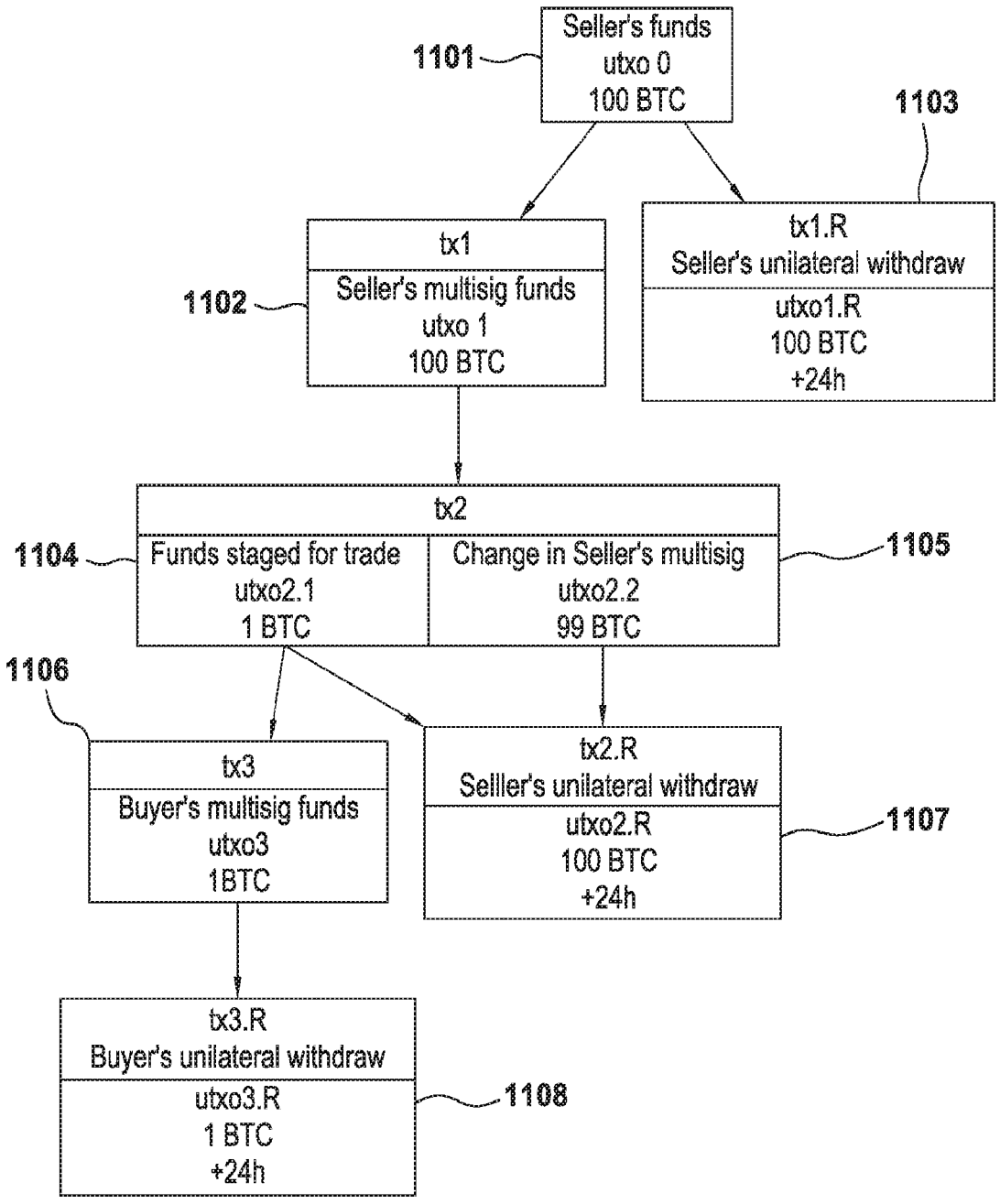

1101
Seller's funds
utxo 0
100 BTC
1103
tx1
Seller's multisig funds
utxo 1
100 BTC
1102
tx1.R
Seller's unilateral withdraw
utxo1.R
100 BTC
+24h
tx2
1104
Funds staged for trade
utxo2.1
1 BTC
Change in Seller's multisig
utxo2.2
99 BTC
1105
1106
tx3
Buyer's multisig funds
utxo3
1BTC
tx2.R
Selller's unilateral withdraw
utxo2.R
100 BTC
+24h
1107
tx3.R
Buyer's unilateral withdraw
utxo3.R
1 BTC
+24h
1108

FIG. 11

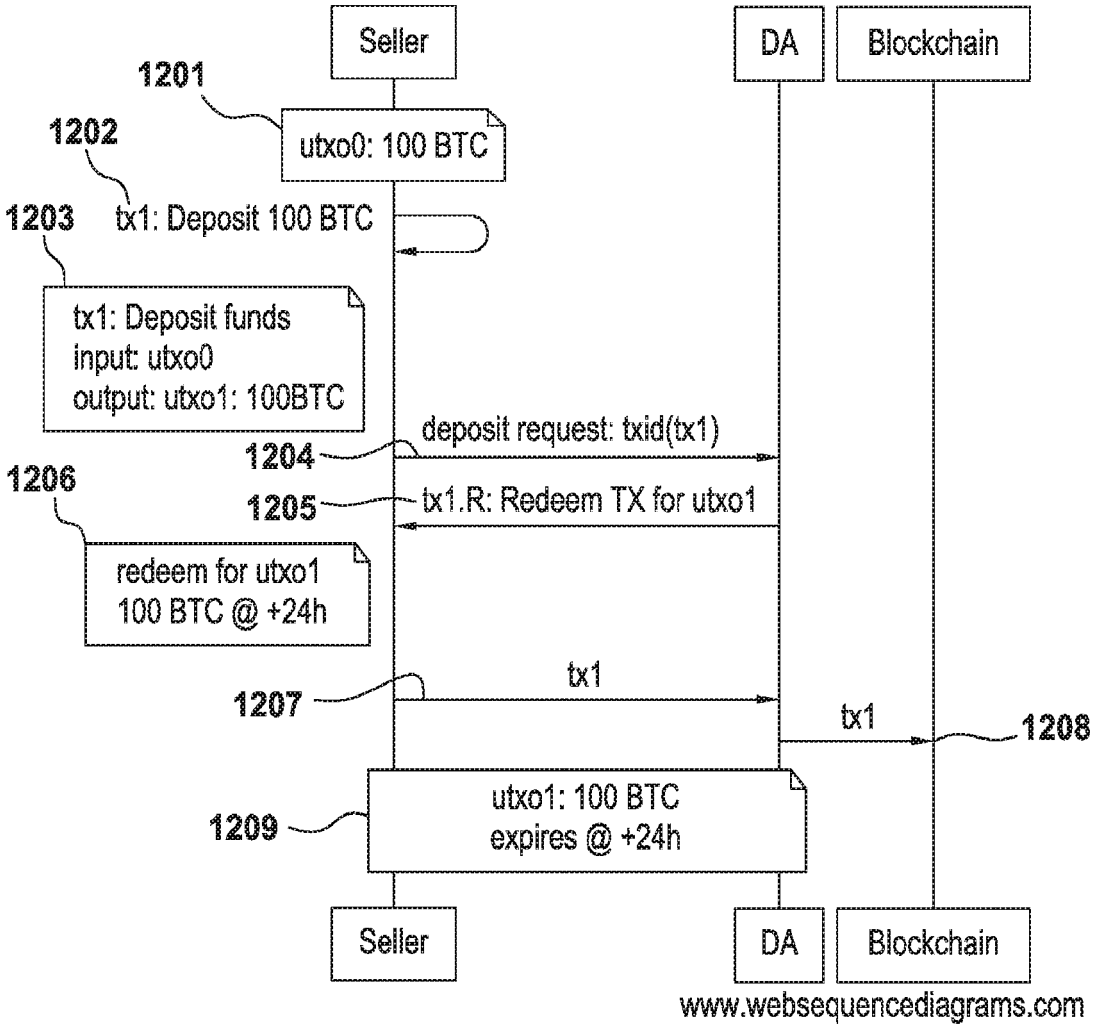

Seller
DA
Blockchain
1201
utxo0: 100 BTC
1202
tx1: Deposit 100 BTC
1203
tx1: Deposit funds
input: utxo0
output: utxo1: 100BTC
deposit request: txid(tx1)
1204
1206
1205
tx1.R: Redeem TX for utxo1
redeem for utxo1
100 BTC @ +24h
tx1
1207
tx1
1208
utxo1: 100 BTC
expires @ +24h
1209
Seller
DA
Blockchain
www.websequencediagrams.com

FIG. 12

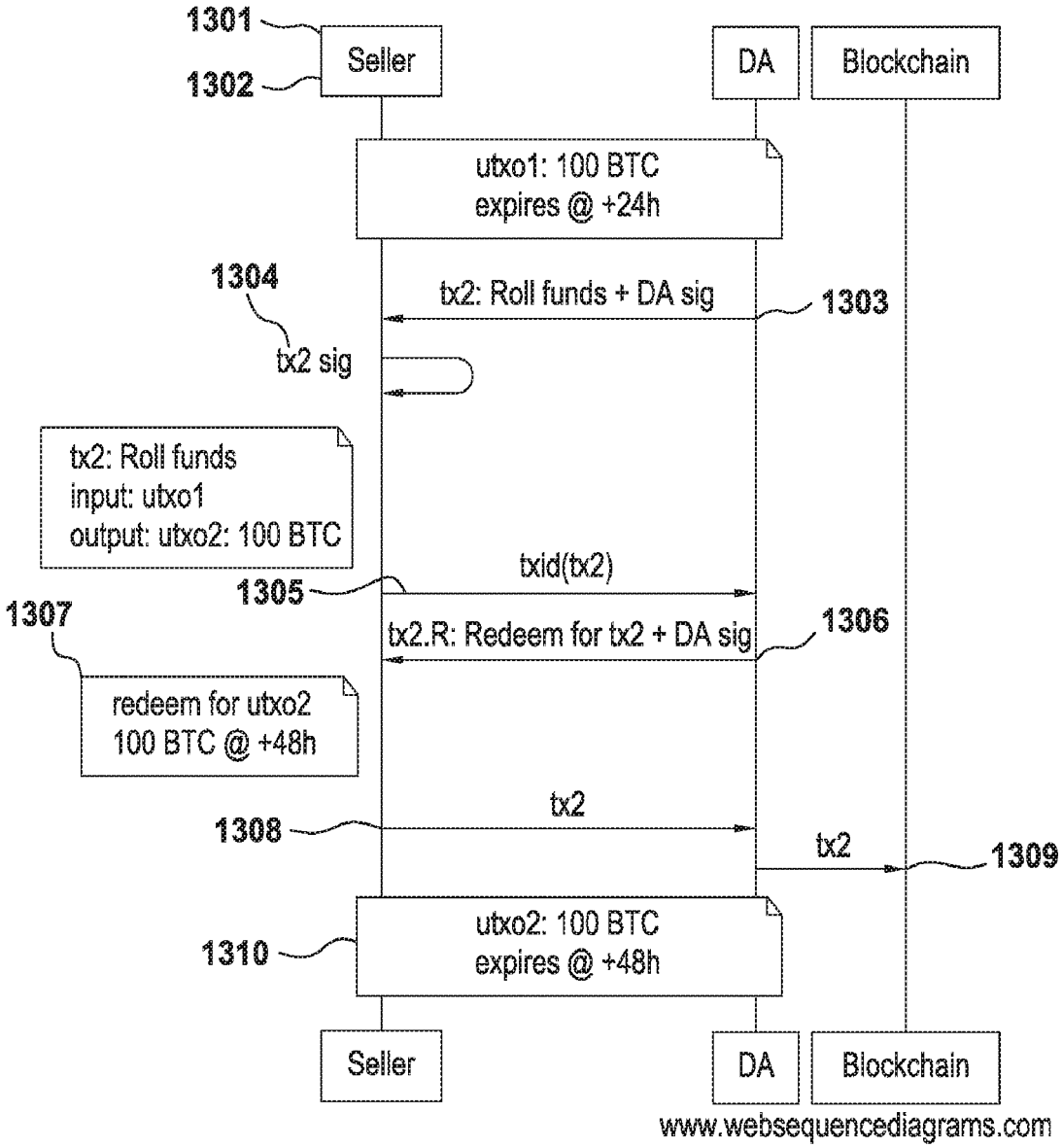

1301
1302
Seller
DA
Blockchain
utxo1: 100 BTC
expires @ +24h
1304
tx2: Roll funds + DA sig
1303
tx2 sig
tx2: Roll funds
input: utxo1
output: utxo2: 100 BTC
txid(tx2)
1305
1307
tx2.R: Redeem for tx2 + DA sig
1306
redeem for utxo2
100 BTC @ +48h
tx2
1308
tx2
1309
utxo2: 100 BTC
expires @ +48h
1310
Seller
DA
Blockchain
www.websequencediagrams.com

FIG. 13

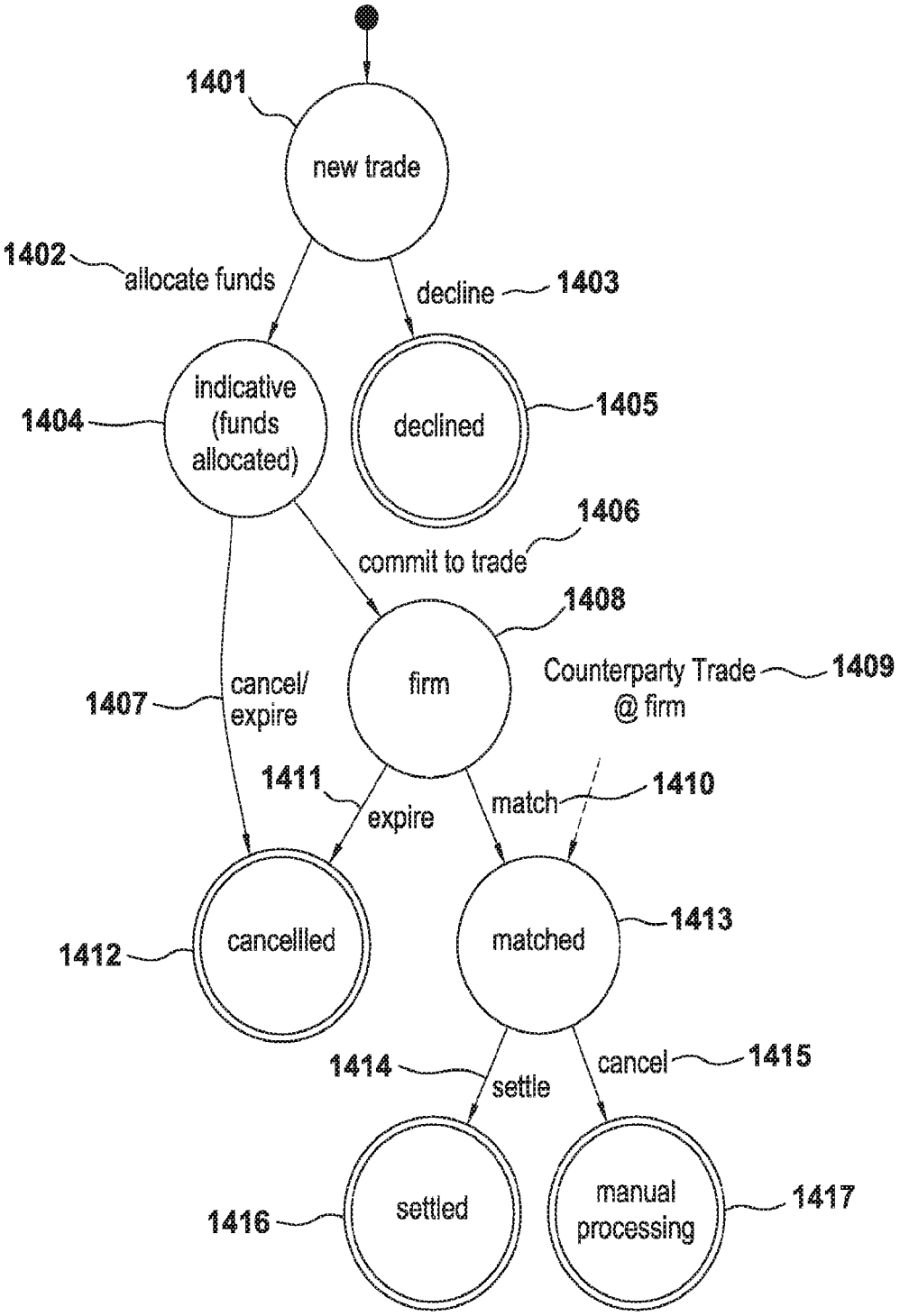

1401
new trade
1402
allocate funds
decline
1403
indicative (funds allocated)
1404
declined
1405
1406
commit to trade
1408
firm
Counterparty Trade @ firm
1409
1407
cancel/ expire
1411
expire
match
1410
cancellled
1412
matched
1413
1414
settle
cancel
1415
settled
1416
manual processing
1417

FIG. 14

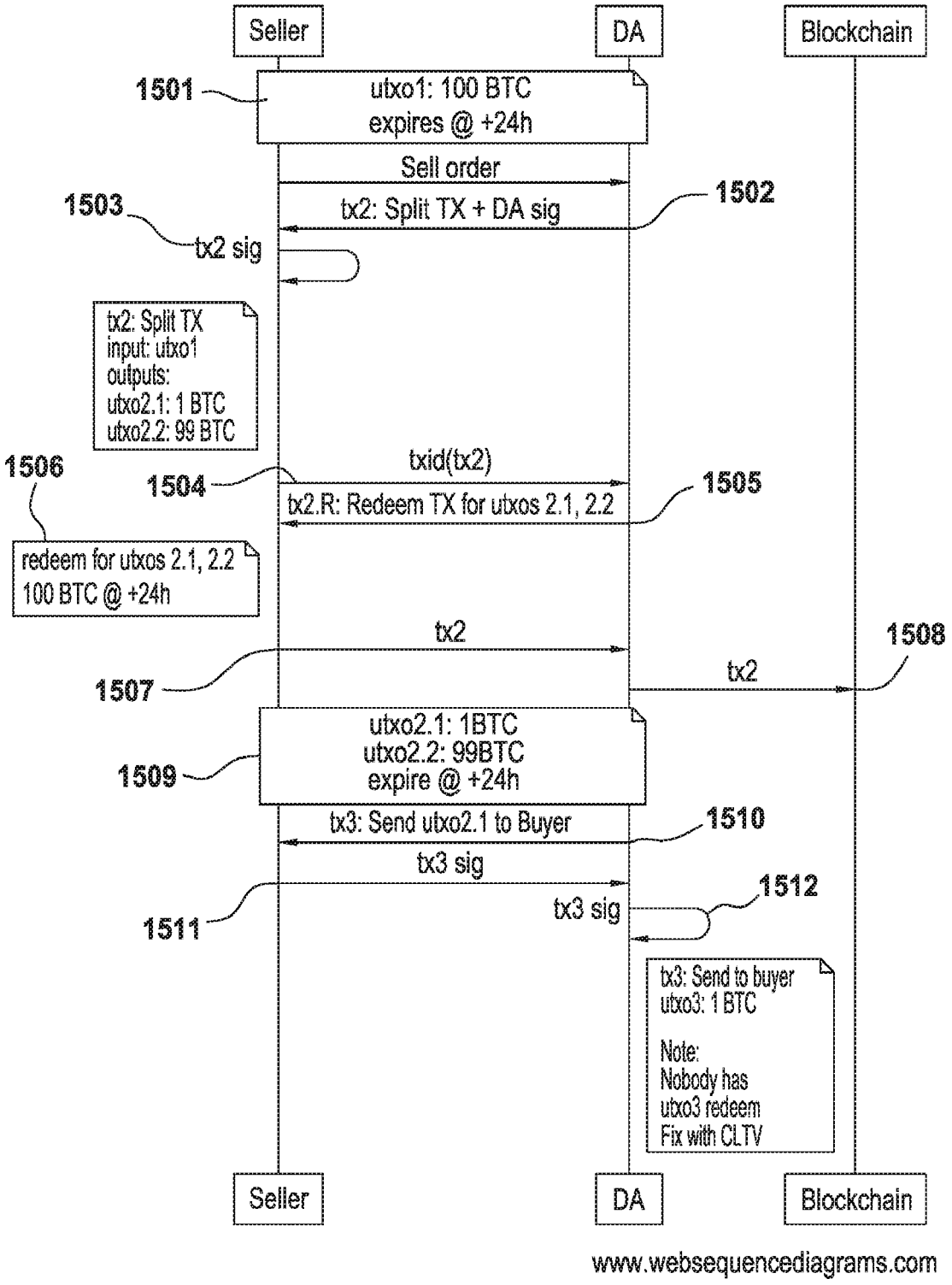

Seller
DA
Blockchain
1501
utxo1: 100 BTC
expires @ +24h
Sell order
1503
tx2: Split TX + DA sig
1502
tx2 sig
tx2: Split TX
input: utxo1
outputs:
utxo2.1: 1 BTC
utxo2.2: 99 BTC
1506
txid(tx2)
1504
1505
tx2.R: Redeem TX for utxos 2.1, 2.2
redeem for utxos 2.1, 2.2
100 BTC @ +24h
tx2
1508
1507
tx2
utxo2.1: 1BTC
utxo2.2: 99BTC
expire @ +24h
1509
tx3: Send utxo2.1 to Buyer
1510
tx3 sig
1512
1511
tx3 sig
tx3: Send to buyer
utxo3: 1 BTC
Note:
Nobody has
utxo3 redeem
Fix with CLTV
Seller
DA
Blockchain
www.websequencediagrams.com

FIG. 15

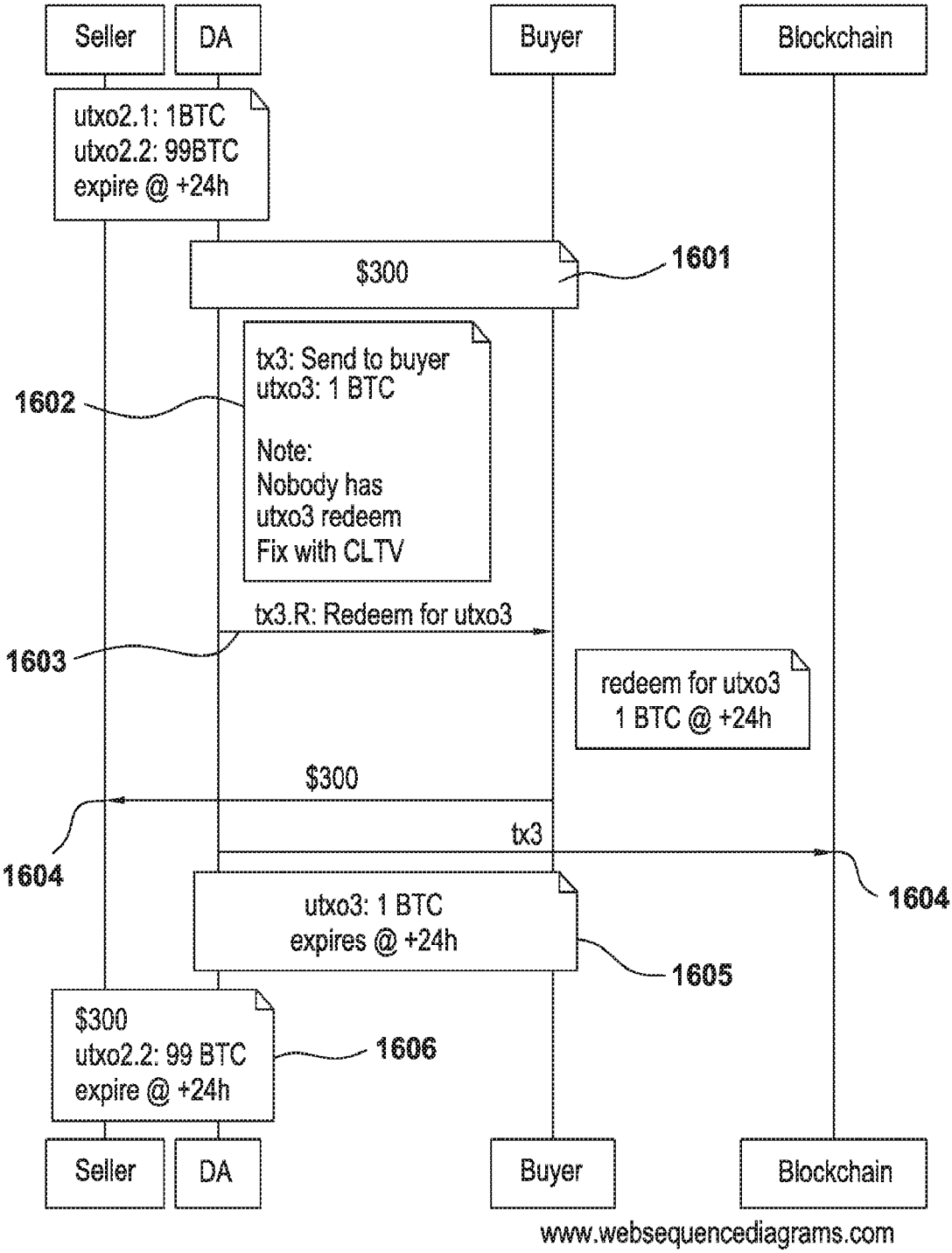

Seller
DA
Buyer
Blockchain
utxo2.1: 1BTC
utxo2.2: 99BTC
expire @ +24h
$300
1601
tx3: Send to buyer
utxo3: 1 BTC
Note:
Nobody has
utxo3 redeem
Fix with CLTV
1602
tx3.R: Redeem for utxo3
1603
redeem for utxo3
1 BTC @ +24h
$300
1604
tx3
1604
utxo3: 1 BTC
expires @ +24h
1605
$300
utxo2.2: 99 BTC
expire @ +24h
1606
Seller
DA
Buyer
Blockchain
www.websequencediagrams.com

FIG. 16

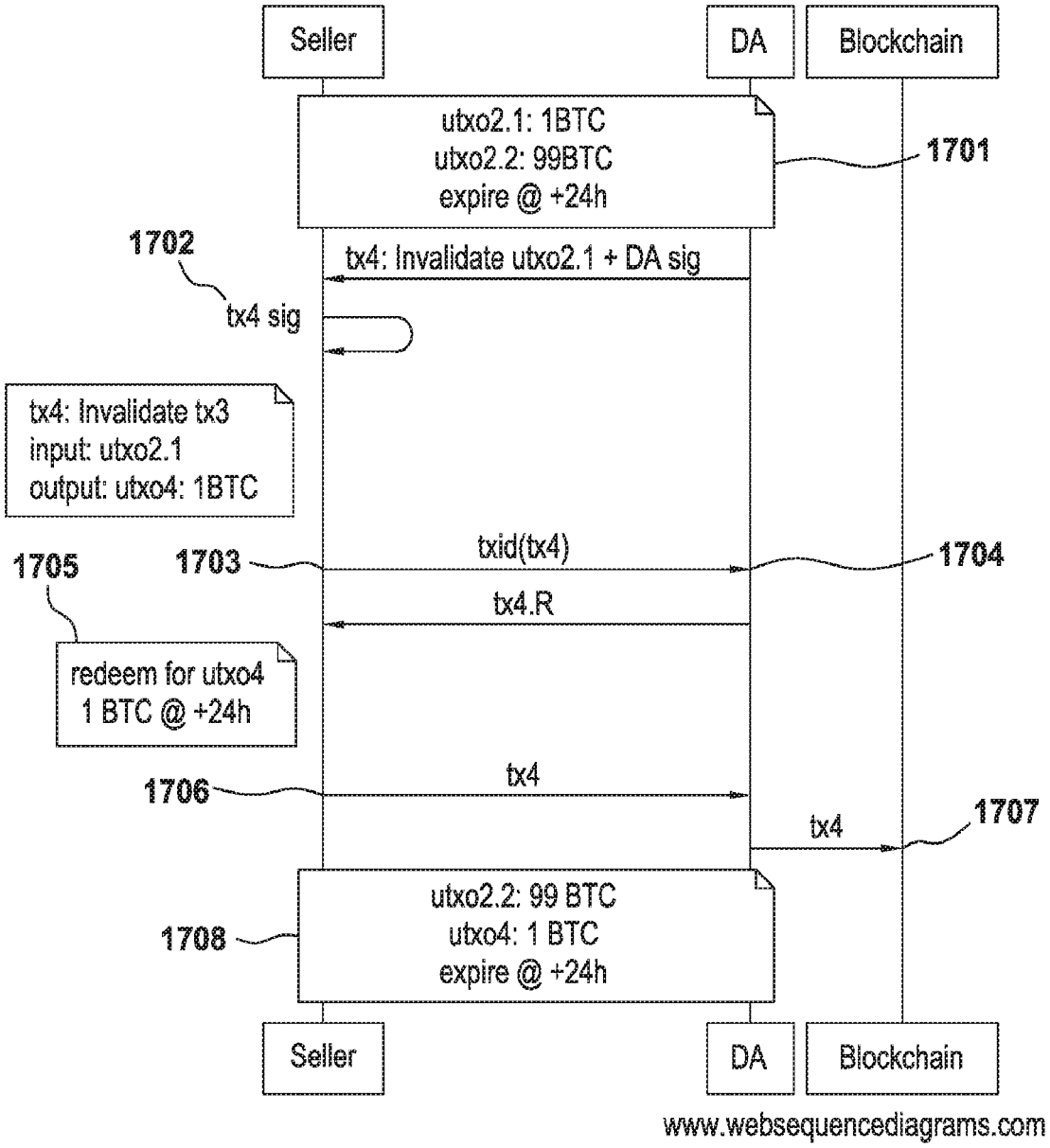

Seller
DA
Blockchain
utxo2.1: 1BTC
utxo2.2: 99BTC
expire @ +24h
1701
1702
tx4: Invalidate utxo2.1 + DA sig
tx4 sig
tx4: Invalidate tx3
input: utxo2.1
output: utxo4: 1BTC
1705
1703
txid(tx4)
1704
tx4.R
redeem for utxo4
1 BTC @ +24h
1706
tx4
tx4
1707
utxo2.2: 99 BTC
utxo4: 1 BTC
expire @ +24h
1708
Seller
DA
Blockchain
www.websequencediagrams.com

FIG. 17

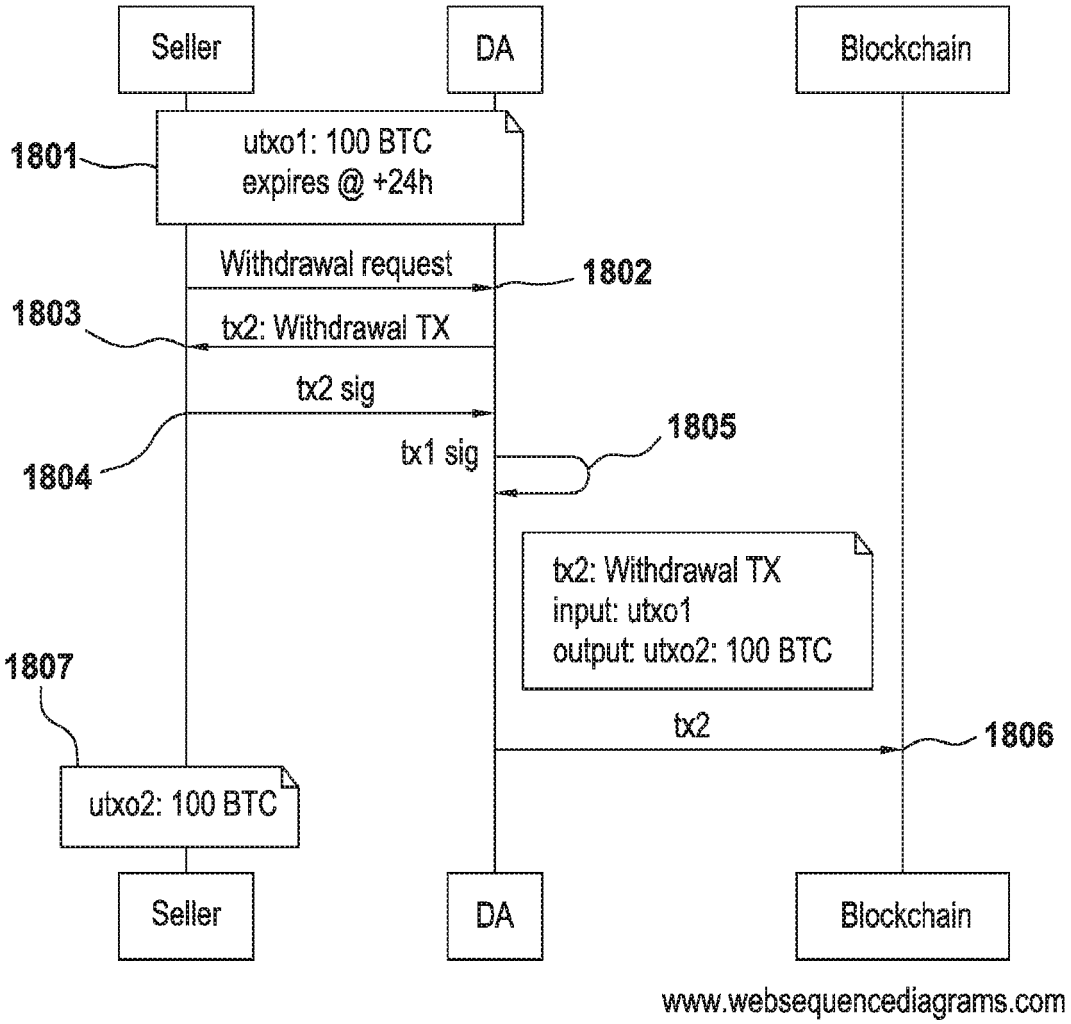

Seller
DA
Blockchain
1801
utxo1: 100 BTC
expires @ +24h
Withdrawal request
1802
1803
tx2: Withdrawal TX
tx2 sig
1804
1805
tx1 sig
tx2: Withdrawal TX
input: utxo1
output: utxo2: 100 BTC
1807
tx2
1806
utxo2: 100 BTC
Seller
DA
Blockchain
www.websequencediagrams.com

FIG. 18

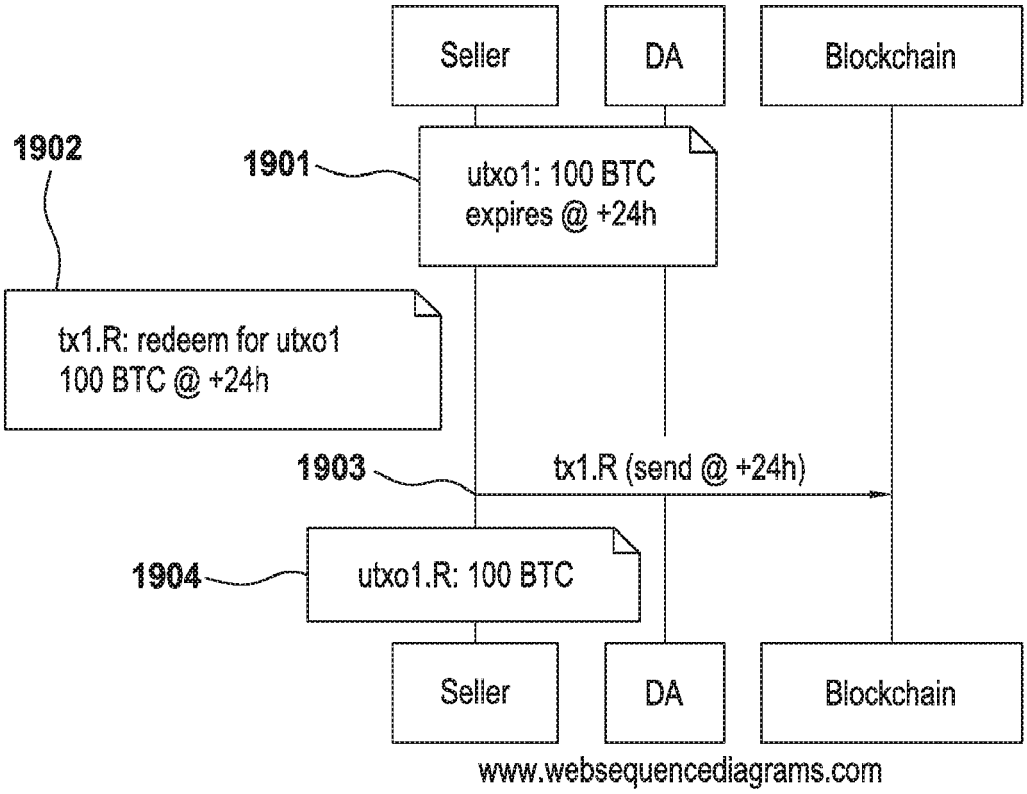

Seller
DA
Blockchain
1902
1901
utxo1: 100 BTC
expires @ +24h
tx1.R: redeem for utxo1
100 BTC @ +24h
1903
tx1.R (send @ +24h)
1904
utxo1.R: 100 BTC
Seller
DA
Blockchain
www.websequencediagrams.com

FIG. 19

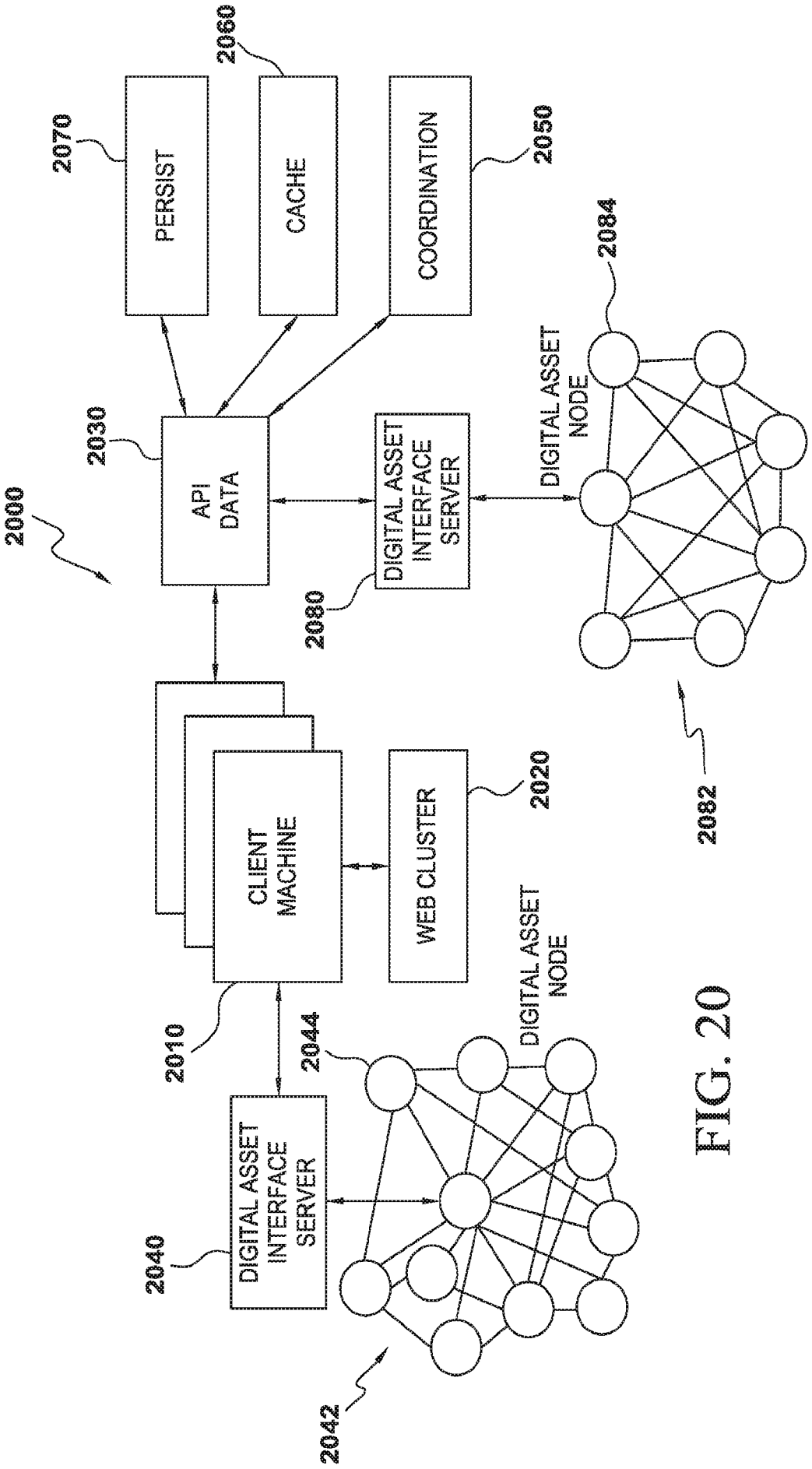

2000
2010
2020
2030
2040
2042
2044
2050
2060
2070
2080
2082
2084
CLIENT MACHINE
WEB CLUSTER
API DATA
DIGITAL ASSET INTERFACE SERVER
DIGITAL ASSET INTERFACE SERVER
DIGITAL ASSET NODE
DIGITAL ASSET NODE
PERSIST
CACHE
COORDINATION

FIG. 20