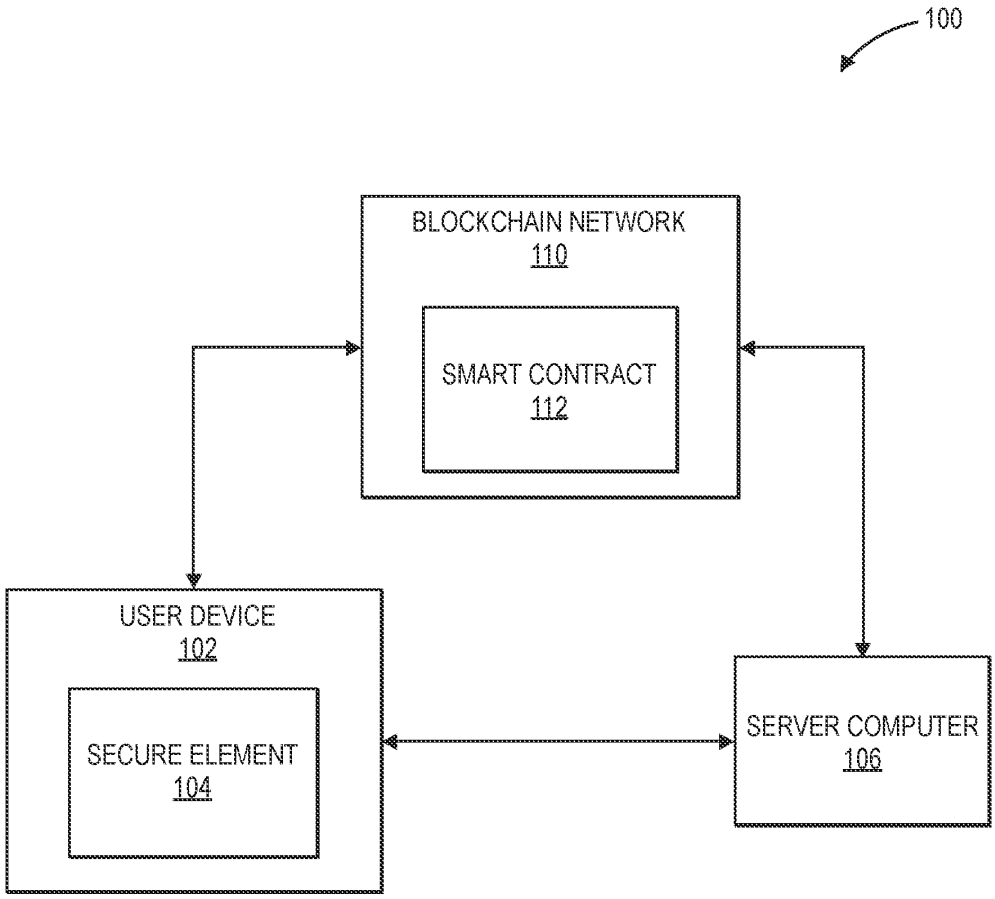

100
BLOCKCHAIN NETWORK
110
SMART CONTRACT
112
USER DEVICE
102
SECURE ELEMENT
104
SERVER COMPUTER
106

FIG. 1

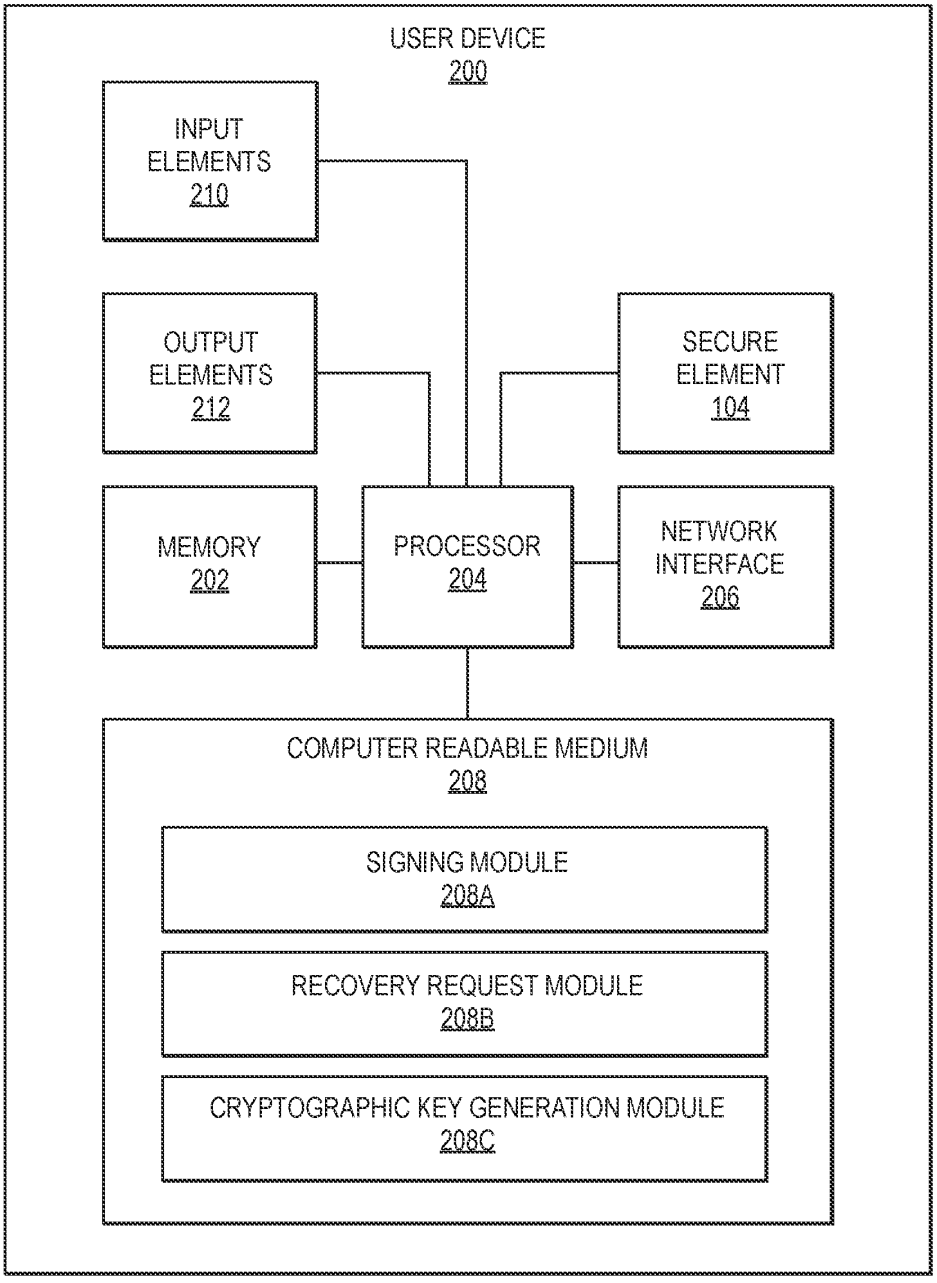

USER DEVICE
200
INPUT ELEMENTS
210
OUTPUT ELEMENTS
212
SECURE ELEMENT
104
MEMORY
202
PROCESSOR
204
NETWORK INTERFACE
206
COMPUTER READABLE MEDIUM
208
SIGNING MODULE
208A
RECOVERY REQUEST MODULE
208B
CRYPTOGRAPHIC KEY GENERATION MODULE
208C

FIG. 2

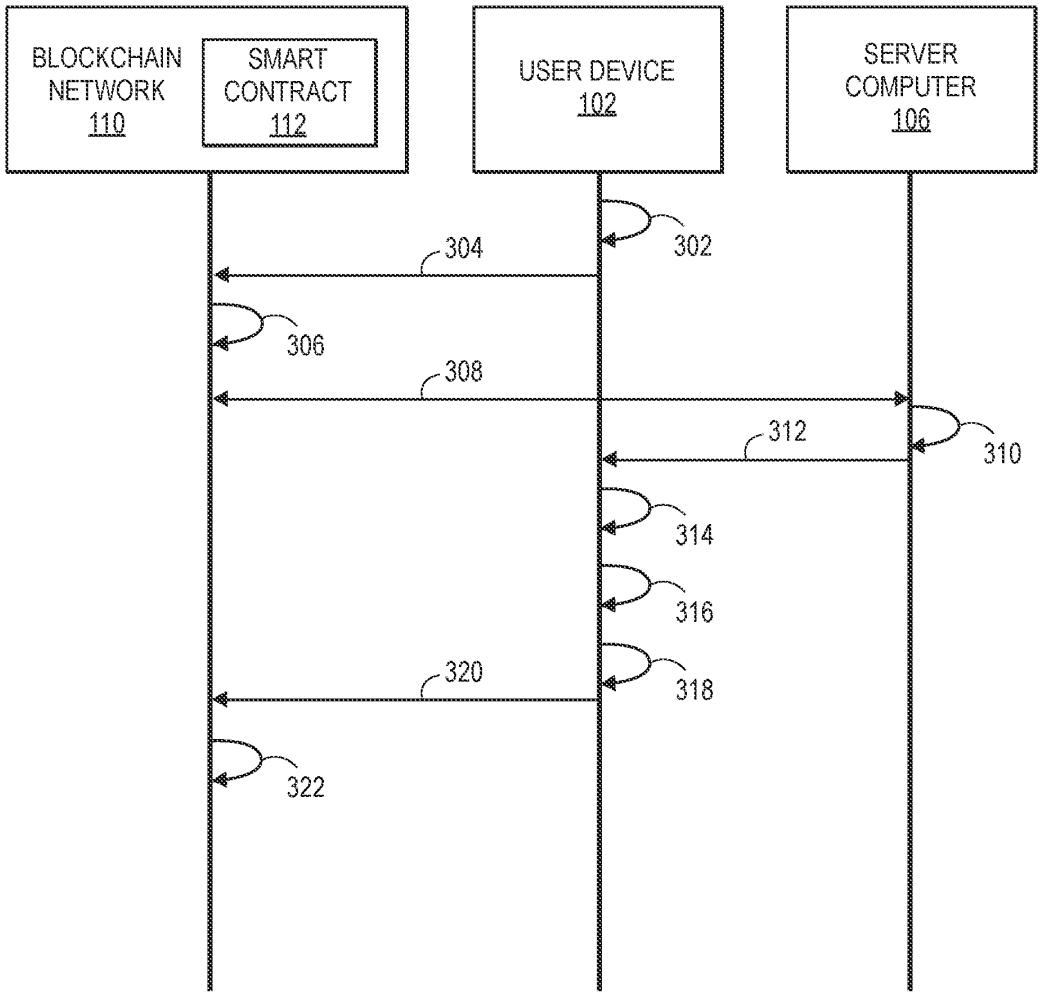

BLOCKCHAIN NETWORK 110
SMART CONTRACT 112
USER DEVICE 102
SERVER COMPUTER 106
302
304
306
308
310
312
314
316
318
320
322

FIG. 3

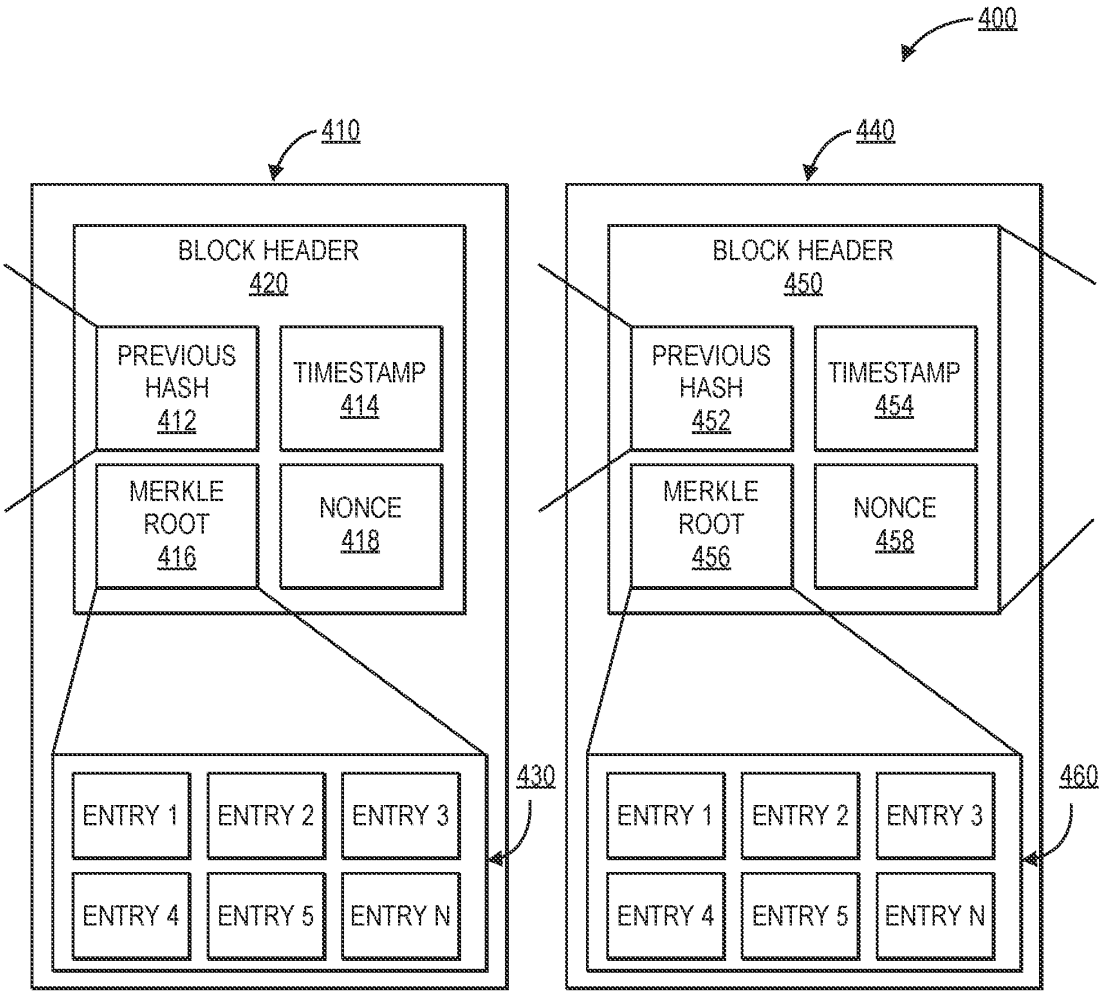

400
410
BLOCK HEADER
420
PREVIOUS HASH
412
TIMESTAMP
414
MERKLE ROOT
416
NONCE
418
ENTRY 1
ENTRY 2
ENTRY 3
ENTRY 4
ENTRY 5
ENTRY N
430
440
BLOCK HEADER
450
PREVIOUS HASH
452
TIMESTAMP
454
MERKLE ROOT
456
NONCE
458
ENTRY 1
ENTRY 2
ENTRY 3
ENTRY 4
ENTRY 5
ENTRY N
460

FIG. 4