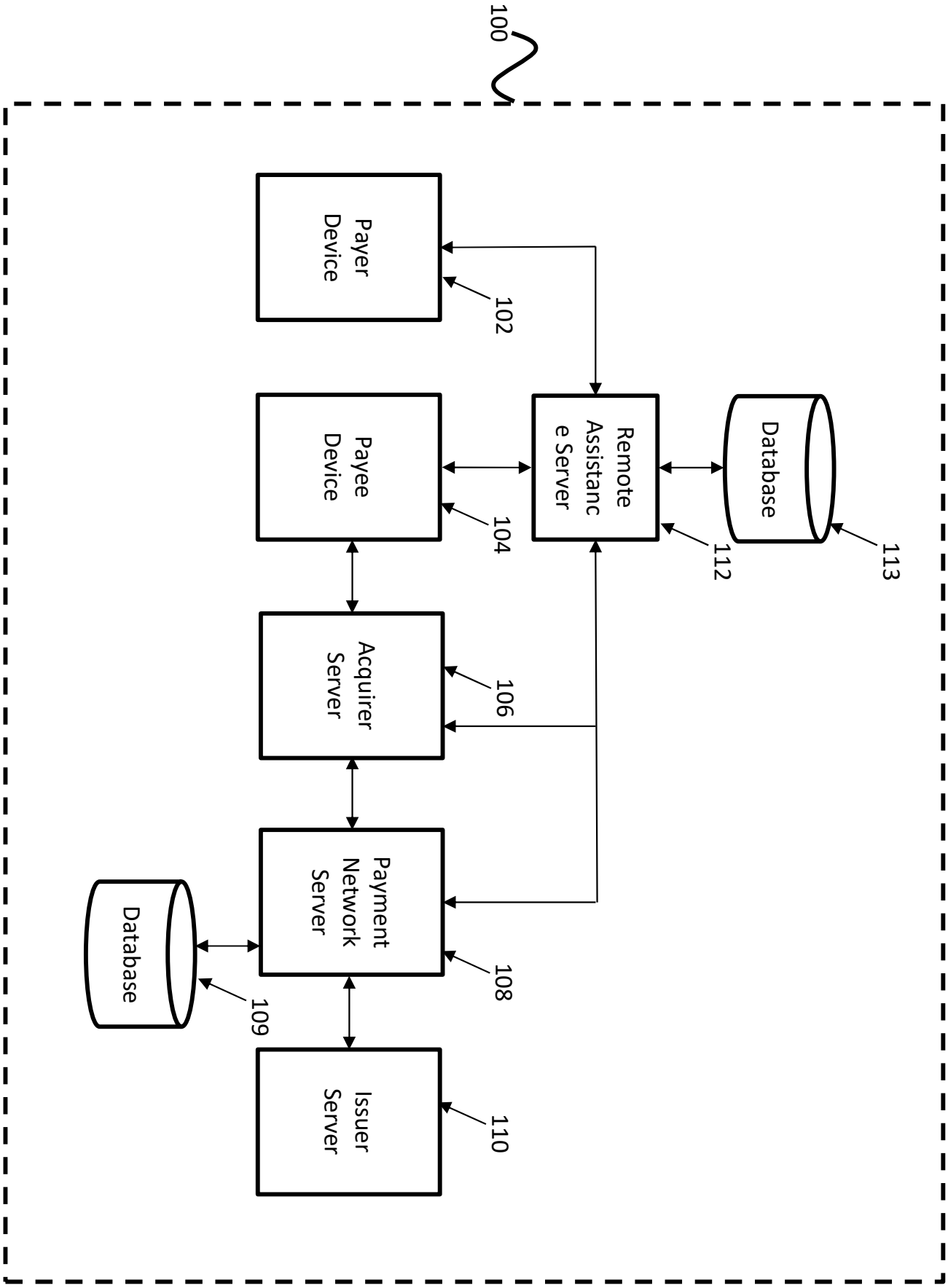
100
Payer Device
102
Payee Device
104
Remote Assistanc e Server
112
Database
113
Acquirer Server
106
Payment Network Server
108
Database
109
Issuer Server
110

Figure 1

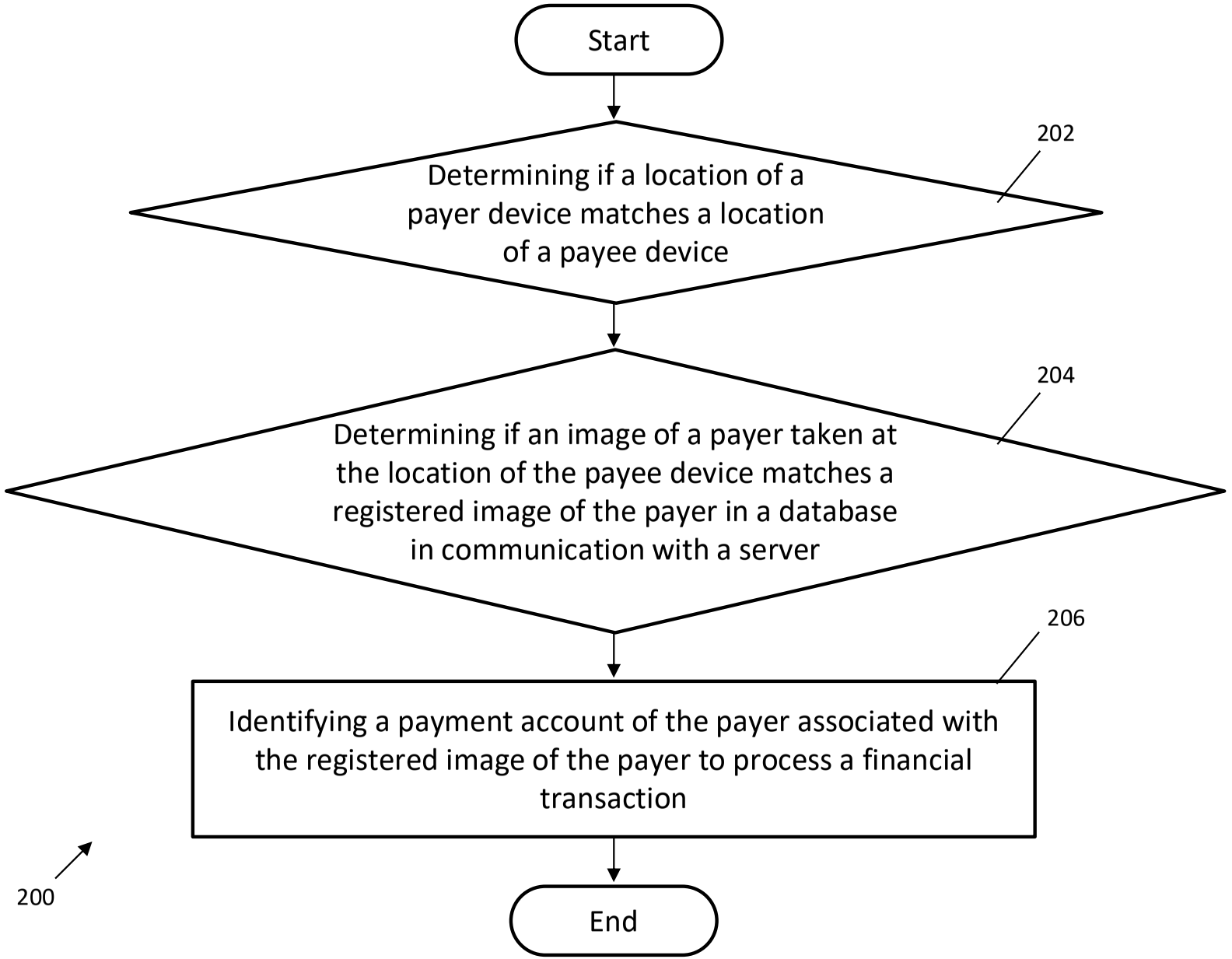
Start
202
Determining if a location of a payer device matches a location of a payee device
204
Determining if an image of a payer taken at the location of the payee device matches a registered image of the payer in a database in communication with a server
206
Identifying a payment account of the payer associated with the registered image of the payer to process a financial transaction
End
200

Figure 2

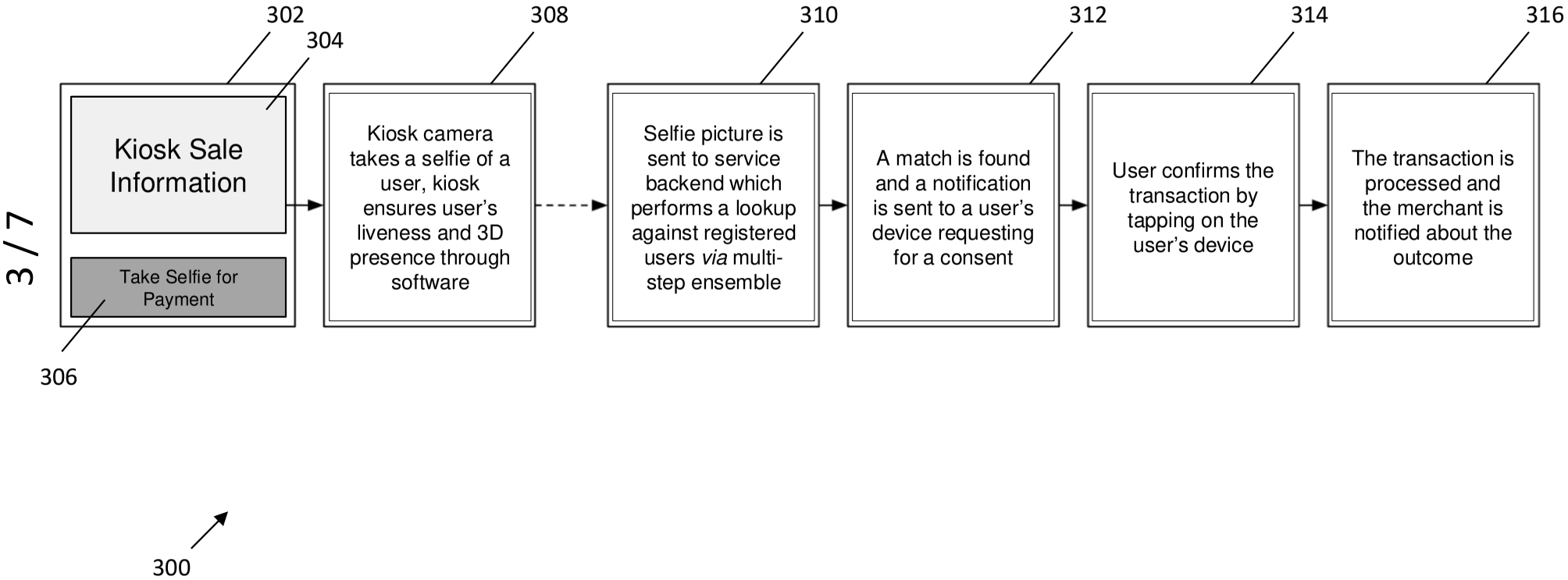
302
304
308
310
312
314
316
Kiosk Sale Information
Take Selfie for Payment
306
Kiosk camera takes a selfie of a user, kiosk ensures user's liveness and 3D presence through software
Selfie picture is sent to service backend which performs a lookup against registered users *via* multi-step ensemble
A match is found and a notification is sent to a user's device requesting for a consent
User confirms the transaction by tapping on the user's device
The transaction is processed and the merchant is notified about the outcome
300

Figure 3

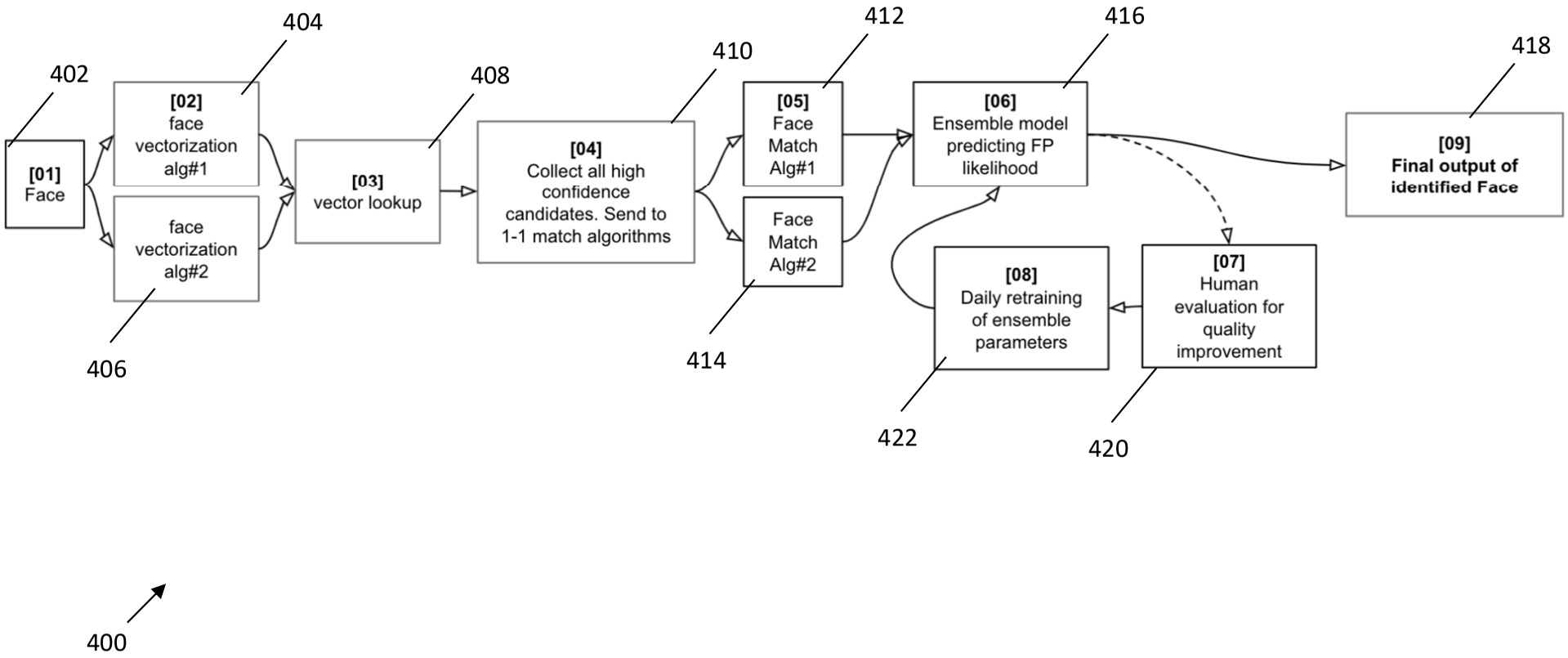
400
402
404
406
408
410
412
414
416
418
420
422
[01] Face
[02] face vectorization alg#1
face vectorization alg#2
[03] vector lookup
[04] Collect all high confidence candidates. Send to 1-1 match algorithms
[05] Face Match Alg#1
Face Match Alg#2
[06] Ensemble model predicting FP likelihood
[07] Human evaluation for quality improvement
[08] Daily retraining of ensemble parameters
[09] Final output of identified Face

Figure 4

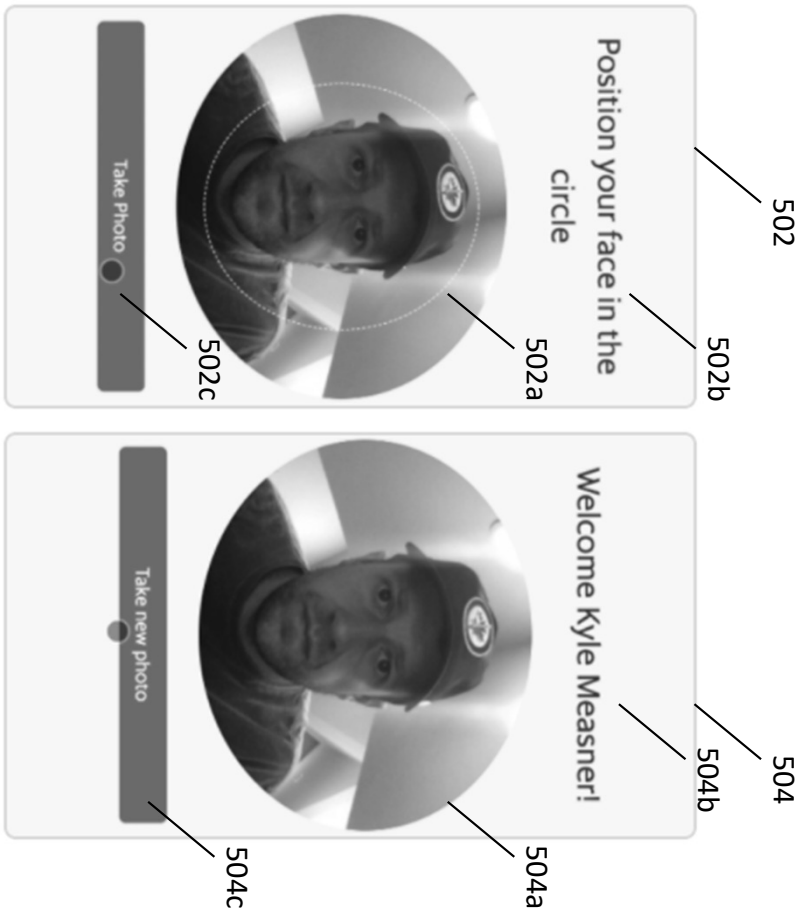
502
Position your face in the circle
502b
502a
Take Photo
502c
504
Welcome Kyle Measner!
504b
504a
Take new photo
504c

Figure 5

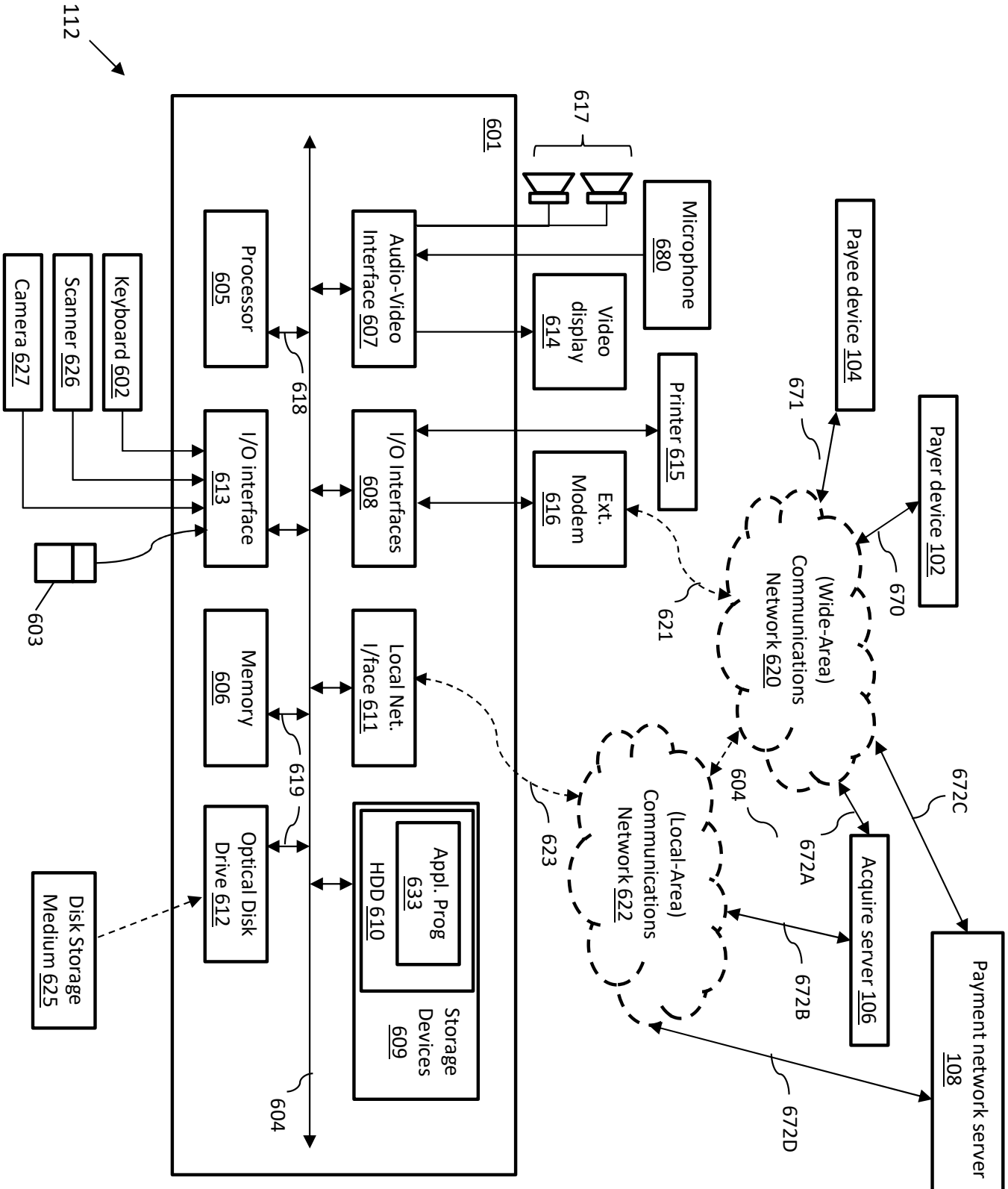
112
601
617
Microphone 680
Audio-Video Interface 607
Video display 614
Printer 615
Ext. Modem 616
I/O Interfaces 608
Local Net. I/face 611
Storage Devices 609
Appl. Prog 633
HDD 610
Optical Disk Drive 612
Disk Storage Medium 625
Processor 605
I/O interface 613
Memory 606
618
619
604
Keyboard 602
Scanner 626
Camera 627
603
Payer device 102
Payee device 104
671
670
(Wide-Area) Communications Network 620
621
672C
672A
672B
672D
623
(Local-Area) Communications Network 622
Acquire server 106
Payment network server 108

Figure 6

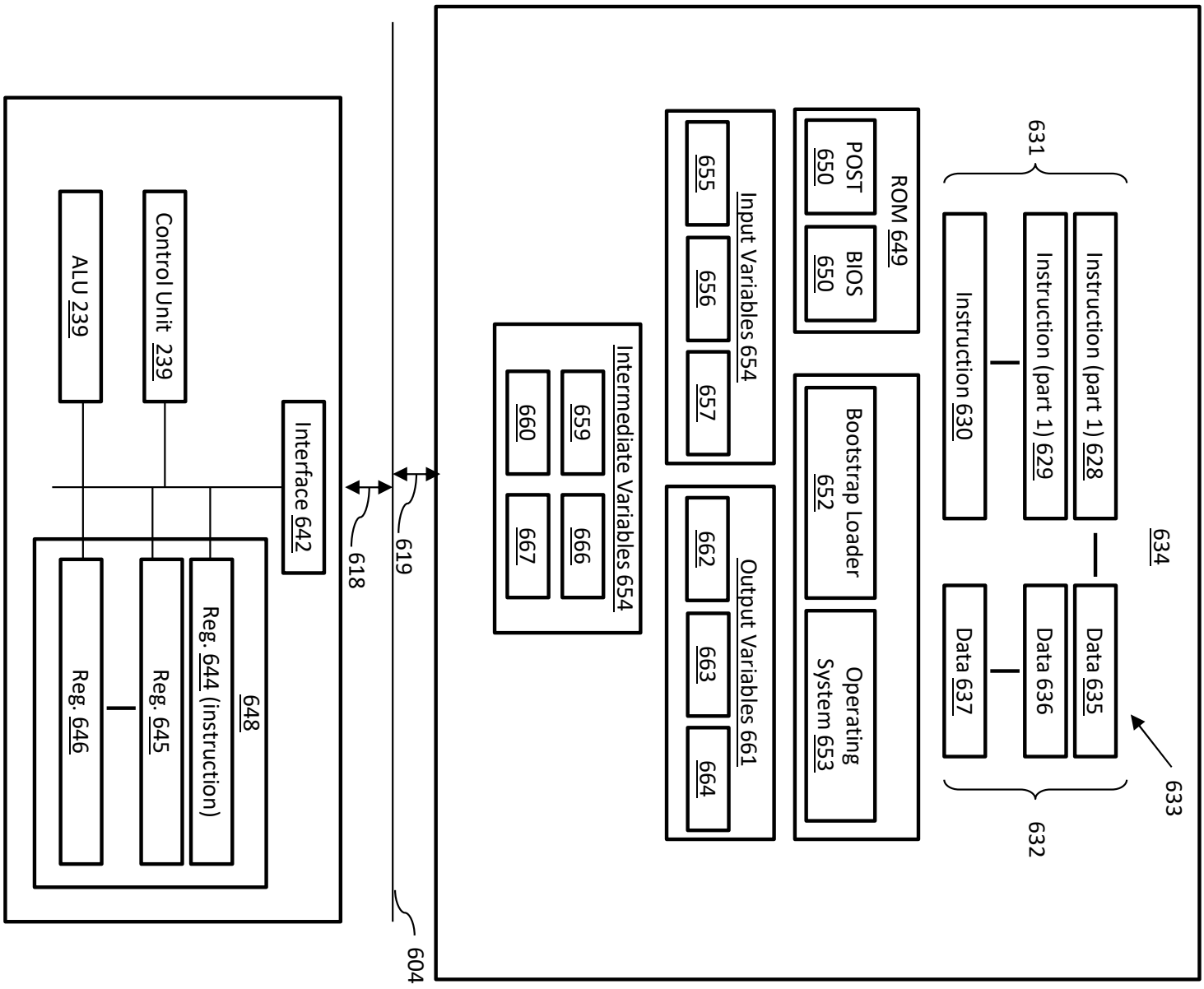
634
633
631
632
Instruction (part 1) 628
Instruction (part 1) 629
Instruction 630
Data 635
Data 636
Data 637
ROM 649
POST 650
BIOS 650
Bootstrap Loader 652
Operating System 653
Input Variables 654
655
656
657
Output Variables 661
662
663
664
Intermediate Variables 654
659
660
666
667
604
619
618
Interface 642
Control Unit 239
ALU 239
648
Reg. 644 (instruction)
Reg. 645
Reg. 646

Figure 7