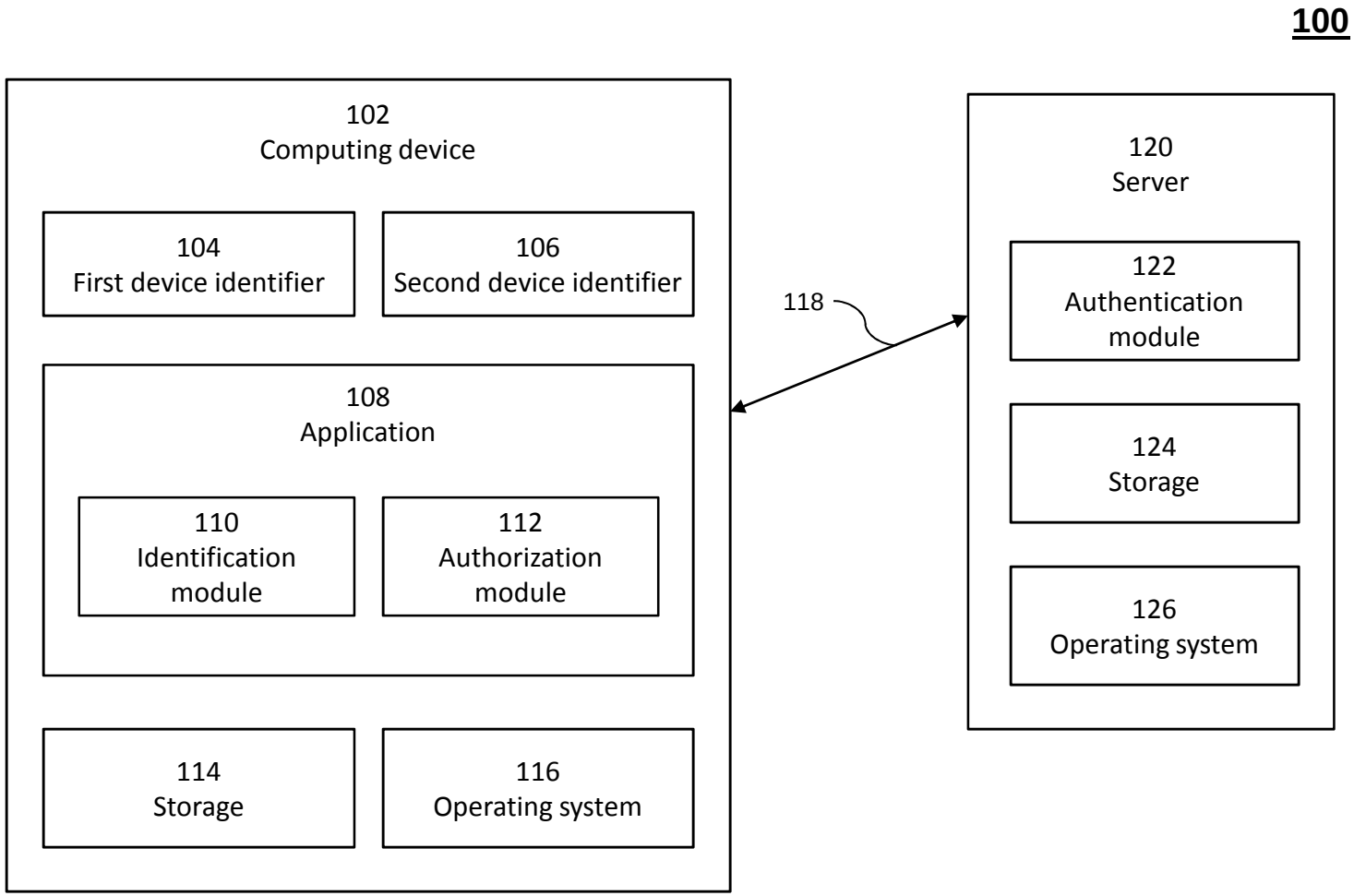

100
102
Computing device
104
First device identifier
106
Second device identifier
108
Application
110
Identification module
112
Authorization module
114
Storage
116
Operating system
118
120
Server
122
Authentication module
124
Storage
126
Operating system

**Figure 1A**

**128**

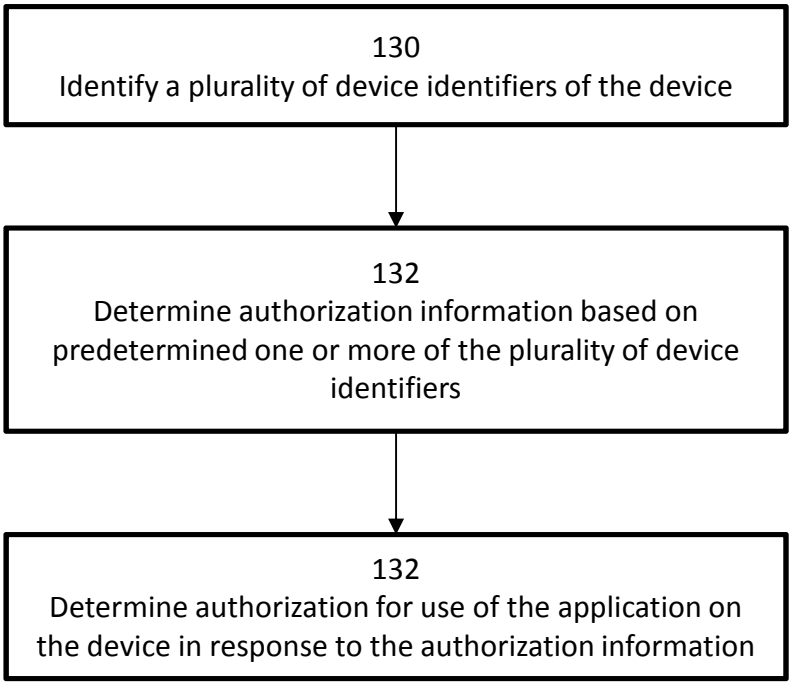



**Figure 1B**

**134**

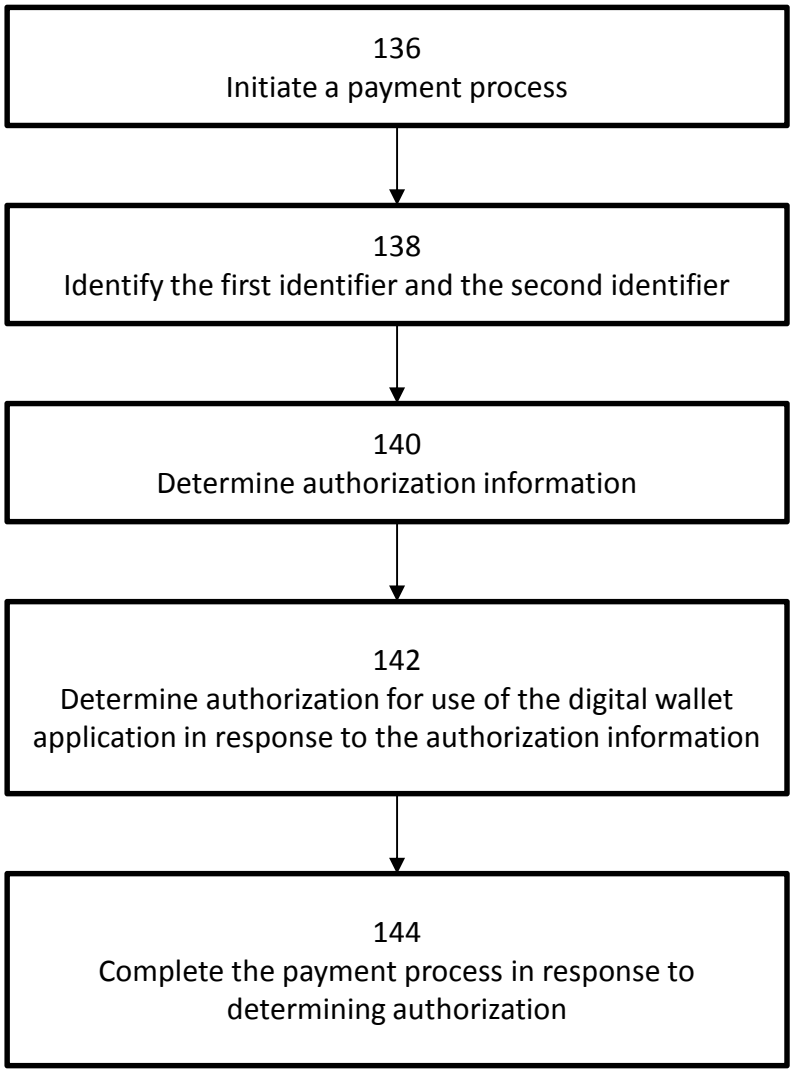



**Figure 1C**

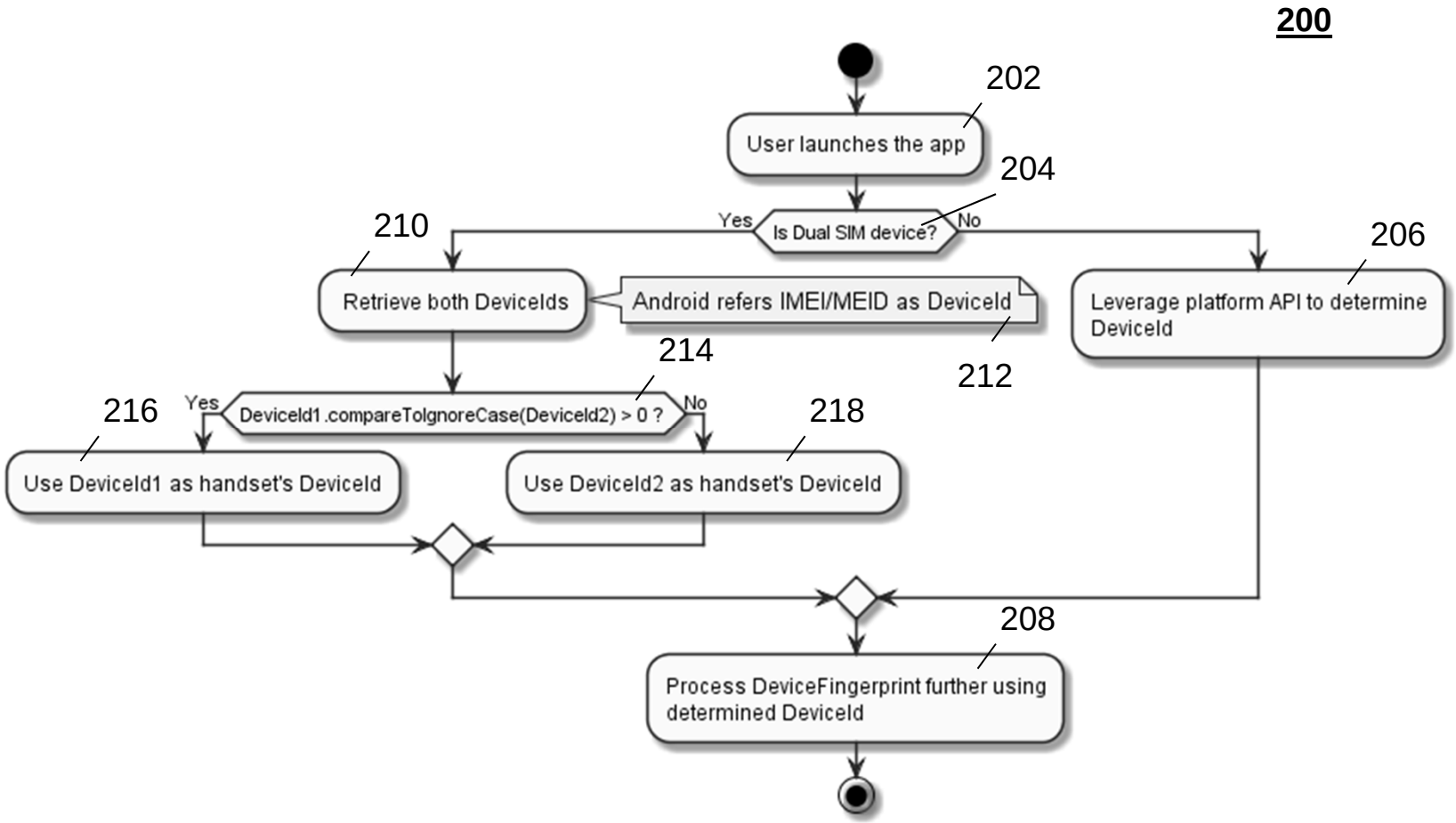

200
202
User launches the app
204
Yes
Is Dual SIM device?
No
210
206
Retrieve both DeviceIds
Android refers IMEI/MEID as DeviceId
Leverage platform API to determine DeviceId
212
214
216
Yes
DeviceId1.compareToIgnoreCase(DeviceId2) > 0 ?
No
218
Use DeviceId1 as handset's DeviceId
Use DeviceId2 as handset's DeviceId
208
Process DeviceFingerprint further using determined DeviceId

**Figure 2**

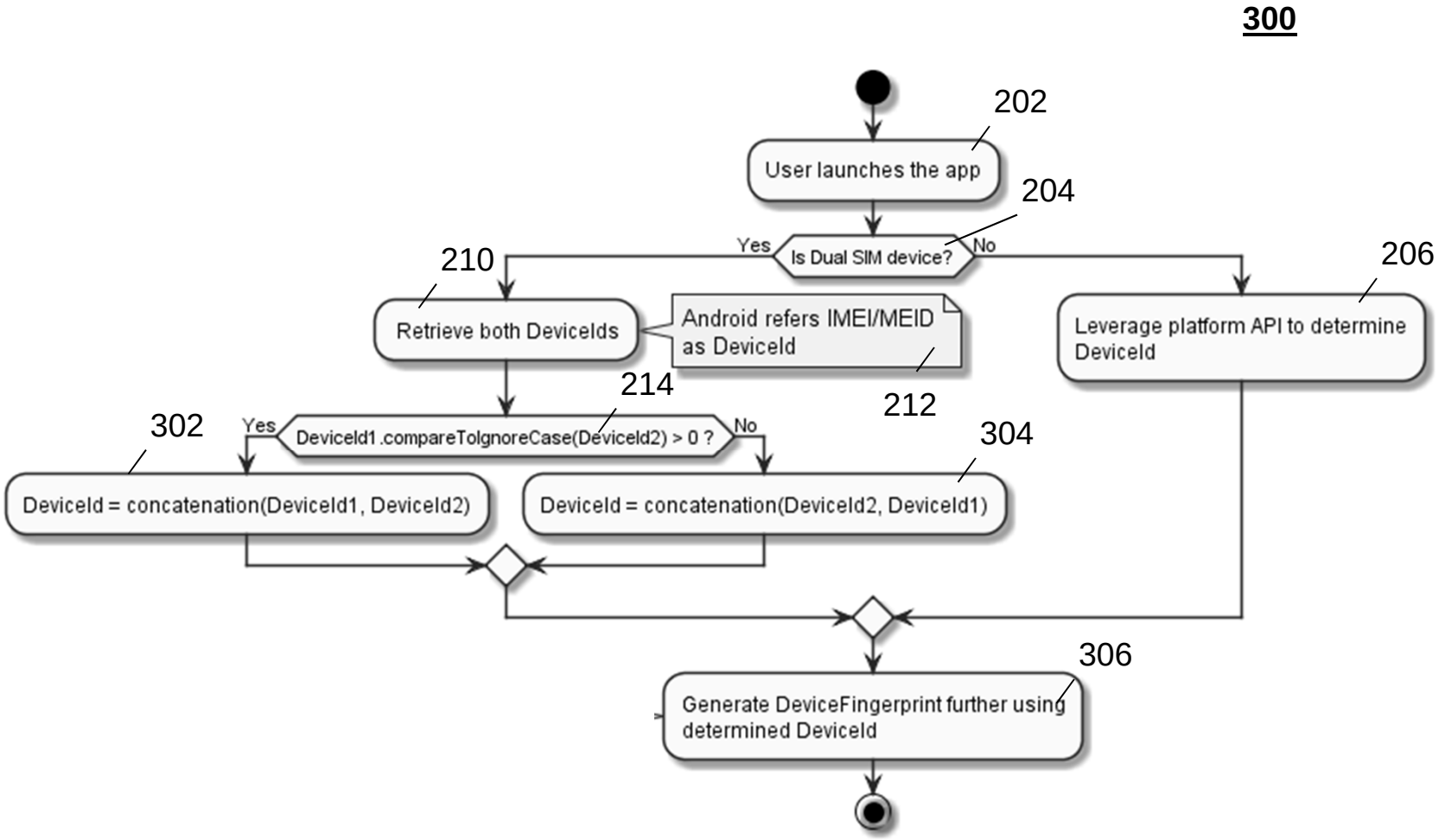

300
202
User launches the app
204
Yes
Is Dual SIM device?
No
210
206
Retrieve both DeviceIds
Android refers IMEI/MEID as DeviceId
212
Leverage platform API to determine DeviceId
214
302
Yes
DeviceId1.compareToIgnoreCase(DeviceId2) > 0 ?
No
304
DeviceId = concatenation(DeviceId1, DeviceId2)
DeviceId = concatenation(DeviceId2, DeviceId1)
306
Generate DeviceFingerprint further using determined DeviceId

**Figure 3**

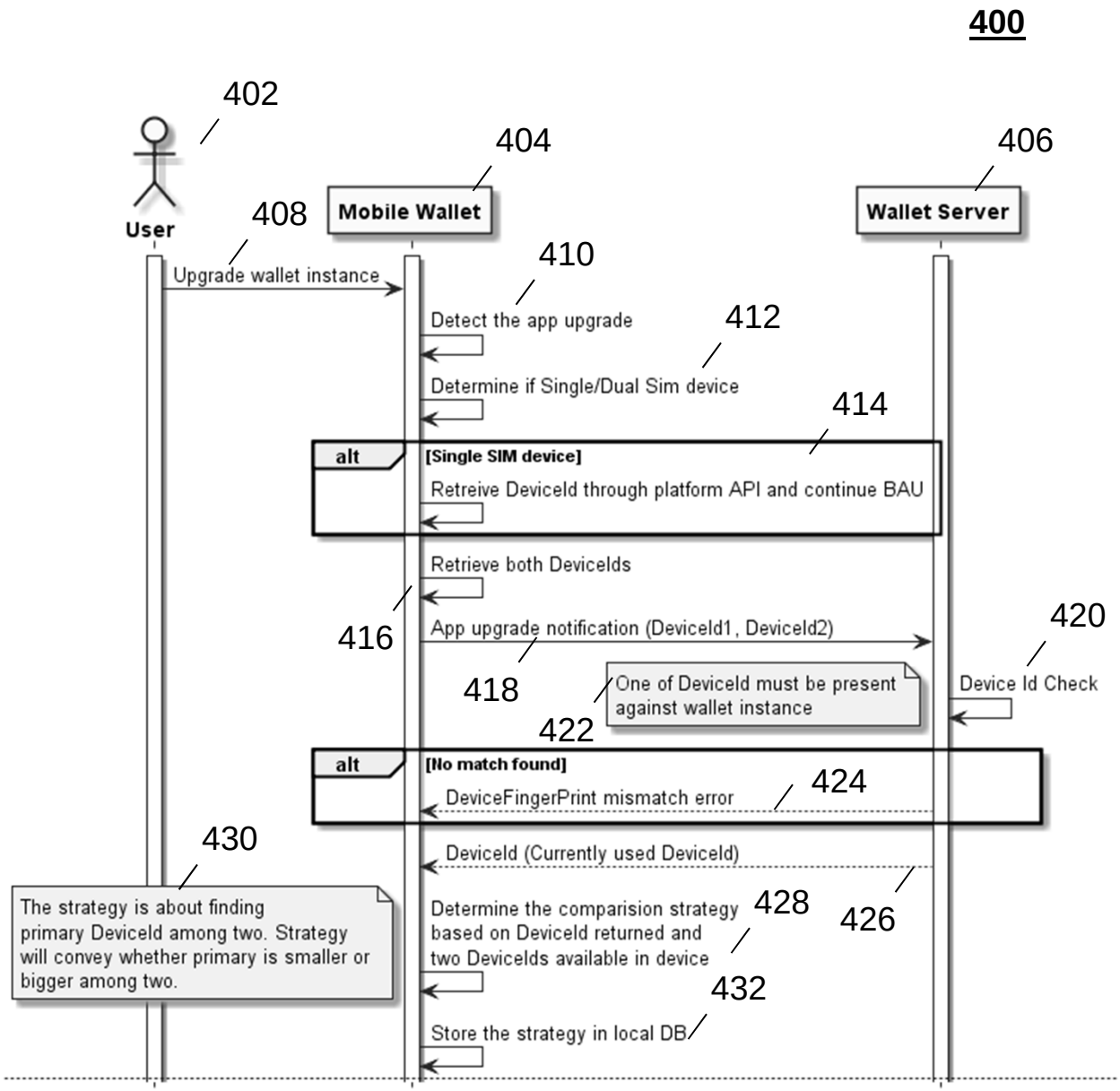

400
402
User
404
Mobile Wallet
406
Wallet Server
408
Upgrade wallet instance
410
Detect the app upgrade
412
Determine if Single/Dual Sim device
414
alt
[Single SIM device]
Retreive DeviceId through platform API and continue BAU
Retrieve both DeviceIds
416
App upgrade notification (DeviceId1, DeviceId2)
418
420
Device Id Check
One of DeviceId must be present against wallet instance
422
alt
[No match found]
DeviceFingerPrint mismatch error
424
DeviceId (Currently used DeviceId)
426
430
The strategy is about finding primary DeviceId among two. Strategy will convey whether primary is smaller or bigger among two.
Determine the comparision strategy based on DeviceId returned and two DeviceIds available in device
428
432
Store the strategy in local DB

**Figure 4**

**500**

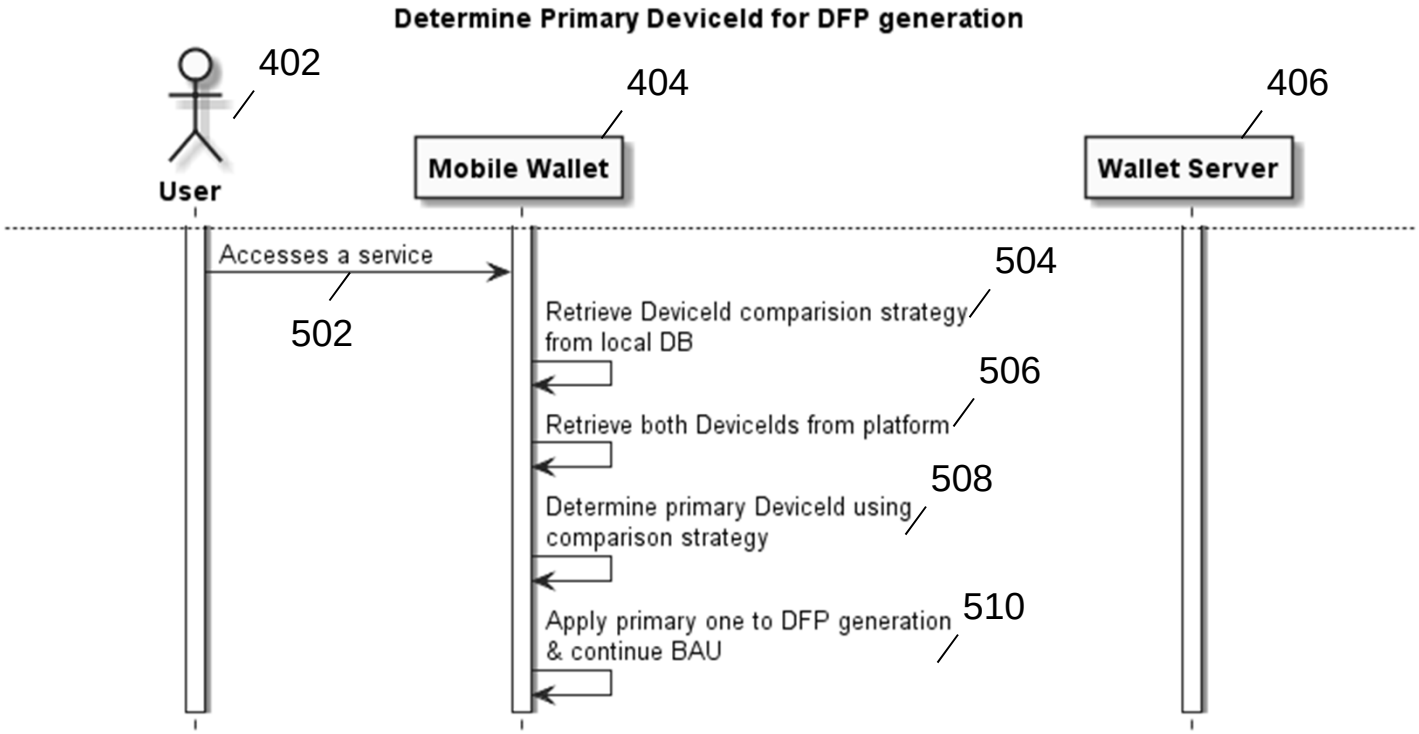

Determine Primary DeviceId for DFP generation
402
404
406
User
Mobile Wallet
Wallet Server
Accesses a service
502
504
Retrieve DeviceId comparision strategy from local DB
506
Retrieve both DeviceIds from platform
508
Determine primary DeviceId using comparison strategy
510
Apply primary one to DFP generation & continue BAU

**Figure 5**

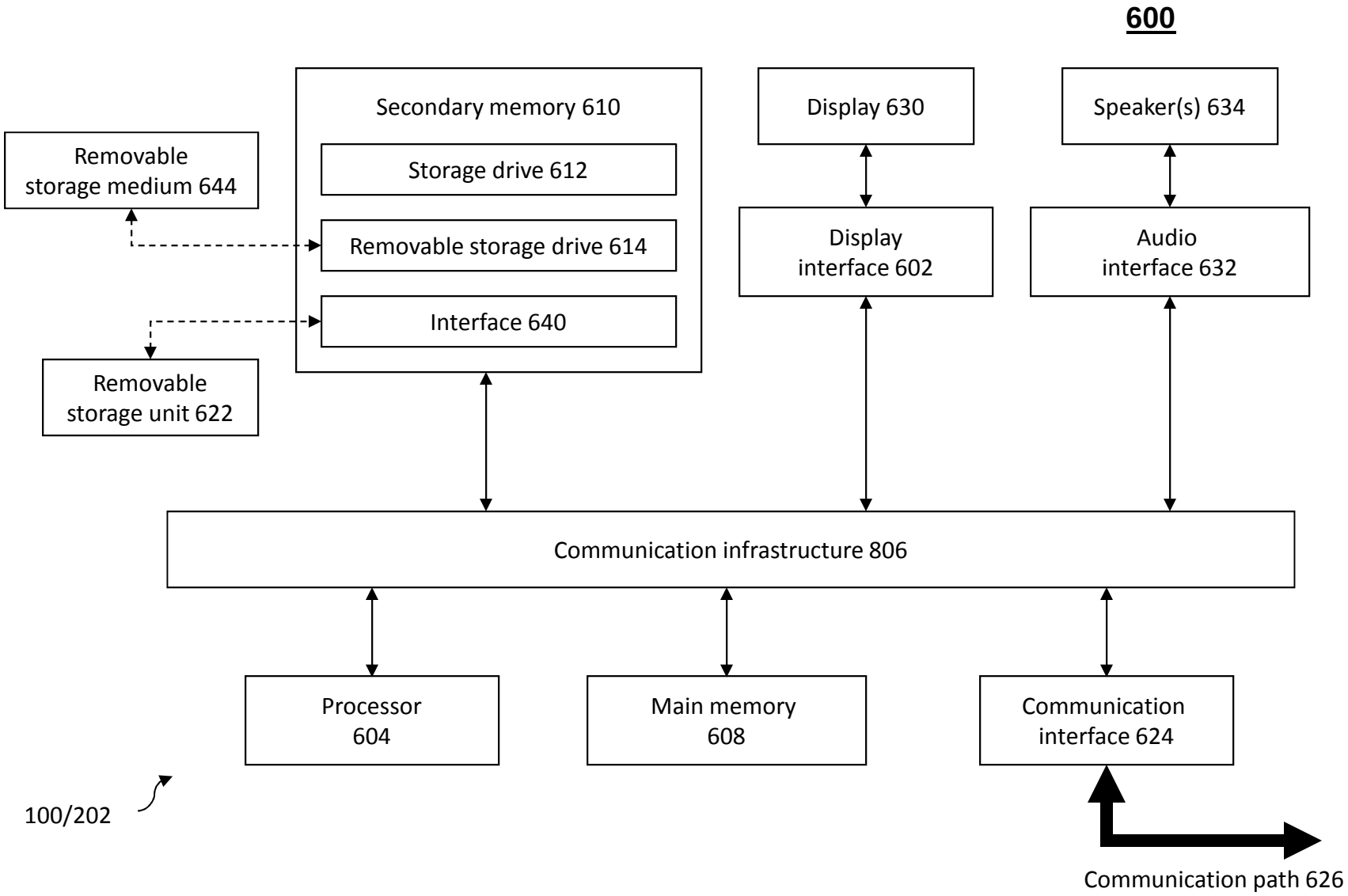

600
Secondary memory 610
Storage drive 612
Removable storage drive 614
Interface 640
Removable storage medium 644
Removable storage unit 622
Display 630
Display interface 602
Speaker(s) 634
Audio interface 632
Communication infrastructure 806
Processor 604
Main memory 608
Communication interface 624
100/202
Communication path 626

**Figure 6**

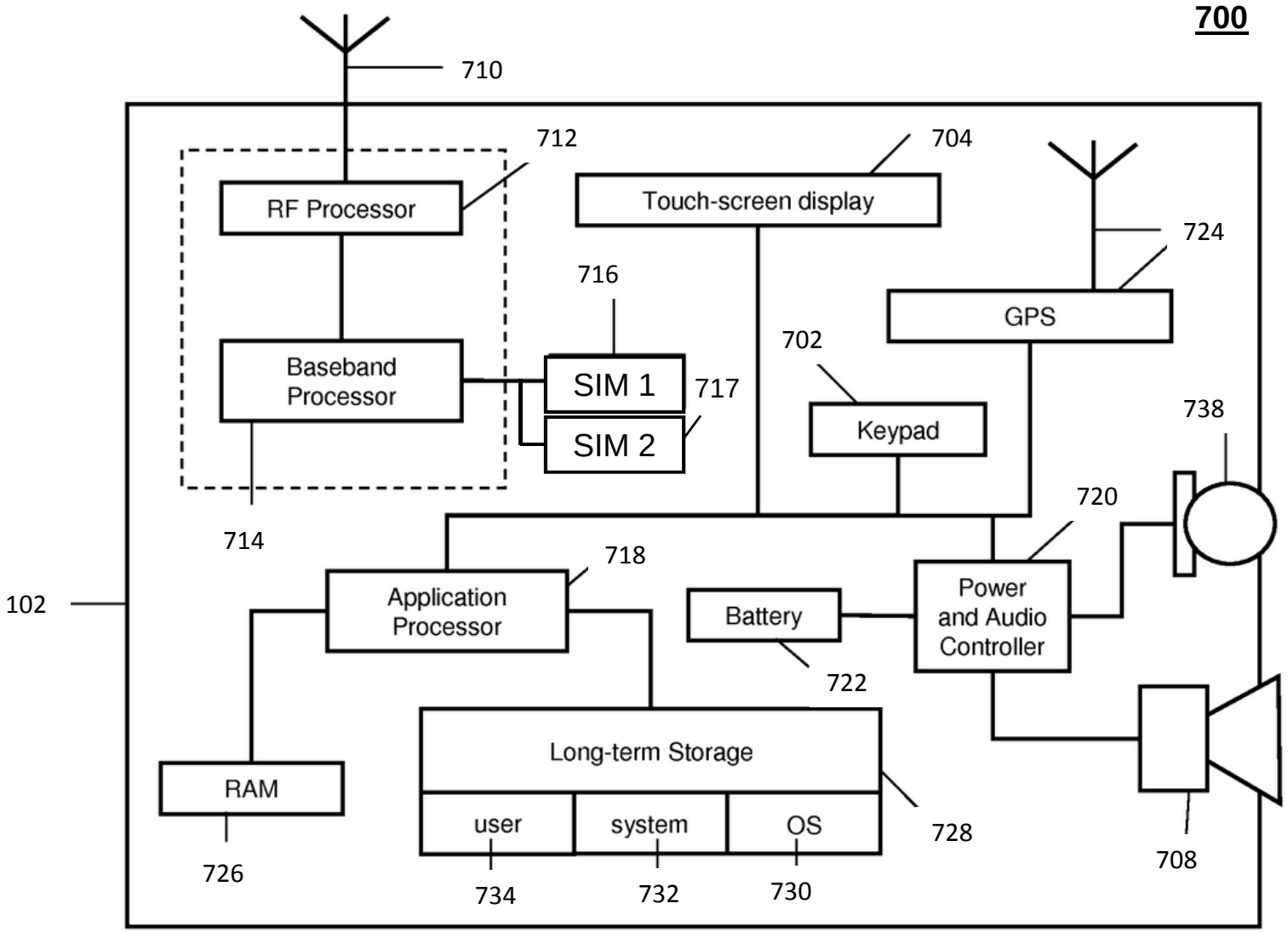

700
710
712
704
RF Processor
Touch-screen display
724
716
GPS
Baseband Processor
SIM 1
SIM 2
717
702
Keypad
738
720
714
718
102
Application Processor
Battery
Power and Audio Controller
722
Long-term Storage
RAM
user
system
OS
728
726
708
734
732
730

**Figure 7**