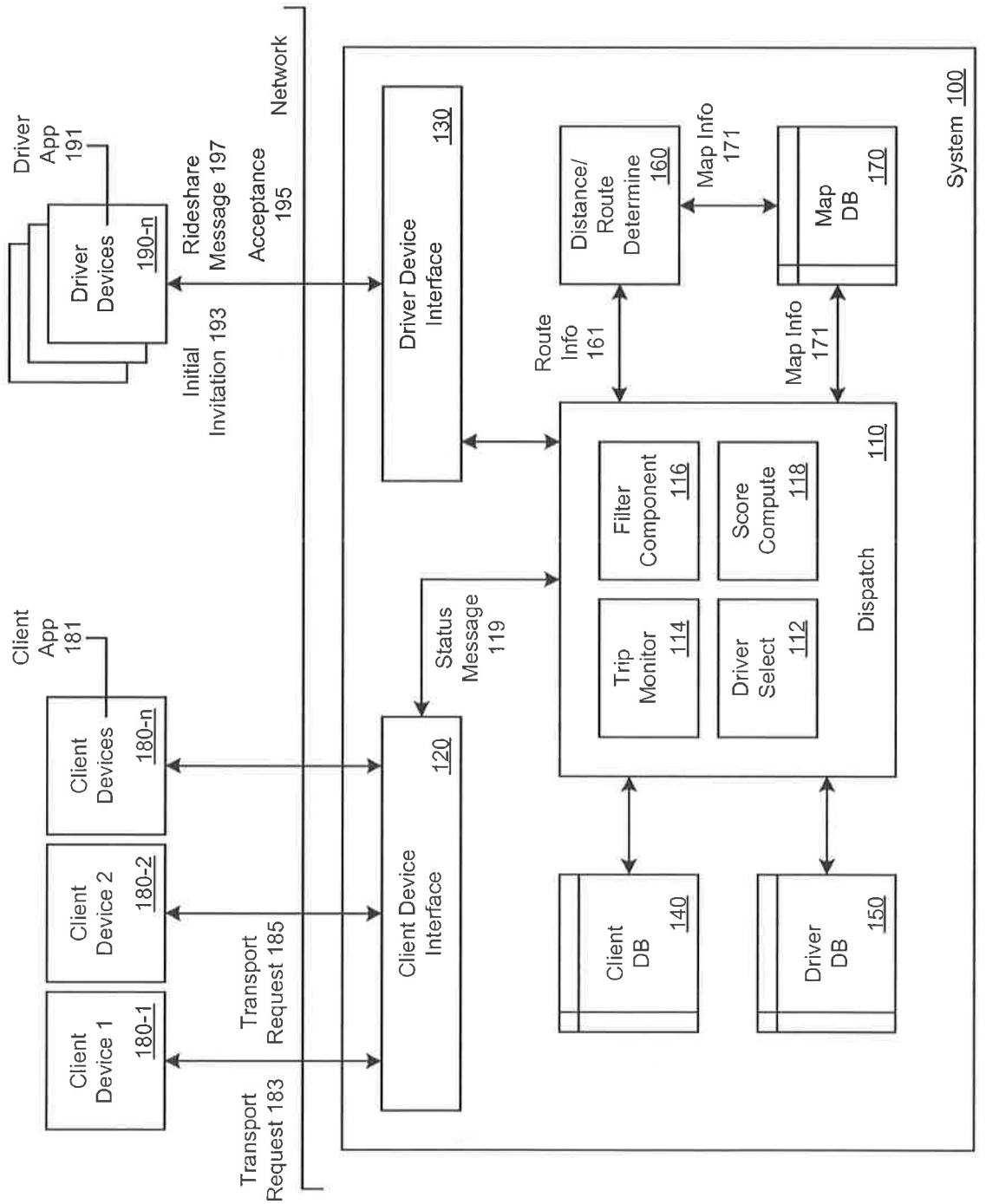

System 100
Network
Driver App 191
Driver Devices 190-n
Rideshare Message 197
Acceptance 195
Initial Invitation 193
Driver Device Interface 130
Distance/ Route Determine 160
Map Info 171
Map DB 170
Route Info 161
Map Info 171
Dispatch 110
Filter Component 116
Score Compute 118
Trip Monitor 114
Driver Select 112
Status Message 119
Client App 181
Client Devices 180-n
Client Device 2 180-2
Client Device 1 180-1
Client Device Interface 120
Transport Request 185
Transport Request 183
Client DB 140
Driver DB 150

FIG. 1

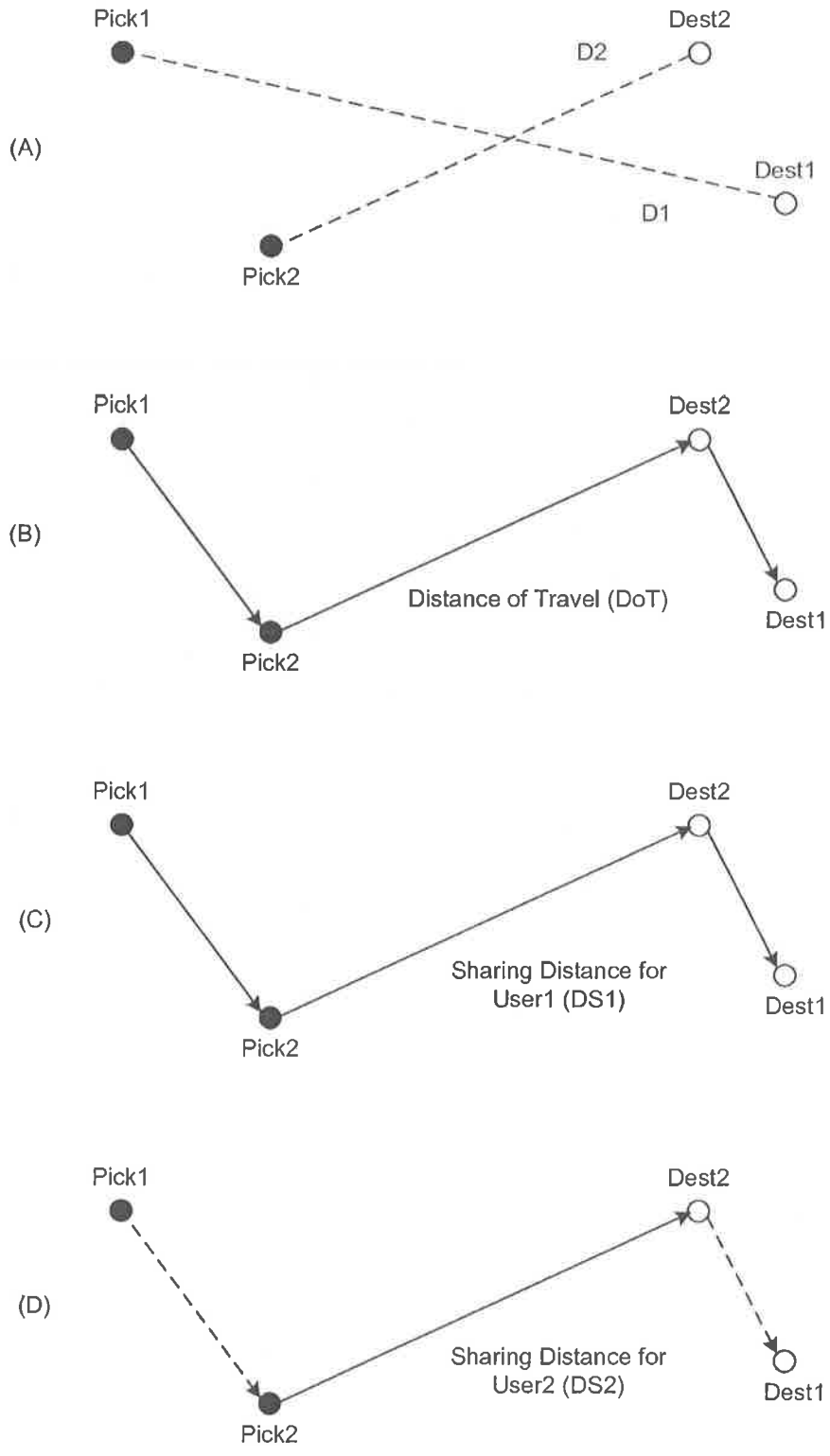

(A)
Pick1
Dest2
D2
Dest1
D1
Pick2
(B)
Pick1
Dest2
Distance of Travel (DoT)
Dest1
Pick2
(C)
Pick1
Dest2
Sharing Distance for
User1 (DS1)
Dest1
Pick2
(D)
Pick1
Dest2
Sharing Distance for
User2 (DS2)
Dest1
Pick2

FIG. 2A

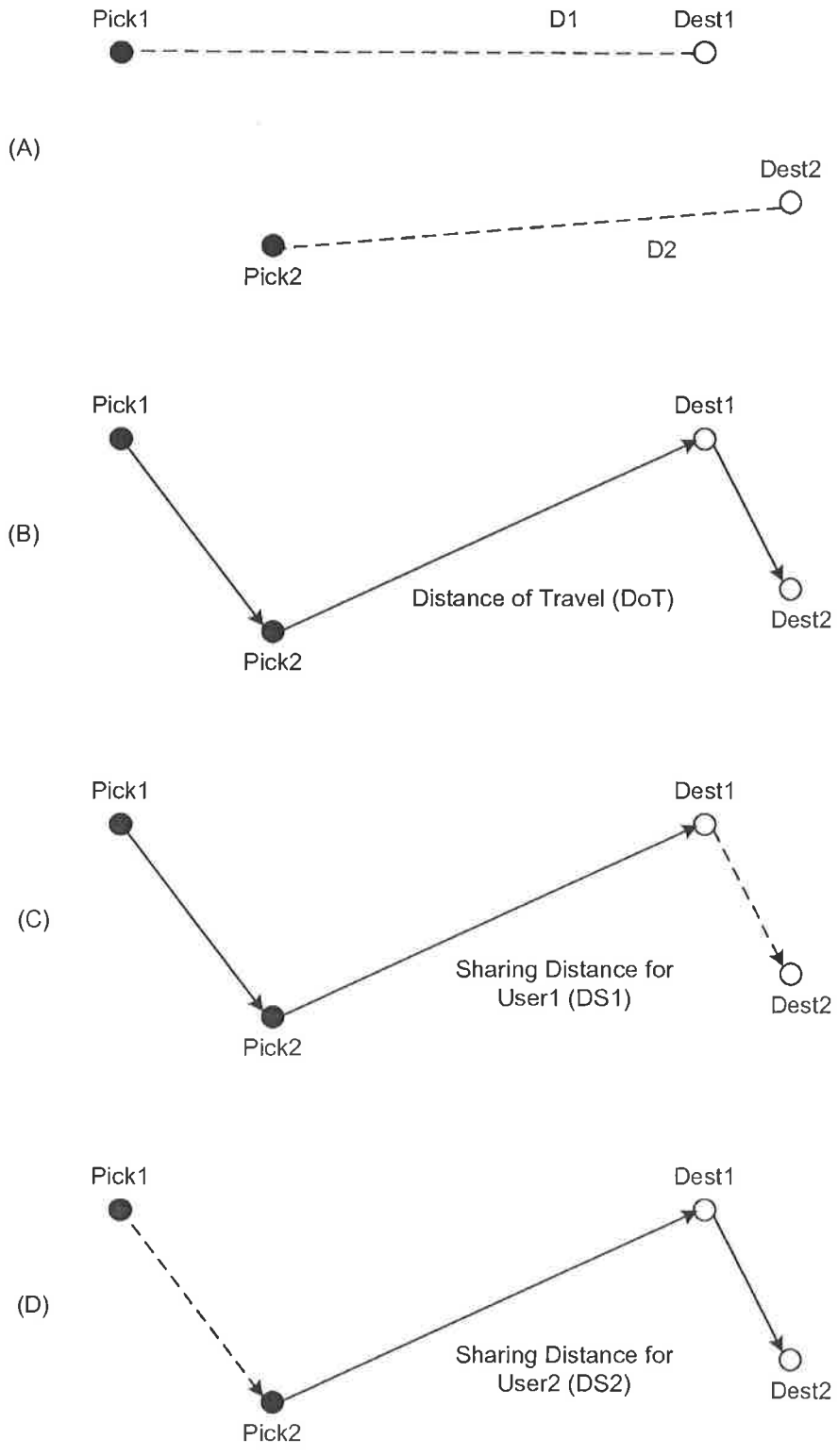

Pick1
D1
Dest1
(A)
Dest2
D2
Pick2
Pick1
Dest1
(B)
Distance of Travel (DoT)
Dest2
Pick2
Pick1
Dest1
(C)
Sharing Distance for
User1 (DS1)
Dest2
Pick2
Pick1
Dest1
(D)
Sharing Distance for
User2 (DS2)
Dest2
Pick2

FIG. 2B

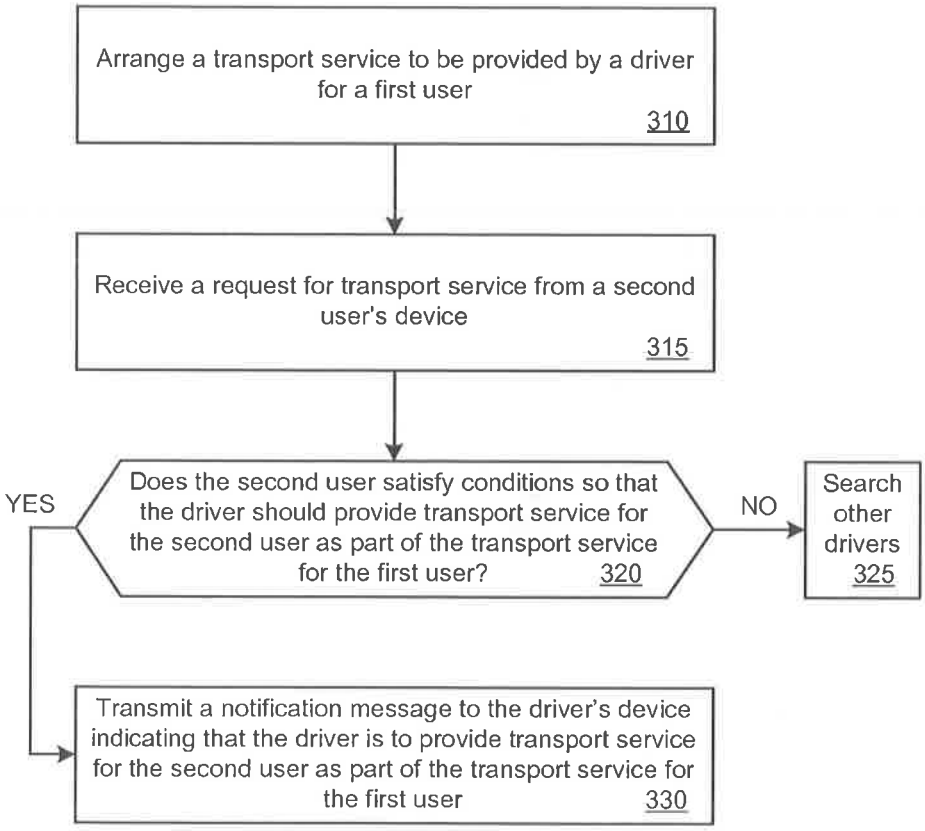

Arrange a transport service to be provided by a driver for a first user
310
Receive a request for transport service from a second user's device
315
Does the second user satisfy conditions so that the driver should provide transport service for the second user as part of the transport service for the first user?
320
YES
NO
Search other drivers
325
Transmit a notification message to the driver's device indicating that the driver is to provide transport service for the second user as part of the transport service for the first user
330

FIG. 3A

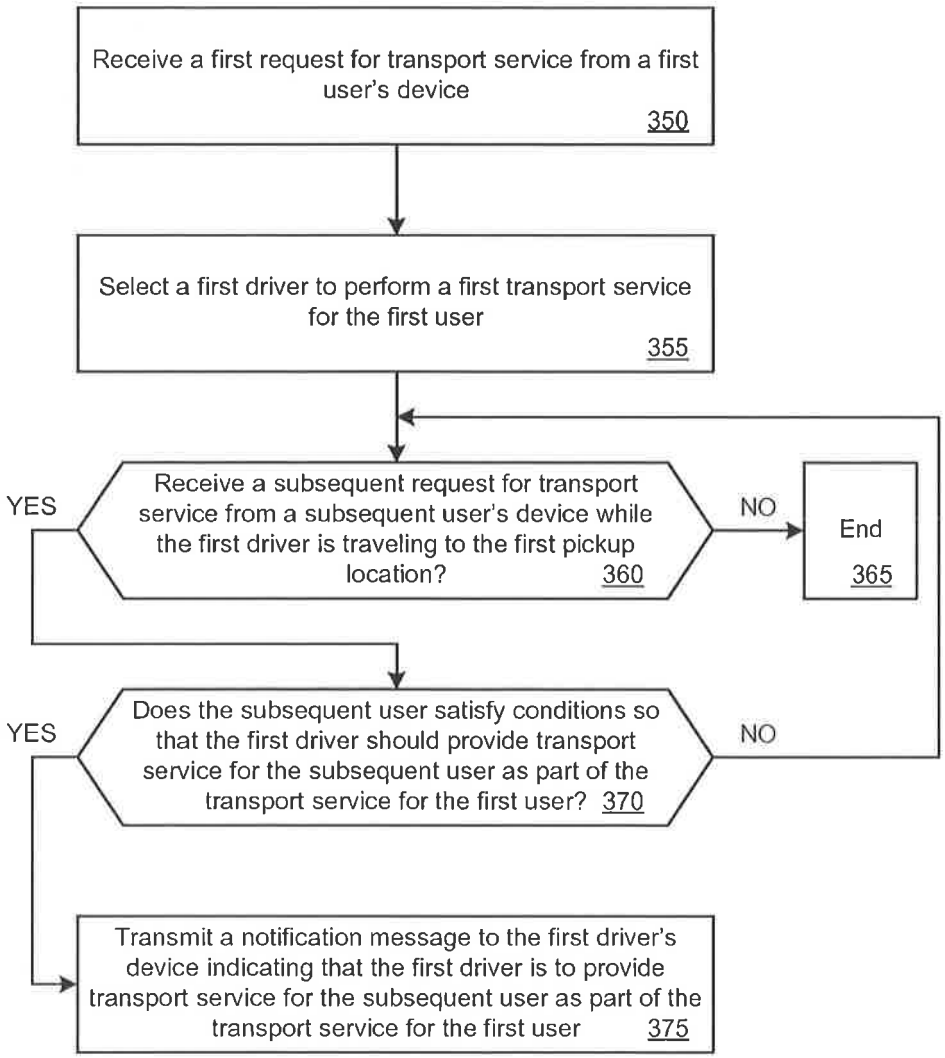

Receive a first request for transport service from a first user's device
350
Select a first driver to perform a first transport service for the first user
355
Receive a subsequent request for transport service from a subsequent user's device while the first driver is traveling to the first pickup location?
360
YES
NO
End
365
Does the subsequent user satisfy conditions so that the first driver should provide transport service for the subsequent user as part of the transport service for the first user?
370
YES
NO
Transmit a notification message to the first driver's device indicating that the first driver is to provide transport service for the subsequent user as part of the transport service for the first user
375

FIG. 3B

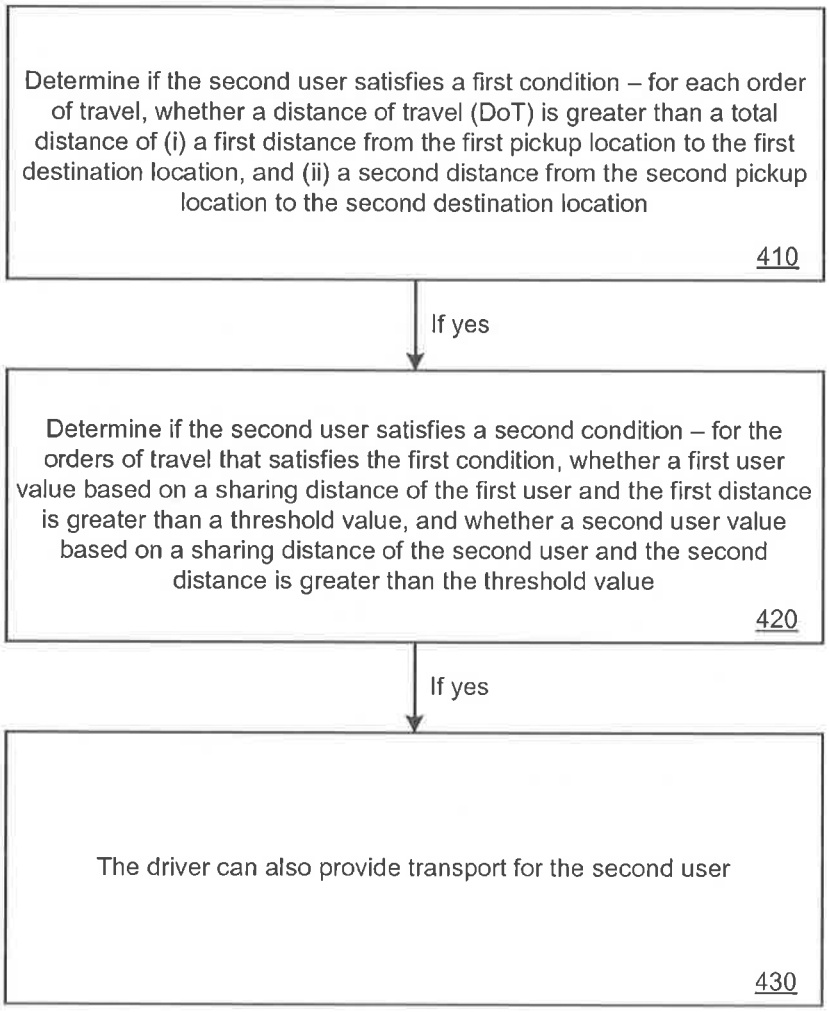

Determine if the second user satisfies a first condition – for each order of travel, whether a distance of travel (DoT) is greater than a total distance of (i) a first distance from the first pickup location to the first destination location, and (ii) a second distance from the second pickup location to the second destination location
410
If yes
Determine if the second user satisfies a second condition – for the orders of travel that satisfies the first condition, whether a first user value based on a sharing distance of the first user and the first distance is greater than a threshold value, and whether a second user value based on a sharing distance of the second user and the second distance is greater than the threshold value
420
If yes
The driver can also provide transport for the second user
430

FIG. 4

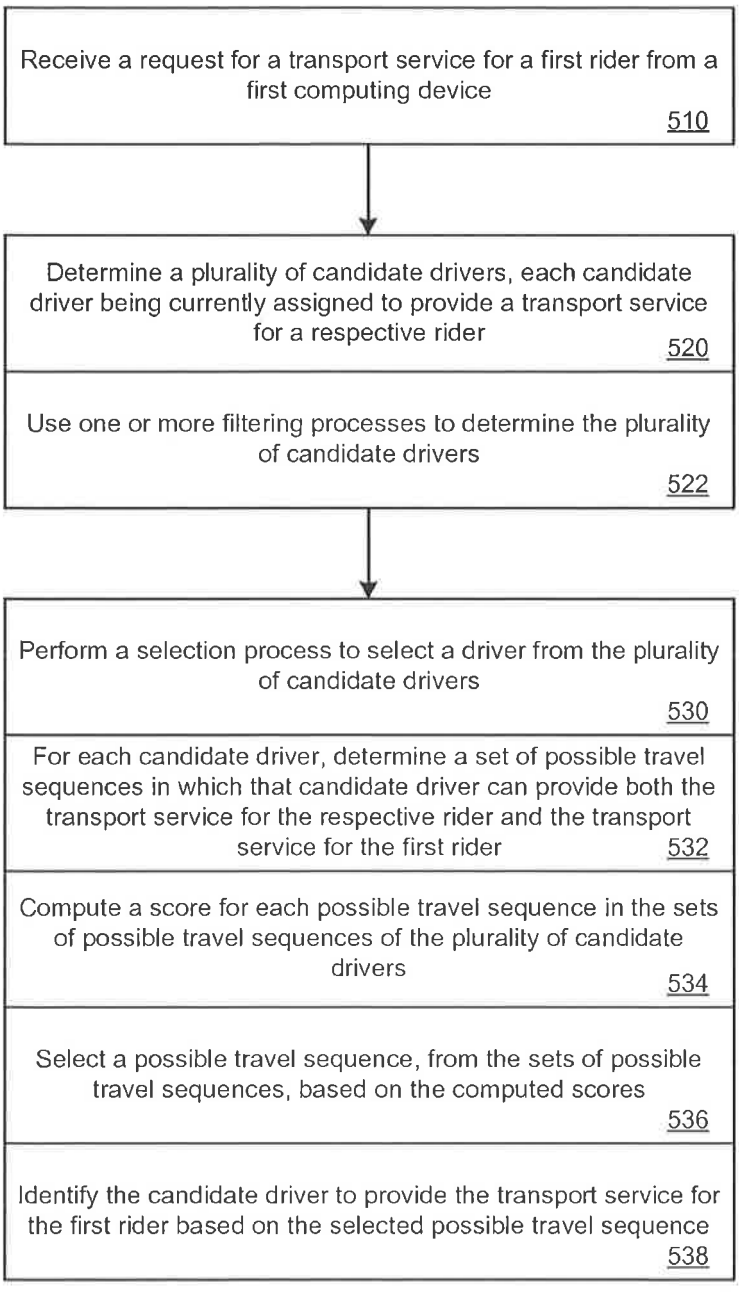

Receive a request for a transport service for a first rider from a first computing device
510
Determine a plurality of candidate drivers, each candidate driver being currently assigned to provide a transport service for a respective rider
520
Use one or more filtering processes to determine the plurality of candidate drivers
522
Perform a selection process to select a driver from the plurality of candidate drivers
530
For each candidate driver, determine a set of possible travel sequences in which that candidate driver can provide both the transport service for the respective rider and the transport service for the first rider
532
Compute a score for each possible travel sequence in the sets of possible travel sequences of the plurality of candidate drivers
534
Select a possible travel sequence, from the sets of possible travel sequences, based on the computed scores
536
Identify the candidate driver to provide the transport service for the first rider based on the selected possible travel sequence
538

FIG. 5A

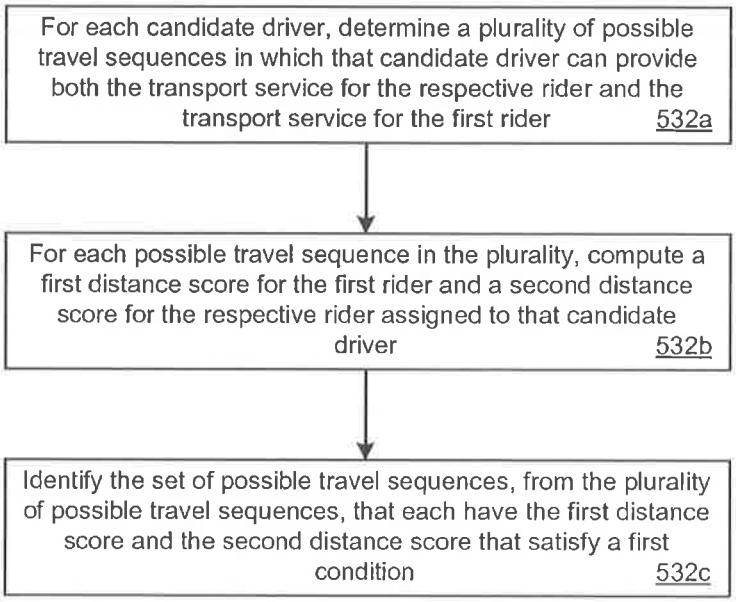

For each candidate driver, determine a plurality of possible travel sequences in which that candidate driver can provide both the transport service for the respective rider and the transport service for the first rider 532a
For each possible travel sequence in the plurality, compute a first distance score for the first rider and a second distance score for the respective rider assigned to that candidate driver 532b
Identify the set of possible travel sequences, from the plurality of possible travel sequences, that each have the first distance score and the second distance score that satisfy a first condition 532c

FIG. 5B

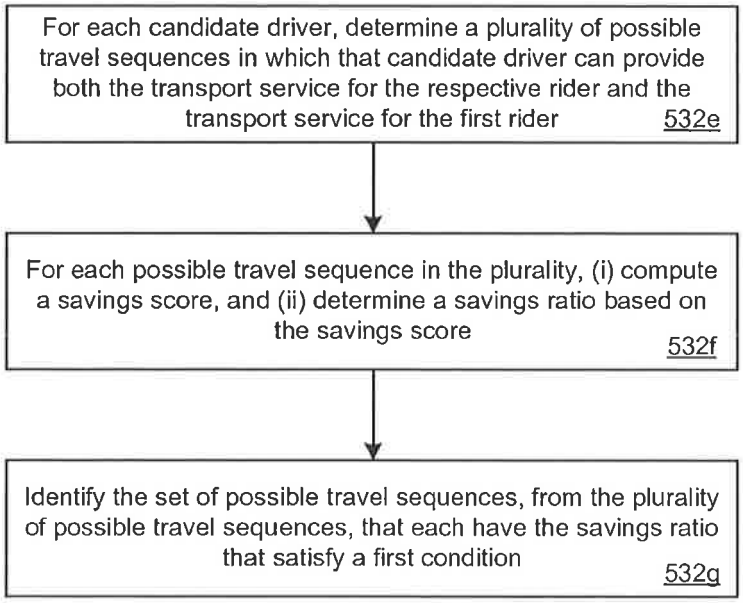

For each candidate driver, determine a plurality of possible travel sequences in which that candidate driver can provide both the transport service for the respective rider and the transport service for the first rider
532e
For each possible travel sequence in the plurality, (i) compute a savings score, and (ii) determine a savings ratio based on the savings score
532f
Identify the set of possible travel sequences, from the plurality of possible travel sequences, that each have the savings ratio that satisfy a first condition
532g

FIG. 5C

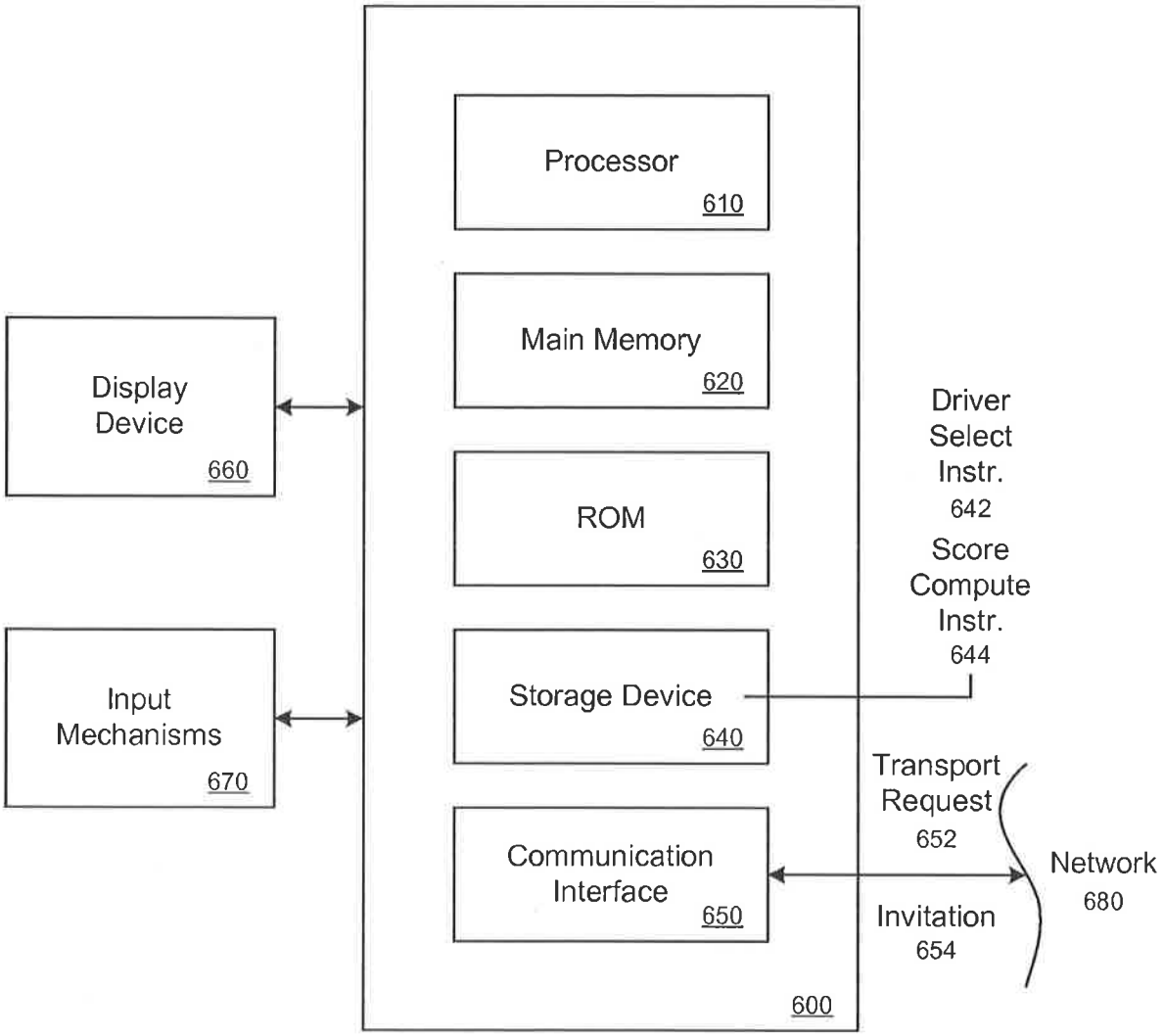

Processor
610
Main Memory
620
ROM
630
Storage Device
640
Communication Interface
650
600
Display Device
660
Input Mechanisms
670
Driver Select Instr.
642
Score Compute Instr.
644
Transport Request
652
Invitation
654
Network
680

FIG. 6

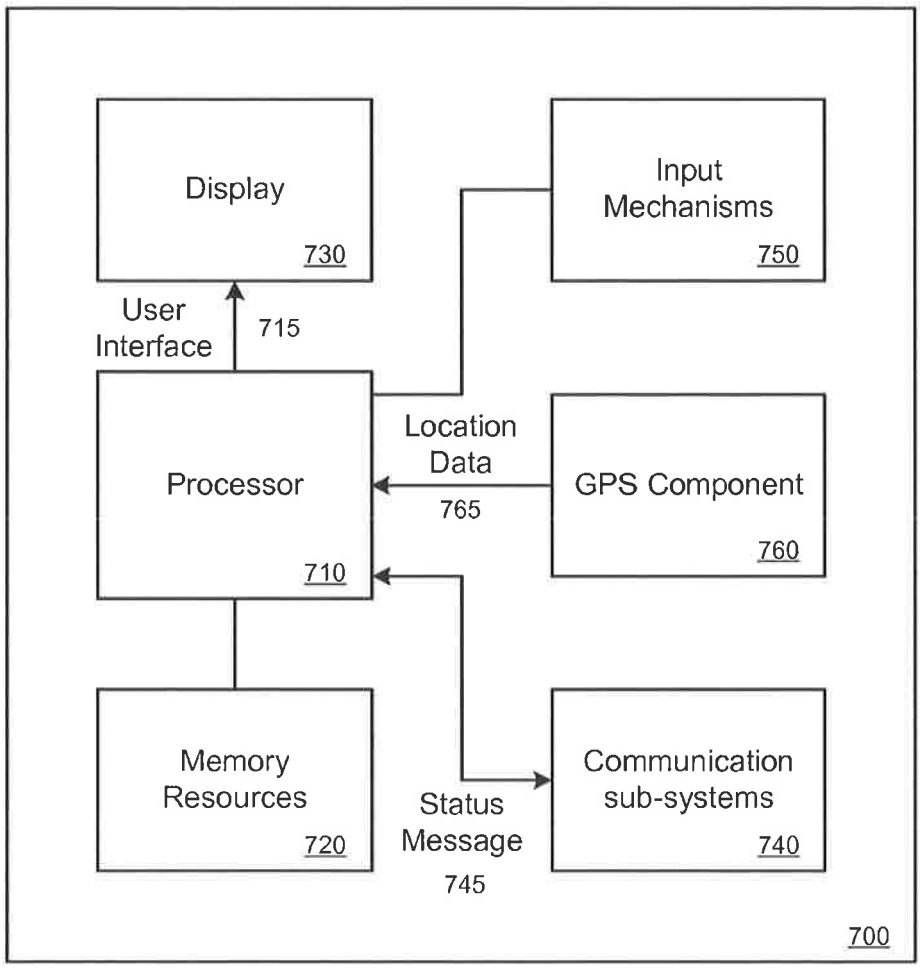

Display
730
Input
Mechanisms
750
User
Interface
715
Processor
710
Location
Data
765
GPS Component
760
Memory
Resources
720
Status
Message
745
Communication
sub-systems
740
700

FIG. 7