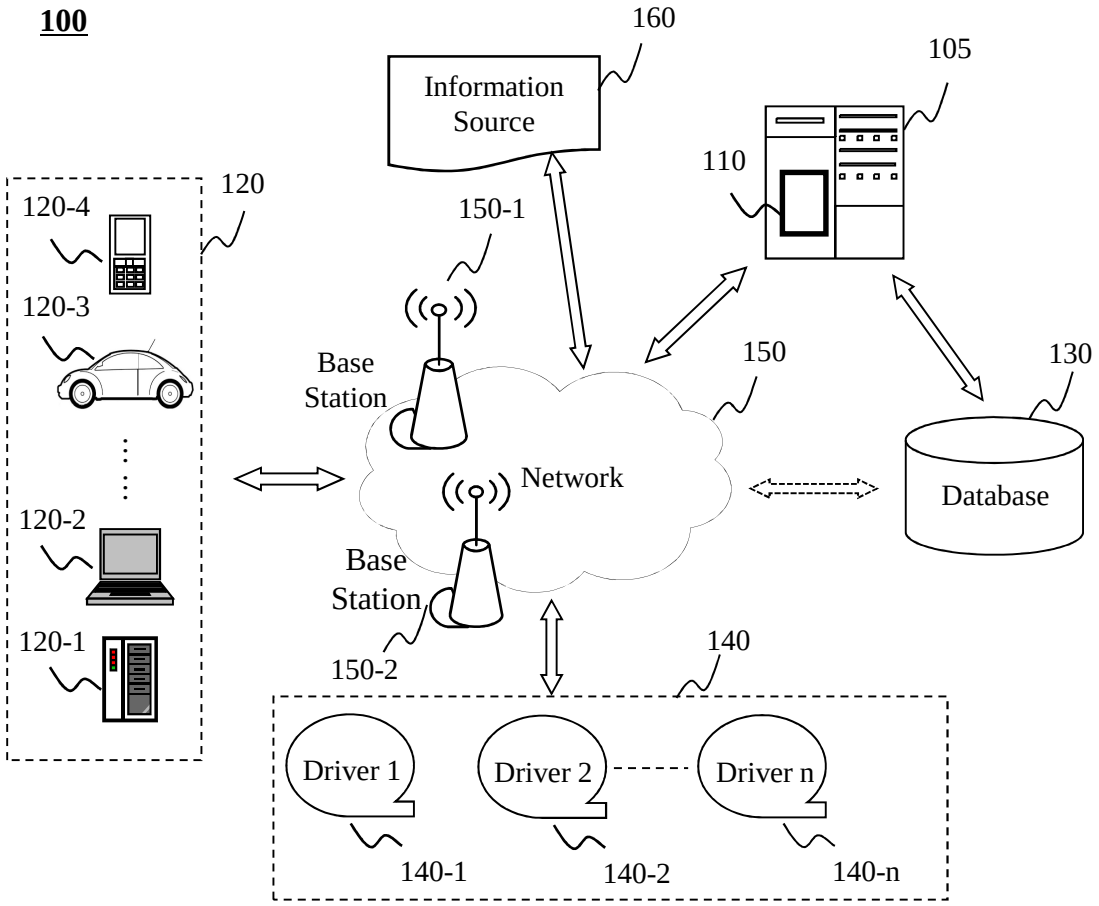

100
160
Information Source
105
110
120
120-4
120-3
120-2
120-1
150-1
Base Station
150
130
Network
Database
Base Station
150-2
140
Driver 1
Driver 2
Driver n
140-1
140-2
140-n

FIG. 1

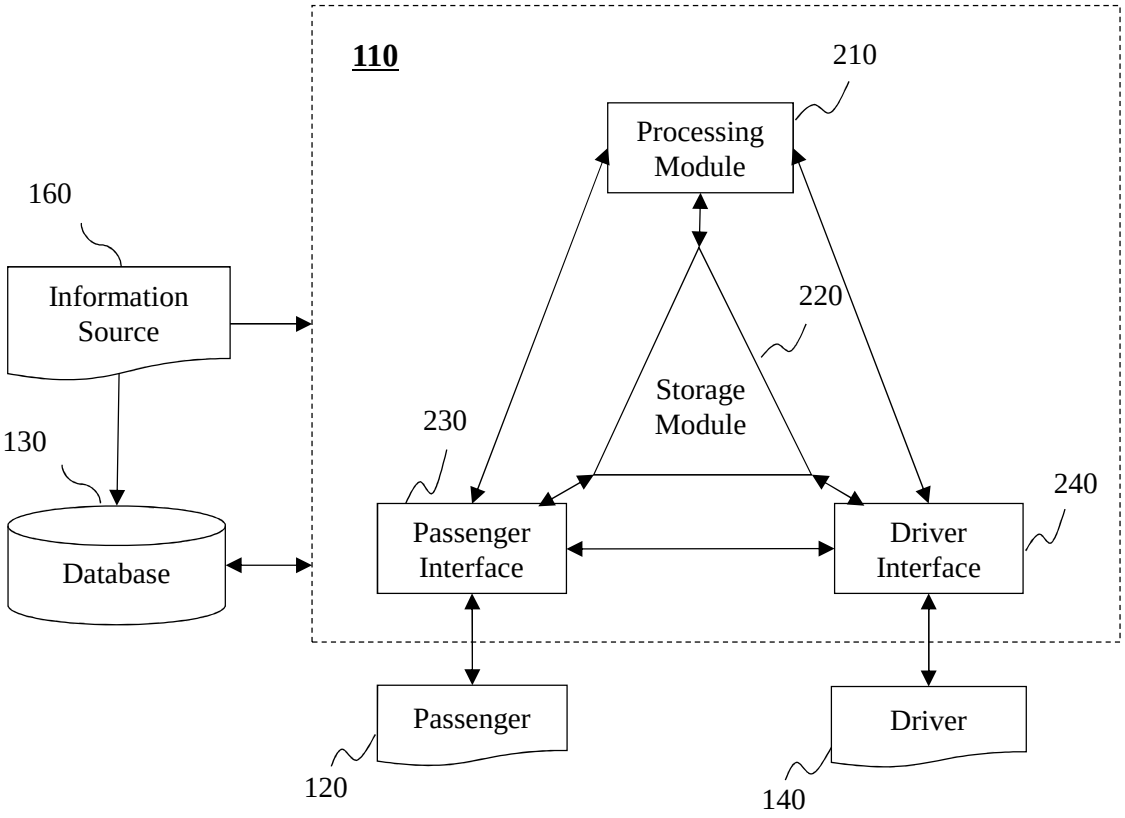

110
210
Processing Module
160
Information Source
220
Storage Module
230
130
240
Database
Passenger Interface
Driver Interface
Passenger
Driver
120
140

FIG. 2

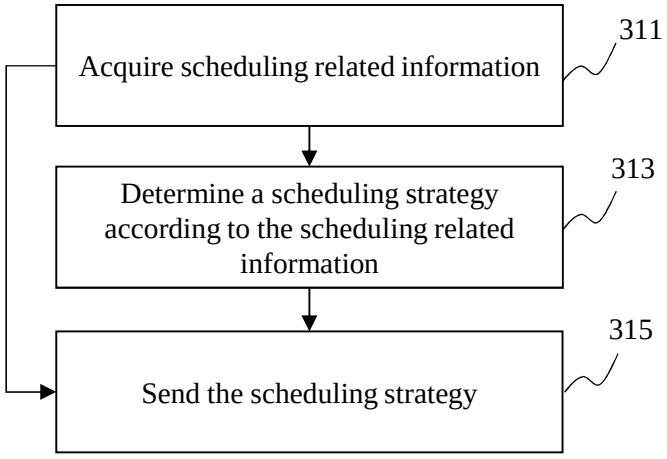


FIG. 3

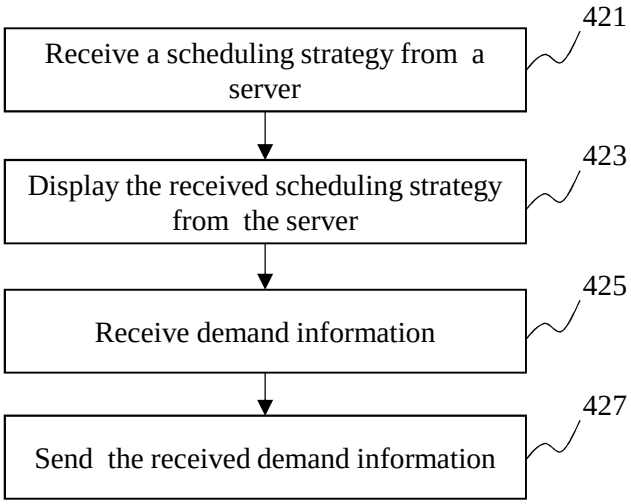


FIG. 4-A

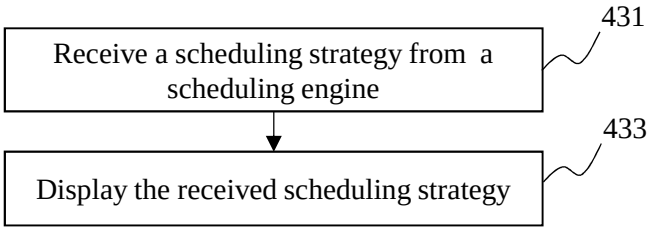


FIG. 4-B

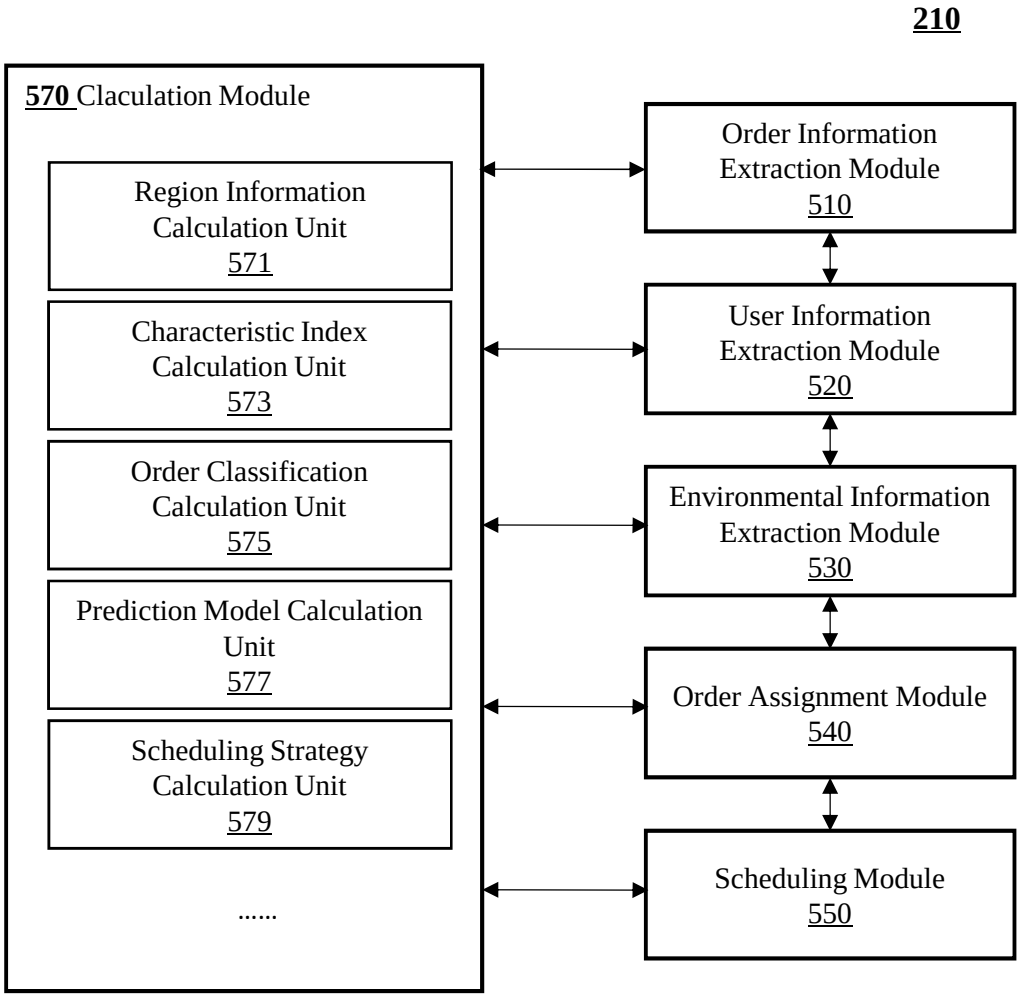

210
570 Claculation Module
Region Information Calculation Unit 571
Characteristic Index Calculation Unit 573
Order Classification Calculation Unit 575
Prediction Model Calculation Unit 577
Scheduling Strategy Calculation Unit 579
.....
Order Information Extraction Module 510
User Information Extraction Module 520
Environmental Information Extraction Module 530
Order Assignment Module 540
Scheduling Module 550

FIG. 5

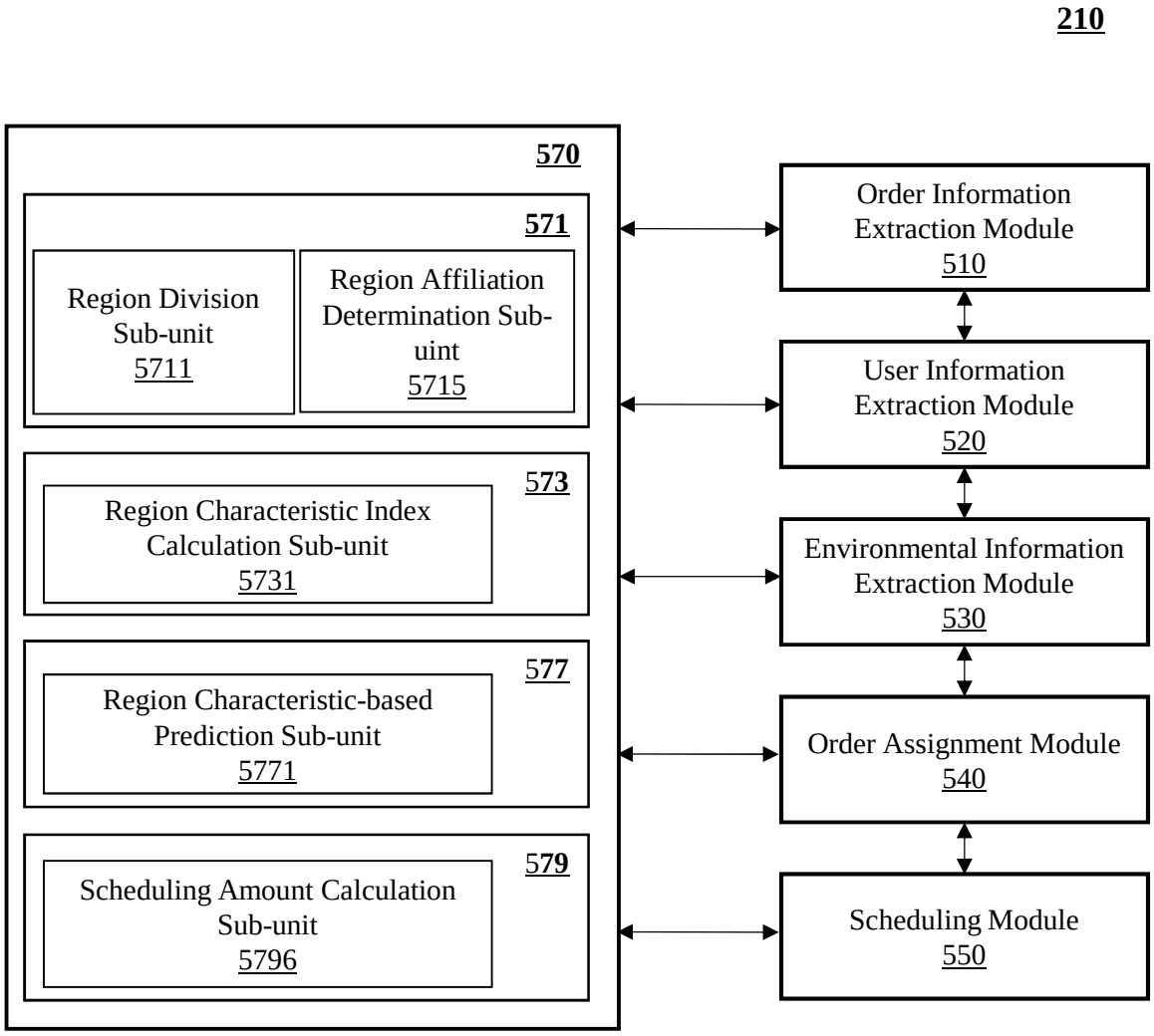

210
570
571
Region Division Sub-unit 5711
Region Affiliation Determination Sub-uint 5715
573
Region Characteristic Index Calculation Sub-unit 5731
577
Region Characteristic-based Prediction Sub-unit 5771
579
Scheduling Amount Calculation Sub-unit 5796
Order Information Extraction Module 510
User Information Extraction Module 520
Environmental Information Extraction Module 530
Order Assignment Module 540
Scheduling Module 550

FIG. 6

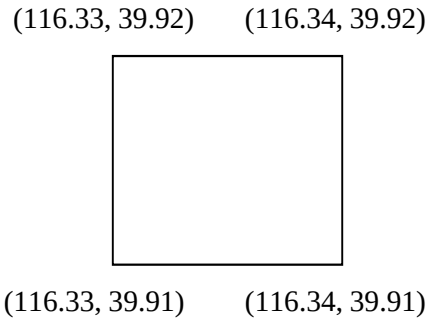


FIG. 7-A

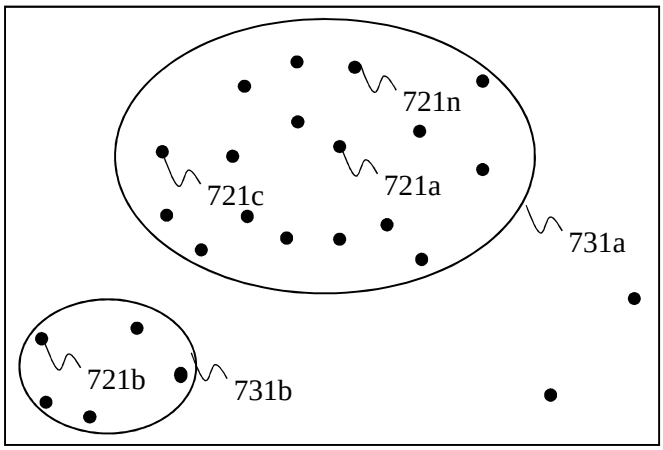


FIG. 7-B

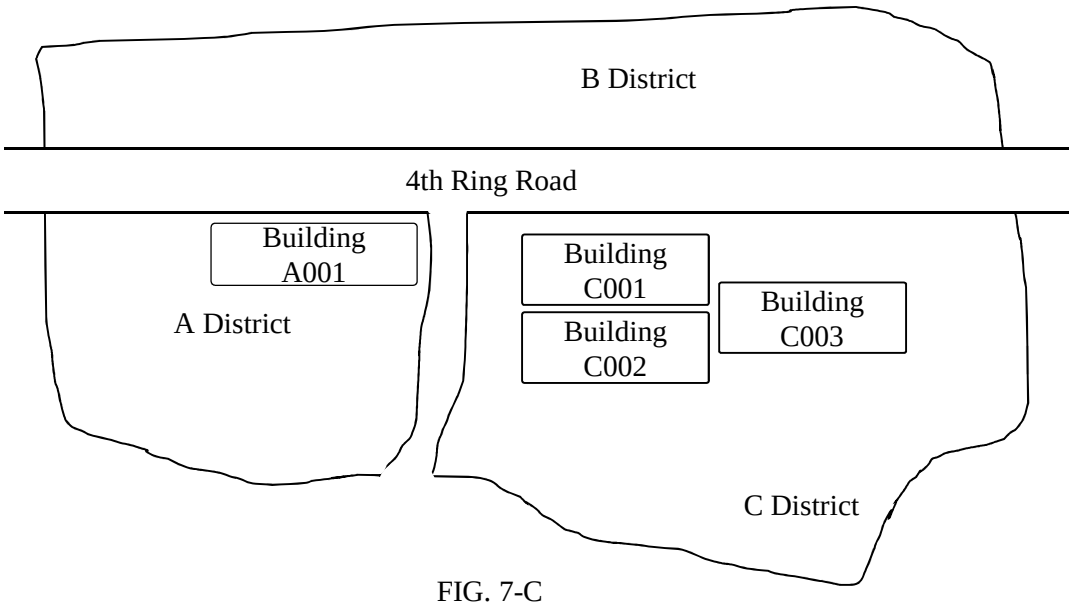


FIG. 7-C

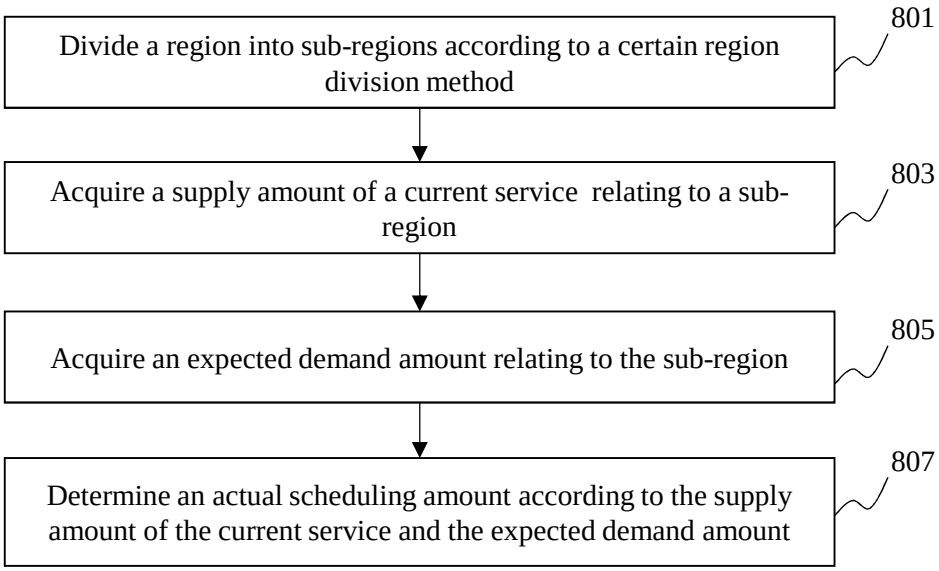

Divide a region into sub-regions according to a certain region division method
801
Acquire a supply amount of a current service relating to a sub-region
803
Acquire an expected demand amount relating to the sub-region
805
Determine an actual scheduling amount according to the supply amount of the current service and the expected demand amount
807

FIG. 8

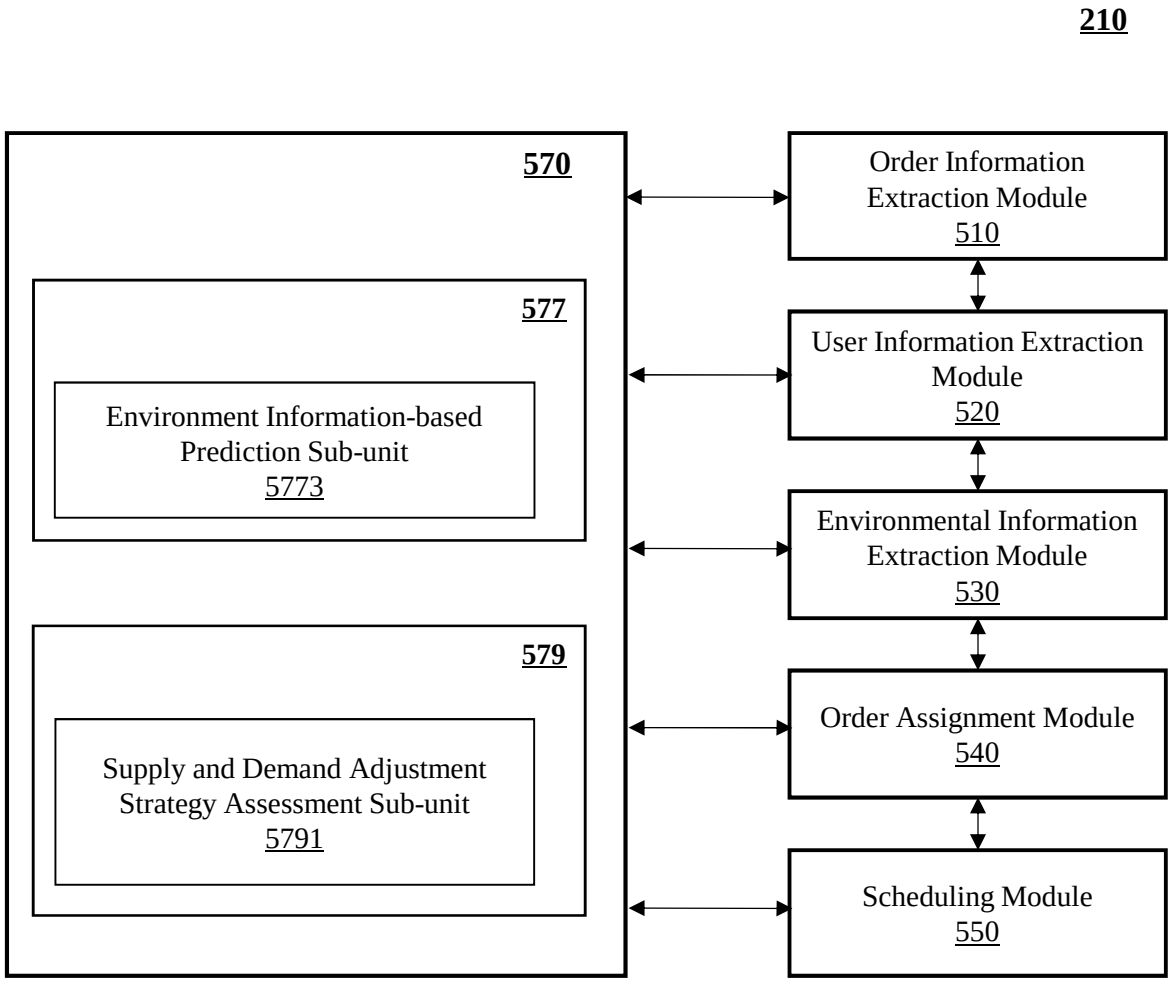

210
570
577
Environment Information-based Prediction Sub-unit 5773
579
Supply and Demand Adjustment Strategy Assessment Sub-unit 5791
Order Information Extraction Module 510
User Information Extraction Module 520
Environmental Information Extraction Module 530
Order Assignment Module 540
Scheduling Module 550

FIG. 9

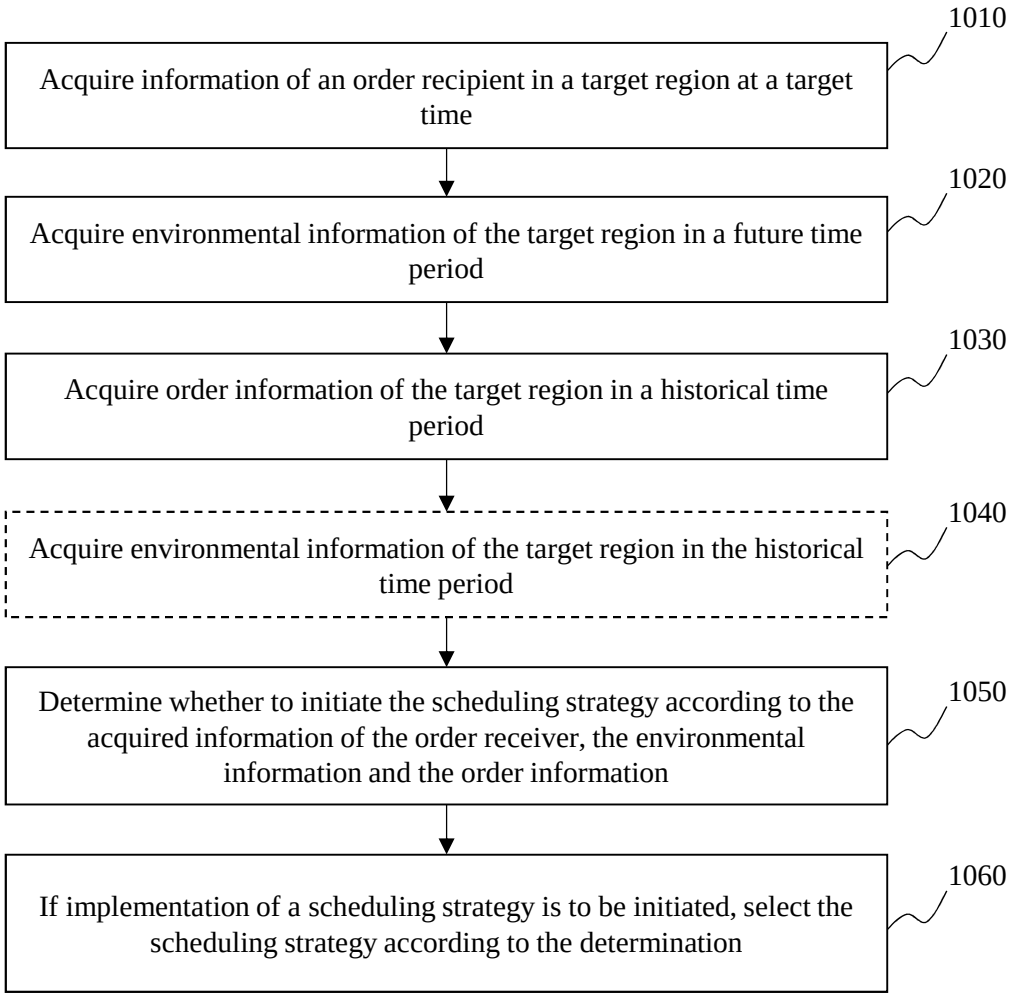

1010
Acquire information of an order recipient in a target region at a target time
1020
Acquire environmental information of the target region in a future time period
1030
Acquire order information of the target region in a historical time period
1040
Acquire environmental information of the target region in the historical time period
1050
Determine whether to initiate the scheduling strategy according to the acquired information of the order receiver, the environmental information and the order information
1060
If implementation of a scheduling strategy is to be initiated, select the scheduling strategy according to the determination

FIG. 10

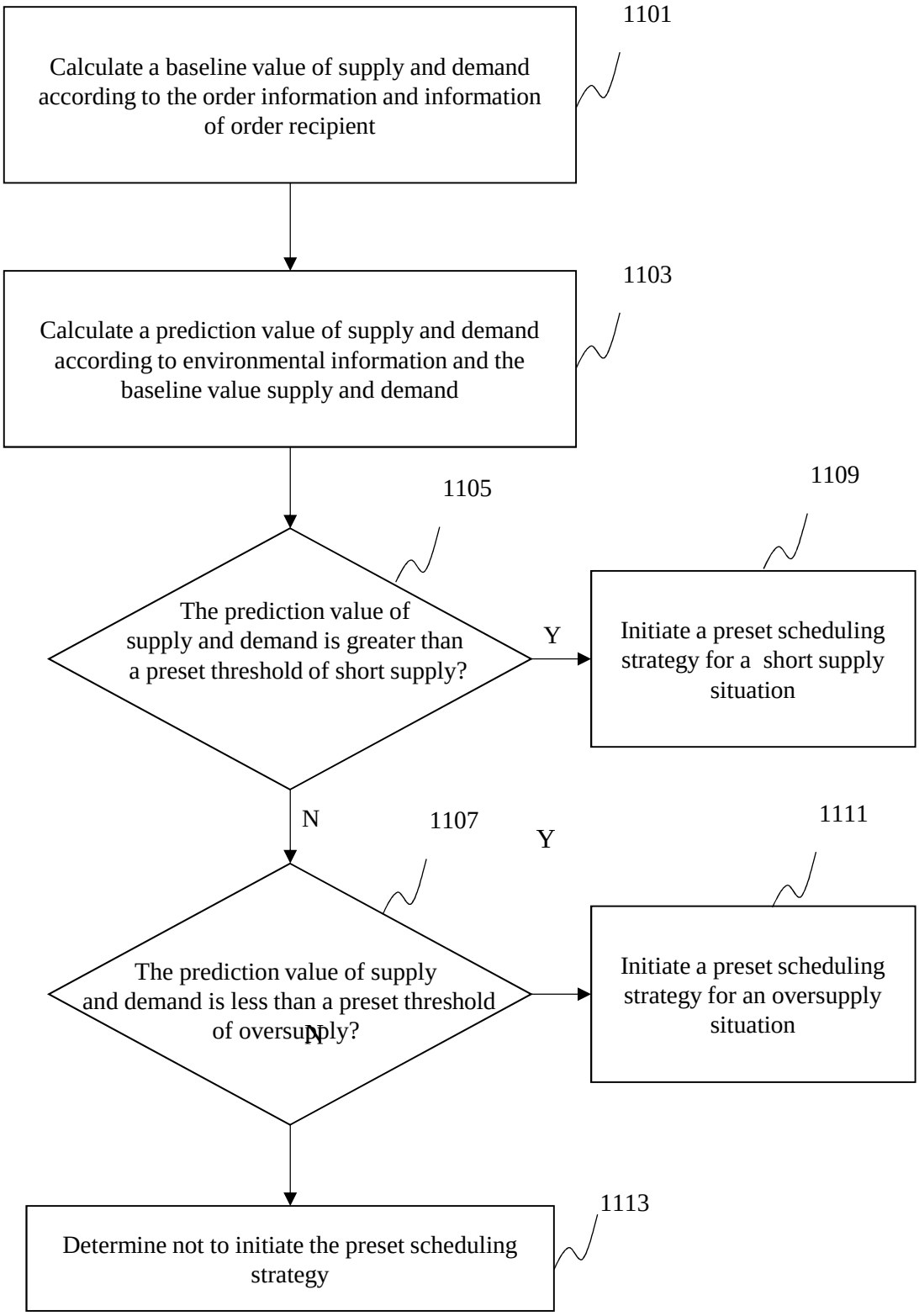

1101
Calculate a baseline value of supply and demand according to the order information and information of order recipient
1103
Calculate a prediction value of supply and demand according to environmental information and the baseline value supply and demand
1105
The prediction value of supply and demand is greater than a preset threshold of short supply?
Y
1109
Initiate a preset scheduling strategy for a short supply situation
N
1107
The prediction value of supply and demand is less than a preset threshold of oversupply?
Y
1111
Initiate a preset scheduling strategy for an oversupply situation
N
1113
Determine not to initiate the preset scheduling strategy

FIG. 11

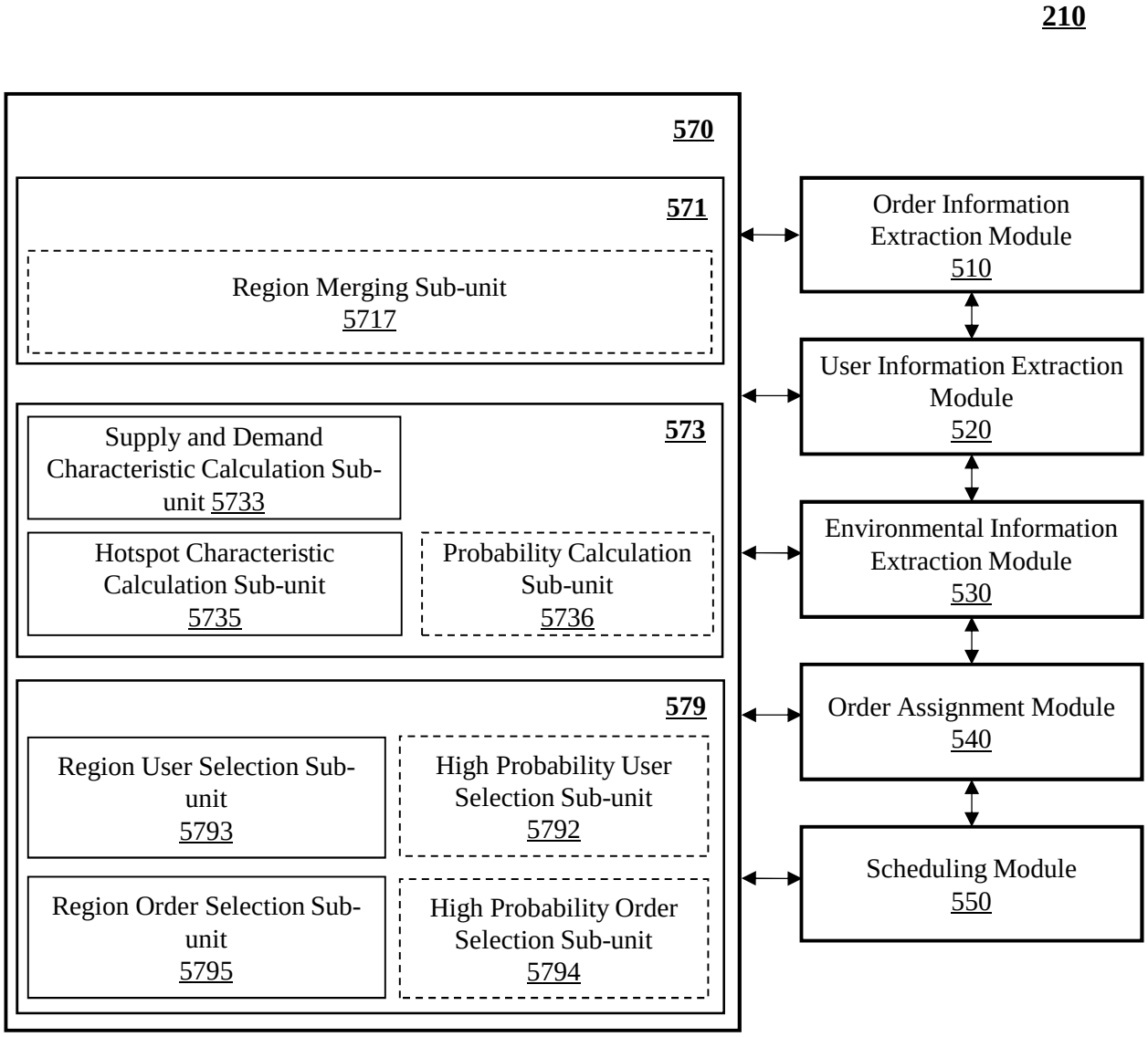

210
570
571
Region Merging Sub-unit
5717
573
Supply and Demand Characteristic Calculation Sub-unit 5733
Hotspot Characteristic Calculation Sub-unit
5735
Probability Calculation Sub-unit
5736
579
Region User Selection Sub-unit
5793
High Probability User Selection Sub-unit
5792
Region Order Selection Sub-unit
5795
High Probability Order Selection Sub-unit
5794
Order Information Extraction Module
510
User Information Extraction Module
520
Environmental Information Extraction Module
530
Order Assignment Module
540
Scheduling Module
550

FIG. 12

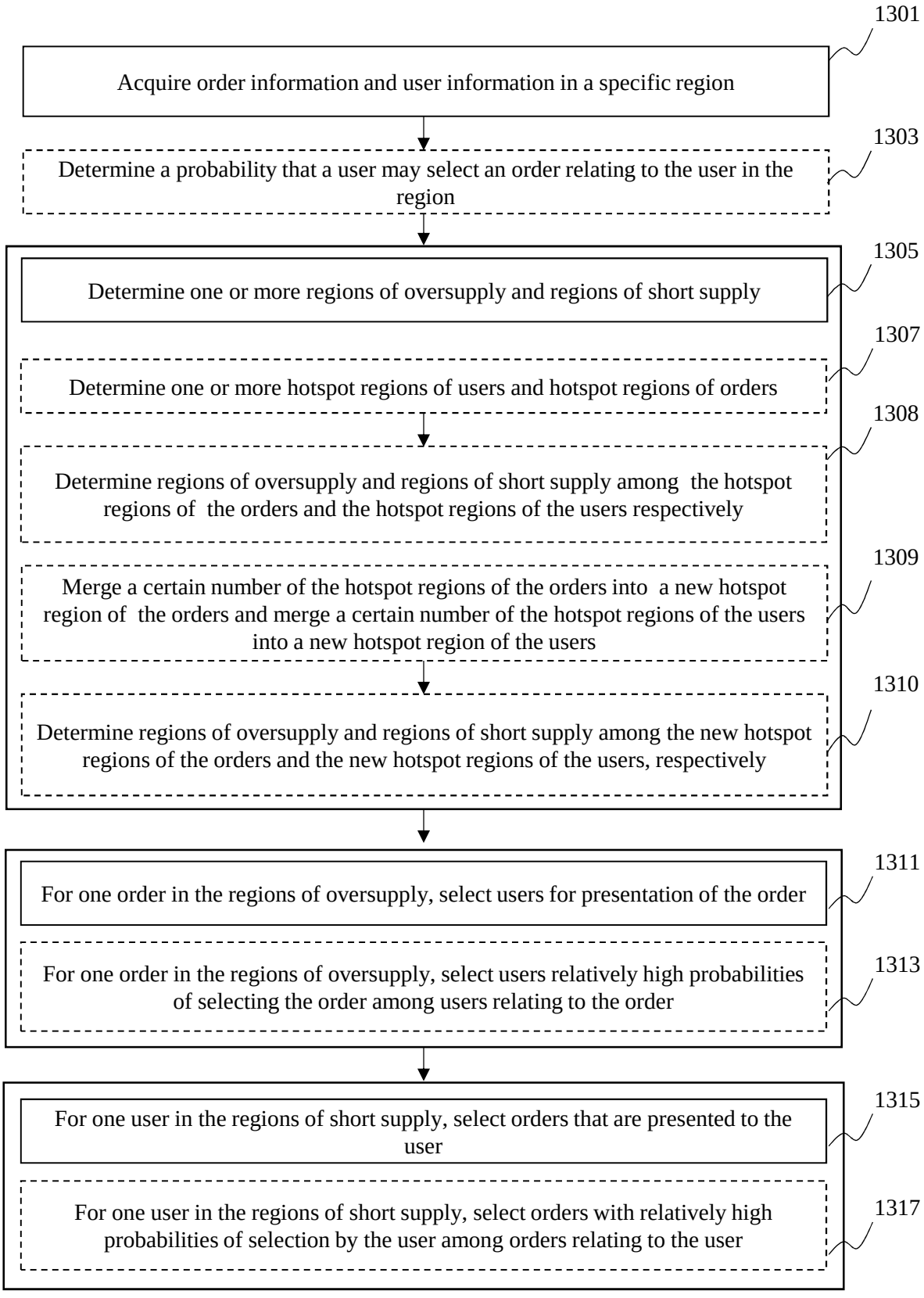

1301
Acquire order information and user information in a specific region
1303
Determine a probability that a user may select an order relating to the user in the region
1305
Determine one or more regions of oversupply and regions of short supply
1307
Determine one or more hotspot regions of users and hotspot regions of orders
1308
Determine regions of oversupply and regions of short supply among the hotspot regions of the orders and the hotspot regions of the users respectively
1309
Merge a certain number of the hotspot regions of the orders into a new hotspot region of the orders and merge a certain number of the hotspot regions of the users into a new hotspot region of the users
1310
Determine regions of oversupply and regions of short supply among the new hotspot regions of the orders and the new hotspot regions of the users, respectively
1311
For one order in the regions of oversupply, select users for presentation of the order
1313
For one order in the regions of oversupply, select users relatively high probabilities of selecting the order among users relating to the order
1315
For one user in the regions of short supply, select orders that are presented to the user
1317
For one user in the regions of short supply, select orders with relatively high probabilities of selection by the user among orders relating to the user

FIG. 13

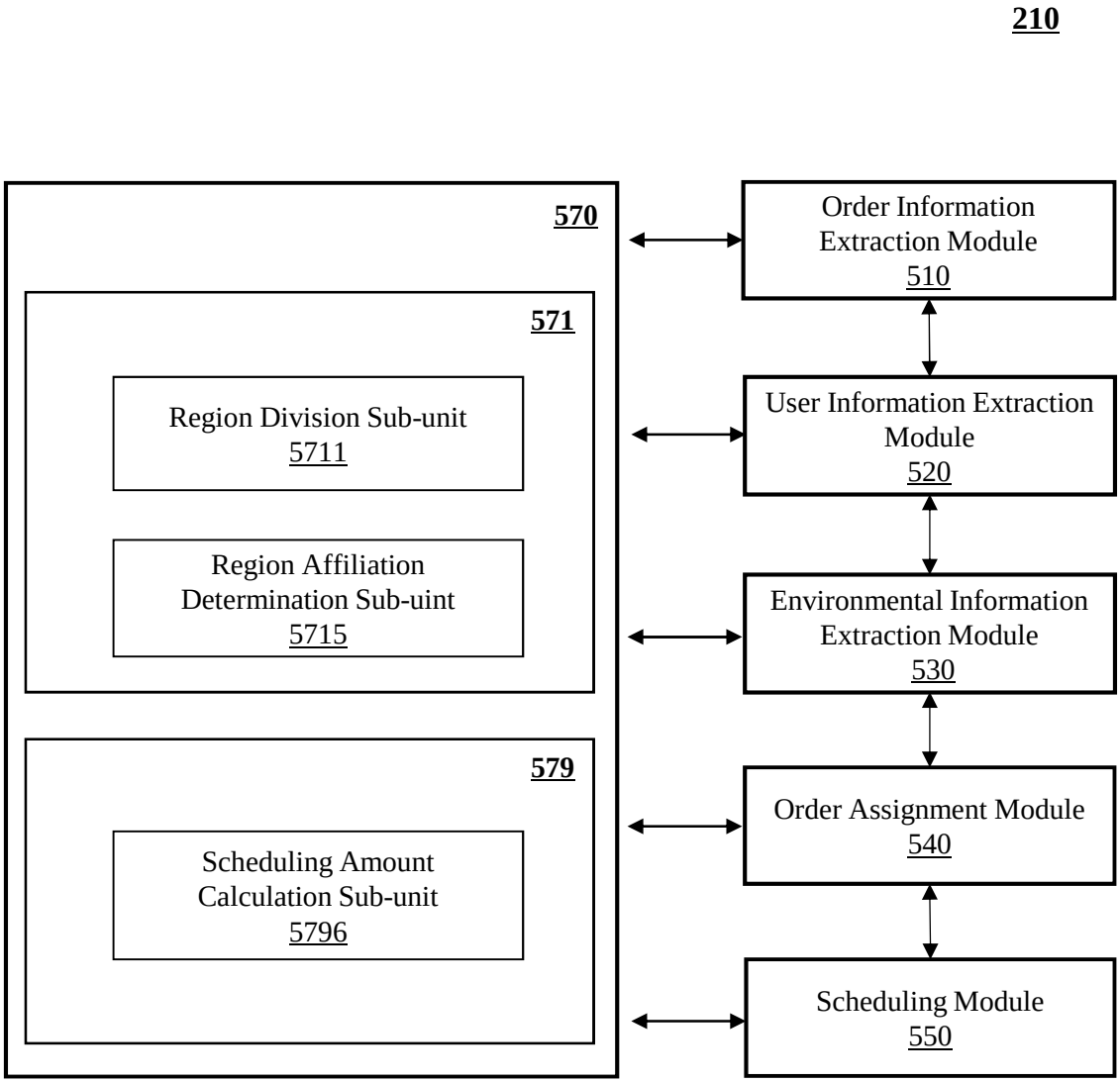

210
570
571
Region Division Sub-unit
5711
Region Affiliation
Determination Sub-uint
5715
579
Scheduling Amount
Calculation Sub-unit
5796
Order Information
Extraction Module
510
User Information Extraction
Module
520
Environmental Information
Extraction Module
530
Order Assignment Module
540
Scheduling Module
550

FIG. 14

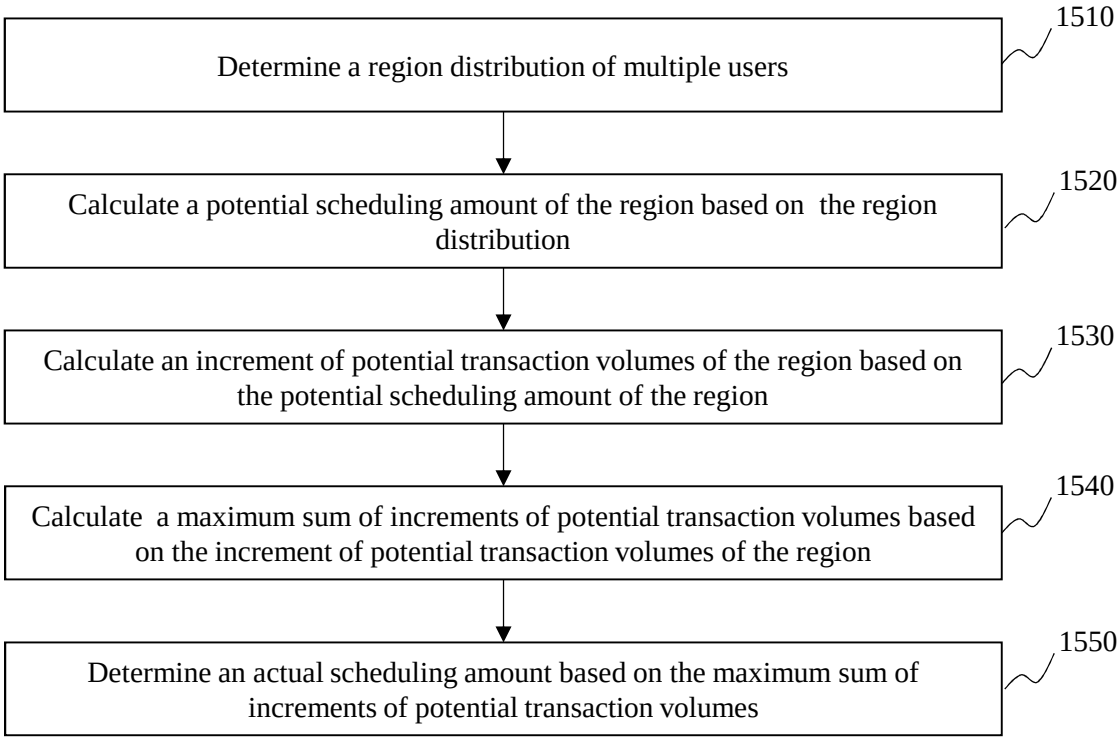

Determine a region distribution of multiple users
1510
Calculate a potential scheduling amount of the region based on the region distribution
1520
Calculate an increment of potential transaction volumes of the region based on the potential scheduling amount of the region
1530
Calculate a maximum sum of increments of potential transaction volumes based on the increment of potential transaction volumes of the region
1540
Determine an actual scheduling amount based on the maximum sum of increments of potential transaction volumes
1550

FIG. 15

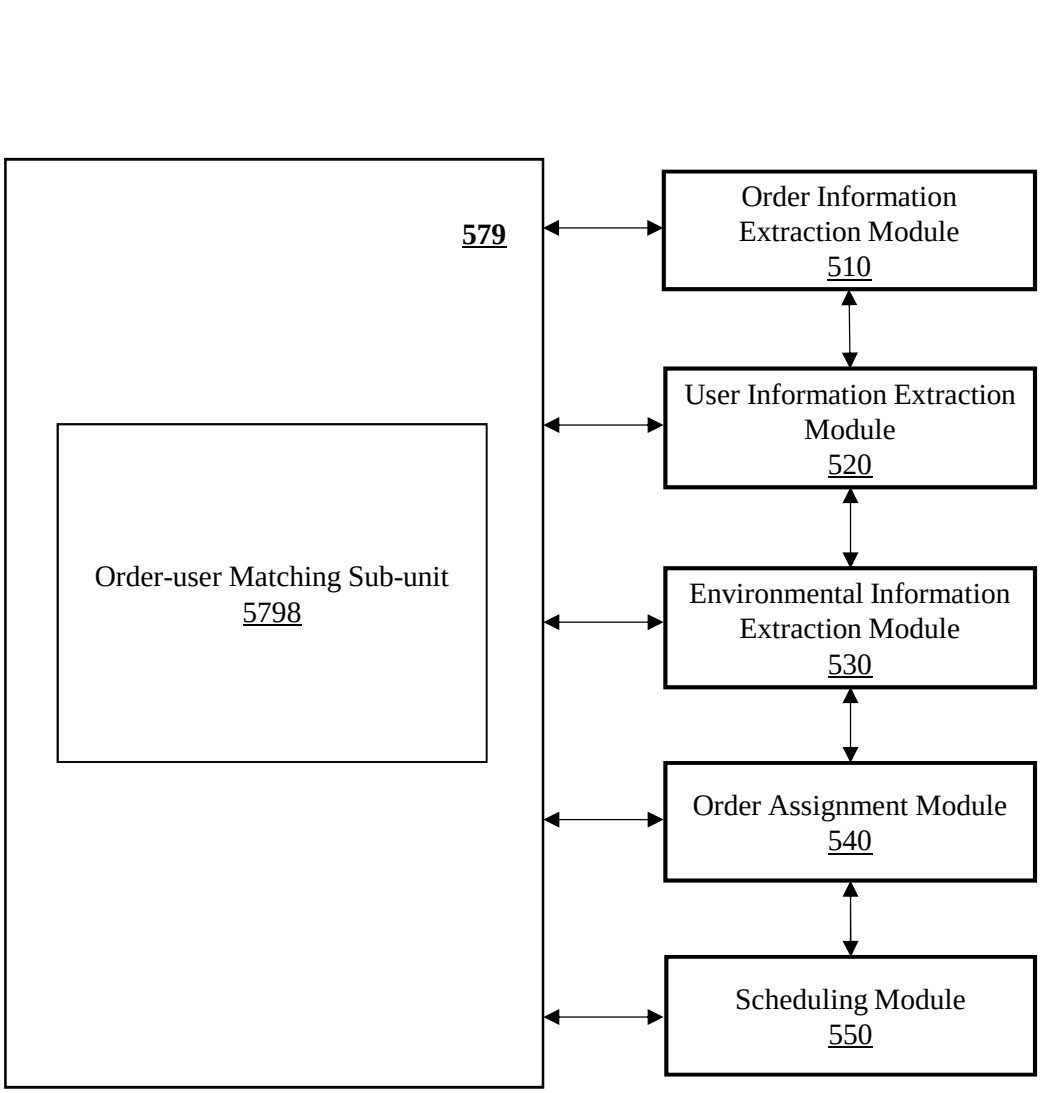

210
579
Order-user Matching Sub-unit
5798
Order Information Extraction Module
510
User Information Extraction Module
520
Environmental Information Extraction Module
530
Order Assignment Module
540
Scheduling Module
550

FIG. 16

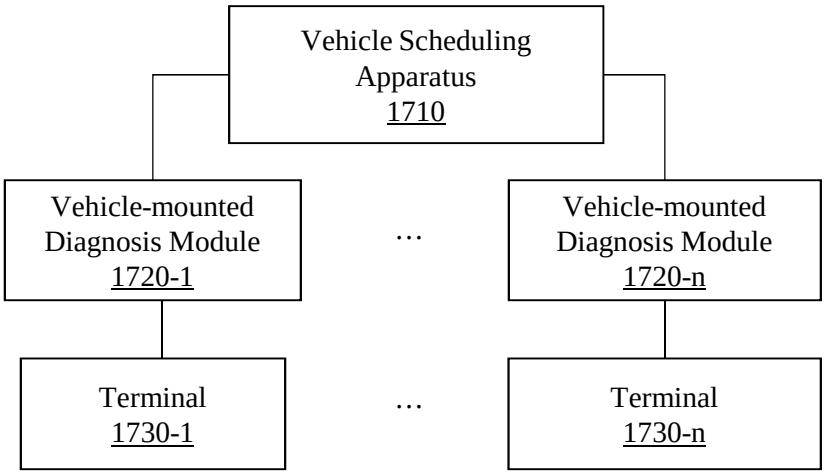

Vehicle Scheduling Apparatus
1710
Vehicle-mounted Diagnosis Module
1720-1
…
Vehicle-mounted Diagnosis Module
1720-n
Terminal
1730-1
…
Terminal
1730-n

FIG. 17

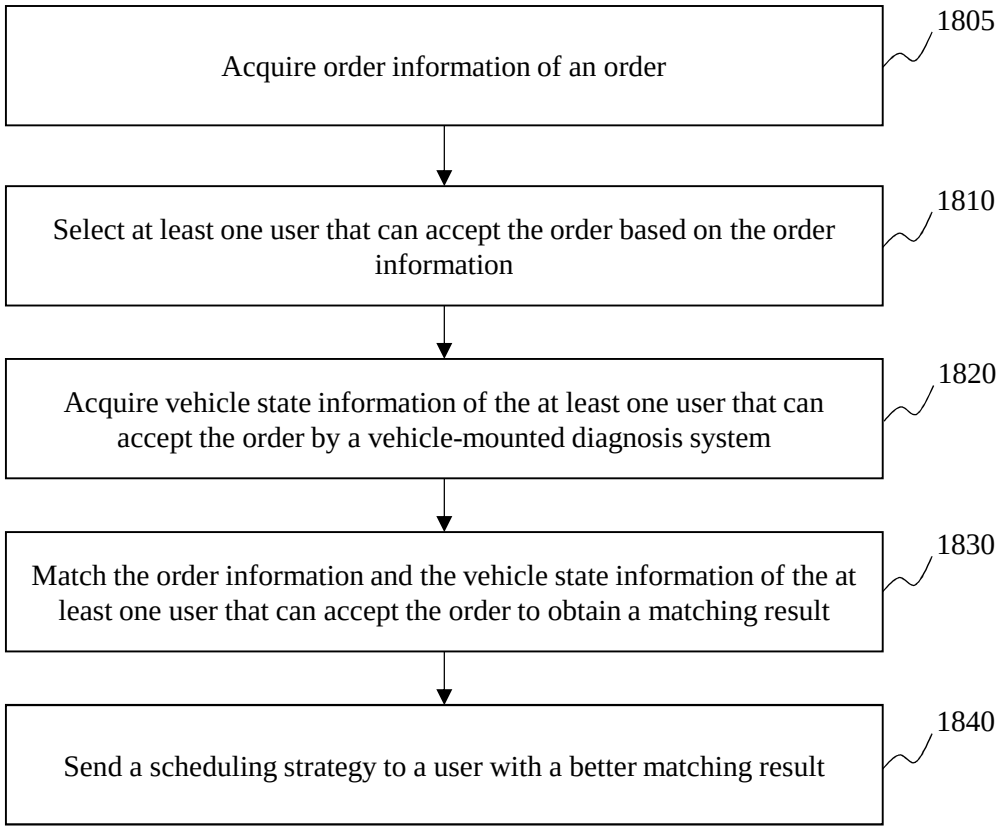

Acquire order information of an order
1805
Select at least one user that can accept the order based on the order information
1810
Acquire vehicle state information of the at least one user that can accept the order by a vehicle-mounted diagnosis system
1820
Match the order information and the vehicle state information of the at least one user that can accept the order to obtain a matching result
1830
Send a scheduling strategy to a user with a better matching result
1840

FIG. 18

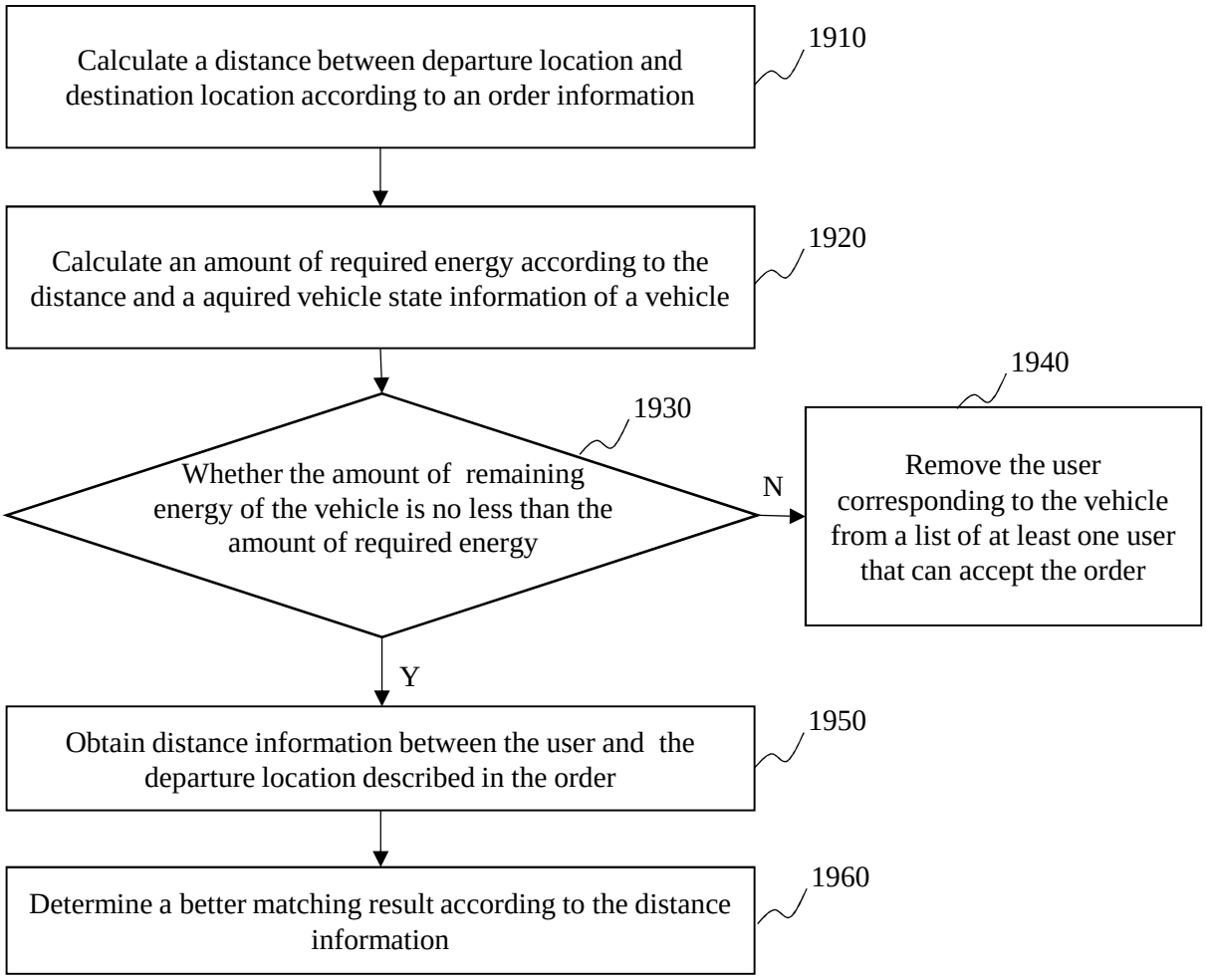

Calculate a distance between departure location and destination location according to an order information
1910
Calculate an amount of required energy according to the distance and a aquired vehicle state information of a vehicle
1920
1930
Whether the amount of remaining energy of the vehicle is no less than the amount of required energy
N
1940
Remove the user corresponding to the vehicle from a list of at least one user that can accept the order
Y
Obtain distance information between the user and the departure location described in the order
1950
Determine a better matching result according to the distance information
1960

FIG. 19

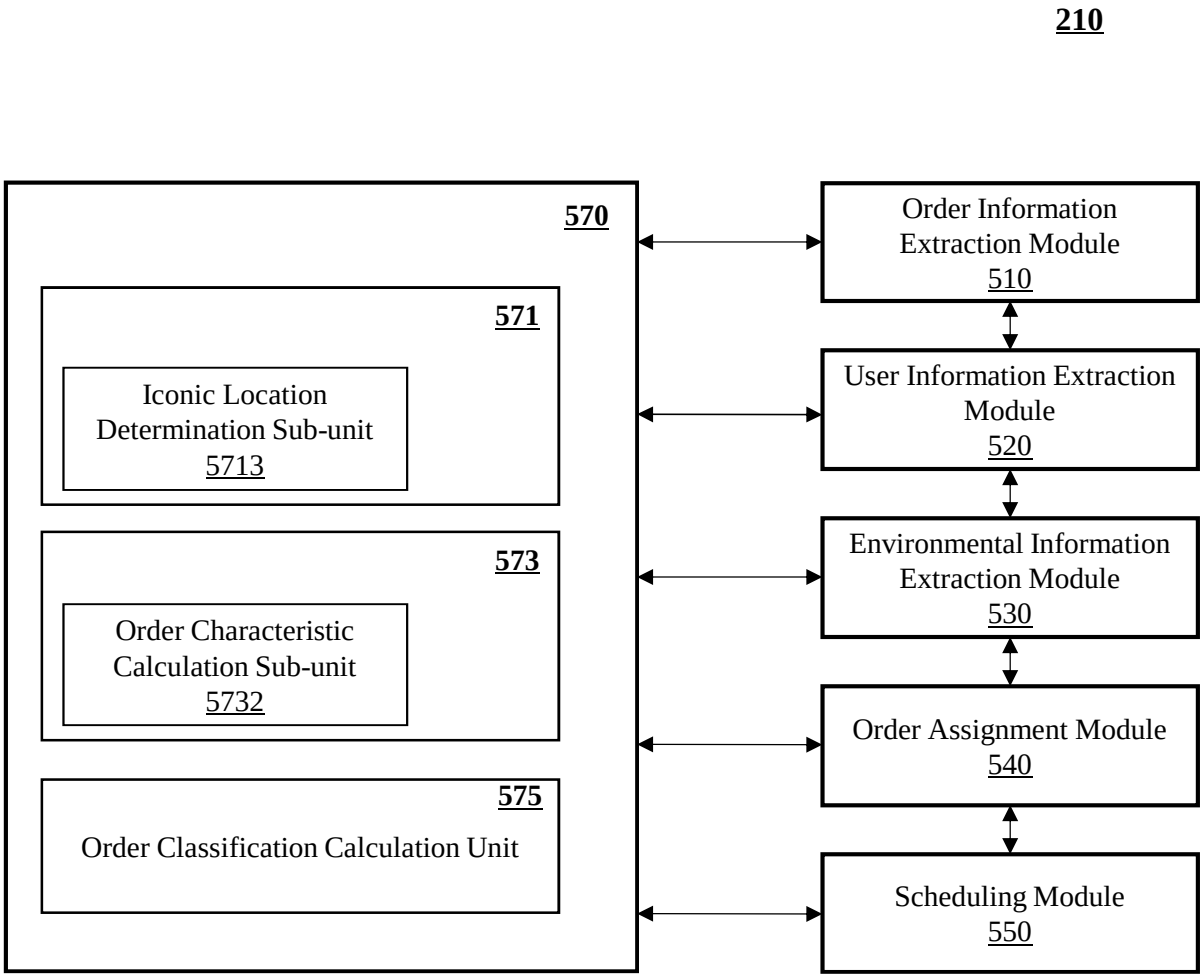

210
570
571
Iconic Location Determination Sub-unit 5713
573
Order Characteristic Calculation Sub-unit 5732
575
Order Classification Calculation Unit
Order Information Extraction Module 510
User Information Extraction Module 520
Environmental Information Extraction Module 530
Order Assignment Module 540
Scheduling Module 550

FIG. 20

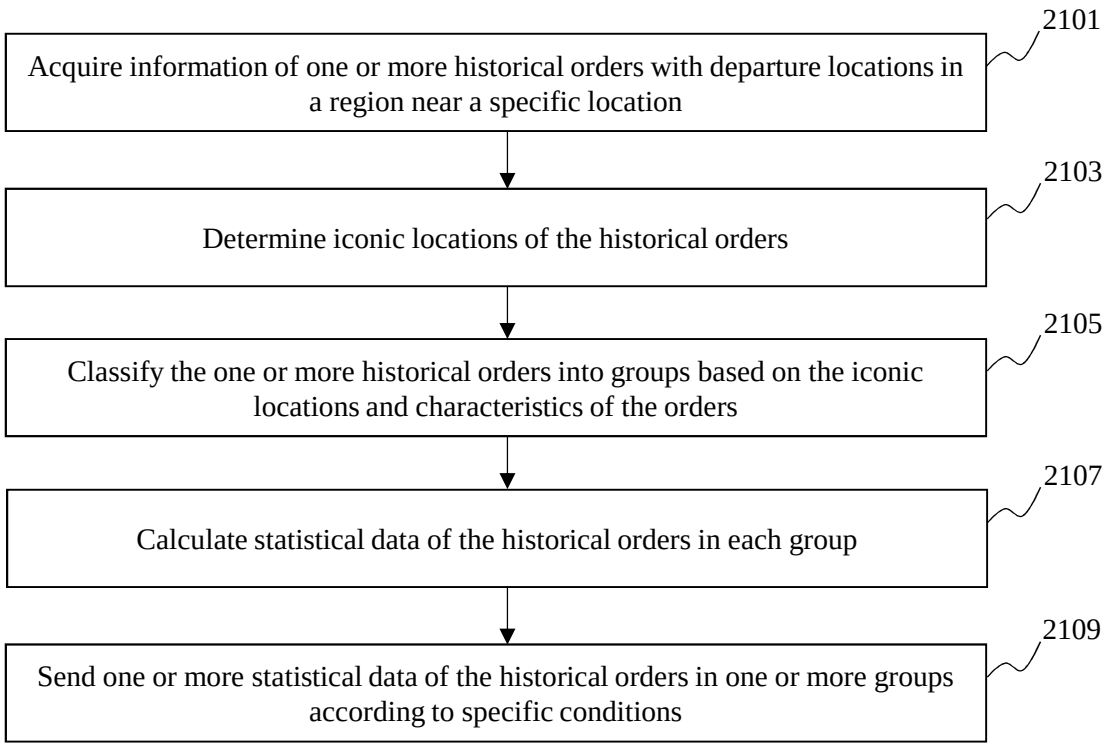

2101
Acquire information of one or more historical orders with departure locations in a region near a specific location
2103
Determine iconic locations of the historical orders
2105
Classify the one or more historical orders into groups based on the iconic locations and characteristics of the orders
2107
Calculate statistical data of the historical orders in each group
2109
Send one or more statistical data of the historical orders in one or more groups according to specific conditions

FIG. 21

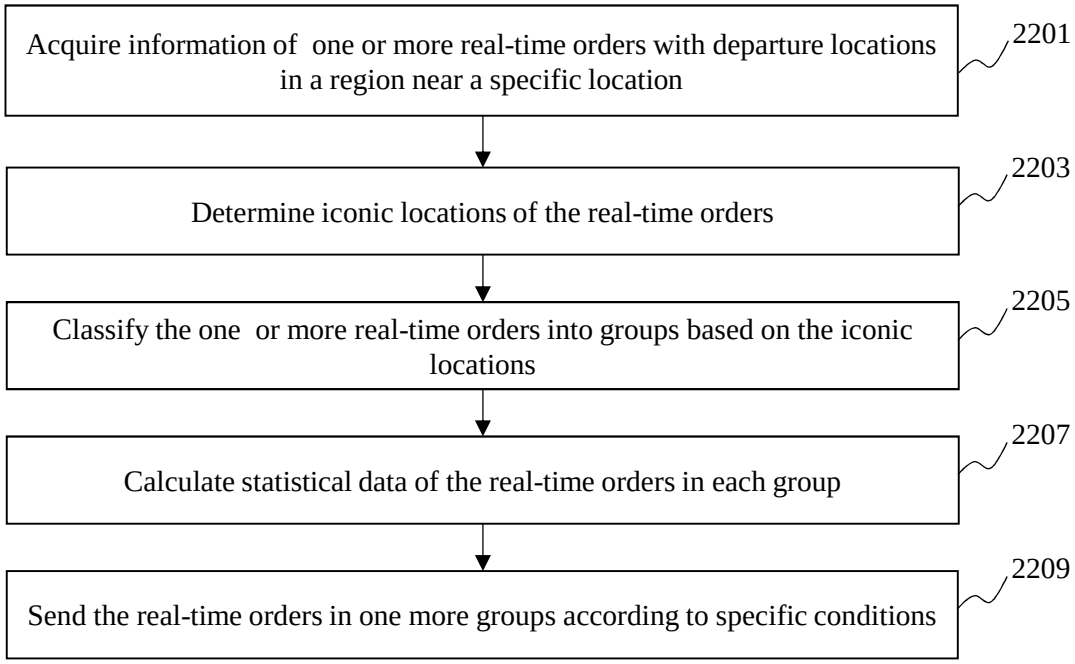

Acquire information of one or more real-time orders with departure locations in a region near a specific location
2201
Determine iconic locations of the real-time orders
2203
Classify the one or more real-time orders into groups based on the iconic locations
2205
Calculate statistical data of the real-time orders in each group
2207
Send the real-time orders in one more groups according to specific conditions
2209

FIG. 22

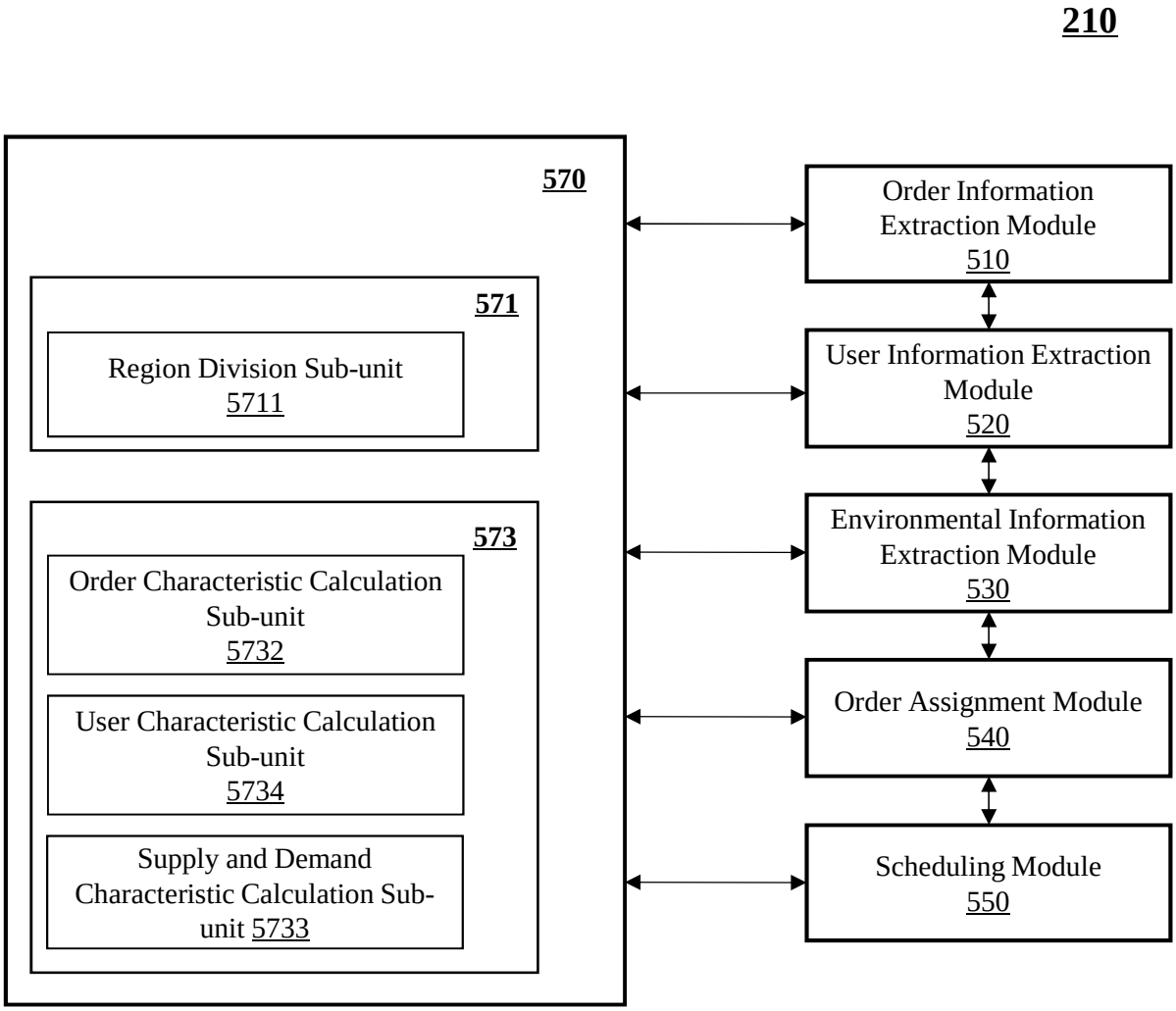

210
570
571
Region Division Sub-unit
5711
573
Order Characteristic Calculation Sub-unit
5732
User Characteristic Calculation Sub-unit
5734
Supply and Demand Characteristic Calculation Sub-unit 5733
Order Information Extraction Module
510
User Information Extraction Module
520
Environmental Information Extraction Module
530
Order Assignment Module
540
Scheduling Module
550

FIG. 23

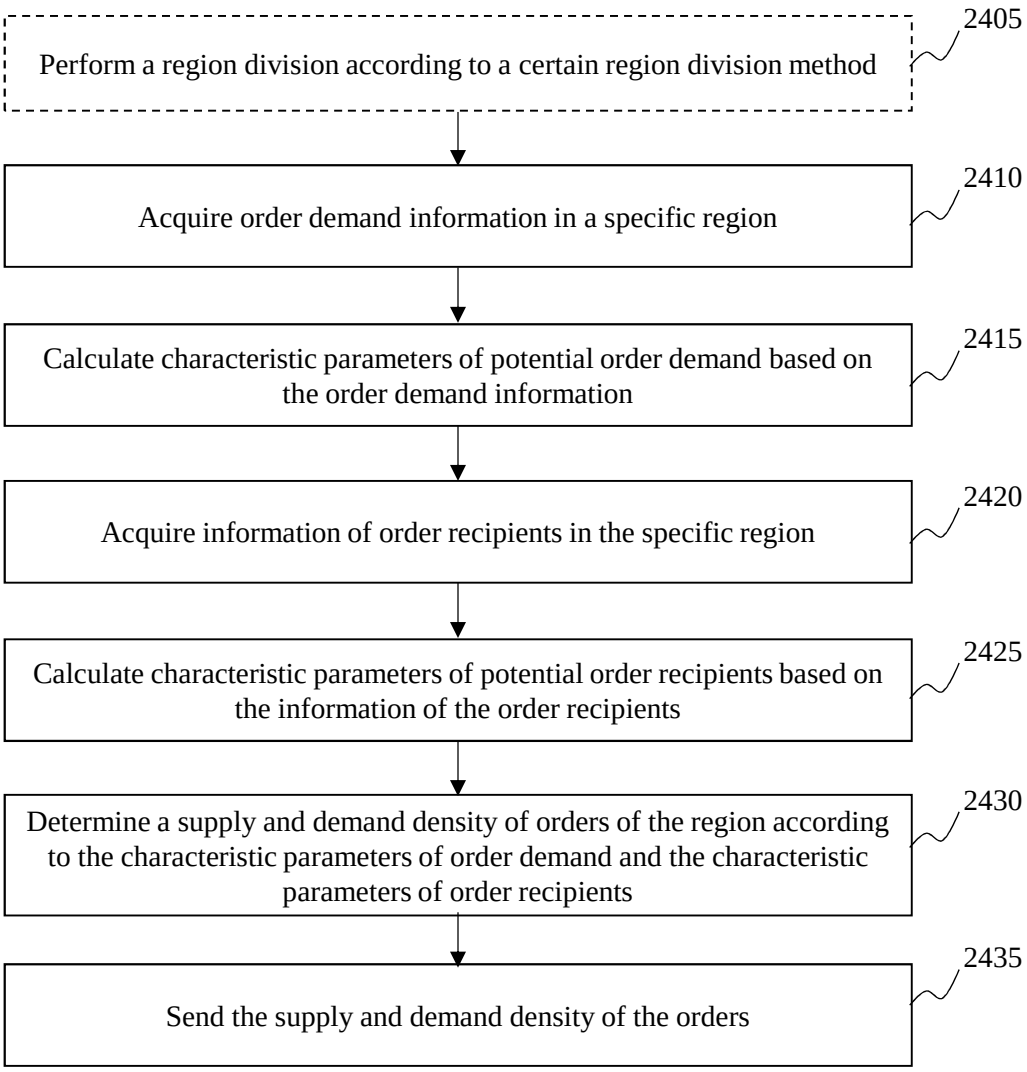

Perform a region division according to a certain region division method
2405
Acquire order demand information in a specific region
2410
Calculate characteristic parameters of potential order demand based on the order demand information
2415
Acquire information of order recipients in the specific region
2420
Calculate characteristic parameters of potential order recipients based on the information of the order recipients
2425
Determine a supply and demand density of orders of the region according to the characteristic parameters of order demand and the characteristic parameters of order recipients
2430
Send the supply and demand density of the orders
2435

FIG. 24

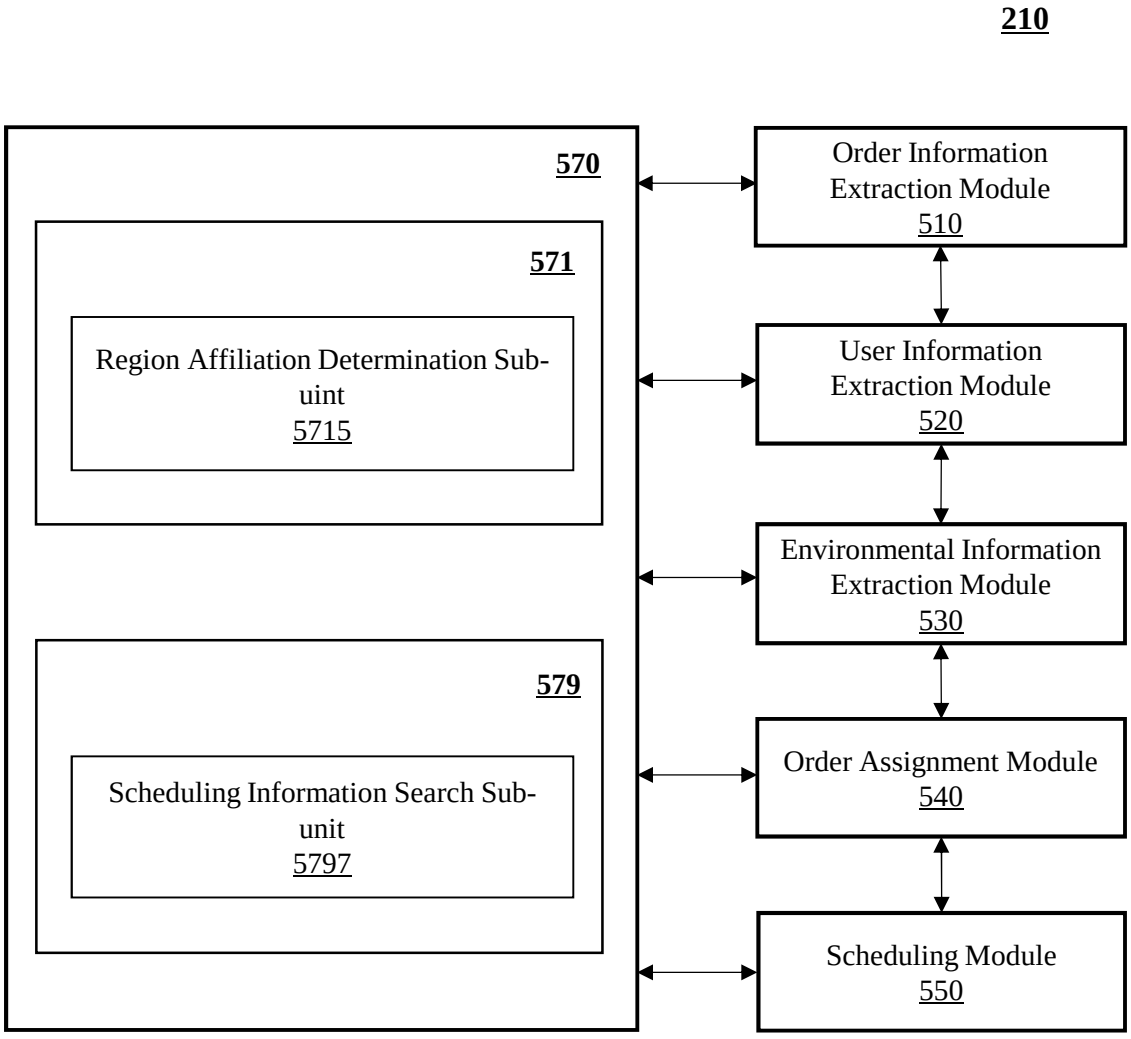

210
570
571
Region Affiliation Determination Sub-uint
5715
579
Scheduling Information Search Sub-unit
5797
Order Information Extraction Module
510
User Information Extraction Module
520
Environmental Information Extraction Module
530
Order Assignment Module
540
Scheduling Module
550

FIG. 25

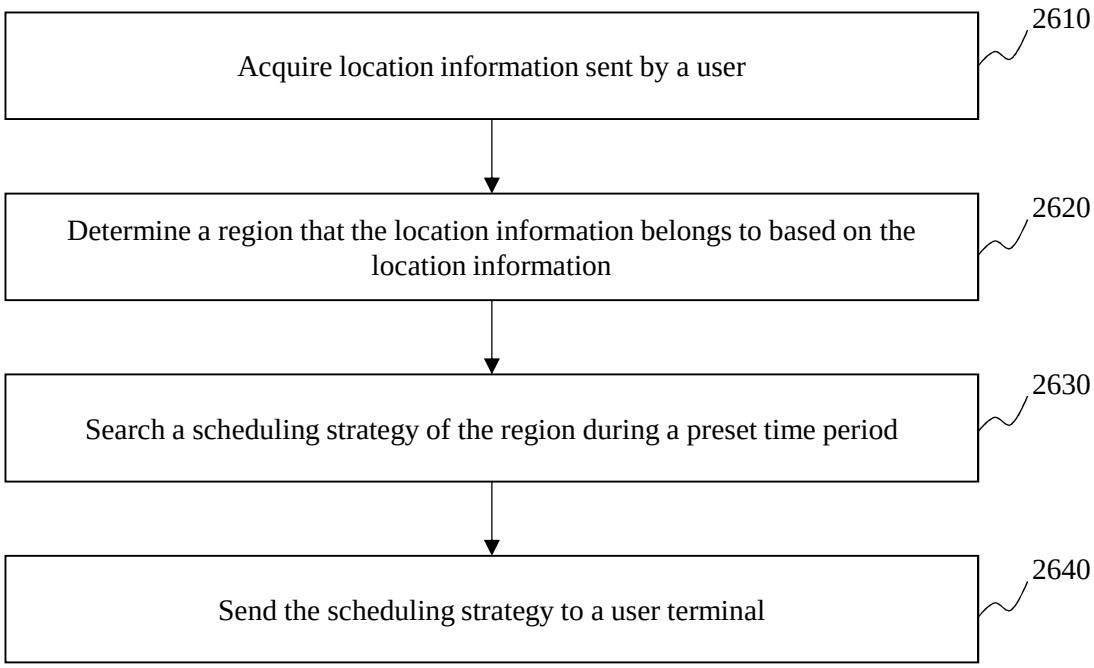

Acquire location information sent by a user
2610
Determine a region that the location information belongs to based on the location information
2620
Search a scheduling strategy of the region during a preset time period
2630
Send the scheduling strategy to a user terminal
2640

FIG. 26

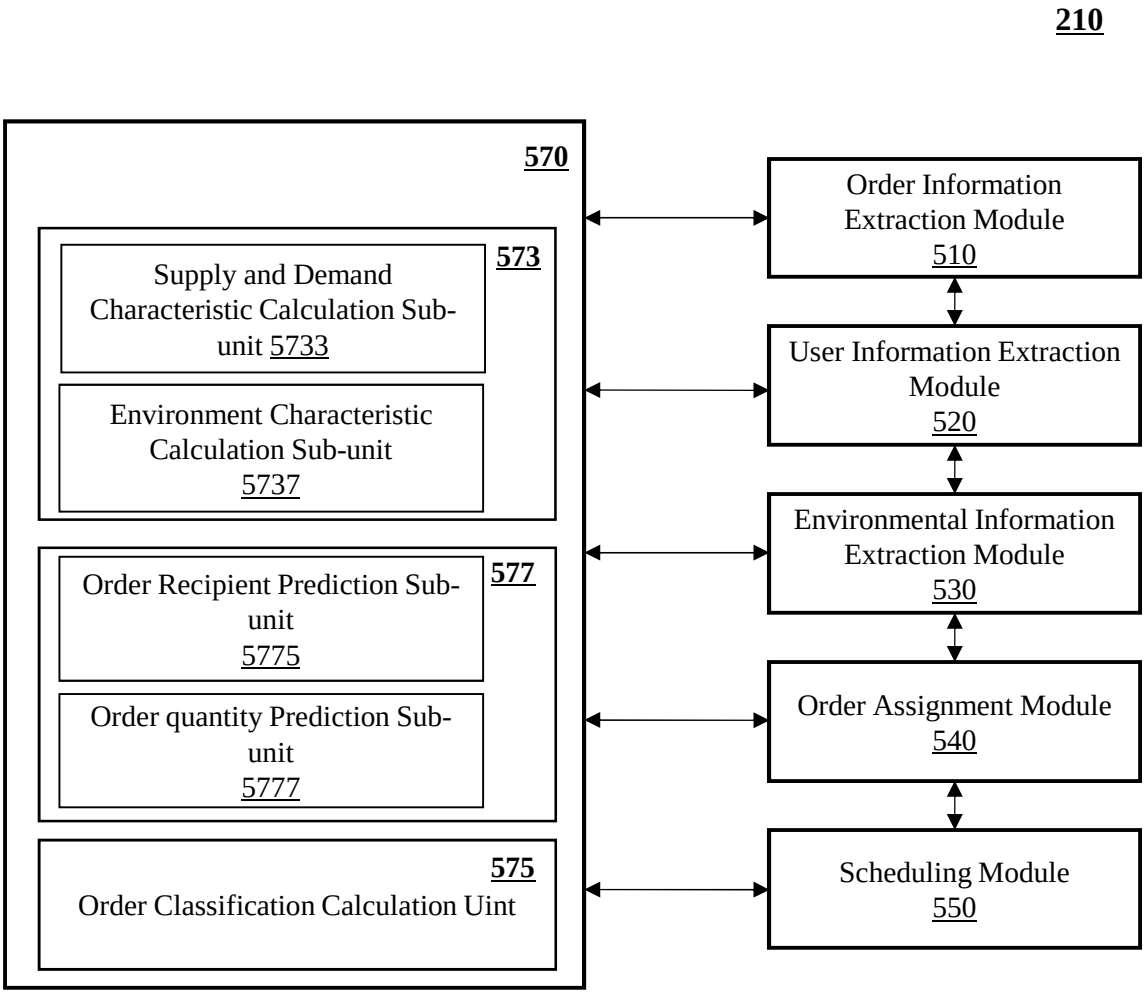

210
570
573
Supply and Demand Characteristic Calculation Sub-unit 5733
Environment Characteristic Calculation Sub-unit 5737
577
Order Recipient Prediction Sub-unit 5775
Order quantity Prediction Sub-unit 5777
575
Order Classification Calculation Uint
Order Information Extraction Module 510
User Information Extraction Module 520
Environmental Information Extraction Module 530
Order Assignment Module 540
Scheduling Module 550

FIG. 27

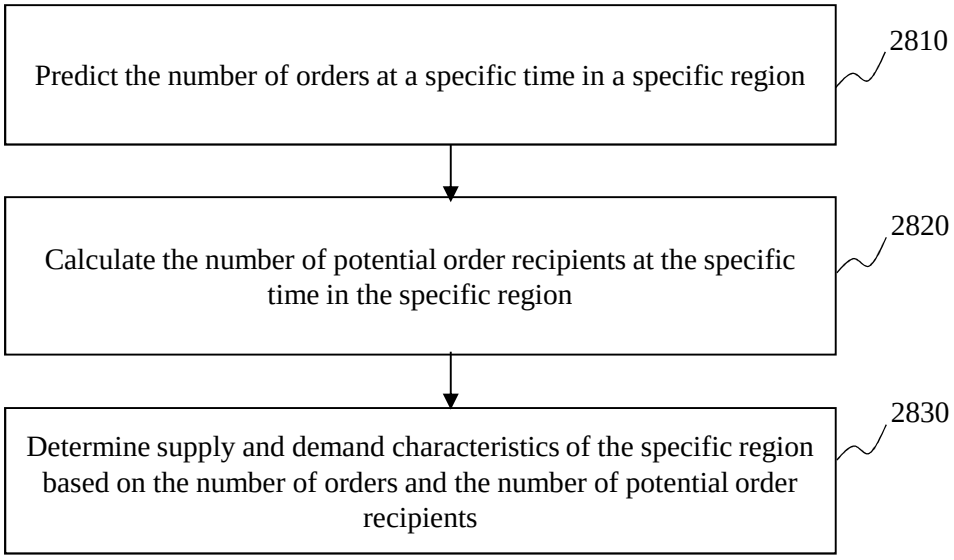

Predict the number of orders at a specific time in a specific region
2810
Calculate the number of potential order recipients at the specific time in the specific region
2820
Determine supply and demand characteristics of the specific region based on the number of orders and the number of potential order recipients
2830

FIG. 28

2900

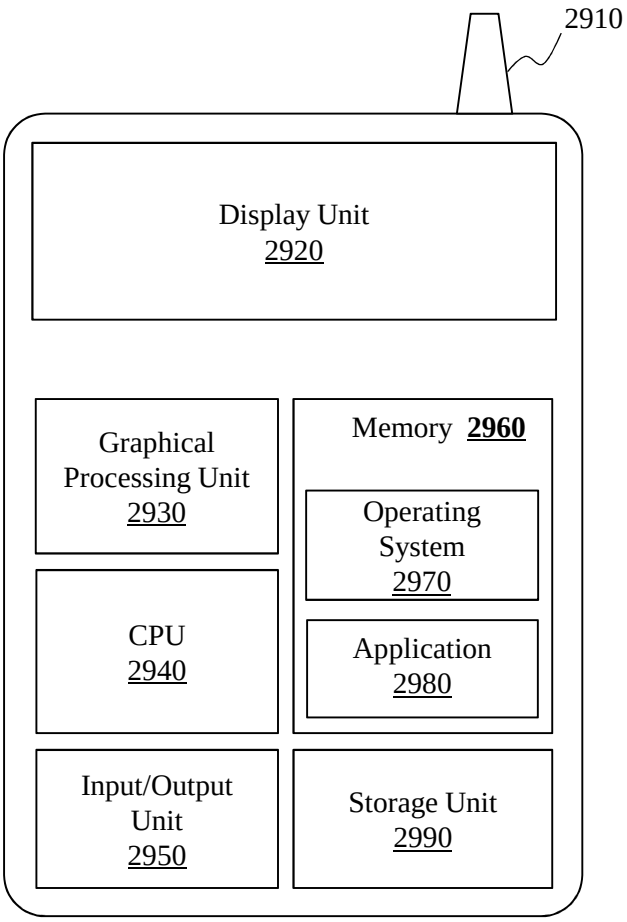

2910
Display Unit
2920
Graphical Processing Unit
2930
Memory 2960
Operating System
2970
CPU
2940
Application
2980
Input/Output Unit
2950
Storage Unit
2990

FIG. 29

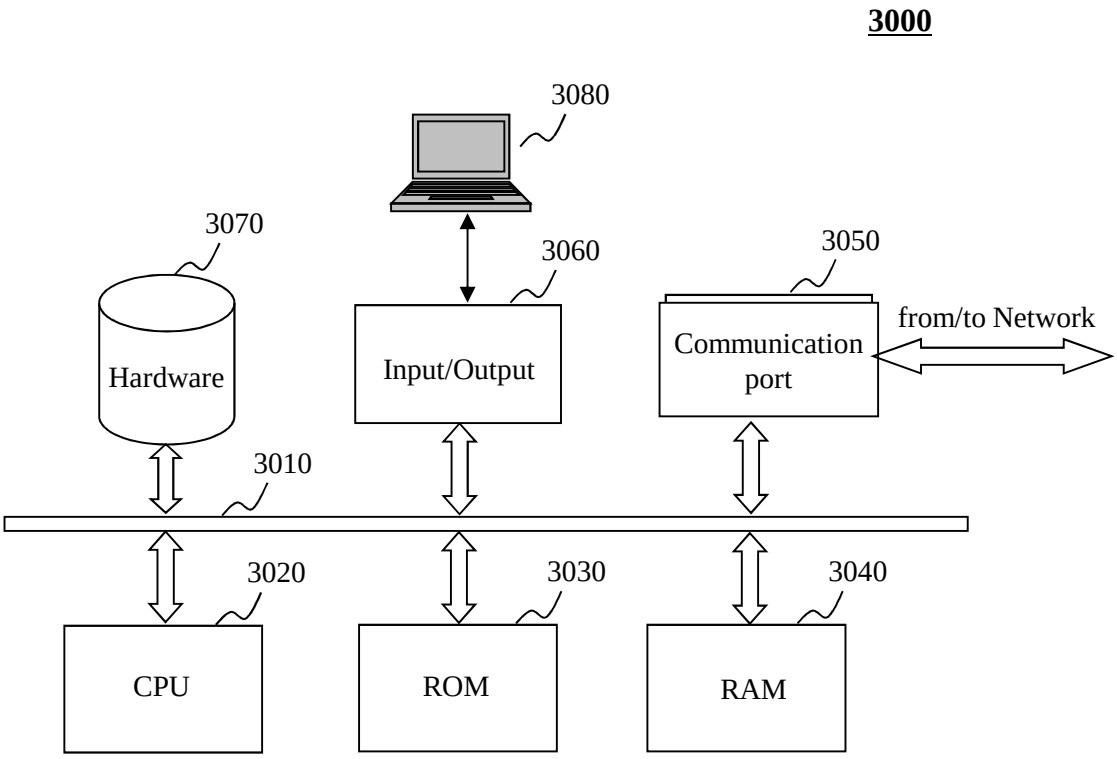

3000
3080
3070
3060
3050
Hardware
Input/Output
Communication port
from/to Network
3010
3020
3030
3040
CPU
ROM
RAM

FIG. 30