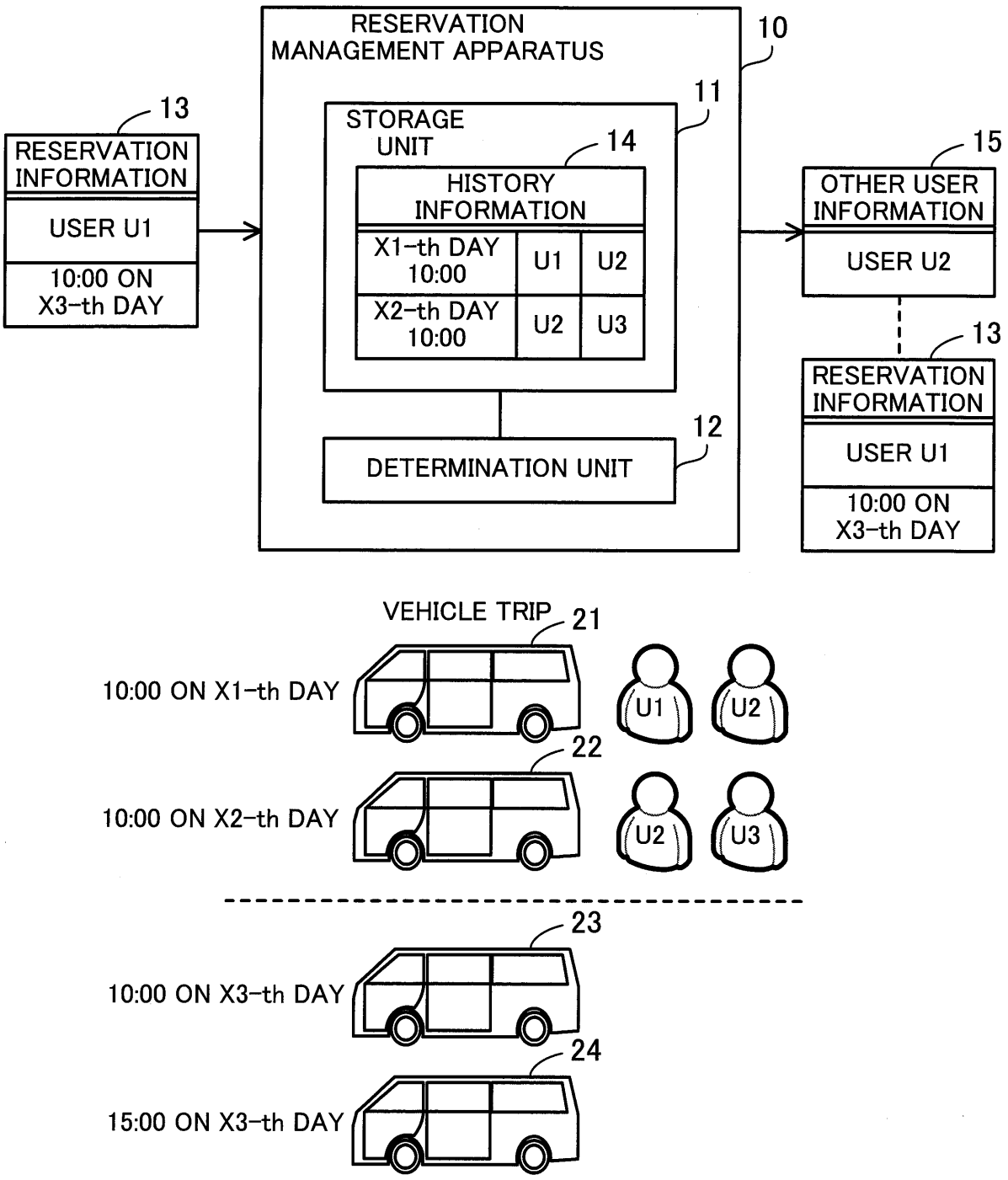

RESERVATION MANAGEMENT APPARATUS
10
11
STORAGE UNIT
14
HISTORY INFORMATION
X1-th DAY 10:00
U1
U2
X2-th DAY 10:00
U2
U3
12
DETERMINATION UNIT
13
RESERVATION INFORMATION
USER U1
10:00 ON X3-th DAY
15
OTHER USER INFORMATION
USER U2
13
RESERVATION INFORMATION
USER U1
10:00 ON X3-th DAY
VEHICLE TRIP
21
10:00 ON X1-th DAY
U1
U2
22
10:00 ON X2-th DAY
U2
U3
23
10:00 ON X3-th DAY
24
15:00 ON X3-th DAY

FIG. 1

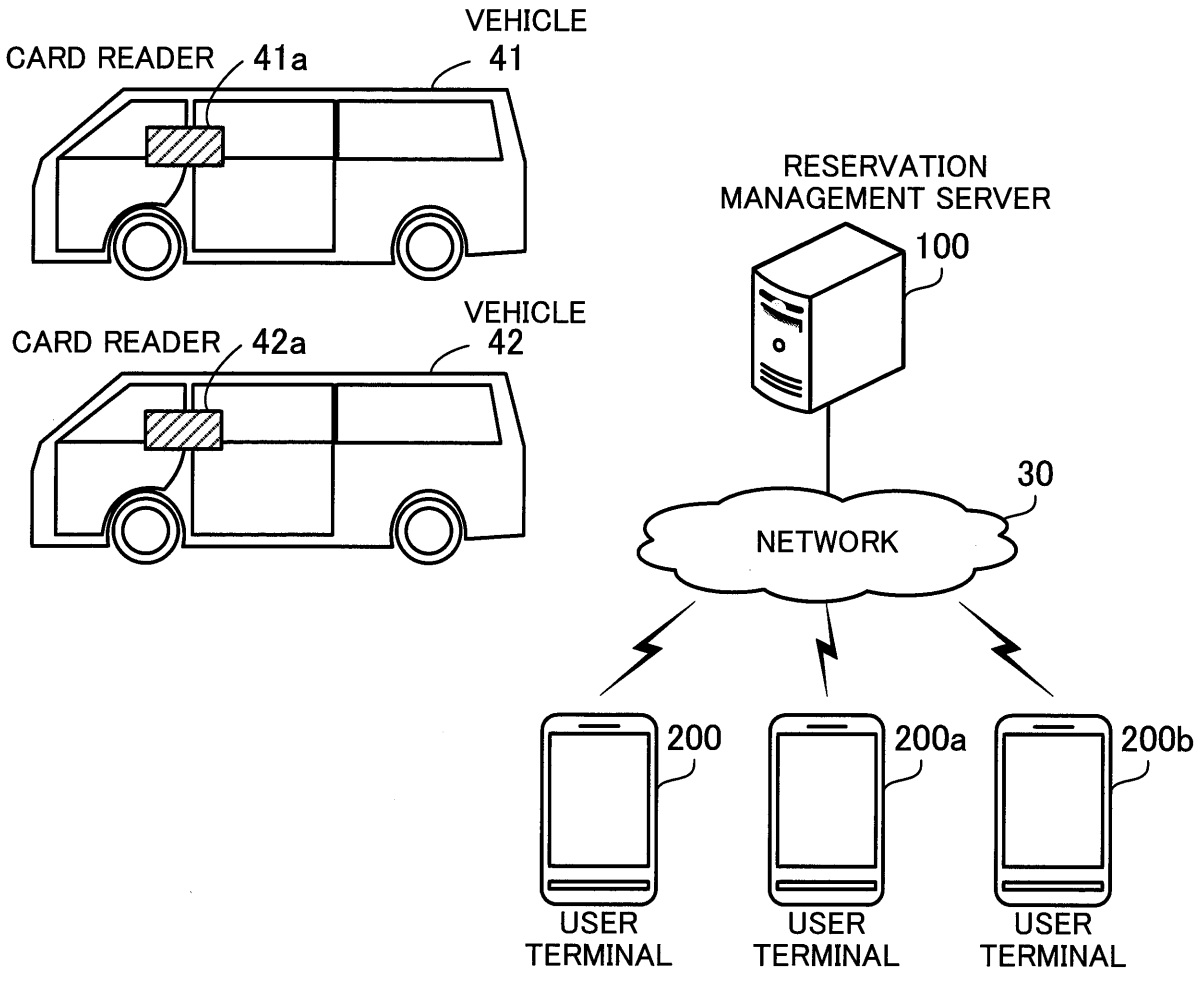

VEHICLE
CARD READER
41a
41
VEHICLE
CARD READER
42a
42
RESERVATION
MANAGEMENT SERVER
100
30
NETWORK
200
200a
200b
USER
TERMINAL
USER
TERMINAL
USER
TERMINAL

FIG. 2

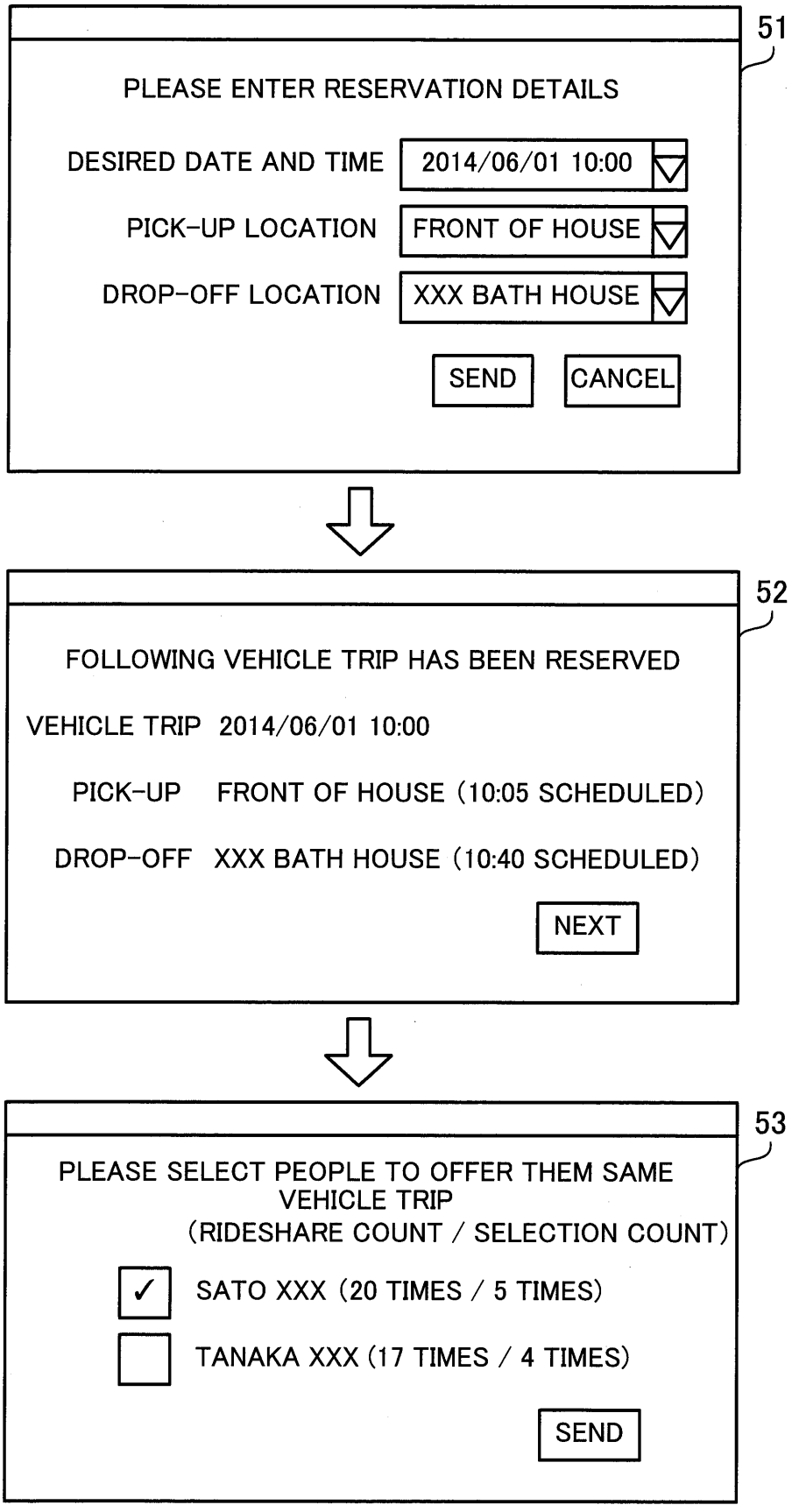

51
PLEASE ENTER RESERVATION DETAILS
DESIRED DATE AND TIME
2014/06/01 10:00
PICK-UP LOCATION
FRONT OF HOUSE
DROP-OFF LOCATION
XXX BATH HOUSE
SEND
CANCEL
52
FOLLOWING VEHICLE TRIP HAS BEEN RESERVED
VEHICLE TRIP 2014/06/01 10:00
PICK-UP FRONT OF HOUSE (10:05 SCHEDULED)
DROP-OFF XXX BATH HOUSE (10:40 SCHEDULED)
NEXT
53
PLEASE SELECT PEOPLE TO OFFER THEM SAME VEHICLE TRIP
(RIDESHARE COUNT / SELECTION COUNT)
SATO XXX (20 TIMES / 5 TIMES)
TANAKA XXX (17 TIMES / 4 TIMES)
SEND

FIG. 3

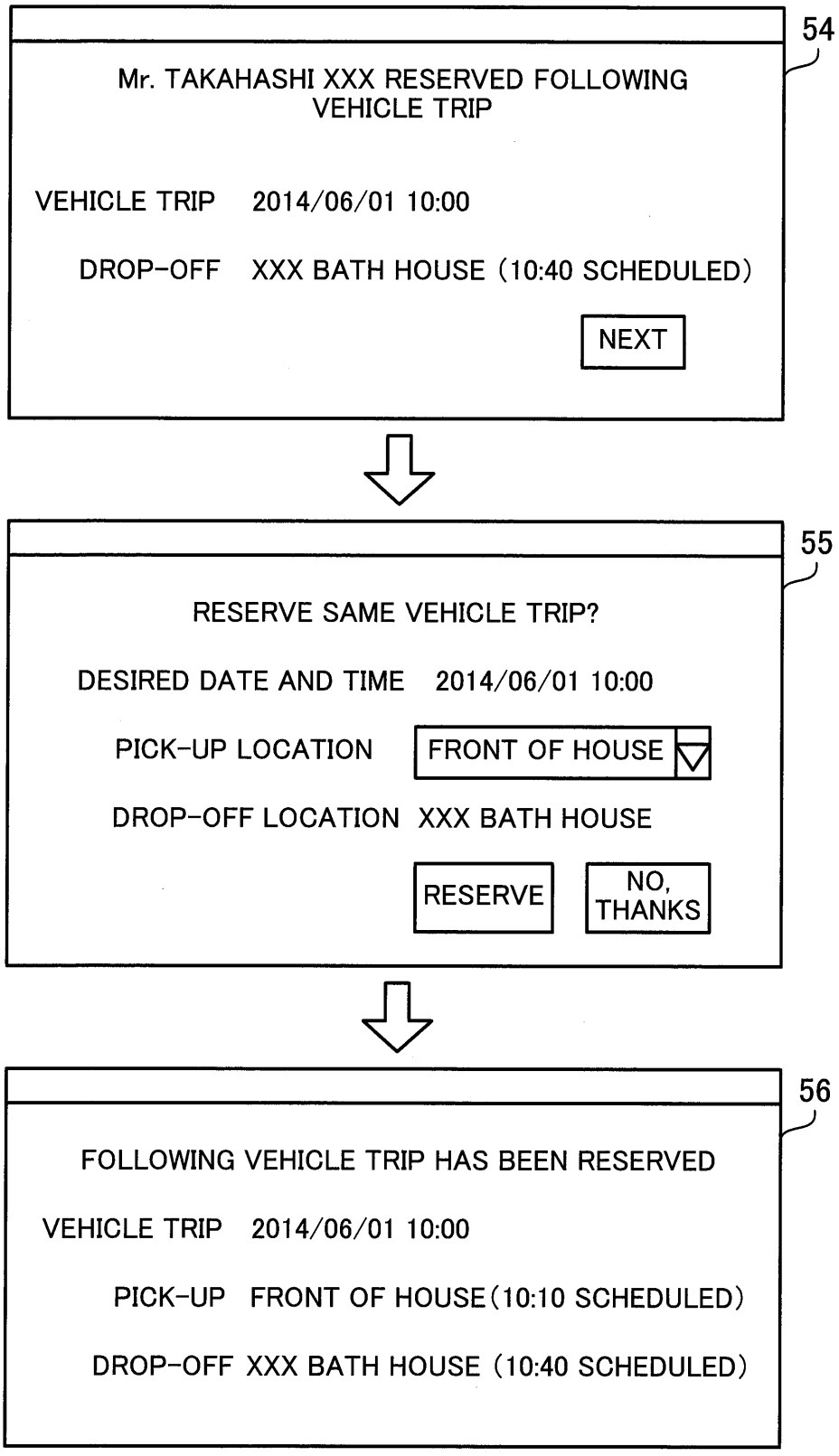

54
Mr. TAKAHASHI XXX RESERVED FOLLOWING VEHICLE TRIP
VEHICLE TRIP 2014/06/01 10:00
DROP-OFF XXX BATH HOUSE (10:40 SCHEDULED)
NEXT
55
RESERVE SAME VEHICLE TRIP?
DESIRED DATE AND TIME 2014/06/01 10:00
PICK-UP LOCATION FRONT OF HOUSE
DROP-OFF LOCATION XXX BATH HOUSE
RESERVE
NO, THANKS
56
FOLLOWING VEHICLE TRIP HAS BEEN RESERVED
VEHICLE TRIP 2014/06/01 10:00
PICK-UP FRONT OF HOUSE(10:10 SCHEDULED)
DROP-OFF XXX BATH HOUSE (10:40 SCHEDULED)

FIG. 4

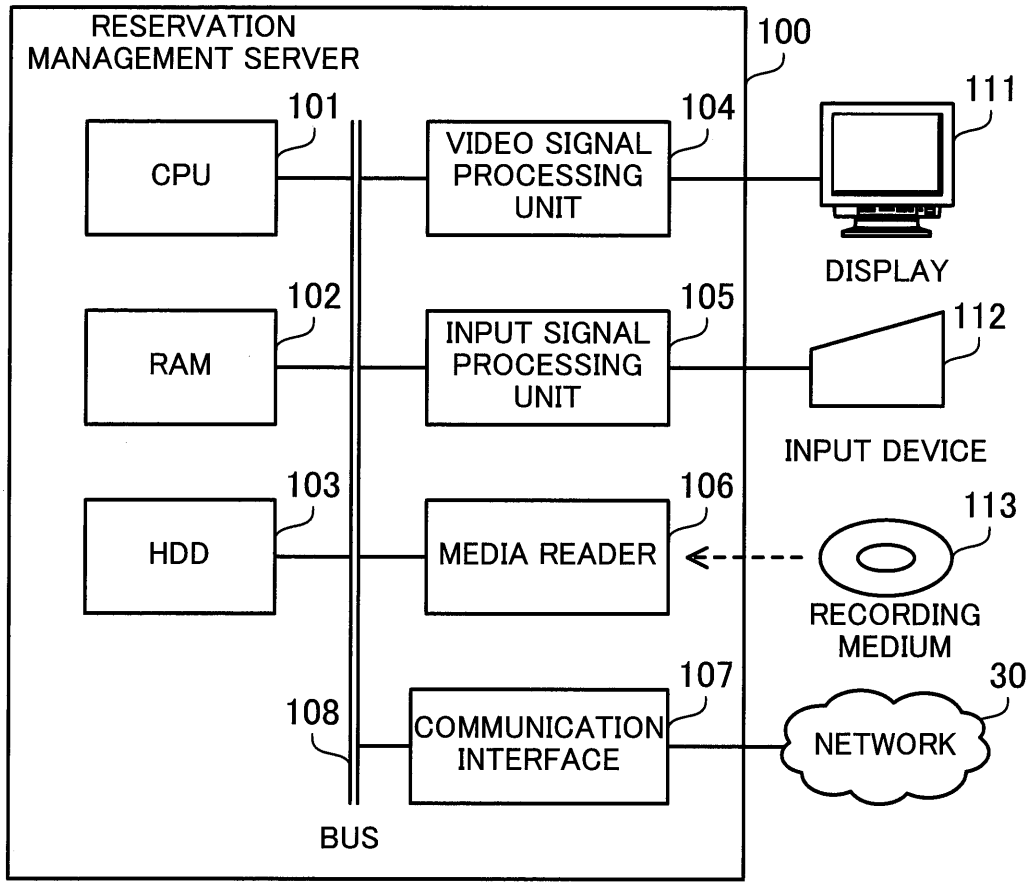

RESERVATION
MANAGEMENT SERVER
100
101
CPU
102
RAM
103
HDD
104
VIDEO SIGNAL
PROCESSING
UNIT
105
INPUT SIGNAL
PROCESSING
UNIT
106
MEDIA READER
107
COMMUNICATION
INTERFACE
108
BUS
111
DISPLAY
112
INPUT DEVICE
113
RECORDING
MEDIUM
30
NETWORK

FIG. 5

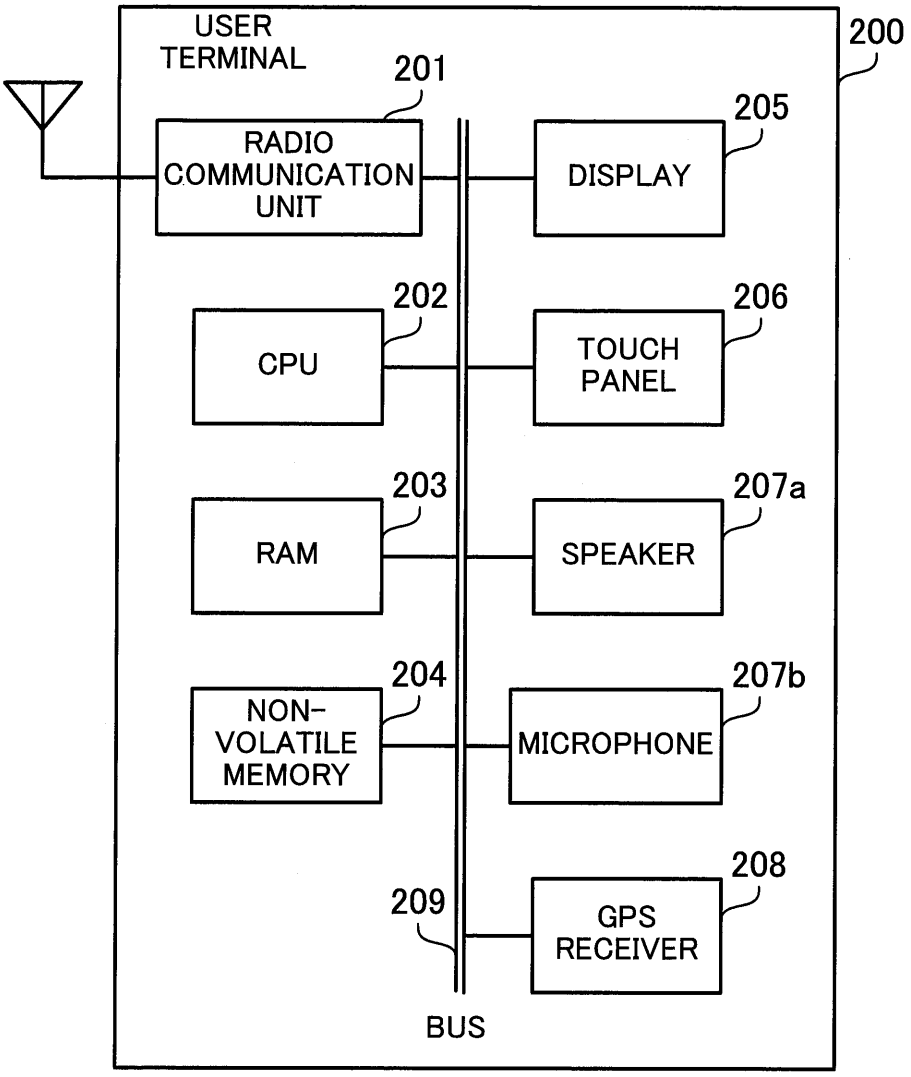

USER TERMINAL
200
201
RADIO COMMUNICATION UNIT
205
DISPLAY
202
CPU
206
TOUCH PANEL
203
RAM
207a
SPEAKER
204
NON-VOLATILE MEMORY
207b
MICROPHONE
208
209
GPS RECEIVER
BUS

FIG. 6

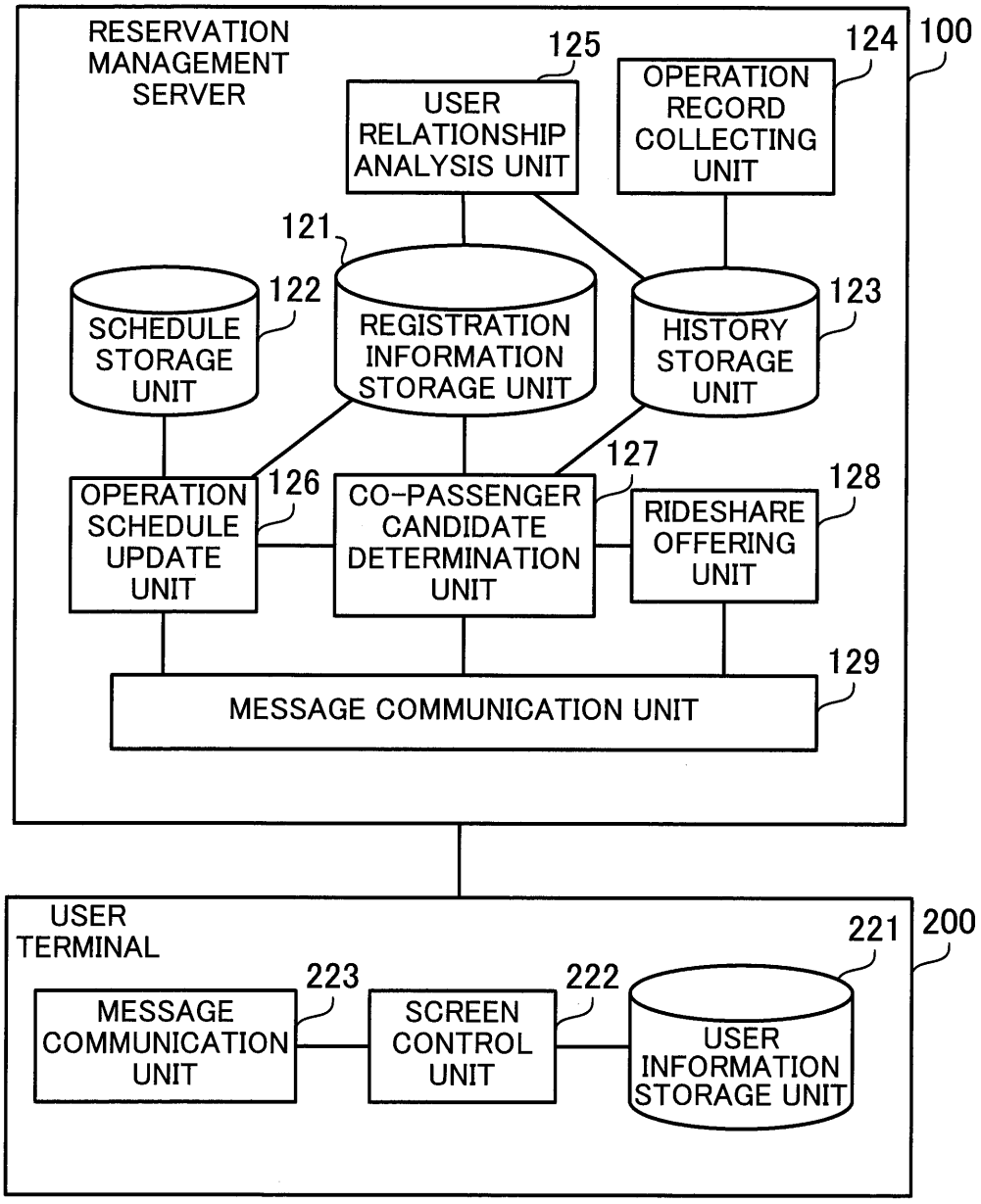

RESERVATION MANAGEMENT SERVER
100
125
USER RELATIONSHIP ANALYSIS UNIT
124
OPERATION RECORD COLLECTING UNIT
121
122
SCHEDULE STORAGE UNIT
REGISTRATION INFORMATION STORAGE UNIT
123
HISTORY STORAGE UNIT
127
126
OPERATION SCHEDULE UPDATE UNIT
CO-PASSENGER CANDIDATE DETERMINATION UNIT
128
RIDESHARE OFFERING UNIT
129
MESSAGE COMMUNICATION UNIT
USER TERMINAL
200
221
223
MESSAGE COMMUNICATION UNIT
222
SCREEN CONTROL UNIT
USER INFORMATION STORAGE UNIT

FIG. 7

121

REGISTRATION INFORMATION STORAGE UNIT

USER TABLE 131

USER ID	NAME	HOME ADDRESS
U1001	TAKAHASHI XXX	XXX-CHO 1-CHOME 100
U1002	SATO XXX	XXX-CHO 4-CHOME 110
U1003	SUZUKI XXX	XXX-CHO 1-CHOME 200
U1004	TANAKA XXX	XXX-CHO 3-CHOME 150
⋮	⋮	⋮

LOCATION TABLE 132

LOCATION ID	LOCATION NAME	COORDINATES	CATEGORY
P3001	XXX BATH HOUSE	XX EAST LONGITUDE XX NORTH LATITUDE	AMUSEMENT FACILITY
P3002	XXX LIBRARY	XX EAST LONGITUDE XX NORTH LATITUDE	PUBLIC FACILITY
P3003	XXX DEPARTMENT STORE	XX EAST LONGITUDE XX NORTH LATITUDE	SHOPPING CENTER
⋮	⋮	⋮	⋮

VEHICLE TABLE 133

VEHICLE ID	SEAT COUNT
C001	10
C002	10
⋮	⋮

FIG. 8

122

SCHEDULE STORAGE UNIT

OPERATION SCHEDULE INFORMATION 134

SCHEDULE ID	S14060121	
VEHICLE	C001	
ORIGIN LOCATION	P3100	
DEPARTURE DATE AND TIME	2014/06/01 10:00	
ENTERING PASSENGERS	U1015, U1016	
STOP LOCATION #1	STOP LOCATION	P3201
	SCHEDULED ARRIVAL DATE AND TIME	2014/06/01 10:05
	ENTERING AND EXITING PASSENGERS	U1001(ON)
STOP LOCATION #2	⋮	
DESTINATION LOCATION	P3001	
SCHEDULED LAST ARRIVAL DATE AND TIME	2014/06/01 10:40	
EXITING PASSENGERS	U1001, U1002	

FIG. 9

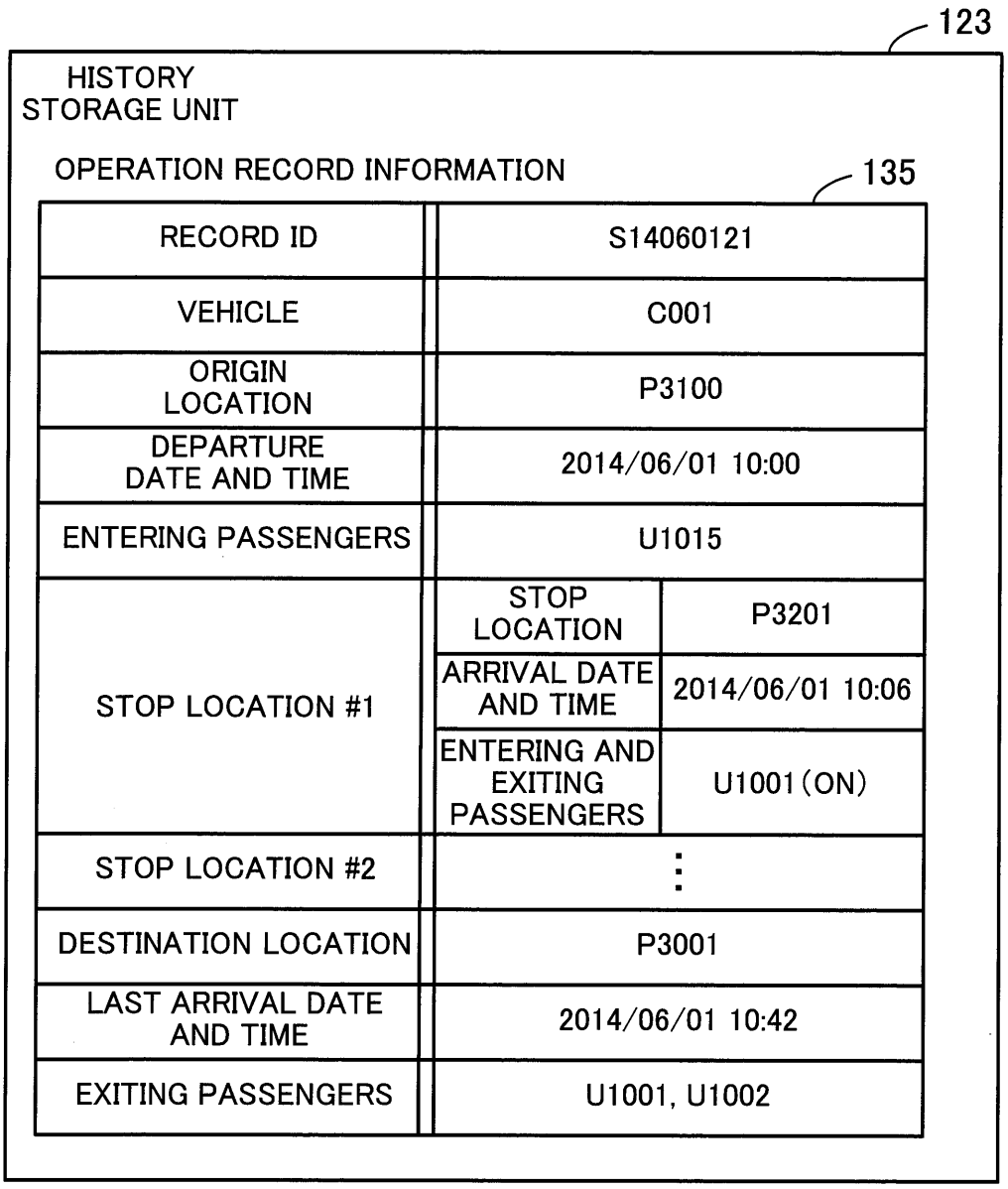

123
HISTORY
STORAGE UNIT
OPERATION RECORD INFORMATION
135
RECORD ID
S14060121
VEHICLE
C001
ORIGIN LOCATION
P3100
DEPARTURE DATE AND TIME
2014/06/01 10:00
ENTERING PASSENGERS
U1015
STOP LOCATION #1
STOP LOCATION
P3201
ARRIVAL DATE AND TIME
2014/06/01 10:06
ENTERING AND EXITING PASSENGERS
U1001 (ON)
STOP LOCATION #2
DESTINATION LOCATION
P3001
LAST ARRIVAL DATE AND TIME
2014/06/01 10:42
EXITING PASSENGERS
U1001, U1002

FIG. 10

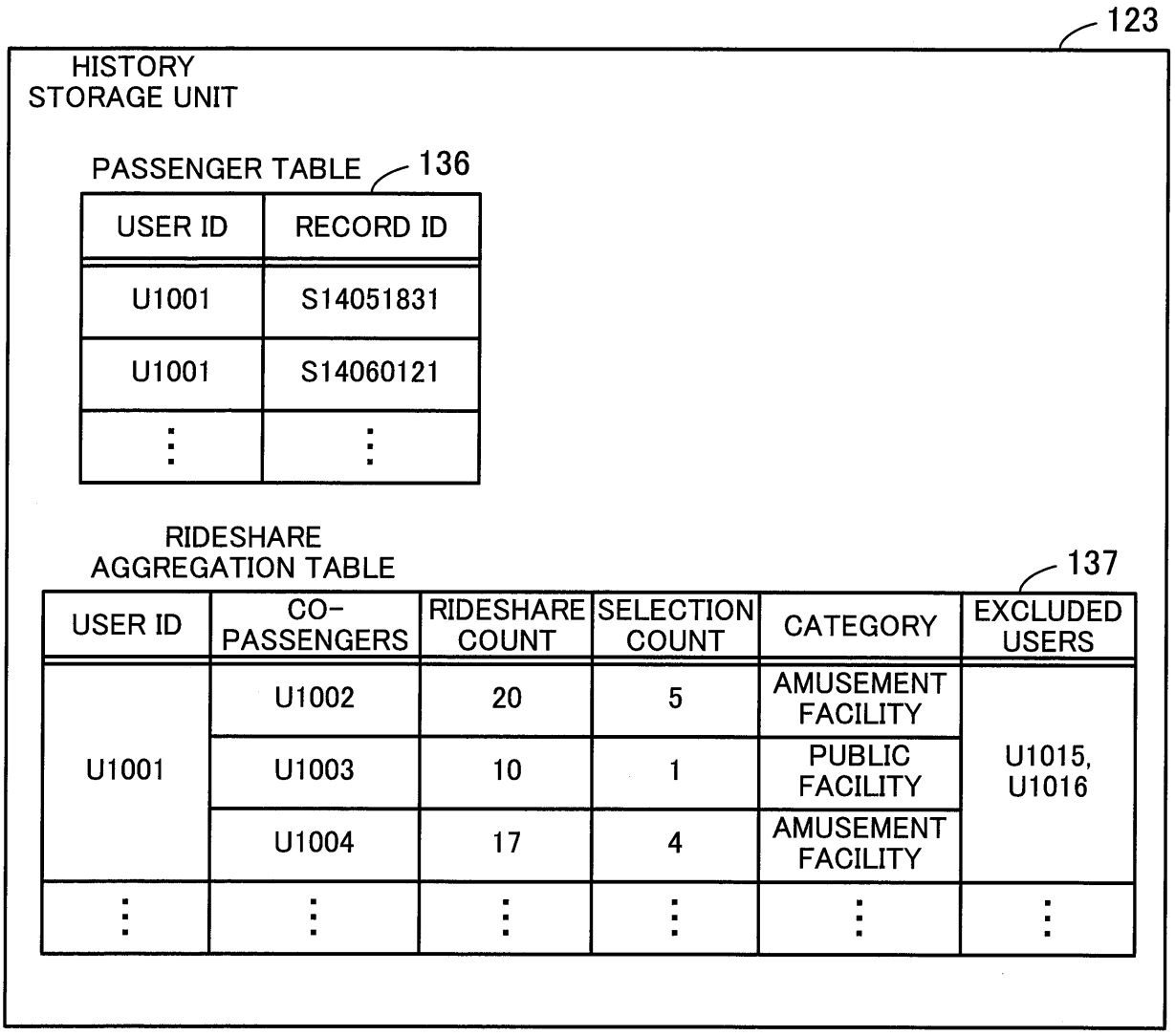

123
HISTORY
STORAGE UNIT
PASSENGER TABLE
136
USER ID
RECORD ID
U1001
S14051831
U1001
S14060121
RIDESHARE
AGGREGATION TABLE
137
USER ID
CO-PASSENGERS
RIDESHARE COUNT
SELECTION COUNT
CATEGORY
EXCLUDED USERS
U1001
U1002
20
5
AMUSEMENT FACILITY
U1015, U1016
U1003
10
1
PUBLIC FACILITY
U1004
17
4
AMUSEMENT FACILITY

FIG. 11

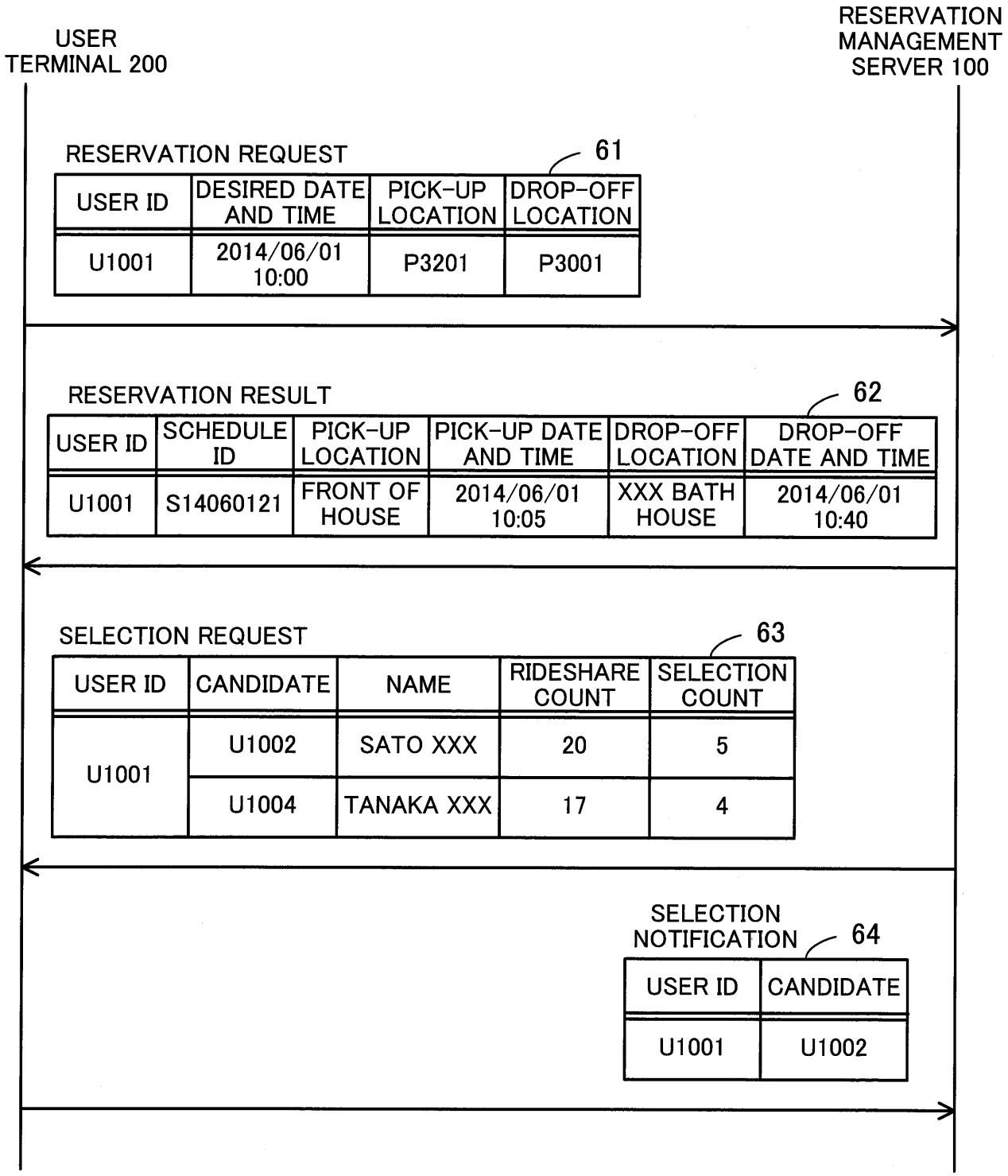

USER TERMINAL 200
RESERVATION MANAGEMENT SERVER 100
RESERVATION REQUEST
61
USER ID | DESIRED DATE AND TIME | PICK-UP LOCATION | DROP-OFF LOCATION
U1001 | 2014/06/01 10:00 | P3201 | P3001
RESERVATION RESULT
62
USER ID | SCHEDULE ID | PICK-UP LOCATION | PICK-UP DATE AND TIME | DROP-OFF LOCATION | DROP-OFF DATE AND TIME
U1001 | S14060121 | FRONT OF HOUSE | 2014/06/01 10:05 | XXX BATH HOUSE | 2014/06/01 10:40
SELECTION REQUEST
63
USER ID | CANDIDATE | NAME | RIDESHARE COUNT | SELECTION COUNT
U1001 | U1002 | SATO XXX | 20 | 5
U1001 | U1004 | TANAKA XXX | 17 | 4
SELECTION NOTIFICATION
64
USER ID | CANDIDATE
U1001 | U1002

FIG. 12

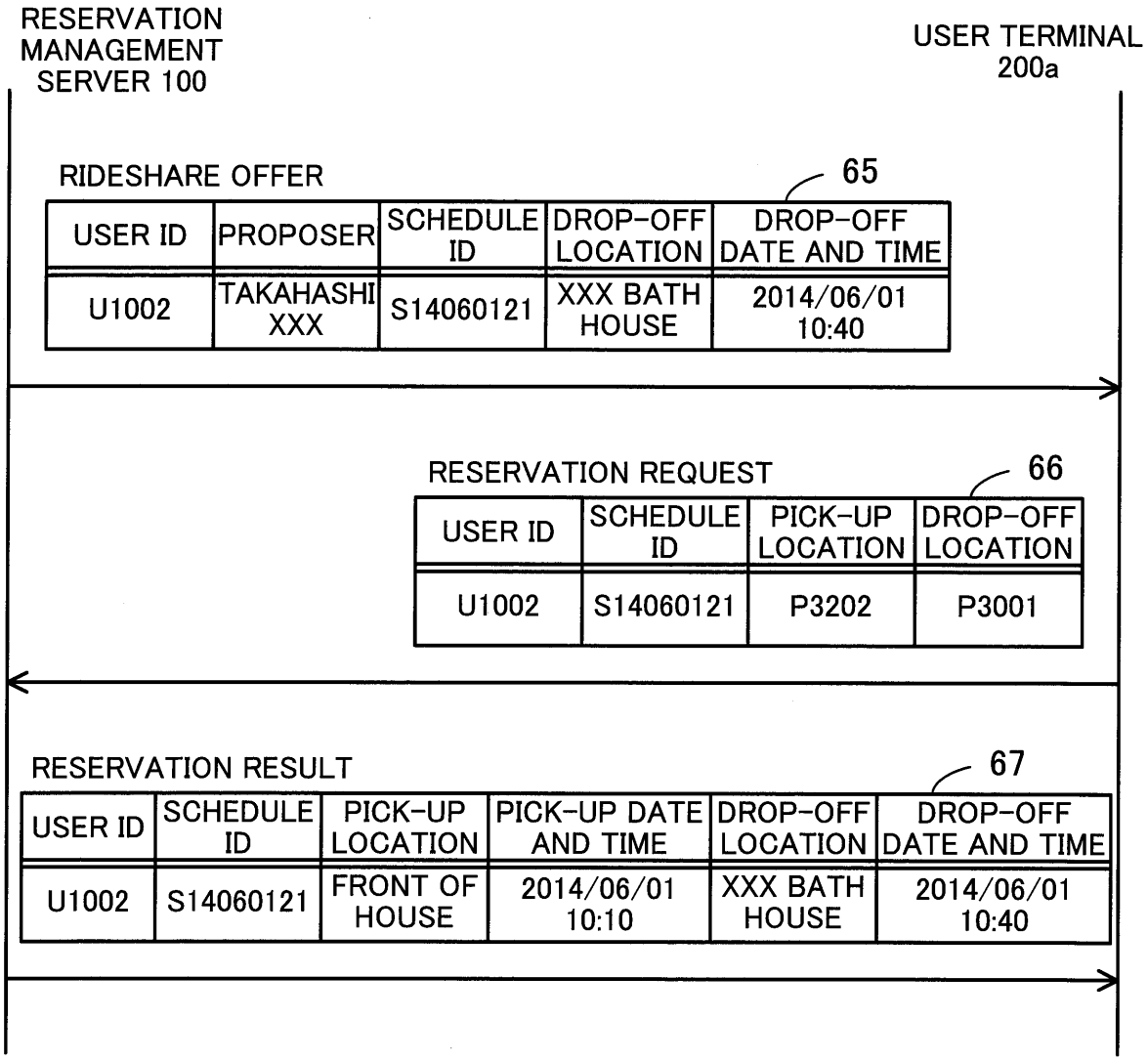

RESERVATION MANAGEMENT SERVER 100
USER TERMINAL 200a
RIDESHARE OFFER
65
USER ID | PROPOSER | SCHEDULE ID | DROP-OFF LOCATION | DROP-OFF DATE AND TIME
U1002 | TAKAHASHI XXX | S14060121 | XXX BATH HOUSE | 2014/06/01 10:40
RESERVATION REQUEST
66
USER ID | SCHEDULE ID | PICK-UP LOCATION | DROP-OFF LOCATION
U1002 | S14060121 | P3202 | P3001
RESERVATION RESULT
67
USER ID | SCHEDULE ID | PICK-UP LOCATION | PICK-UP DATE AND TIME | DROP-OFF LOCATION | DROP-OFF DATE AND TIME
U1002 | S14060121 | FRONT OF HOUSE | 2014/06/01 10:10 | XXX BATH HOUSE | 2014/06/01 10:40

FIG. 13

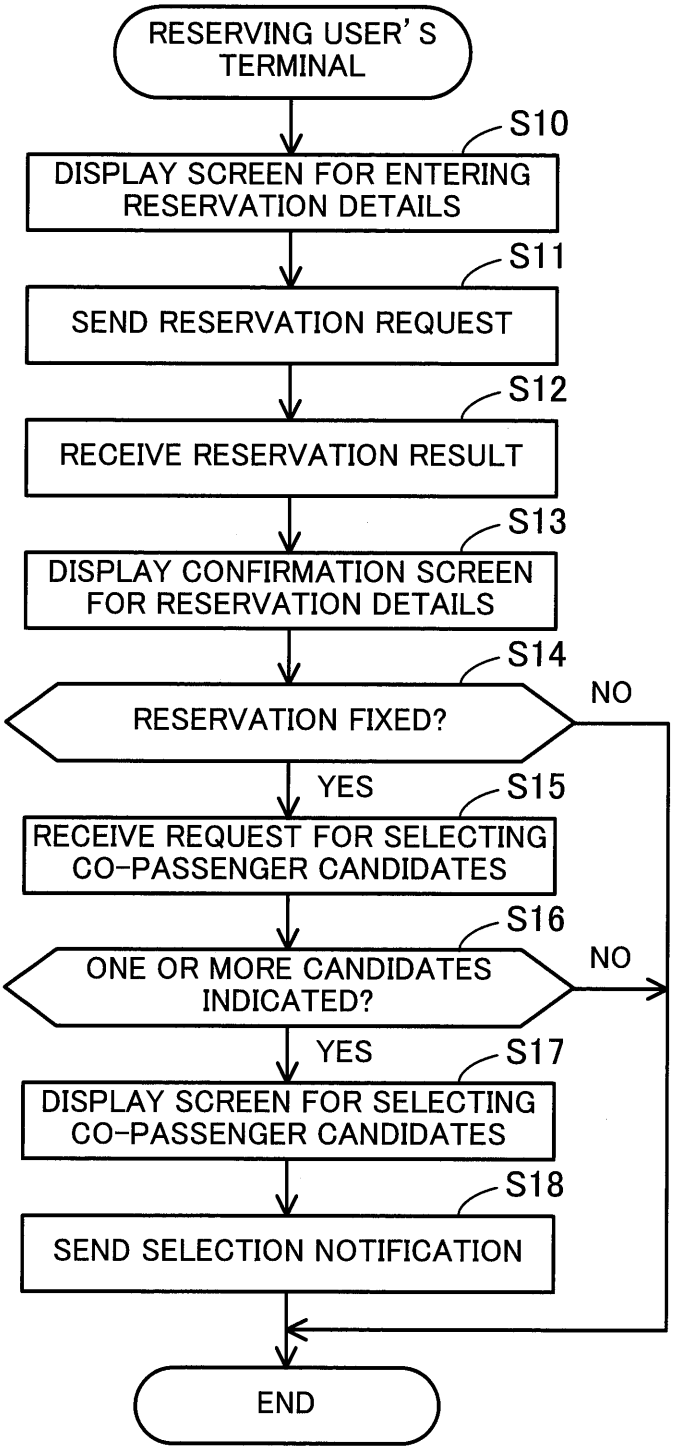

RESERVING USER'S TERMINAL
S10
DISPLAY SCREEN FOR ENTERING RESERVATION DETAILS
S11
SEND RESERVATION REQUEST
S12
RECEIVE RESERVATION RESULT
S13
DISPLAY CONFIRMATION SCREEN FOR RESERVATION DETAILS
S14
RESERVATION FIXED?
NO
YES
S15
RECEIVE REQUEST FOR SELECTING CO-PASSENGER CANDIDATES
S16
ONE OR MORE CANDIDATES INDICATED?
NO
YES
S17
DISPLAY SCREEN FOR SELECTING CO-PASSENGER CANDIDATES
S18
SEND SELECTION NOTIFICATION
END

FIG. 14

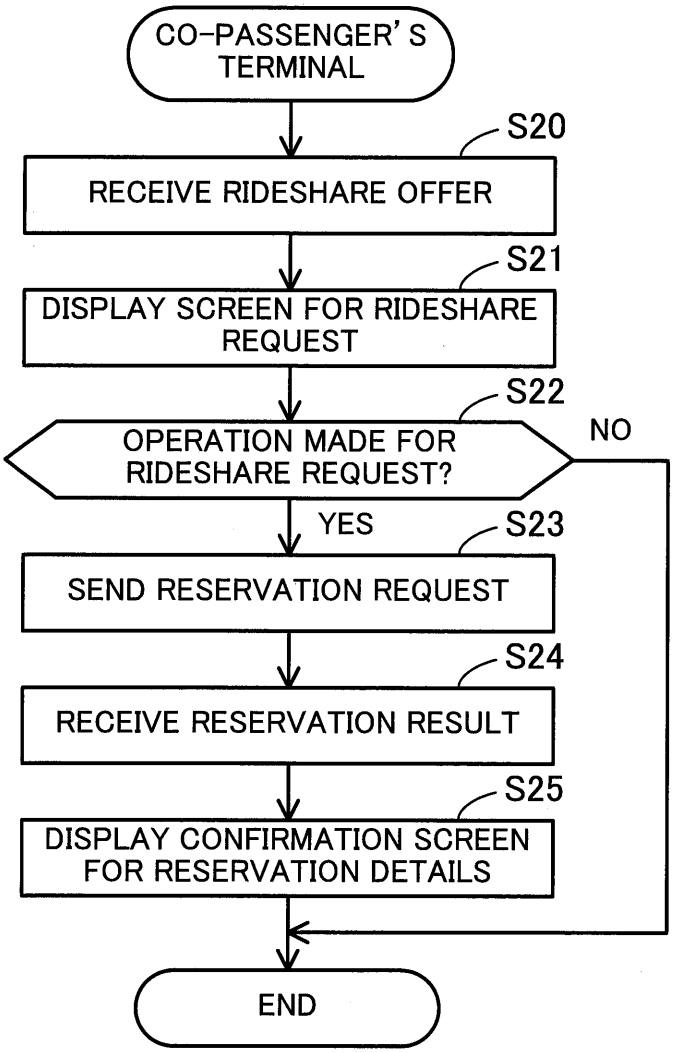

CO-PASSENGER'S TERMINAL
S20
RECEIVE RIDESHARE OFFER
S21
DISPLAY SCREEN FOR RIDESHARE REQUEST
S22
OPERATION MADE FOR RIDESHARE REQUEST?
NO
YES
S23
SEND RESERVATION REQUEST
S24
RECEIVE RESERVATION RESULT
S25
DISPLAY CONFIRMATION SCREEN FOR RESERVATION DETAILS
END

FIG. 15

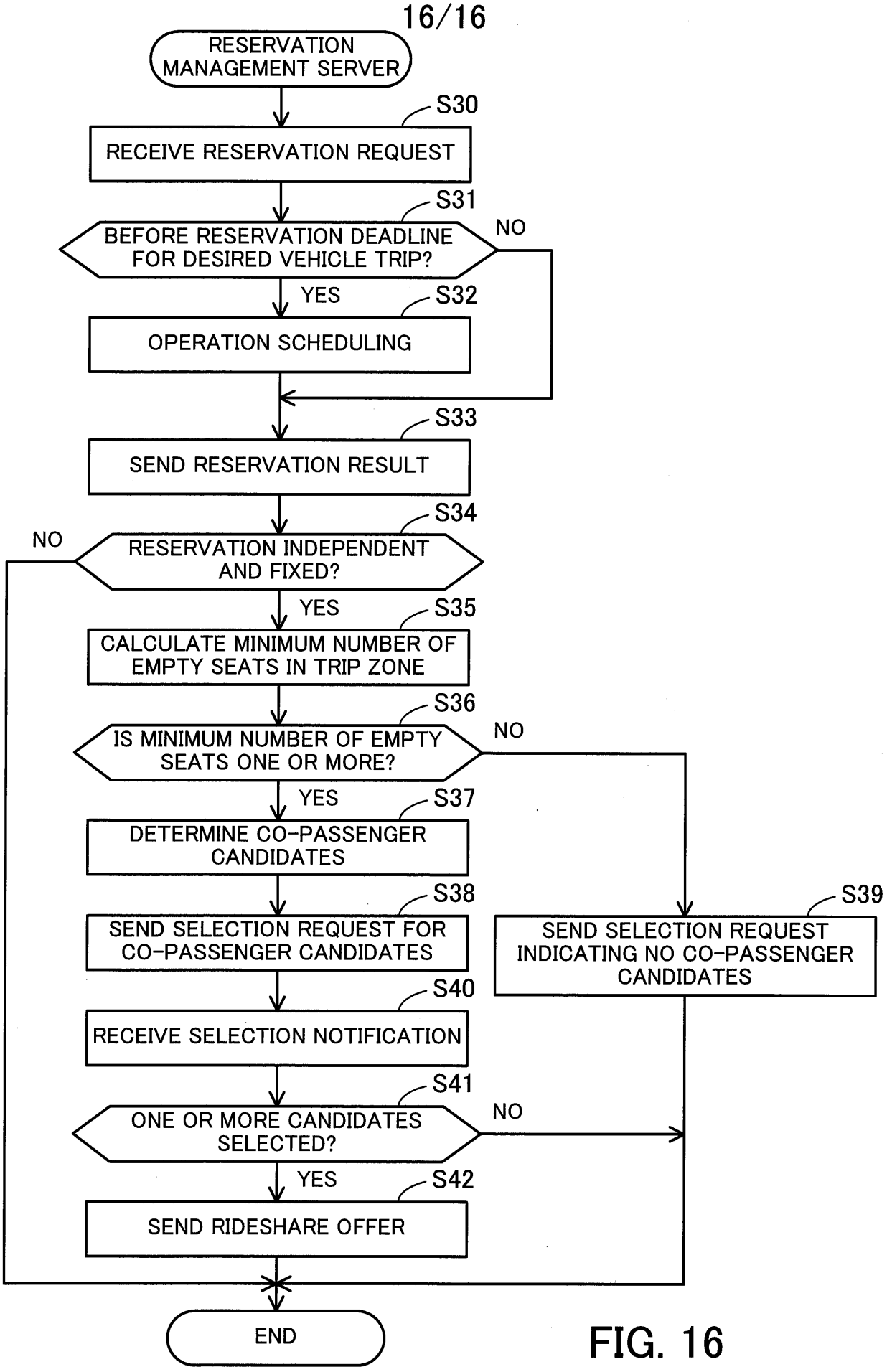

RESERVATION MANAGEMENT SERVER
S30
RECEIVE RESERVATION REQUEST
S31
BEFORE RESERVATION DEADLINE FOR DESIRED VEHICLE TRIP?
NO
YES
S32
OPERATION SCHEDULING
S33
SEND RESERVATION RESULT
S34
NO
RESERVATION INDEPENDENT AND FIXED?
YES
S35
CALCULATE MINIMUM NUMBER OF EMPTY SEATS IN TRIP ZONE
S36
IS MINIMUM NUMBER OF EMPTY SEATS ONE OR MORE?
NO
YES
S37
DETERMINE CO-PASSENGER CANDIDATES
S38
SEND SELECTION REQUEST FOR CO-PASSENGER CANDIDATES
S39
SEND SELECTION REQUEST INDICATING NO CO-PASSENGER CANDIDATES
S40
RECEIVE SELECTION NOTIFICATION
S41
ONE OR MORE CANDIDATES SELECTED?
NO
YES
S42
SEND RIDESHARE OFFER
END

FIG. 16