

CLAIMS

1. A service management device characterized by comprising:
 - a communicator configured to receive, from a terminal device, request data indicating a request to transport a user; and
 - a controller configured to, when the request data is received by the communicator, determine a transportation vehicle configured to transport the user by referring to service data, wherein
 - the service data indicates
 - order in which a plurality of vehicles configured to sequentially depart from a base and move toward a common destination is expected to arrive at a waiting location where the user is waiting, and
 - an availability of a vehicle before arrival at the waiting location among the plurality of vehicles;
 - wherein the controller is configured to:
 - when the request data is received by the communicator, determine whether the controller selects a first arriving vehicle as the transportation vehicle, the first arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the first arriving vehicle; and
 - when the controller does not select the first arriving vehicle, determine whether the controller selects a second arriving vehicle as the transportation vehicle, the second arriving vehicle being a vehicle expected to arrive at the waiting location later than the first arriving vehicle among the plurality of vehicles based on an availability of the second arriving vehicle; and
 - wherein the communicator is configured to, when a vehicle on standby at the base is determined as the transportation vehicle by the controller, transmit instruction data to the transportation vehicle, the instruction data being data indicating an instruction to depart from the base;
 - wherein when a vehicle that has departed from the base is determined as the

transportation vehicle by the controller, the communicator transmits the instruction data that includes data indicating an instruction to stop at the waiting location to the transportation vehicle.

2. The service management device according to claim 1, wherein the controller is configured to update the service data for an availability of the transportation vehicle when any one of the vehicles is determined as the transportation vehicle.

3. The service management device according to claim 2, wherein:

when the first arriving vehicle has departed from the base, the second arriving vehicle is moving closer to the base than the first arriving vehicle, or is on standby at the base; and

when the first arriving vehicle is on standby at the base, the second arriving vehicle is on standby at the base and scheduled to depart later than the first arriving vehicle.

4. The service management device according to any one of claims 2 to 3, wherein the controller is configured to determine the first arriving vehicle and the second arriving vehicle as a plurality of the transportation vehicles when a plurality of users including the user is present and the first arriving vehicle has an availability for a part of the users.

5. The service management device according to claim 1 or 2, wherein the controller is configured to:

when the request data is received by the communicator, determine whether the controller selects an arriving vehicle as the transportation vehicle, the arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the arriving vehicle; and

when the controller does not select the arriving vehicle, determine whether the controller selects a shareable vehicle as the transportation vehicle, the shareable vehicle being different from the vehicles and configured to move toward an individual destination.

6. The service management device according to claim 5, wherein the communicator is configured to, when the shareable vehicle is determined as the transportation vehicle by the controller, transmit response data to the terminal device, the response data being data indicating an instruction to move from the waiting location toward a riding location where the user is expected to get in the shareable vehicle.

7. The service management device according to claim 5, wherein the communicator is configured to, when the shareable vehicle is determined as the transportation vehicle by the controller, transmit, to the transportation vehicle, instruction data indicating an instruction to move toward the waiting location.

8. The service management device according to any one of claims 5 to 7, wherein the controller is configured to determine the arriving vehicle and the shareable vehicle as the transportation vehicles when a plurality of users including the user is present and the arriving vehicle has an availability for a part of the users.

9. A service management system characterized by comprising:

a terminal device;

a plurality of vehicles configured to sequentially depart from a base and move toward a common destination; and

a service management device including

a communicator configured to receive, from the terminal device, request data indicating a request to transport a user, and

a controller configured to, when the request data is received by the communicator, determine a transportation vehicle configured to transport the user by referring to service data, wherein

the service data indicates

order in which the vehicles configured to sequentially depart from the base and move toward the common destination are expected to arrive at a waiting location where the

user is waiting, and

an availability of a vehicle before arrival at the waiting location among the plurality of vehicles;

wherein the controller is configured to:

when the request data is received by the communicator, determine whether the controller selects a first arriving vehicle as the transportation vehicle, the first arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the first arriving vehicle; and

when the controller does not select the first arriving vehicle, determine whether the controller selects a second arriving vehicle as the transportation vehicle, the second arriving vehicle being a vehicle expected to arrive at the waiting location later than the first arriving vehicle among the plurality of vehicles based on an availability of the second arriving vehicle; and

wherein the communicator is configured to, when a vehicle on standby at the base is determined as the transportation vehicle by the controller, transmit instruction data to the transportation vehicle, the instruction data being data indicating an instruction to depart from the base;

wherein when a vehicle that has departed from the base is determined as the transportation vehicle by the controller, the communicator transmits the instruction data that includes data indicating an instruction to stop at the waiting location to the transportation vehicle.

10. The service management system according to claim 9, further comprising a shareable vehicle different from the vehicles and configured to move toward an individual destination, wherein the controller is configured to:

when the request data is received by the communicator, determine whether the controller selects an arriving vehicle as the transportation vehicle, the arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the arriving vehicle; and

when the controller does not select the arriving vehicle, determine whether the controller selects the shareable vehicle as the transportation vehicle.

11. The service management system according to claim 10, wherein the shareable vehicle is configured to, when the individual destination is identical to the common destination and the shareable vehicle is left at the individual destination after driving, autonomously move to follow a vehicle that has arrived at the common destination among the plurality of vehicles.

12. The service management system according to claim 9, wherein the terminal device is configured to transmit the request data to the service management device when the user is detected at the waiting location.

13. A service management method characterized by comprising:

transmitting, from a terminal device to a service management device, request data indicating a request to transport a user; and

determining, when the request data is received by the service management device, a transportation vehicle configured to transport the user by referring to service data, wherein the service data indicates:

order in which a plurality of vehicles configured to sequentially depart from a base and move toward a common destination is expected to arrive at a waiting location where the user is waiting; and

an availability of a vehicle before arrival at the waiting location among the plurality of vehicles;

wherein the controller is configured to:

when the request data is received by the communicator, determine whether the controller selects a first arriving vehicle as the transportation vehicle, the first arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the first arriving vehicle; and

when the controller does not select the first arriving vehicle, determine whether the controller selects a second arriving vehicle as the transportation vehicle, the second arriving vehicle being a vehicle expected to arrive at the waiting location later than the first arriving vehicle among the plurality of vehicles based on an availability of the second arriving vehicle; and

wherein the communicator is configured to, when a vehicle on standby at the base is determined as the transportation vehicle by the controller, transmit instruction data to the transportation vehicle, the instruction data being data indicating an instruction to depart from the base;

wherein when a vehicle that has departed from the base is determined as the transportation vehicle by the controller, the communicator transmits the instruction data that includes data indicating an instruction to stop at the waiting location to the transportation vehicle

14. The service management method according to claim 13, further comprising updating the service data for an availability of the transportation vehicle when one of the vehicles is determined as the transportation vehicle.

15. The service management method according to claim 13, wherein:

when the first arriving vehicle has departed from the base, the second arriving vehicle is moving closer to the base than the first arriving vehicle, or is on standby at the base; and

when the first arriving vehicle is on standby at the base, the second arriving vehicle is on standby at the base and scheduled to depart later than the first arriving vehicle.

16. The service management method according to claim 13, wherein the determining the transportation vehicle has:

determining, when the request data is received by the service management device, whether to select an arriving vehicle as the transportation vehicle, the arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the arriving vehicle; and

determining, when the arriving vehicle is not selected, whether to select a shareable vehicle as the transportation vehicle, the shareable vehicle being different from the vehicles and configured to move toward an individual destination.

17. The service management method according to claim 14, wherein the determining the transportation vehicle has:

determining, when the request data is received by the service management device, whether to select an arriving vehicle as the transportation vehicle, the arriving vehicle being a vehicle expected to arrive at the waiting location subsequently among the plurality of vehicles based on an availability of the arriving vehicle; and

determining, when the arriving vehicle is not selected, whether to select a shareable vehicle as the transportation vehicle, the shareable vehicle being different from the vehicles and configured to move toward an individual destination.