METHODS AND SYSTEMS FOR CARPOOLING

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority of Chinese Patent Application No. 201610100973.1 filed February 24, 2016, Chinese Patent Application No. 201610143434.6 filed March 14, 2016, Chinese Patent Application No. 201610157715.7 filed March 18, 2016 and Chinese Patent Application No. 201610171397.X filed March 23, 2016, the content of which is hereby incorporated by reference to its entirety.

TECHNICAL FIELD

[0002] The present disclosure generally relates to an on-demand service system, and more particularly, to methods and systems for carpooling.

BACKGROUND

[0003] A carpool service refers to an arrangement that combines two or more transportation services into a new transportation service. The carpool service may improve the traffic capacity. However, there are some problems such as inefficiency and a bad user experience in existing systems and methods for carpooling. Therefore, it is desirable to provide systems and methods for carpooling to improve the efficiency and the user experience.

SUMMARY

[0003a] According to a first aspect of the present disclosure, there is provided a system configured to operating an online transportation service platform. The system comprises: a bus; one or more storage media electronically connected to the bus, comprising a set of instructions for operating an online carpool transportation platform; and logic circuits configured to communicate with the one or more storage media via the bus. When executing the set of instructions, the logic circuits are

directed to: obtain first electronic signals including a first transaction request sent from a network associated with a first transportation service of a first service receiver at a first time point; obtain second electronic signals including a second transaction request associated with a second transportation service of a second service receiver at a second time point; obtain service provider information of a service provider; determine an assignment strategy associated with combining the first transportation service and the second transportation service into a third transportation service according to at least one of the first transaction request, the second transaction request, or the service provider information; and send third electronic signals including the assignment strategy to at least one of the first service receiver, the second service receiver or the service provider.

[0003b] According to a second aspect of the present disclosure, there is provided a method configured to operating an online transportation service platform. The method comprises: obtaining, by a computer server of an online on-demand transportation service platform, first electronic signals including a first transaction request associated with a first transportation service of a first service receiver at a first time point; obtaining, by the computer server, second electronic signals including a second transaction request associated with a second transportation service of a second service receiver at a second time point; obtaining, by the computer server, service provider information of a service provider; determining, by the computer server, an assignment strategy associated with combining the first transportation service and the second transportation service into a third transportation service according to at least one of the first transaction request, the second transaction request or the service provider information; and sending, by the computer server, third electronic signals including the assignment strategy to at least one of the first service receiver, the second service receiver or the service provider.

[0004] According to some examples of the present disclosure, a system may include one or more storage media and one or more processors configured to communicate with the one or more storage media. The one or more storage media may include a set of instructions for carpooling. When the one or more processors

executing the set of instructions, the one or more processors may be directed to perform one or more of the following operations. The one or more processors may obtain a first

according to at least one of the second location of the service provider, the second origin, the second destination, the first origin and/or the first destination. The one or more processors may determine a second estimated time of the fifth route. The one or more processors may determine the first ratio of the second estimated time to the first estimated time.

[0015] According to some examples of the present disclosure, a method may include one or more of the following operations. A computer server of an online on-demand transportation service platform may obtain a first transaction request associated with a first transportation service of a first service receiver at a first time point. The computer server may obtain a second transaction request associated with a second transportation service of a second service receiver at a second time point. The computer server may obtain service provider information of a service provider. The computer server may determine an assignment strategy associated with combining the first transportation service and the second transportation service into a third transportation service according to at least one of the first transaction request, the second transaction request and/or the service provider information. The computer server may send the assignment strategy to at least one of the first service receiver, the second service receiver and/or the service provider.

[0016] In some embodiments, the first transaction request may include at least one of a first origin or a first destination, the second transaction request may include at least one of a second origin or a second destination, and the service provider information may include at least one of a first location of the service provider at the first time point and/or a second location of the service provider at the second time point.

[0017] In some embodiments, the computer server may determine matching information according to at least one of the first transaction request, the second transaction request and/or the service provider information. The matching information may include at least one of a variation in a travel direction of the

CLAIMS

1. A system configured to operating an online transportation service platform, comprising:

a bus;

one or more storage media electronically connected to the bus, comprising a set of instructions for operating an online carpool transportation platform; and

logic circuits configured to communicate with the one or more storage media via the bus, wherein when executing the set of instructions, the logic circuits are directed to:

obtain first electronic signals including a first transaction request sent from a network associated with a first transportation service of a first service receiver at a first time point;

obtain second electronic signals including a second transaction request associated with a second transportation service of a second service receiver at a second time point;

obtain service provider information of a service provider;

determine an assignment strategy associated with combining the first transportation service and the second transportation service into a third transportation service according to at least one of the first transaction request, the second transaction request, or the service provider information;

and

send third electronic signals including the assignment strategy to at least one of the first service receiver, the second service receiver or the service provider.

2. The system of claim 1, wherein the first transaction request includes at least one of a first origin or a first destination,

the second transaction request includes at least one of a second origin or a second destination, and

the service provider information includes at least one of a first location of the service provider at the first time point or a second location of the service provider at the second time point;

wherein to determine the assignment strategy the logic circuits are further directed to:

determine matching information according to at least one of the first transaction request, the second transaction request, or the service provider information, the matching information including at least one of a variation in a travel direction of the service provider which has accepted the first transaction request when the service provider goes to the second origin of the second transaction request, direction information, route information, a matching probability, or a ratio between an estimated travel time associated with the third transportation service and an estimated travel time associated with the first transportation service;

determine a matching result according to the matching information; and

determine an assignment strategy according to the matching result.

3. The system of claim 2, wherein to determine the matching information the logic circuits are further directed to:

determine the direction information and the route information according to the first transaction request and the second transaction request.

4. The system of claim 3, wherein to determine the direction information and the route information the logic circuits are further directed to:

determine a first direction of the first transaction request according to the first origin and the first destination, a second direction of the second transaction request according to the second origin and the second destination, a first sharing

route of the first transaction request, a second sharing route of the second transaction request, a first original route of the first transaction request and a second original route of the second transaction request, wherein the first sharing route is a route from the first origin to the first destination in the third transportation service, and the second sharing route is a route from the second origin to the second destination in the third transportation service;

determine a length of the first sharing route, a length of the second sharing route, a length of the first original route and a length of the second original route; and

determine a first angel between the first direction and the second direction, a second ratio of the length of the first sharing route to the length of the first original route and a third ratio of the length of the second sharing route to the length of the second original route.

5. The system of claim 2, wherein when the second electronic signals including the second transaction request of the second service receiver is obtained at the second time point, the first transaction request of the first service receiver has been accepted by the service provider.

6. The system of claim 5, wherein to determine the matching information the logic circuits are further directed to:

determine a first route according to the second location of the service provider at the second time point and the first destination of the first transaction request;

determine a second route according to the second origin of the second transaction request and the second destination of the second transaction request; and

determine the variation in the travel direction of the service provider when the service provider goes to the second origin of the second transaction request according to the first route and the second route.

7. The system of claim 5, wherein to determine the matching information the logic circuits are further directed to:

determine a third route according to the second origin and the second destination and a fourth route according to the second location of the service provider at the second time point and the first destination;

obtain a first parameter according to the third route and the fourth route;

obtain a provider weight; and

determine a matching probability according to the first parameter and the provider weight.

8. The system of claim 7, wherein the first parameter includes at least one of a distance between the second location of the service provider and the first origin, a distance between the second location of the service provider and the first destination, a second angle between the third route and the fourth route, a fourth ratio of a length of a third sharing route of the first transaction request to a length of a third original route, or a fifth ratio of a length of a fourth sharing route to a length of a fourth original route.

9. The system of claim 8, wherein to obtain the provider weight the logic circuits are further directed to:

obtain a third transaction request associated with a fourth transportation service and a fourth transaction request associated with a fifth transportation service, the third transportation service and the fourth transportation service being combined into a sixth transportation service that has been completed by the service provider;

obtain a second parameter according to the third transaction request and the fourth transaction request; and

determine the provider weight according to the second parameter.

10. The system of claim 5, wherein to determine the matching information the logic circuits are further directed to:

determine a fourth route according to the first location of the service provider, the first origin and the first destination;

determine a first estimated time of the fourth route;

determine a fifth route according to at least one of the second location of the service provider, the second origin, the second destination, the first origin or the first destination;

determine a second estimated time of the fifth route; and

determine the first ratio of the second estimated time to the first estimated time.

11. A method configured to operating an online transportation service platform, comprising:

obtaining, by a computer server of an online on-demand transportation service platform, first electronic signals including a first transaction request associated with a first transportation service of a first service receiver at a first time point;

obtaining, by the computer server, second electronic signals including a second transaction request associated with a second transportation service of a second service receiver at a second time point;

obtaining, by the computer server, service provider information of a service provider;

determining, by the computer server, an assignment strategy associated with combining the first transportation service and the second transportation service into a third transportation service according to at least one of the first transaction request, the second transaction request or the service provider information; and

sending, by the computer server, third electronic signals including the assignment strategy to at least one of the first service receiver, the second service receiver or the service provider.

12. The method of claim 11, wherein the first transaction request includes at least one of a first origin or a first destination,

the second transaction request includes at least one of a second origin or a second destination, and

the service provider information includes at least one of a first location of the service provider at the first time point or a second location of the service provider at the second time point;

wherein the determining of the assignment strategy includes:

determining matching information according to at least one of the first transaction request, the second transaction request or the service provider information, the matching information including at least one of a variation in a travel direction of the service provider which has accepted the first transaction request when the service provider goes to the second origin of the second transaction request, direction information, route information, a matching probability, or a ratio between an estimated travel time associated with the third transportation service and an estimated travel time associated with the first transportation service;

generating a matching result according to the matching information;

generating a ranking result according to the matching result; and

generating an assignment strategy according to the ranking result.

13. The method of claim 12, wherein the determining of the matching information includes:

determining the direction information and the route information according to the first transaction request and the second transaction request.

14. The method of claim 13, wherein the determining of the direction information and the route information includes:

determining a first direction of the first transaction request according to the first origin and the first destination, a second direction of the second transaction request according to the second origin and the second destination, a first sharing route of the first transaction request, a second sharing route of the second transaction request, a first original route of the first transaction request and a second original route of the second transaction request, wherein the first sharing route is a route from the first origin to the first destination in the third transportation service, and the second sharing route is a route from the second origin to the second destination in the third transportation service;

determining a length of the first sharing route, a length of the second sharing route, a length of the first original route and a length of the second original route; and

determining a first angel between the first direction and the second direction, a second ratio of the length of the first sharing route to the length of the first original route and a third ratio of the length of the second sharing route to the length of the second original route.

15. The method of claim 12, wherein when the second electronic signals including the second transaction request of the second service receiver is obtained at the second time point, the first transaction request of the first service receiver has been accepted by the service provider.

16. The method of claim 15, wherein the determining of the matching information includes:

determining a first route according to the second location of the service provider at the second time point and the first destination of the first transaction request;

determining a second route according to the second origin of the second transaction request and the second destination of the second transaction request;

and

determining the variation in the travel direction of the service provider when the service provider goes to the second origin of the second transaction request according to the first route and the second route.

17. The method of claim 15, wherein the determining of the matching information includes:

determining a third route according to the second origin and the second destination and a fourth route according to the second location of the service provider at the second time point and the first destination;

obtaining a first parameter according to the third route and the fourth route;

obtaining a provider weight; and

determining a matching probability according to the first parameter and the provider weight.

18. The method of claim 17, wherein the first parameter includes at least one of a distance between the second location of the service provider and the first origin, a distance between the second location of the service provider and the first destination, a second angle between the third route and the fourth route, a fourth ratio of a length of a third sharing route of the first transaction request to a length of a third original route, or a fifth ratio of a length of a fourth sharing route to a length of a fourth original route.

19. The method of claim 18, wherein the obtaining of the provider weight includes:

obtaining a third transaction request associated with a fourth transportation service and a fourth transaction request associated with a fifth transportation service, the third transportation service and the fourth transportation service being combined into a sixth transportation service that has been completed by the service provider;

obtaining a second parameter according to the third transaction request and

the fourth transaction request; and

determining the provider weight according to the second parameter.

20. The method of claim 15, wherein the determining of the matching information includes:

determining a fourth route according to the first location of the service provider, the first origin and the first destination;

determining a first estimated time of the fourth route;

determining a fifth route according to at least one of the second location of the service provider, the second origin, the second destination, the first origin or the first destination;

determining a second estimated time of the fifth route; and

determining the first ratio of the second estimated time to the first estimated time.